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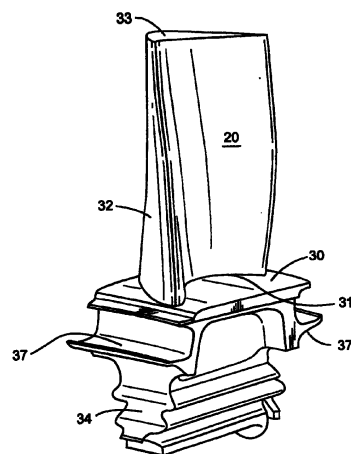
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[54] 发明名称

用于透平叶片的内部核心轮廓

[57] 摘要

第二级透平叶片(20)，该叶片具有基本上与表 I 中列出的 X、Y 和 Z 笛卡儿坐标值一致的内部标称核心轮廓，其中 X 和 Y 值以英寸为单位，Z 值是从 0 到 1 的无量纲值，可通过将 Z 值乘以以英寸为单位的叶片高度，将 Z 转换成以英寸为单位的 Z 长度。X 和 Y 值是长度，当用平滑连续的弧将所述 X 和 Y 相联结时，沿着叶片在各 Z 值处确定内部核心轮廓截面。各 Z 值处的轮廓截面彼此互相平滑地联结，从而形成叶片内部核心轮廓。X、Y 和 Z 值作为相同常数或数值的函数可按比例变化，从而提供按比例增加或按比例减小的内部核心轮廓。由 X、Y 和 Z 值给定的标称内部核心轮廓位于垂直于任何内部核心表面位置的方向上的一个 ± 0.039 英寸的包络中。



1.一种透平叶片(20)，该叶片包括一翼面(32)、一平台(30)、一叶根(37)和一楔形榫(34)，具有与附于本权利要求书权利要求 10 之后的表 I 中列出的 X、Y 和 Z 笛卡儿坐标值一致的内部标称核心轮廓，其中 Z 值是从 0 到 1 的无量纲值，可通过将 Z 值乘以以英寸为单位的叶片高度将 Z 转换成以英寸为单位的 Z 长度，并且其中 X 和 Y 是以英寸为单位的长度，当用平滑连续的弧将所述 X 和 Y 相联结时，沿着叶片在各 Z 值处确定内部核心轮廓截面，在各 Z 值处的轮廓截面彼此互相平滑地联结，从而形成叶片内部核心轮廓。

2.如权利要求 1 所述的透平叶片，其特征在于，所述叶片具有侧壁(48)和在侧壁间延伸的肋(46)，所述肋在介于叶片的前缘和尾缘之间彼此间隔，并与所述侧壁的内壁表面一起确定沿着叶片长度方向的内部冷却通道，所述平滑连续的弧沿着冷却通道的内壁表面以及介于沿着所述侧壁的相邻的通道延伸。

3.如权利要求 2 所述的透平叶片，其特征在于，所述的平滑连续的弧穿过介于肋和每个侧壁之间的连结部分。

4.如权利要求 1 所述的透平叶片，其特征在于，所述叶片翼面具有一外部翼面形状，所述内部核心轮廓截面在叶片翼面内部具有总体翼面形状的部分，并且总体上与叶片翼面的所述外部翼面形状的轮廓截面减去其间的壁厚相一致。

5.如权利要求 1 所述的透平叶片，其特征在于，该叶片构成透平的第二级的一部分。

6.如权利要求 1 所述的透平叶片，其特征在于，所述的内部核心轮廓位于垂直于沿着它的任何内部核心表面位置的方向上的一个 ± 0.039 英寸的包络中。

7.一种透平叶片(20)，该叶片包括一翼面(32)、一平台(30)、一

叶根(37)和一楔形樵(34)，具有与附于本权利要求书权利要求 10 之后的表 I 中列出的 X、Y 和 Z 笛卡儿坐标值一致的内部标称核心轮廓，其中 Z 值是从 0 到 1 的无量纲值，可通过将 Z 值乘以以英寸为单位的叶片高度将 Z 转换成以英寸为单位的 Z 长度，并且其中 X 和 Y 是以英寸为单位的长度，当用平滑连续的弧将所述 X 和 Y 相联结时，沿着叶片在每个 Z 值处确定内部核心轮廓截面，各 Z 值处的轮廓截面彼此互相平滑地连结，从而形成叶片内部核心轮廓，其中 X、Y 和 Z 值作为相同常数或数值的函数可按比例变化，从而提供按比例增加或按比例减小的内部核心轮廓。

8. 如权利要求 7 所述的透平叶片，其特征在于，所述叶片翼面具有一外部翼面形状，所述内部核心轮廓截面在叶片翼面内部总体上具有翼面形状的部分，并且总体上与叶片翼面的所述外部翼面形状的轮廓截面减去其间的壁厚相一致。

9. 一种透平，该透平包括一具有多个叶片(20)的透平叶轮，每个所述的叶片包括一翼面(32)、一平台(30)、一叶根(37)和楔形樵(34)，具有与附于本权利要求书权利要求 10 之后的表 I 中列出的 X、Y 和 Z 笛卡儿坐标值一致的内部标称核心轮廓，其中 Z 值是从 0 到 1 的无量纲值，可通过将 Z 值乘以以英寸为单位的叶片高度将 Z 转换成以英寸为单位的 Z 长度，并且其中 X 和 Y 是以英寸为单位的值，当用平滑连续的弧将所述 X 和 Y 相联结时，沿着叶片在每个 Z 值处确定内部核心轮廓截面，各 Z 值处的轮廓截面彼此互相平滑地连结，从而形成叶片内部核心轮廓。

10. 如权利要求 9 所述的透平，其特征在于，X、Y 和 Z 值作为相同常数或数值的函数可按比例变化，从而提供按比例增加或按比例减小的内部核心轮廓。

表 I

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.299	0.221	0.111	14.033	-0.051	0.278	14.809	0.040	0.611
13.089	0.144	0.111	14.078	0.432	0.306	14.567	0.445	0.611
13.385	0.210	0.028	13.978	0.506	0.333	14.909	-0.496	0.611
13.232	0.229	0.056	14.393	-0.087	0.306	14.541	-0.125	0.611
13.096	0.094	0.111	14.136	-0.058	0.278	14.999	-0.625	0.611
13.250	0.226	0.000	14.187	-0.063	0.278	15.073	-0.531	0.611
13.405	0.026	0.028	13.971	-0.055	0.333	14.877	-0.455	0.611
13.148	0.226	0.000	14.088	0.526	0.333	15.113	-0.802	0.611
13.287	0.041	0.111	14.076	-0.053	0.306	14.986	-0.340	0.611
13.132	0.217	0.056	14.025	0.426	0.306	15.085	-0.757	0.611
13.149	0.058	0.056	13.982	-0.048	0.278	15.149	-0.806	0.611
13.149	0.058	0.056	14.308	-0.072	0.333	14.761	0.134	0.611
13.149	0.058	0.083	14.420	0.489	0.333	14.812	-0.372	0.611
13.107	0.192	0.111	14.144	0.532	0.333	14.785	0.087	0.611
13.104	0.080	0.028	14.235	-0.064	0.306	14.711	0.226	0.611
13.334	0.216	0.056	14.473	-0.107	0.333	15.028	-0.669	0.611
13.180	0.234	0.083	14.252	-0.064	0.333	14.499	0.524	0.611
13.199	0.233	0.000	14.341	-0.078	0.306	14.844	-0.413	0.611
13.196	0.233	0.111	14.036	0.325	0.278	15.057	-0.713	0.611
13.405	0.026	0.083	14.242	0.318	0.278	15.008	-0.388	0.611
13.236	0.047	0.111	14.444	0.276	0.278	14.623	-0.190	0.611
13.089	0.147	0.000	14.088	0.326	0.278	14.970	-0.582	0.611
13.283	0.222	0.083	14.028	-0.053	0.333	14.899	-0.150	0.611

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.131	0.062	0.000	14.293	0.312	0.278	15.177	-0.772	0.611
13.149	0.058	0.083	14.312	0.520	0.333	14.453	-0.068	0.611
13.233	0.047	0.000	13.973	0.418	0.306	14.498	-0.096	0.611
13.350	0.214	0.111	14.395	0.402	0.306	15.095	-0.579	0.611
13.334	0.216	0.083	13.921	0.551	0.361	14.336	0.656	0.611
13.149	0.057	0.028	14.417	-0.096	0.361	14.583	-0.157	0.611
13.200	0.051	0.083	13.896	-0.065	0.361	14.964	-0.293	0.611
13.303	0.039	0.056	14.378	0.571	0.361	14.921	-0.197	0.611
13.180	0.234	0.056	13.560	0.363	0.361	13.404	0.433	0.722
13.284	0.041	0.000	13.814	0.506	0.361	13.391	0.380	0.694
13.094	0.096	0.000	14.187	-0.058	0.361	13.395	0.330	0.694
13.438	0.022	0.000	13.659	0.425	0.361	13.440	0.533	0.750
13.088	0.128	0.083	14.245	-0.064	0.361	13.411	0.426	0.694
13.386	0.028	0.000	13.781	-0.082	0.361	13.407	0.384	0.722
13.354	0.032	0.083	14.013	-0.056	0.361	13.417	0.489	0.750
13.404	0.207	0.000	14.679	0.354	0.389	13.437	0.470	0.694
13.334	0.216	0.028	14.485	0.524	0.361	13.425	0.290	0.694
13.385	0.210	0.056	14.715	0.308	0.389	13.431	0.545	0.778
13.180	0.234	0.028	14.623	0.418	0.361	13.444	0.600	0.806
13.104	0.080	0.083	14.534	0.492	0.361	13.420	0.441	0.750
13.200	0.051	0.028	14.846	0.117	0.389	13.425	0.478	0.722
13.283	0.222	0.056	14.749	0.262	0.389	13.431	0.498	0.778
13.354	0.032	0.028	14.815	0.166	0.389	13.440	-0.553	0.806
13.338	0.034	0.111	14.707	-0.249	0.389	13.435	0.343	0.722

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.405	0.026	0.056	14.843	0.146	0.361	13.599	0.486	0.806
13.303	0.038	0.028	14.956	-0.428	0.361	13.863	0.882	0.806
13.146	0.226	0.111	14.685	-0.209	0.361	13.454	0.456	0.778
13.088	0.128	0.028	14.659	-0.217	0.389	13.825	0.416	0.806
13.251	0.045	0.056	14.511	0.513	0.389	13.514	0.663	0.778
13.335	0.034	0.000	14.557	0.478	0.389	13.705	0.809	0.778
13.200	0.051	0.056	14.809	0.194	0.361	13.504	0.491	0.806
13.099	0.178	0.083	14.875	0.098	0.361	13.689	0.420	0.778
13.401	0.208	0.111	14.580	0.457	0.361	13.842	0.853	0.778
13.104	0.080	0.056	14.740	0.288	0.361	13.682	0.827	0.806
13.247	0.227	0.111	14.968	-0.477	0.389	13.602	0.776	0.806
13.441	0.022	0.111	14.557	-0.161	0.389	13.551	0.489	0.806
13.302	0.220	0.000	14.914	-0.387	0.361	13.816	0.875	0.806
13.354	0.032	0.056	14.755	-0.282	0.389	13.496	0.434	0.778
13.149	0.057	0.028	14.905	0.017	0.389	13.781	0.434	0.806
13.437	0.203	0.028	14.735	-0.238	0.361	13.483	0.626	0.778
13.437	0.204	0.083	14.664	0.376	0.361	13.662	0.786	0.778
13.252	0.045	0.083	14.966	-0.052	0.361	13.462	0.512	0.806
13.390	0.028	0.111	14.872	-0.347	0.361	13.545	0.433	0.778
13.231	0.229	0.028	14.783	0.214	0.389	13.565	0.746	0.806
13.134	0.061	0.111	14.906	0.048	0.361	13.504	0.491	0.806
13.232	0.229	0.083	14.936	-0.002	0.361	13.725	0.847	0.806
13.185	0.053	0.111	14.876	0.067	0.389	13.737	0.451	0.806
13.099	0.178	0.056	14.933	-0.033	0.389	13.455	0.587	0.778

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.181	0.053	0.000	14.600	0.439	0.389	13.641	0.803	0.806
13.252	0.045	0.028	14.609	-0.187	0.389	13.622	0.760	0.778
13.132	0.217	0.083	14.929	-0.434	0.389	13.593	0.432	0.778
13.283	0.222	0.028	14.641	0.397	0.389	13.641	0.428	0.778
13.196	0.233	0.111	14.961	-0.084	0.389	13.828	0.380	0.778
13.132	0.217	0.028	14.802	-0.316	0.389	13.531	0.713	0.806
13.353	0.214	0.000	14.847	-0.353	0.389	13.692	0.467	0.806
13.437	0.203	0.056	14.504	-0.139	0.389	13.583	0.730	0.778
13.088	0.128	0.056	14.889	-0.393	0.389	13.795	0.843	0.778
13.109	0.194	0.000	15.246	-0.848	0.389	13.782	0.396	0.778
13.303	0.039	0.083	15.246	-0.628	0.361	13.499	0.677	0.806
13.099	0.178	0.028	15.294	-0.824	0.389	13.770	0.863	0.806
13.385	0.210	0.083	15.186	-0.555	0.389	13.646	0.479	0.806
13.712	0.170	0.000	15.006	-0.521	0.389	13.874	0.364	0.778
13.539	0.191	0.028	15.155	-0.413	0.361	13.869	0.398	0.806
13.815	-0.024	0.083	15.140	-0.448	0.389	13.547	0.698	0.778
13.744	0.166	0.083	15.104	-0.308	0.361	13.470	0.640	0.806
13.847	0.153	0.028	15.040	-0.239	0.389	13.749	0.829	0.778
13.709	0.170	0.111	15.294	-0.822	0.389	13.496	0.434	0.778
13.764	-0.018	0.083	15.179	-0.466	0.361	13.736	0.409	0.778
13.610	0.001	0.083	15.078	-0.612	0.389	13.963	0.328	0.778
13.657	0.177	0.111	15.267	-0.682	0.361	14.137	0.242	0.778
13.811	0.158	0.111	15.078	-0.256	0.361	14.051	0.288	0.778
13.760	0.164	0.111	15.091	-0.343	0.389	13.939	0.859	0.778

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.508	0.013	0.028	15.254	-0.715	0.389	14.096	0.845	0.806
13.662	-0.006	0.028	15.130	-0.361	0.361	14.291	0.719	0.778
13.559	0.007	0.083	15.176	-0.700	0.361	14.171	0.800	0.778
13.558	0.188	0.000	15.182	-0.751	0.389	14.038	0.311	0.806
13.590	0.185	0.028	15.105	-0.607	0.361	14.293	0.714	0.806
13.814	0.157	0.000	15.148	-0.704	0.389	14.236	0.179	0.806
13.965	0.139	0.111	15.014	-0.187	0.389	13.987	0.855	0.778
13.918	-0.037	0.028	15.202	-0.520	0.361	13.919	0.346	0.778
13.968	0.138	0.000	15.275	-0.769	0.389	14.299	0.137	0.778
13.851	-0.029	0.111	15.113	-0.658	0.389	14.094	0.266	0.778
13.488	0.197	0.028	15.116	-0.396	0.389	14.127	0.820	0.778
13.865	0.151	0.000	15.042	-0.566	0.389	14.253	0.749	0.778
13.642	0.178	0.028	15.163	-0.501	0.389	14.051	0.861	0.806
13.862	0.152	0.111	15.215	-0.799	0.389	13.997	0.335	0.806
13.917	0.144	0.000	14.988	-0.136	0.389	14.257	0.745	0.806
13.456	0.020	0.056	15.066	-0.291	0.389	14.198	0.208	0.806
13.693	0.172	0.056	15.232	-0.661	0.389	14.034	0.847	0.778
13.953	-0.041	0.111	15.209	-0.608	0.389	13.890	0.858	0.778
13.660	0.176	0.000	14.730	-0.218	0.333	14.005	0.873	0.806
13.713	-0.012	0.056	14.541	0.339	0.306	13.955	0.357	0.806
13.867	-0.031	0.028	14.632	0.283	0.306	14.159	0.235	0.806
13.867	-0.031	0.083	14.644	-0.145	0.278	14.081	0.835	0.778
13.744	0.166	0.056	14.696	0.299	0.333	14.178	0.218	0.778
13.744	0.166	0.028	14.922	0.048	0.333	13.911	0.883	0.806

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.815	-0.025	0.028	14.600	-0.140	0.306	13.958	0.880	0.806
13.898	0.147	0.056	14.650	-0.158	0.306	14.119	0.261	0.806
13.508	0.013	0.056	14.541	0.241	0.278	14.310	0.120	0.806
13.899	-0.035	0.000	14.778	-0.248	0.333	14.213	0.776	0.778
13.866	-0.031	0.056	14.521	0.440	0.333	14.008	0.308	0.778
13.848	-0.029	0.000	14.772	0.126	0.278	14.220	0.775	0.806
13.590	0.185	0.083	14.922	0.050	0.306	14.181	0.801	0.806
13.610	0.001	0.028	14.956	-0.386	0.333	13.912	0.378	0.806
13.949	0.141	0.056	14.736	0.259	0.333	14.219	0.192	0.778
13.543	0.009	0.111	14.839	-0.212	0.278	14.139	0.825	0.806
13.693	0.172	0.083	14.824	-0.280	0.333	14.079	0.287	0.806
13.555	0.189	0.111	14.613	0.374	0.333	14.259	0.165	0.778
13.488	0.197	0.056	14.843	-0.247	0.306	14.273	0.150	0.806
13.492	0.016	0.111	14.801	0.154	0.306	14.551	-0.110	0.806
13.949	0.141	0.028	14.568	0.409	0.333	14.422	0.574	0.806
13.795	0.159	0.056	14.544	-0.119	0.278	14.677	-0.253	0.806
13.748	-0.016	0.111	14.813	0.177	0.333	14.522	-0.048	0.778
13.507	0.195	0.000	14.682	-0.190	0.333	14.613	0.300	0.778
13.800	-0.022	0.111	14.588	0.220	0.278	14.657	0.214	0.778
13.713	-0.012	0.083	14.693	-0.160	0.278	14.559	0.380	0.806
13.661	-0.006	0.056	14.850	0.134	0.333	14.417	0.025	0.806
13.642	0.178	0.083	14.497	-0.110	0.306	14.583	-0.145	0.806
13.918	-0.037	0.083	14.861	0.074	0.278	14.391	0.610	0.806
13.914	0.145	0.111	14.494	-0.108	0.278	14.650	0.213	0.806

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.764	-0.018	0.056	14.527	-0.123	0.333	14.534	0.421	0.806
13.646	-0.003	0.111	14.494	0.364	0.306	14.413	0.049	0.778
13.763	0.163	0.000	14.493	0.259	0.278	14.540	0.425	0.778
13.795	0.160	0.083	14.748	-0.200	0.306	14.555	-0.082	0.778
13.610	0.001	0.056	14.869	-0.314	0.333	14.635	0.257	0.778
13.609	0.182	0.000	14.886	0.092	0.333	14.382	0.057	0.806
13.898	0.147	0.083	14.699	-0.178	0.306	14.671	0.170	0.806
13.488	0.197	0.083	14.635	0.198	0.278	14.615	-0.181	0.806
13.697	-0.010	0.111	14.681	0.175	0.278	14.565	0.384	0.778
13.457	0.020	0.028	14.718	0.220	0.306	14.360	0.646	0.806
13.455	0.201	0.000	14.887	-0.232	0.278	14.509	0.461	0.806
13.662	-0.005	0.083	14.594	-0.132	0.278	14.337	0.109	0.778
13.796	-0.022	0.000	14.890	-0.272	0.306	14.513	0.465	0.778
13.950	-0.041	0.000	14.655	0.338	0.333	14.456	0.543	0.778
13.694	-0.010	0.000	14.580	-0.142	0.333	14.394	0.617	0.778
13.745	-0.016	0.000	14.791	-0.193	0.278	14.346	0.089	0.806
13.847	0.153	0.056	14.906	0.048	0.278	14.519	-0.075	0.806
13.489	0.016	0.000	14.549	-0.124	0.306	14.605	0.297	0.806
13.815	-0.024	0.056	14.961	0.014	0.306	14.620	-0.154	0.778
13.713	-0.012	0.028	14.587	0.312	0.306	14.327	0.687	0.778
13.642	0.178	0.056	14.842	0.120	0.306	14.481	0.500	0.806
13.559	0.007	0.056	14.760	0.187	0.306	14.376	0.079	0.778
13.847	0.153	0.083	14.775	0.218	0.333	14.450	0.018	0.778
13.898	0.147	0.028	14.743	-0.176	0.278	14.485	0.504	0.778

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.559	0.007	0.028	14.675	0.252	0.306	14.425	0.580	0.778
13.949	0.141	0.083	14.817	0.101	0.278	14.590	0.342	0.778
13.643	-0.003	0.000	14.796	-0.223	0.306	14.486	-0.041	0.806
13.457	0.020	0.083	14.949	0.020	0.278	14.628	0.255	0.806
13.591	0.003	0.000	14.631	-0.165	0.333	14.452	0.537	0.806
13.764	-0.018	0.028	14.956	0.003	0.333	14.646	-0.217	0.806
13.539	0.191	0.083	14.727	0.151	0.278	14.582	0.339	0.806
13.508	0.014	0.083	14.913	-0.349	0.333	14.652	-0.190	0.778
13.590	0.185	0.056	14.937	-0.298	0.306	14.487	-0.014	0.778
13.795	0.159	0.028	14.883	0.085	0.306	14.361	0.652	0.778
13.539	0.191	0.056	14.934	-0.252	0.278	14.588	-0.118	0.778
13.693	0.172	0.028	15.275	-0.349	0.306	14.452	-0.007	0.806
13.540	0.009	0.000	15.299	-0.577	0.333	14.327	0.680	0.806
13.918	-0.037	0.056	14.993	-0.008	0.278	14.949	-0.630	0.778
14.052	0.128	0.056	15.079	-0.065	0.278	14.879	-0.269	0.778
14.360	-0.092	0.000	15.029	-0.294	0.278	14.954	-0.485	0.806
14.466	-0.104	0.111	15.334	-0.240	0.278	14.822	-0.424	0.778
13.969	-0.043	0.083	15.072	-0.384	0.306	15.007	-0.650	0.806
14.379	-0.094	0.028	15.199	-0.375	0.333	14.683	-0.227	0.778
14.430	-0.100	0.056	15.265	-0.397	0.278	15.033	-0.624	0.778
14.155	-0.066	0.000	15.155	-0.584	0.333	14.867	-0.526	0.806
14.277	-0.081	0.028	15.196	-0.484	0.306	14.807	-0.134	0.806
14.225	-0.075	0.028	15.039	-0.462	0.333	14.802	-0.092	0.778
14.463	-0.104	0.000	15.123	-0.335	0.278	14.762	-0.004	0.778

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.052	0.128	0.083	15.212	-0.263	0.306	14.751	-0.003	0.806
14.123	-0.062	0.083	15.121	-0.094	0.278	14.994	-0.536	0.778
14.221	0.108	0.111	15.054	-0.134	0.333	14.841	-0.181	0.778
14.224	0.107	0.000	15.308	-0.720	0.333	14.679	0.170	0.778
14.277	-0.081	0.083	15.400	-0.353	0.278	14.843	-0.222	0.806
14.205	0.109	0.056	15.346	-0.523	0.306	15.013	-0.615	0.806
14.327	0.094	0.000	15.206	-0.152	0.278	14.714	-0.265	0.778
14.375	0.089	0.111	15.312	-0.419	0.278	14.940	-0.648	0.806
14.462	0.078	0.028	14.983	-0.325	0.306	14.825	-0.178	0.806
14.258	-0.079	0.000	15.114	-0.229	0.333	14.742	0.040	0.778
14.000	0.134	0.083	15.171	-0.356	0.278	14.898	-0.314	0.778
14.410	0.084	0.056	15.171	-0.326	0.333	14.936	-0.403	0.778
14.379	-0.094	0.083	15.144	-0.180	0.306	14.817	-0.445	0.806
14.072	-0.056	0.028	15.076	-0.315	0.278	14.873	-0.507	0.778
14.173	0.113	0.000	15.276	-0.526	0.333	14.769	-0.046	0.806
14.276	-0.081	0.056	14.990	-0.042	0.333	14.973	-0.528	0.806
14.482	-0.106	0.028	15.304	-0.393	0.306	14.736	-0.327	0.806
14.103	0.122	0.028	15.380	-0.401	0.278	14.917	-0.607	0.806
14.429	0.081	0.000	15.231	-0.667	0.333	14.791	-0.405	0.806
14.257	0.103	0.028	15.164	-0.123	0.278	14.691	0.127	0.806
14.324	0.095	0.111	15.268	-0.709	0.333	15.013	-0.580	0.778
14.481	-0.106	0.056	15.413	-0.307	0.278	14.721	0.084	0.778
14.261	-0.079	0.111	15.314	-0.566	0.306	14.955	-0.447	0.778
14.053	-0.054	0.000	15.084	-0.182	0.333	15.044	-0.665	0.778

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.103	0.122	0.083	14.998	-0.423	0.333	15.003	-0.691	0.778
14.122	0.119	0.000	15.218	-0.376	0.278	14.967	-0.676	0.806
14.020	-0.050	0.056	15.037	-0.062	0.306	14.899	-0.548	0.778
14.257	0.103	0.083	15.028	-0.353	0.306	14.880	-0.309	0.806
14.225	-0.075	0.056	15.078	-0.502	0.333	14.936	-0.441	0.806
14.103	0.122	0.056	15.292	-0.210	0.278	14.770	-0.343	0.778
14.123	-0.062	0.028	15.237	-0.519	0.306	14.707	-0.290	0.806
14.257	0.103	0.056	15.178	-0.221	0.306	14.899	-0.353	0.806
14.072	-0.056	0.083	15.251	-0.475	0.333	14.860	-0.225	0.778
14.052	0.128	0.028	14.982	-0.273	0.278	14.764	-0.366	0.806
14.328	-0.087	0.056	15.114	-0.416	0.306	14.700	0.127	0.778
14.275	0.100	0.000	15.249	-0.181	0.278	14.848	-0.466	0.778
14.359	0.090	0.083	15.117	-0.542	0.333	14.712	0.084	0.806
14.174	-0.068	0.056	15.022	-0.088	0.333	14.974	-0.491	0.778
14.119	0.120	0.111	15.226	-0.425	0.333	14.993	-0.572	0.806
14.328	-0.087	0.028	15.358	-0.442	0.278	14.924	-0.589	0.778
14.205	0.109	0.083	15.193	-0.625	0.333	14.862	-0.266	0.806
14.430	-0.100	0.028	15.000	-0.024	0.306	14.917	-0.397	0.806
14.158	-0.066	0.111	15.074	-0.100	0.306	14.797	-0.383	0.778
13.969	-0.043	0.056	15.334	-0.437	0.306	14.822	-0.136	0.778
14.412	-0.098	0.000	15.276	-0.554	0.306	14.842	-0.485	0.806
14.170	0.114	0.111	15.375	-0.272	0.278	14.892	-0.566	0.806
14.020	-0.050	0.083	15.156	-0.449	0.306	14.788	-0.090	0.806
14.359	0.090	0.028	15.109	-0.140	0.306	14.743	-0.303	0.778

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.328	-0.087	0.083	15.365	-0.480	0.306	14.973	-0.672	0.778
14.308	0.097	0.083	15.143	-0.278	0.333	14.917	-0.358	0.778
14.480	0.075	0.000	15.244	-0.305	0.306	14.731	0.041	0.806
14.477	0.076	0.111	15.036	-0.036	0.278	14.782	-0.048	0.778
14.308	0.096	0.028	15.341	-0.681	0.333	13.648	0.688	0.694
14.462	0.078	0.056	15.321	-0.629	0.333	13.532	0.589	0.694
14.430	-0.100	0.083	15.280	-0.828	0.361	13.575	0.270	0.694
14.426	0.082	0.111	14.581	-0.156	0.361	13.828	0.248	0.694
14.359	0.090	0.056	15.244	-0.794	0.361	13.480	0.323	0.722
14.205	0.109	0.028	15.023	-0.153	0.361	13.800	0.795	0.722
14.309	-0.085	0.000	15.308	-0.791	0.361	13.585	0.670	0.722
14.002	-0.047	0.000	15.210	-0.747	0.361	13.829	0.780	0.694
14.000	0.134	0.056	15.033	-0.515	0.361	13.735	0.741	0.694
14.415	-0.098	0.111	14.528	-0.132	0.361	13.730	0.310	0.722
14.154	0.115	0.083	14.995	-0.471	0.361	13.681	0.315	0.722
14.071	-0.056	0.056	14.995	-0.102	0.361	13.778	0.256	0.694
14.016	0.133	0.111	14.775	0.241	0.361	13.848	0.809	0.722
14.174	-0.069	0.028	15.070	-0.561	0.361	13.727	0.262	0.694
14.020	-0.050	0.028	14.633	-0.182	0.361	13.624	0.701	0.722
14.000	0.134	0.028	14.828	-0.308	0.361	13.480	0.323	0.722
14.174	-0.068	0.083	15.225	-0.574	0.361	13.513	0.600	0.722
14.462	0.078	0.083	15.051	-0.205	0.361	13.548	0.636	0.722
14.379	-0.094	0.056	15.141	-0.653	0.361	13.780	0.302	0.722
14.378	0.088	0.000	14.783	-0.271	0.361	13.531	0.321	0.722

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.019	0.132	0.000	15.288	-0.737	0.361	13.676	0.266	0.694
14.154	0.115	0.028	14.703	0.333	0.361	13.665	0.730	0.722
14.070	0.126	0.000	13.407	0.033	0.528	13.781	0.763	0.694
14.104	-0.060	0.000	13.407	0.033	0.528	13.473	0.273	0.694
14.482	-0.106	0.083	13.353	0.035	0.528	13.690	0.716	0.694
14.207	-0.073	0.000	13.317	0.154	0.528	13.829	0.292	0.722
14.308	0.096	0.056	13.347	0.198	0.528	13.569	0.625	0.694
14.225	-0.075	0.083	13.295	0.105	0.528	13.878	0.794	0.694
14.410	0.084	0.028	13.412	0.284	0.528	13.581	0.321	0.722
14.123	-0.062	0.056	13.379	0.242	0.528	13.473	0.273	0.694
14.410	0.084	0.083	13.304	0.054	0.528	13.626	0.269	0.694
14.154	0.115	0.056	13.622	0.047	0.528	13.708	0.755	0.722
13.969	-0.043	0.028	13.769	0.553	0.500	13.524	0.271	0.694
13.902	-0.035	0.111	13.564	0.436	0.528	13.878	0.240	0.694
14.363	-0.092	0.111	13.551	0.009	0.500	13.498	0.551	0.694
13.504	0.196	0.111	13.485	0.363	0.528	13.466	0.511	0.694
14.005	-0.047	0.111	13.694	0.532	0.528	13.878	0.281	0.722
14.312	-0.085	0.111	13.514	0.039	0.528	13.607	0.658	0.694
13.606	0.183	0.111	13.606	0.470	0.528	13.631	0.319	0.722
14.056	-0.054	0.111	13.524	0.401	0.528	13.452	0.521	0.722
14.107	-0.060	0.111	13.787	0.585	0.528	13.753	0.777	0.722
13.452	0.202	0.111	13.461	0.035	0.528	13.481	0.561	0.722
14.210	-0.073	0.111	13.448	0.324	0.528	13.978	0.219	0.694
14.272	0.101	0.111	13.740	0.560	0.528	14.296	0.117	0.722

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.067	0.126	0.111	13.649	0.502	0.528	13.928	0.803	0.694
13.595	0.003	0.111	13.837	0.051	0.528	14.279	0.731	0.722
14.565	-0.117	0.000	13.729	0.052	0.528	14.163	0.187	0.722
14.923	0.021	0.083	13.836	0.608	0.528	14.145	0.798	0.722
14.584	-0.119	0.083	13.675	0.050	0.528	14.218	0.135	0.694
14.773	-0.142	0.111	13.783	0.052	0.528	14.264	0.113	0.694
14.635	-0.125	0.028	13.568	0.043	0.528	14.027	0.206	0.694
14.533	-0.113	0.028	13.918	0.619	0.500	14.096	0.811	0.722
14.620	-0.123	0.111	14.207	-0.012	0.528	14.076	0.191	0.694
14.667	0.052	0.056	14.096	0.672	0.528	14.270	0.731	0.694
14.820	0.034	0.028	13.944	0.044	0.528	14.253	0.142	0.722
14.615	0.059	0.083	14.308	-0.049	0.528	14.080	0.801	0.694
14.924	-0.161	0.000	13.937	0.645	0.528	14.225	0.755	0.694
14.890	0.025	0.000	13.997	0.037	0.528	13.979	0.807	0.694
14.564	0.065	0.028	14.050	0.028	0.528	14.023	0.241	0.722
14.943	-0.163	0.083	14.103	0.017	0.528	14.308	0.088	0.694
14.872	0.027	0.083	14.203	0.666	0.528	14.178	0.775	0.694
14.892	-0.157	0.056	13.989	0.658	0.528	14.312	0.703	0.694
14.734	0.045	0.111	14.306	0.638	0.528	14.236	0.757	0.722
14.788	0.037	0.000	14.042	0.668	0.528	13.947	0.823	0.722
14.513	0.071	0.028	13.886	0.628	0.528	14.208	0.166	0.722
14.533	-0.112	0.083	14.258	-0.030	0.528	14.130	0.790	0.694
14.943	-0.163	0.056	14.255	0.655	0.528	14.047	0.820	0.722
14.994	-0.169	0.083	13.890	0.048	0.528	14.191	0.779	0.722

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.939	0.019	0.111	14.155	0.003	0.528	13.975	0.256	0.722
14.892	-0.157	0.028	14.149	0.672	0.528	14.070	0.225	0.722
14.872	0.027	0.028	14.353	-0.079	0.500	13.897	0.818	0.722
14.840	-0.150	0.056	14.343	0.613	0.500	14.117	0.207	0.722
14.718	0.046	0.028	14.665	0.323	0.528	14.171	0.156	0.694
14.975	-0.167	0.000	14.489	0.526	0.528	13.928	0.230	0.694
14.722	-0.136	0.111	14.454	-0.117	0.528	13.927	0.269	0.722
14.513	0.071	0.083	14.529	0.489	0.528	13.997	0.824	0.722
14.738	-0.138	0.083	14.752	0.187	0.528	14.030	0.807	0.694
14.769	0.040	0.028	14.447	0.559	0.528	14.124	0.174	0.694
14.564	0.065	0.083	14.402	0.589	0.528	14.524	0.482	0.722
14.635	-0.125	0.056	14.637	-0.231	0.528	14.597	-0.121	0.694
14.974	0.015	0.028	14.680	-0.263	0.528	14.758	0.092	0.694
14.667	0.053	0.083	14.566	0.451	0.528	14.428	0.603	0.694
14.892	-0.157	0.083	14.502	-0.142	0.528	14.380	0.063	0.722
14.923	0.021	0.056	14.601	0.410	0.528	14.634	-0.155	0.694
14.568	-0.117	0.111	14.357	-0.070	0.528	14.437	0.006	0.694
14.789	-0.144	0.028	14.406	-0.093	0.528	14.736	0.138	0.694
14.634	0.056	0.000	14.722	-0.296	0.528	14.607	0.356	0.722
14.927	-0.161	0.111	14.593	-0.199	0.528	14.478	-0.024	0.694
14.667	0.052	0.028	14.634	0.367	0.528	14.714	-0.238	0.722
14.584	-0.119	0.056	14.695	0.279	0.528	14.462	0.560	0.722
14.580	0.063	0.111	14.763	-0.331	0.528	14.768	0.045	0.722
14.682	0.051	0.111	14.548	-0.169	0.528	14.394	0.634	0.722

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.942	0.019	0.000	14.355	0.616	0.528	14.613	-0.127	0.722
14.687	-0.131	0.056	14.724	0.233	0.528	14.463	0.566	0.694
14.635	-0.125	0.083	14.909	-0.489	0.528	14.421	0.034	0.722
14.840	-0.150	0.028	14.808	-0.370	0.500	14.670	-0.191	0.694
14.836	0.032	0.111	15.078	-0.436	0.500	14.640	0.318	0.694
14.974	0.015	0.083	15.134	-0.791	0.528	14.746	0.090	0.722
14.789	-0.144	0.083	14.913	-0.093	0.500	14.632	0.313	0.722
14.532	0.069	0.000	15.132	-0.585	0.528	14.713	0.183	0.694
14.785	0.038	0.111	14.805	0.094	0.528	14.552	0.441	0.722
14.529	0.070	0.111	15.195	-0.733	0.528	14.501	-0.027	0.722
14.923	0.021	0.028	14.998	-0.291	0.528	14.648	-0.163	0.722
14.564	0.065	0.056	15.044	-0.388	0.528	14.462	0.004	0.722
14.990	0.013	0.111	14.977	-0.572	0.528	14.705	-0.229	0.694
14.769	0.040	0.056	14.905	-0.097	0.528	14.391	0.638	0.694
14.687	-0.131	0.083	15.021	-0.340	0.528	14.519	-0.055	0.694
14.514	-0.110	0.000	15.175	-0.683	0.528	14.682	-0.200	0.722
14.873	-0.154	0.000	14.831	0.047	0.528	14.689	0.229	0.694
14.517	-0.110	0.111	15.164	-0.836	0.528	14.528	0.487	0.694
14.769	0.040	0.083	14.838	-0.408	0.528	14.746	-0.277	0.722
14.770	-0.142	0.000	14.944	-0.530	0.528	14.357	0.669	0.722
14.993	0.012	0.000	15.214	-0.784	0.528	14.577	-0.092	0.722
14.825	-0.148	0.111	15.154	-0.634	0.528	14.558	0.446	0.694
14.887	0.026	0.111	15.066	-0.437	0.528	14.679	0.225	0.722
14.583	0.063	0.000	15.042	-0.658	0.528	14.738	-0.267	0.694

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.789	-0.144	0.056	14.856	-0.001	0.528	14.496	0.527	0.694
14.994	-0.169	0.056	14.881	-0.049	0.528	14.558	-0.087	0.694
14.617	-0.123	0.000	14.873	-0.449	0.528	14.665	0.273	0.694
14.943	-0.163	0.028	15.104	-0.746	0.528	14.352	0.062	0.694
14.840	-0.150	0.083	14.779	0.141	0.528	14.587	0.404	0.694
14.718	0.046	0.056	15.089	-0.486	0.528	14.540	-0.059	0.722
14.738	-0.138	0.028	15.204	-0.825	0.528	14.770	-0.307	0.694
14.668	-0.129	0.000	14.975	-0.242	0.528	14.339	0.091	0.722
14.974	0.015	0.056	15.111	-0.535	0.528	14.395	0.034	0.694
14.687	-0.132	0.028	14.929	-0.145	0.528	14.724	0.135	0.722
14.820	0.034	0.083	14.952	-0.194	0.528	14.493	0.522	0.722
14.719	-0.136	0.000	15.010	-0.615	0.528	14.702	0.180	0.722
14.513	0.071	0.056	15.073	-0.702	0.528	14.319	0.701	0.722
14.533	-0.113	0.056	14.801	-0.369	0.528	14.614	0.362	0.694
14.738	-0.138	0.056	13.273	-0.130	0.417	14.353	0.672	0.694
14.820	0.034	0.056	13.180	-0.082	0.417	14.580	0.399	0.722
14.872	0.027	0.056	13.212	-0.041	0.444	14.428	0.598	0.722
14.839	0.031	0.000	13.444	0.279	0.417	14.656	0.269	0.722
14.584	-0.119	0.028	13.403	0.239	0.417	15.026	-0.513	0.694
14.994	-0.169	0.028	13.253	0.068	0.417	15.069	-0.606	0.694
14.737	0.044	0.000	13.358	-0.087	0.444	14.945	-0.557	0.694
14.718	0.046	0.083	13.363	0.199	0.417	15.024	-0.687	0.694
14.685	0.050	0.000	13.359	0.192	0.444	15.005	-0.467	0.694
14.822	-0.148	0.000	13.301	0.120	0.472	15.030	-0.551	0.722

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.615	0.059	0.028	13.246	0.025	0.472	14.831	-0.092	0.722
14.615	0.059	0.056	13.302	-0.088	0.444	14.929	-0.322	0.722
15.455	-0.226	0.056	13.256	-0.026	0.472	15.093	-0.688	0.722
15.493	-0.101	0.000	13.228	0.012	0.444	15.042	-0.741	0.722
15.353	-0.213	0.083	13.418	-0.041	0.472	15.018	-0.697	0.722
15.246	-0.018	0.111	13.363	-0.044	0.472	14.915	-0.525	0.722
15.454	-0.044	0.000	13.443	0.288	0.472	14.904	-0.233	0.694
15.078	-0.180	0.000	13.334	0.164	0.472	14.831	-0.388	0.694
15.026	0.008	0.056	13.217	-0.121	0.417	14.942	-0.567	0.722
15.249	-0.019	0.000	13.288	0.113	0.417	14.851	-0.138	0.722
15.502	-0.050	0.111	13.414	-0.083	0.444	15.119	-0.741	0.694
15.384	-0.036	0.056	13.397	0.234	0.444	14.823	-0.046	0.694
15.282	-0.023	0.028	13.247	-0.080	0.444	14.890	-0.230	0.722
15.297	-0.025	0.111	13.330	-0.129	0.417	15.009	-0.506	0.722
15.045	-0.175	0.083	13.405	0.248	0.472	14.861	-0.441	0.722
15.097	-0.182	0.056	13.256	0.060	0.444	15.083	-0.724	0.722
15.481	-0.148	0.111	13.436	0.274	0.444	14.949	-0.368	0.722
15.301	-0.026	0.000	13.220	0.022	0.417	14.776	-0.317	0.722
15.403	-0.038	0.000	13.192	-0.027	0.417	14.805	-0.357	0.722
15.469	-0.198	0.111	13.325	0.157	0.417	14.999	-0.643	0.694
15.097	-0.182	0.028	13.308	-0.042	0.472	14.944	-0.327	0.694
15.404	-0.219	0.056	13.387	-0.124	0.417	14.860	-0.430	0.694
15.286	-0.205	0.111	13.289	0.106	0.444	14.917	-0.514	0.694
15.498	-0.082	0.028	13.369	0.207	0.472	14.844	-0.093	0.694

X	Y	Z'	X	Y	Z'	X	Y	Z'
15.436	-0.042	0.056	13.363	-0.044	0.472	14.802	0.000	0.694
15.333	-0.029	0.083	13.443	-0.117	0.417	15.049	-0.732	0.694
15.333	-0.029	0.028	13.270	0.074	0.472	14.968	-0.610	0.722
15.506	-0.051	0.000	13.323	0.150	0.444	15.076	-0.768	0.694
15.148	-0.188	0.028	13.621	0.422	0.417	15.111	-0.698	0.694
15.451	-0.044	0.111	13.766	0.511	0.417	14.889	-0.472	0.694
15.337	-0.211	0.111	13.668	0.453	0.417	15.047	-0.559	0.694
15.388	-0.218	0.111	13.476	0.312	0.444	14.964	-0.374	0.694
15.282	-0.023	0.056	13.698	0.482	0.444	14.834	-0.399	0.722
15.498	-0.082	0.083	13.637	-0.017	0.472	14.780	0.046	0.694
15.230	-0.017	0.028	13.580	-0.060	0.444	14.884	-0.186	0.694
15.147	-0.007	0.000	13.692	-0.011	0.472	14.984	-0.420	0.694
15.333	-0.030	0.056	13.528	-0.029	0.472	14.972	-0.600	0.694
15.353	-0.213	0.028	13.780	-0.062	0.417	14.989	-0.460	0.722
15.148	-0.188	0.083	13.653	0.466	0.472	15.072	-0.642	0.722
15.400	-0.037	0.111	13.609	0.433	0.472	14.994	-0.653	0.722
15.302	-0.207	0.056	13.898	0.583	0.444	14.924	-0.280	0.694
15.404	-0.220	0.028	13.795	0.537	0.444	14.789	0.000	0.722
15.180	-0.192	0.000	13.949	-0.046	0.417	14.864	-0.139	0.694
15.097	-0.182	0.083	13.922	0.581	0.417	14.909	-0.276	0.722
15.487	-0.048	0.083	13.746	-0.038	0.444	14.810	-0.046	0.722
15.041	0.007	0.111	13.795	0.550	0.472	14.801	-0.347	0.694
15.179	-0.010	0.083	13.611	-0.089	0.417	15.090	-0.652	0.694
15.129	-0.186	0.000	13.914	-0.026	0.444	14.969	-0.414	0.722

X	Y	Z'	X	Y	Z'	X	Y	Z'
15.044	0.006	0.000	13.487	0.316	0.417	14.870	-0.184	0.722
15.132	-0.186	0.111	13.482	0.327	0.472	15.051	-0.597	0.722
15.179	-0.011	0.028	13.499	-0.108	0.417	14.888	-0.483	0.722
15.025	0.009	0.083	13.893	-0.049	0.417	14.653	-0.173	0.750
15.092	0.000	0.111	13.716	0.483	0.417	14.159	0.799	0.750
15.384	-0.036	0.028	13.651	0.451	0.444	13.530	0.649	0.750
15.498	-0.082	0.056	13.802	-0.004	0.472	14.478	0.000	0.750
15.487	-0.048	0.056	13.845	0.574	0.472	14.361	0.661	0.750
15.334	-0.211	0.000	13.747	-0.007	0.472	14.279	0.144	0.750
15.144	-0.006	0.111	13.635	-0.052	0.444	14.518	0.472	0.750
15.235	-0.199	0.111	13.896	0.595	0.472	14.062	0.258	0.750
15.148	-0.188	0.056	13.691	-0.045	0.444	13.829	0.338	0.750
15.473	-0.182	0.083	13.525	-0.068	0.444	13.587	0.376	0.750
15.081	-0.180	0.111	13.723	-0.070	0.417	14.286	0.725	0.750
15.025	0.008	0.028	13.836	-0.055	0.417	14.856	-0.183	0.750
15.231	-0.017	0.056	13.473	-0.036	0.472	14.113	0.816	0.750
15.232	-0.199	0.000	13.469	-0.076	0.444	14.953	-0.409	0.750
15.435	-0.042	0.028	13.555	-0.099	0.417	13.488	0.378	0.750
15.353	-0.213	0.056	13.948	0.613	0.472	15.053	-0.633	0.750
15.455	-0.226	0.028	13.518	0.349	0.444	13.467	0.573	0.750
15.485	-0.132	0.056	13.817	0.537	0.417	14.959	-0.618	0.750
15.481	-0.151	0.000	13.869	0.560	0.417	13.643	0.744	0.750
15.198	-0.013	0.000	13.846	0.561	0.444	14.829	-0.409	0.750
15.485	-0.133	0.028	13.530	0.353	0.417	14.754	0.041	0.750

X	Y	Z'	X	Y	Z'	X	Y	Z'
15.179	-0.011	0.056	13.912	-0.002	0.472	14.516	-0.032	0.750
15.250	-0.201	0.083	13.747	0.524	0.472	14.324	0.694	0.750
15.128	-0.004	0.028	13.561	0.385	0.444	14.321	0.117	0.750
15.282	-0.023	0.083	13.857	-0.002	0.472	14.490	0.512	0.750
15.077	0.002	0.028	13.699	0.496	0.472	14.107	0.239	0.750
15.283	-0.205	0.000	13.575	0.388	0.417	13.876	0.324	0.750
15.128	-0.004	0.083	13.606	0.419	0.444	13.636	0.373	0.750
15.077	0.002	0.083	13.523	0.364	0.472	14.065	0.828	0.750
15.045	-0.175	0.056	13.667	-0.079	0.417	15.033	-0.589	0.750
15.045	-0.176	0.028	13.858	-0.029	0.444	14.685	-0.210	0.750
15.352	-0.032	0.000	13.565	0.399	0.472	14.984	-0.661	0.750
15.404	-0.219	0.083	13.746	0.511	0.444	14.733	0.086	0.750
15.385	-0.217	0.000	13.950	0.601	0.444	13.603	0.715	0.750
15.455	-0.226	0.083	13.802	-0.033	0.444	14.855	-0.451	0.750
15.128	-0.004	0.056	13.582	-0.023	0.472	14.204	0.778	0.750
15.027	-0.173	0.000	14.446	-0.122	0.472	13.821	0.825	0.750
15.199	-0.194	0.083	14.144	0.626	0.417	14.645	0.262	0.750
15.250	-0.201	0.028	14.004	0.616	0.444	14.717	-0.248	0.750
15.250	-0.201	0.056	14.031	0.612	0.417	14.934	-0.363	0.750
15.302	-0.207	0.028	14.247	-0.060	0.444	14.552	-0.065	0.750
15.435	-0.042	0.083	14.377	0.590	0.472	14.361	0.089	0.750
15.199	-0.194	0.028	14.001	0.627	0.472	14.459	0.551	0.750
15.384	-0.036	0.083	14.059	0.627	0.444	14.151	0.217	0.750
15.199	-0.194	0.056	14.407	-0.108	0.444	13.923	0.309	0.750

X	Y	Z'	X	Y	Z'	X	Y	Z'
15.468	-0.201	0.000	14.025	-0.028	0.444	14.711	0.130	0.750
15.230	-0.017	0.083	14.137	-0.039	0.444	13.918	0.839	0.750
15.485	-0.132	0.083	14.426	0.564	0.472	14.622	0.305	0.750
15.487	-0.048	0.028	14.171	0.634	0.444	13.685	0.368	0.750
15.077	0.002	0.056	14.395	-0.101	0.472	14.816	-0.093	0.750
15.473	-0.183	0.056	14.192	-0.048	0.444	14.395	0.626	0.750
15.437	-0.224	0.000	14.468	0.537	0.417	14.914	-0.318	0.750
15.506	-0.051	0.000	13.970	-0.026	0.444	15.013	-0.544	0.750
15.302	-0.207	0.083	14.201	0.625	0.417	14.690	0.174	0.750
15.473	-0.183	0.028	14.387	0.583	0.444	15.008	-0.704	0.750
15.095	0.000	0.000	14.292	-0.064	0.472	13.565	0.684	0.750
15.494	-0.098	0.111	14.226	0.630	0.444	14.881	-0.493	0.750
14.978	-0.167	0.111	14.055	0.638	0.472	13.538	0.376	0.750
14.671	-0.129	0.111	14.220	0.639	0.472	13.774	0.811	0.750
15.195	-0.012	0.111	13.976	0.598	0.417	14.747	-0.287	0.750
15.440	-0.224	0.111	14.115	0.633	0.444	13.967	0.839	0.750
14.876	-0.155	0.111	14.452	-0.125	0.417	14.587	-0.100	0.750
14.631	0.057	0.111	14.398	-0.106	0.417	14.836	-0.137	0.750
15.030	-0.173	0.111	14.274	0.628	0.472	14.246	0.753	0.750
15.183	-0.192	0.111	14.344	-0.082	0.472	14.401	0.060	0.750
15.349	-0.031	0.111	14.354	-0.090	0.444	14.428	0.589	0.750
13.193	0.207	0.250	14.327	0.612	0.472	14.195	0.195	0.750
13.291	-0.001	0.250	14.288	-0.076	0.417	14.573	0.390	0.750
13.244	0.211	0.250	14.233	-0.065	0.417	13.970	0.294	0.750

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.139	0.022	0.250	14.077	-0.015	0.472	14.598	0.348	0.750
13.188	0.007	0.250	14.165	0.644	0.472	13.733	0.361	0.750
13.093	0.109	0.250	14.110	0.644	0.472	14.796	-0.048	0.750
13.394	-0.008	0.250	14.459	-0.128	0.444	13.488	0.378	0.750
13.239	0.003	0.250	14.343	-0.090	0.417	14.895	-0.273	0.750
13.296	0.214	0.250	14.367	0.589	0.417	14.993	-0.499	0.750
13.144	0.193	0.250	14.335	0.604	0.444	15.042	-0.707	0.750
13.399	0.220	0.250	14.081	-0.032	0.444	14.907	-0.535	0.750
13.342	-0.004	0.250	14.087	0.621	0.417	13.728	0.793	0.750
13.188	0.007	0.250	14.120	-0.049	0.417	14.775	-0.327	0.750
13.107	0.158	0.250	14.176	-0.056	0.417	14.620	-0.136	0.750
13.104	0.059	0.250	14.257	0.619	0.417	14.440	0.031	0.750
13.347	0.217	0.250	14.131	-0.024	0.472	14.238	0.170	0.750
13.250	0.046	0.167	14.313	0.607	0.417	14.016	0.277	0.750
13.306	0.038	0.194	14.281	0.620	0.444	14.668	0.218	0.750
13.221	0.035	0.222	14.063	-0.046	0.417	13.782	0.351	0.750
13.089	0.126	0.194	14.301	-0.074	0.444	13.869	0.834	0.750
13.338	0.035	0.139	14.418	0.566	0.417	14.775	-0.003	0.750
13.281	0.223	0.194	13.967	-0.004	0.472	14.876	-0.228	0.750
13.146	0.226	0.139	14.472	0.534	0.472	13.684	0.770	0.750
13.425	0.014	0.222	14.006	-0.045	0.417	14.973	-0.454	0.750
13.099	0.176	0.194	14.185	-0.035	0.472	13.445	0.399	0.750
13.236	0.047	0.139	14.022	-0.009	0.472	15.073	-0.678	0.750
13.119	0.198	0.222	14.239	-0.048	0.472	14.016	0.835	0.750

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.332	0.216	0.194	14.436	0.557	0.444	14.546	0.432	0.750
13.182	0.234	0.167	14.805	0.158	0.417	13.497	0.612	0.750
13.152	0.056	0.194	14.803	0.142	0.444	14.933	-0.576	0.750
13.170	0.041	0.222	14.774	0.206	0.417	14.803	-0.368	0.750
13.089	0.144	0.139	14.888	-0.444	0.472	13.471	0.725	0.889
13.094	0.153	0.222	14.877	-0.403	0.417	13.664	0.909	0.889
13.387	0.210	0.167	14.514	0.505	0.417	13.491	0.765	0.889
13.299	0.221	0.139	14.869	0.011	0.472	13.527	0.667	0.889
13.419	0.211	0.222	14.757	0.201	0.472	13.712	0.666	0.917
13.350	0.214	0.139	14.917	-0.443	0.417	13.825	0.620	0.944
13.287	0.041	0.139	14.835	-0.364	0.417	13.643	0.738	0.944
13.087	0.130	0.167	14.842	0.059	0.472	13.781	0.578	0.889
13.403	0.027	0.167	14.729	-0.292	0.472	13.583	0.914	0.944
13.147	0.058	0.167	14.609	-0.204	0.444	13.552	0.832	0.889
13.335	0.216	0.167	14.792	-0.327	0.417	13.536	0.845	0.917
13.408	0.025	0.194	14.743	0.237	0.444	13.518	0.775	0.944
13.284	0.222	0.167	14.967	-0.151	0.444	13.520	0.800	0.889
13.196	0.233	0.139	14.638	0.388	0.417	13.603	0.903	0.917
13.368	0.214	0.222	14.772	-0.326	0.472	13.819	0.553	0.889
13.441	0.022	0.139	14.748	-0.291	0.417	13.506	0.811	0.917
13.247	0.227	0.139	14.679	0.328	0.444	13.685	0.723	0.944
13.401	0.208	0.139	14.851	-0.404	0.472	13.858	0.590	0.944
13.178	0.233	0.194	14.709	0.299	0.417	13.629	0.699	0.917
13.374	0.019	0.222	14.607	-0.196	0.417	13.502	0.813	0.944

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.233	0.229	0.167	14.955	-0.485	0.417	13.485	0.772	0.917
13.147	0.058	0.167	14.527	0.492	0.444	13.655	0.964	0.944
13.162	0.223	0.222	14.515	0.500	0.472	13.551	0.885	0.944
13.107	0.079	0.194	14.920	-0.038	0.417	13.856	0.975	0.917
13.100	0.179	0.167	14.684	-0.260	0.472	13.702	0.623	0.889
13.133	0.218	0.167	14.545	-0.170	0.472	13.696	0.981	0.944
13.198	0.052	0.167	14.926	-0.485	0.472	13.486	0.684	0.889
13.122	0.059	0.222	14.556	0.463	0.472	13.856	0.527	0.889
13.131	0.216	0.194	14.835	0.110	0.417	13.856	0.562	0.917
13.272	0.030	0.222	14.861	0.046	0.444	13.749	0.643	0.917
13.390	0.028	0.139	14.747	-0.298	0.444	13.568	0.875	0.917
13.196	0.233	0.139	14.593	-0.199	0.472	13.557	0.757	0.944
13.152	0.056	0.194	14.864	0.061	0.417	13.723	0.702	0.944
13.438	0.203	0.167	14.639	-0.229	0.472	13.839	0.951	0.889
13.384	0.210	0.194	14.832	0.094	0.444	13.660	0.641	0.889
13.102	0.081	0.167	14.893	0.012	0.417	13.825	1.001	0.944
13.170	0.041	0.222	14.674	0.344	0.417	13.869	0.996	0.944
13.095	0.102	0.222	14.774	0.190	0.444	13.681	0.946	0.917
13.265	0.221	0.222	14.921	-0.086	0.472	13.557	0.757	0.944
13.435	0.204	0.194	14.909	-0.452	0.444	13.671	0.686	0.917
13.357	0.031	0.194	14.483	0.526	0.444	13.641	0.927	0.917
13.230	0.229	0.194	14.702	-0.265	0.444	13.522	0.851	0.944
13.134	0.061	0.139	14.915	-0.052	0.444	13.811	0.975	0.917
13.301	0.039	0.167	14.974	-0.138	0.417	13.758	0.676	0.944

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.214	0.225	0.222	14.946	-0.135	0.472	13.500	0.733	0.917
13.203	0.050	0.194	14.655	-0.225	0.417	13.618	0.941	0.944
13.323	0.024	0.222	14.696	0.293	0.472	13.723	0.961	0.917
13.095	0.094	0.139	14.962	-0.526	0.472	13.822	0.590	0.917
13.316	0.218	0.222	14.664	0.338	0.472	13.767	0.971	0.917
13.352	0.033	0.167	14.888	-0.003	0.444	13.541	0.715	0.917
13.254	0.044	0.194	14.556	-0.169	0.417	13.600	0.748	0.944
13.107	0.192	0.139	14.505	-0.146	0.417	13.786	0.617	0.917
13.184	0.053	0.139	14.831	-0.372	0.444	13.792	0.648	0.944
13.915	0.233	0.250	14.558	0.469	0.417	13.585	0.707	0.917
13.863	0.233	0.250	14.941	-0.101	0.444	13.541	0.715	0.917
13.445	-0.011	0.250	14.630	0.381	0.472	13.738	0.993	0.944
13.806	-0.033	0.250	14.607	0.414	0.444	13.781	1.000	0.944
13.605	0.229	0.250	14.727	0.248	0.472	14.223	0.171	0.917
13.651	-0.023	0.250	14.644	0.372	0.444	14.133	0.849	0.944
13.553	0.227	0.250	14.947	-0.494	0.444	14.282	0.104	0.917
13.857	-0.036	0.250	14.703	-0.257	0.417	14.292	0.095	0.944
13.497	-0.014	0.250	14.895	-0.037	0.472	14.063	0.898	0.917
13.703	-0.026	0.250	14.569	0.454	0.444	14.100	0.878	0.944
13.708	0.232	0.250	14.791	-0.334	0.444	14.046	0.372	0.917
13.657	0.231	0.250	14.742	0.253	0.417	14.194	0.205	0.917
13.909	-0.040	0.250	14.812	-0.364	0.472	13.980	0.464	0.944
13.811	0.233	0.250	14.656	-0.234	0.444	14.308	0.080	0.889
13.760	0.233	0.250	14.599	0.429	0.417	14.168	0.815	-0.889

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.548	-0.017	0.250	14.594	0.423	0.472	14.152	0.264	0.944
13.754	-0.029	0.250	14.970	-0.185	0.472	14.132	0.843	0.889
13.450	0.223	0.250	14.815	0.107	0.472	13.911	0.987	0.944
13.502	0.225	0.250	14.712	0.283	0.444	14.105	0.306	0.917
13.600	-0.020	0.250	14.497	-0.145	0.472	14.025	0.375	0.889
14.166	-0.064	0.250	14.511	-0.150	0.444	13.953	0.972	0.944
13.966	0.232	0.250	14.561	-0.176	0.444	14.303	0.693	0.889
14.371	-0.089	0.250	14.786	0.155	0.472	14.134	0.272	0.917
14.473	-0.104	0.250	14.948	-0.088	0.417	13.925	0.467	0.889
14.224	0.217	0.250	14.871	-0.412	0.444	14.255	0.722	0.944
13.960	-0.044	0.250	15.186	-0.804	0.444	14.099	0.872	0.917
14.114	-0.058	0.250	15.224	-0.710	0.444	13.900	0.968	0.917
14.320	-0.082	0.250	15.232	-0.831	0.472	14.283	0.689	0.944
14.422	-0.096	0.250	15.213	-0.654	0.417	14.264	0.129	0.944
14.012	-0.049	0.250	15.028	-0.573	0.417	14.311	0.070	0.917
14.069	0.229	0.250	15.263	-0.816	0.444	14.201	0.785	0.917
14.275	0.210	0.250	15.098	-0.662	0.417	13.930	0.942	0.889
14.217	-0.069	0.250	15.158	-0.555	0.444	14.009	0.431	0.944
14.268	-0.075	0.250	15.135	-0.533	0.472	14.121	0.278	0.889
14.121	0.226	0.250	15.161	-0.790	0.472	14.164	0.818	0.944
14.063	-0.053	0.250	15.199	-0.800	0.417	14.066	0.906	0.944
14.018	0.231	0.250	15.240	-0.788	0.472	13.991	0.405	0.889
14.427	0.184	0.250	15.169	-0.549	0.417	14.090	0.311	0.889
14.326	0.203	0.250	15.019	-0.580	0.444	14.168	0.815	0.917

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.172	0.222	0.250	15.202	-0.658	0.444	13.889	0.532	0.917
14.478	0.172	0.250	15.017	-0.251	0.444	14.253	0.138	0.917
14.377	0.194	0.250	15.042	-0.333	0.472	14.076	0.339	0.917
14.970	0.018	0.250	15.179	-0.634	0.472	14.311	0.655	0.944
14.827	-0.175	0.250	15.167	-0.753	0.417	14.015	0.912	0.889
14.524	-0.113	0.250	15.066	-0.383	0.472	13.943	0.957	0.917
14.775	0.085	0.250	15.136	-0.504	0.444	14.225	0.755	0.944
14.574	-0.122	0.250	15.113	-0.453	0.444	13.889	0.560	0.944
14.877	-0.186	0.250	15.217	-0.847	0.444	13.983	0.436	0.917
14.528	0.159	0.250	15.124	-0.445	0.417	14.234	0.754	0.917
14.777	-0.163	0.250	15.026	-0.240	0.417	14.236	0.163	0.944
14.725	0.100	0.250	15.090	-0.402	0.444	14.058	0.344	0.889
14.676	0.116	0.250	15.263	-0.814	0.444	14.195	0.787	0.944
14.627	0.131	0.250	15.019	-0.284	0.472	14.265	0.722	0.917
14.921	0.035	0.250	15.100	-0.393	0.417	14.015	0.404	0.917
14.577	0.145	0.250	15.236	-0.706	0.417	14.038	0.398	0.944
14.978	-0.210	0.250	15.113	-0.483	0.472	14.067	0.365	0.944
14.625	-0.132	0.250	15.191	-0.836	0.472	13.920	0.528	0.944
14.824	0.068	0.250	15.051	-0.291	0.417	14.025	0.921	0.917
14.726	-0.152	0.250	15.147	-0.497	0.417	13.921	0.500	0.917
14.872	0.052	0.250	15.066	-0.352	0.444	14.208	0.197	0.944
14.927	-0.198	0.250	15.063	-0.618	0.417	13.993	0.953	0.944
14.676	-0.142	0.250	15.031	-0.612	0.472	14.030	0.931	0.944
15.374	-0.325	0.250	15.278	-0.814	0.417	14.164	0.238	0.917

X	Y	Z'	X	Y	Z'	X	Y	Z'
15.447	-0.176	0.250	15.180	-0.607	0.444	14.124	0.298	0.944
15.355	-0.131	0.250	15.258	-0.759	0.417	13.985	0.941	0.917
15.401	-0.154	0.250	15.122	-0.712	0.444	13.952	0.468	0.917
15.260	-0.090	0.250	15.041	-0.301	0.444	14.134	0.844	0.917
15.227	-0.278	0.250	15.191	-0.602	0.417	14.095	0.331	0.944
15.308	-0.109	0.250	14.997	-0.568	0.472	13.950	0.496	0.944
15.115	-0.035	0.250	15.133	-0.707	0.417	14.180	0.231	0.944
15.018	0.000	0.250	15.098	-0.700	0.472	14.296	0.690	0.917
15.458	-0.259	0.250	15.221	-0.736	0.472	13.773	0.917	0.861
15.469	-0.209	0.250	15.053	-0.624	0.444	13.485	0.693	0.833
15.128	-0.249	0.250	15.245	-0.761	0.444	13.459	0.670	0.861
15.212	-0.071	0.250	15.000	-0.189	0.417	13.696	0.571	0.861
15.067	-0.017	0.250	15.065	-0.655	0.472	13.569	0.814	0.861
15.276	-0.293	0.250	15.090	-0.433	0.472	13.605	0.542	0.833
15.078	-0.235	0.250	15.230	-0.845	0.417	13.512	0.550	0.833
15.423	-0.341	0.250	15.201	-0.685	0.472	13.778	0.530	0.861
15.177	-0.263	0.250	15.158	-0.584	0.472	13.609	0.599	0.861
15.028	-0.222	0.250	15.130	-0.744	0.472	13.781	0.478	0.833
15.446	-0.309	0.250	15.154	-0.757	0.444	13.621	0.821	0.833
15.325	-0.309	0.250	15.088	-0.668	0.444	13.747	0.883	0.833
15.164	-0.053	0.250	14.984	-0.536	0.444	13.517	0.611	0.861
13.932	0.171	0.222	14.995	-0.234	0.472	13.864	0.436	0.833
13.459	0.019	0.194	14.992	-0.529	0.417	13.559	0.547	0.833
13.555	0.189	0.139	14.992	-0.201	0.444	13.535	0.782	0.861

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.691	0.173	0.194	15.277	-0.812	0.417	13.583	0.793	0.833
13.640	0.179	0.194	15.076	-0.342	0.417	13.819	0.507	0.861
13.528	0.003	0.222	14.728	-0.298	0.500	13.864	0.928	0.861
13.845	0.154	0.194	14.937	-0.142	0.500	13.516	0.728	0.833
13.579	-0.002	0.222	14.185	0.655	0.500	13.728	0.905	0.861
13.767	-0.019	0.194	15.219	-0.829	0.500	13.651	0.532	0.833
13.733	-0.018	0.222	13.931	0.021	0.500	13.695	0.517	0.833
13.486	0.198	0.194	14.961	-0.190	0.500	13.653	0.588	0.861
13.862	0.151	0.139	13.273	0.064	0.500	13.738	0.498	0.833
13.537	0.192	0.194	14.595	-0.203	0.500	13.818	0.925	0.861
13.657	0.177	0.139	14.131	0.657	0.500	13.685	0.888	0.861
13.504	0.196	0.139	15.188	-0.685	0.500	13.858	0.483	0.861
13.950	0.140	0.167	13.393	0.244	0.500	13.517	0.611	0.861
13.797	0.159	0.167	14.726	0.239	0.500	13.475	0.713	0.861
13.557	0.008	0.167	13.675	0.497	0.500	13.449	0.610	0.833
13.709	0.170	0.139	14.888	-0.045	0.500	13.476	0.629	0.861
13.813	-0.024	0.167	14.639	-0.234	0.500	13.563	0.606	0.861
13.477	0.008	0.222	14.023	0.647	0.500	13.823	0.458	0.833
13.745	0.165	0.167	15.167	-0.635	0.500	13.458	0.655	0.833
13.681	-0.013	0.222	15.149	-0.793	0.500	13.792	0.895	0.833
13.592	0.184	0.167	14.696	0.284	0.500	13.644	0.867	0.861
13.965	0.139	0.139	13.823	0.025	0.500	13.703	0.866	0.833
13.694	0.172	0.167	15.227	-0.786	0.500	13.470	0.569	0.833
13.848	0.153	0.167	13.334	-0.002	0.500	13.503	0.749	0.861

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.711	-0.011	0.167	14.549	-0.173	0.500	13.548	0.762	0.833
13.613	0.000	0.194	13.466	0.325	0.500	13.661	0.845	0.833
13.921	-0.037	0.194	15.087	-0.704	0.500	13.738	0.551	0.861
13.606	0.183	0.139	14.391	0.589	0.500	13.838	0.903	0.833
13.778	0.184	0.222	13.443	-0.001	0.500	13.605	0.842	0.861
13.865	-0.030	0.167	14.837	0.052	0.500	14.277	0.122	0.861
13.784	-0.024	0.222	14.562	0.455	0.500	14.000	0.905	0.861
13.562	0.006	0.194	14.438	0.560	0.500	14.111	0.282	0.861
13.595	0.003	0.139	13.505	0.363	0.500	14.110	0.849	0.833
13.492	0.016	0.139	14.040	0.009	0.500	14.244	0.164	0.833
13.470	0.207	0.222	13.283	0.014	0.500	14.269	0.732	0.861
13.937	-0.040	0.222	13.768	0.024	0.500	14.137	0.254	0.833
13.762	-0.018	0.167	15.118	-0.748	0.500	14.005	0.371	0.861
13.829	0.180	0.222	13.631	0.466	0.500	13.932	0.904	0.833
13.664	-0.006	0.194	13.660	0.018	0.500	14.173	0.225	0.833
13.506	0.014	0.167	14.755	0.193	0.500	14.062	0.311	0.833
13.540	0.191	0.167	14.302	-0.059	0.500	13.896	0.456	0.861
13.676	0.192	0.222	13.970	0.635	0.500	14.100	0.283	0.833
13.489	0.197	0.167	13.867	0.600	0.500	13.885	0.906	0.833
13.886	-0.035	0.222	15.008	-0.288	0.500	14.067	0.869	0.833
13.643	0.178	0.167	14.146	-0.012	0.500	13.984	0.363	0.833
13.811	0.158	0.139	14.919	-0.490	0.500	14.226	0.771	0.833
13.742	0.167	0.194	13.358	0.202	0.500	14.023	0.885	0.833
13.716	-0.012	0.194	13.714	0.022	0.500	14.043	0.889	0.861

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.646	-0.003	0.139	15.055	-0.387	0.500	14.041	0.343	0.861
13.624	0.196	0.222	15.022	-0.617	0.500	14.313	0.101	0.833
13.452	0.202	0.139	14.453	-0.123	0.500	14.150	0.826	0.833
13.608	0.001	0.167	13.817	0.578	0.500	13.910	0.925	0.861
13.869	-0.031	0.194	13.606	0.014	0.500	14.209	0.195	0.833
13.851	-0.029	0.139	14.954	-0.532	0.500	13.978	0.897	0.833
13.727	0.188	0.222	14.403	-0.100	0.500	14.162	0.820	0.861
13.543	0.009	0.139	14.665	0.329	0.500	14.189	0.800	0.833
13.916	-0.037	0.167	15.101	-0.485	0.500	13.968	0.400	0.861
13.881	0.175	0.222	14.810	0.099	0.500	14.309	0.090	0.861
13.800	-0.022	0.139	13.877	0.023	0.500	14.084	0.869	0.861
13.511	0.013	0.194	14.684	-0.265	0.500	13.905	0.413	0.833
13.947	0.142	0.194	14.598	0.415	0.500	13.945	0.388	0.833
13.818	-0.025	0.194	15.145	-0.585	0.500	14.076	0.313	0.861
13.660	-0.005	0.167	15.055	-0.660	0.500	14.144	0.251	0.861
13.455	0.020	0.167	14.985	-0.239	0.500	14.235	0.763	0.861
13.896	0.148	0.194	14.077	0.654	0.500	14.302	0.700	0.861
13.899	0.146	0.167	14.251	-0.041	0.500	14.244	0.155	0.861
13.794	0.161	0.194	15.123	-0.535	0.500	14.124	0.845	0.861
13.748	-0.016	0.139	13.296	0.113	0.500	14.296	0.708	0.833
13.697	-0.010	0.139	14.093	-0.001	0.500	14.279	0.132	0.833
13.573	0.200	0.222	14.199	-0.026	0.500	14.177	0.219	0.861
13.589	0.185	0.194	13.588	0.433	0.500	13.955	0.918	0.861
13.953	-0.041	0.139	15.208	-0.735	0.500	14.262	0.741	0.833

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.522	0.204	0.222	14.482	0.528	0.500	13.932	0.428	0.861
13.914	0.145	0.139	15.032	-0.337	0.500	14.199	0.792	0.861
13.902	-0.035	0.139	13.326	0.159	0.500	14.211	0.187	0.861
13.967	-0.043	0.167	13.986	0.016	0.500	14.024	0.338	0.833
13.835	-0.029	0.222	14.845	-0.410	0.500	14.056	0.892	0.889
13.630	-0.008	0.222	13.389	-0.004	0.500	14.271	0.726	0.889
13.760	0.164	0.139	15.179	-0.839	0.500	13.742	0.601	0.889
14.155	0.115	0.167	13.721	0.527	0.500	13.624	0.887	0.889
14.312	-0.085	0.139	14.769	-0.332	0.500	13.794	0.948	0.889
14.443	0.110	0.222	14.239	0.646	0.500	14.183	0.212	0.889
14.158	-0.066	0.139	14.783	0.146	0.500	14.152	0.245	0.889
14.207	0.108	0.167	13.389	-0.004	0.500	14.277	0.113	0.889
14.412	0.083	0.167	13.497	0.004	0.500	13.885	0.949	0.889
14.290	0.132	0.222	14.523	0.493	0.500	14.214	0.179	0.889
14.477	0.076	0.139	13.428	0.285	0.500	13.587	0.861	0.889
14.056	-0.054	0.139	14.989	-0.574	0.500	13.958	0.436	0.889
14.309	0.096	0.167	14.633	0.372	0.500	13.891	0.498	0.889
14.086	0.156	0.222	13.546	0.399	0.500	13.706	0.927	0.889
14.119	0.120	0.139	14.501	-0.147	0.500	13.973	0.929	0.889
14.306	0.098	0.194	14.292	0.632	0.500	13.750	0.940	0.889
14.330	-0.088	0.194	14.882	-0.450	0.500	14.246	0.146	0.889
14.272	0.101	0.139	14.863	0.004	0.500	14.238	0.757	0.889
14.210	-0.073	0.139	13.382	0.331	0.639	13.572	0.660	0.889
14.101	0.123	0.194	13.377	0.331	0.667	14.095	0.869	0.889

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.429	-0.100	0.167	13.313	0.146	0.556	13.527	0.667	0.889
14.324	0.095	0.139	13.350	0.239	0.583	13.616	0.653	0.889
14.415	-0.098	0.139	13.379	0.283	0.583	14.204	0.786	0.889
14.275	-0.081	0.167	13.346	0.237	0.611	14.378	0.584	0.917
14.040	-0.051	0.222	13.362	0.284	0.639	14.570	0.198	0.944
14.279	-0.081	0.194	13.433	0.106	0.583	14.607	-0.322	0.917
14.177	-0.069	0.194	13.442	0.368	0.583	14.556	-0.249	0.917
14.193	-0.069	0.222	13.428	0.325	0.556	14.432	0.472	0.944
14.188	0.145	0.222	13.397	0.378	0.667	14.638	-0.353	0.889
14.433	-0.100	0.194	13.439	0.418	0.639	14.641	-0.356	0.944
14.018	-0.049	0.167	13.394	0.329	0.611	14.468	0.430	0.917
14.050	0.130	0.194	13.372	0.233	0.639	14.535	-0.203	0.889
14.074	-0.056	0.194	13.385	0.281	0.667	14.647	0.108	0.889
14.121	-0.062	0.167	13.334	0.195	0.556	14.338	0.046	0.889
14.228	-0.075	0.194	13.355	0.186	0.611	14.646	0.069	0.917
14.002	0.134	0.167	13.381	0.112	0.583	14.627	0.149	0.889
14.016	0.133	0.139	13.394	0.152	0.611	14.582	-0.285	0.917
14.221	0.107	0.139	13.406	0.195	0.639	14.586	-0.279	0.889
14.152	0.117	0.194	13.364	0.240	0.556	14.570	0.231	0.917
14.361	0.089	0.167	13.321	0.096	0.556	14.662	-0.002	0.944
14.377	-0.093	0.167	13.421	0.069	0.556	14.410	0.510	0.944
14.053	0.127	0.167	13.421	0.069	0.556	14.352	0.621	0.917
14.091	-0.057	0.222	13.416	0.241	0.667	14.505	0.392	0.889
14.341	0.125	-0.222	13.409	0.327	0.583	14.665	-0.390	0.889

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.392	0.117	0.222	13.368	0.073	0.556	14.389	0.588	0.889
14.005	-0.047	0.139	13.433	0.106	0.583	14.484	-0.144	0.944
14.460	0.079	0.194	13.329	0.190	0.583	14.616	-0.320	0.944
14.326	-0.087	0.167	13.367	0.285	0.611	14.530	0.311	0.917
14.170	0.114	0.139	13.409	0.376	0.639	14.513	0.316	0.944
14.255	0.105	0.194	13.423	0.422	0.667	14.626	0.078	0.944
14.172	-0.068	0.167	13.337	0.140	0.583	14.644	0.038	0.944
14.224	-0.074	0.167	13.424	0.372	0.611	14.333	0.660	0.889
14.142	-0.063	0.222	13.395	0.283	0.556	14.531	-0.212	0.917
14.070	-0.056	0.167	13.769	0.181	0.639	14.447	0.469	0.917
14.067	0.126	0.139	13.826	0.211	0.667	14.453	0.433	0.944
14.382	-0.094	0.194	13.518	0.544	0.667	14.368	0.002	0.917
14.261	-0.079	0.139	13.799	0.709	0.639	14.363	0.584	0.944
14.104	0.121	0.167	13.847	0.727	0.639	14.665	0.029	0.917
14.408	0.086	0.194	13.820	0.176	0.639	14.588	0.231	0.889
14.448	-0.102	0.222	13.457	0.186	0.639	14.526	0.352	0.889
14.426	0.082	0.139	13.561	0.186	0.639	14.511	-0.179	0.944
14.363	-0.091	0.139	13.620	0.225	0.667	14.461	0.472	0.889
14.346	-0.088	0.222	13.813	0.746	0.667	14.589	0.191	0.917
14.397	-0.095	0.222	13.877	0.204	0.667	14.414	0.550	0.889
13.983	0.166	0.222	13.672	0.224	0.667	14.451	-0.104	0.917
14.023	-0.050	0.194	13.620	0.604	0.639	14.611	-0.316	0.889
14.239	0.138	0.222	13.662	0.635	0.639	14.510	0.351	0.917
14.480	-0.106	0.167	13.505	0.499	0.639	14.481	-0.130	0.889

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.244	-0.075	0.222	13.466	0.228	0.667	14.340	0.036	0.917
14.137	0.150	0.222	13.517	0.226	0.667	14.457	-0.110	0.944
14.107	-0.060	0.139	13.717	0.184	0.639	14.590	-0.284	0.944
14.295	-0.082	0.222	13.471	0.459	0.639	14.552	0.237	0.944
14.463	0.077	0.167	13.862	0.762	0.667	14.375	-0.007	0.944
13.988	-0.046	0.222	13.569	0.226	0.667	14.589	0.158	0.944
13.972	-0.044	0.194	13.466	0.228	0.667	14.493	0.355	0.944
13.999	0.136	0.194	13.751	0.688	0.639	14.661	-0.393	0.917
14.357	0.092	0.194	13.484	0.505	0.667	14.425	0.508	0.917
14.258	0.102	0.167	13.766	0.726	0.667	14.396	-0.033	0.917
14.034	0.161	0.222	13.580	0.571	0.639	14.489	0.390	0.917
14.375	0.089	0.139	13.723	0.221	0.667	14.430	-0.075	0.944
14.125	-0.062	0.194	13.509	0.185	0.639	14.424	-0.068	0.917
14.466	-0.104	0.139	13.453	0.464	0.667	14.564	-0.249	0.944
14.204	0.111	0.194	13.633	0.647	0.667	14.473	0.394	0.944
14.754	-0.146	0.222	13.593	0.615	0.667	14.347	0.027	0.944
14.689	-0.132	0.194	13.720	0.703	0.667	14.505	-0.175	0.917
14.976	0.014	0.167	13.555	0.580	0.667	14.550	0.271	0.917
14.767	0.041	0.194	13.676	0.676	0.667	14.627	0.110	0.917
14.740	-0.138	0.194	13.613	0.186	0.639	14.402	0.547	0.917
14.843	-0.151	0.194	13.774	0.217	0.667	14.634	-0.358	0.917
14.499	-0.109	0.222	13.457	0.186	0.639	14.402	-0.041	0.944
14.747	0.057	0.222	13.872	0.170	0.639	14.338	0.620	0.944
14.617	0.058	0.167	13.706	0.663	0.639	14.538	-0.214	0.944

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.685	-0.131	0.167	13.541	0.536	0.639	14.532	0.277	0.944
14.494	0.102	0.222	13.665	0.186	0.639	14.325	0.656	0.917
14.696	0.066	0.222	14.078	0.159	0.667	14.667	-0.391	0.944
14.665	0.054	0.194	14.000	0.757	0.639	14.387	0.548	0.944
14.562	0.067	0.194	14.175	0.097	0.639	14.608	0.118	0.944
14.668	0.052	0.167	14.014	0.784	0.667	14.319	0.061	0.944
14.945	-0.164	0.194	14.270	0.056	0.639	14.478	-0.139	0.917
14.535	-0.113	0.194	14.127	0.143	0.667	14.608	0.150	0.917
14.927	-0.161	0.139	14.262	0.723	0.667	14.767	-0.243	0.944
14.703	-0.139	0.222	13.975	0.154	0.639	14.895	-0.505	0.917
14.722	-0.136	0.139	14.205	0.731	0.639	14.795	-0.224	0.889
14.613	0.060	0.194	14.117	0.775	0.667	14.722	-0.057	0.889
14.631	0.057	0.139	14.253	0.712	0.639	14.878	-0.614	0.889
14.568	-0.117	0.139	14.175	0.126	0.667	14.878	-0.463	0.917
14.972	0.016	0.194	14.076	0.130	0.639	14.738	-0.134	0.917
14.634	-0.125	0.167	13.927	0.195	0.667	14.836	-0.405	0.944
14.957	-0.179	0.222	14.307	0.697	0.667	14.720	-0.093	0.917
14.595	0.084	0.222	13.948	0.752	0.639	14.839	-0.547	0.944
14.682	0.051	0.139	14.126	0.114	0.639	14.808	-0.561	0.917
14.601	-0.123	0.222	14.223	0.078	0.639	14.777	-0.182	0.889
14.873	0.027	0.167	14.223	0.106	0.667	14.861	-0.422	0.917
14.839	-0.150	0.167	13.912	0.774	0.667	14.741	-0.099	0.889
14.990	0.013	0.139	13.978	0.185	0.667	14.722	-0.460	0.889
14.921	0.022	0.194	14.300	0.689	0.639	14.844	-0.381	0.917

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.798	0.047	0.222	14.104	0.755	0.639	14.756	-0.175	0.917
14.580	0.063	0.139	13.897	0.742	0.639	14.750	-0.203	0.944
14.550	-0.116	0.222	14.167	0.762	0.667	14.715	-0.122	0.944
14.941	-0.162	0.167	14.052	0.759	0.639	14.918	-0.517	0.889
14.620	-0.123	0.139	14.026	0.143	0.639	14.694	-0.426	0.944
14.822	0.033	0.167	14.269	0.084	0.667	14.853	-0.446	0.944
14.894	-0.157	0.194	14.028	0.173	0.667	14.718	-0.462	0.917
14.906	-0.171	0.222	14.155	0.746	0.639	14.848	-0.349	0.889
14.855	-0.163	0.222	14.215	0.745	0.667	14.876	-0.523	0.944
14.992	-0.168	0.167	14.317	0.033	0.639	14.803	-0.563	0.944
14.890	-0.156	0.167	13.924	0.163	0.639	14.870	-0.486	0.944
14.978	-0.167	0.139	14.066	0.782	0.667	14.778	-0.528	0.917
14.529	0.070	0.139	13.963	0.782	0.667	14.876	-0.571	0.917
14.716	0.048	0.194	14.315	0.060	0.667	14.802	-0.324	0.944
14.582	-0.119	0.167	13.527	0.073	0.556	14.752	-0.495	0.889
14.848	0.037	0.222	13.634	0.079	0.556	14.846	-0.593	0.889
14.484	-0.106	0.194	13.865	0.675	0.583	14.785	-0.284	0.944
14.825	-0.148	0.139	13.721	0.609	0.583	14.704	-0.016	0.889
14.785	0.038	0.139	13.620	0.509	0.556	14.721	-0.461	0.944
14.646	0.075	0.222	13.851	0.641	0.556	14.774	-0.216	0.917
14.876	-0.154	0.139	13.794	0.081	0.556	14.702	-0.053	0.917
14.734	0.044	0.139	13.581	0.077	0.556	14.916	-0.590	0.889
14.924	0.021	0.167	13.802	0.620	0.556	14.809	-0.298	0.917
14.771	0.039	0.167	13.856	0.108	0.583	14.689	-0.428	0.917

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.804	-0.154	0.222	13.463	0.365	0.556	14.680	-0.042	0.944
14.531	-0.112	0.167	13.676	0.581	0.583	14.912	-0.546	0.917
14.719	0.046	0.167	13.803	0.111	0.583	14.819	-0.365	0.944
14.949	0.018	0.222	13.474	0.070	0.556	14.733	-0.163	0.944
14.870	0.028	0.194	13.754	0.596	0.556	14.698	-0.082	0.944
14.652	-0.131	0.222	13.551	0.483	0.583	14.792	-0.257	0.917
14.939	0.019	0.139	13.592	0.111	0.583	14.748	-0.495	0.944
14.773	-0.142	0.139	13.476	0.408	0.583	14.747	-0.496	0.917
14.736	-0.137	0.167	13.687	0.081	0.556	14.684	-0.012	0.917
14.792	-0.145	0.194	13.633	0.550	0.583	14.838	-0.594	0.917
14.671	-0.129	0.139	13.591	0.518	0.583	14.827	-0.340	0.917
14.511	0.073	0.194	13.538	0.441	0.556	14.776	-0.529	0.944
14.587	-0.119	0.194	13.750	0.113	0.583	14.639	0.209	0.833
14.517	-0.110	0.139	13.578	0.476	0.556	14.510	-0.101	0.833
14.836	0.032	0.139	13.847	0.079	0.556	14.660	-0.337	0.861
14.818	0.035	0.194	13.708	0.569	0.556	14.540	0.361	0.861
14.566	0.064	0.167	13.741	0.082	0.556	14.665	0.114	0.861
14.787	-0.144	0.167	13.768	0.634	0.583	14.420	0.568	0.833
14.638	-0.125	0.194	13.663	0.540	0.556	14.661	-0.280	0.833
14.887	0.026	0.139	13.513	0.447	0.583	14.347	0.068	0.833
14.514	0.071	0.167	13.486	0.106	0.583	14.341	0.057	0.861
14.544	0.093	0.222	13.539	0.109	0.583	14.495	0.441	0.861
14.899	0.028	0.222	13.645	0.113	0.583	14.551	-0.189	0.861
15.472	-0.183	0.167	13.816	0.656	0.583	14.579	-0.226	0.861

X	Y	Z'	X	Y	Z'	X	Y	Z'
15.177	-0.010	0.194	13.499	0.404	0.556	14.571	-0.171	0.833
15.048	-0.177	0.194	13.697	0.114	0.583	14.518	0.401	0.861
15.109	-0.205	0.222	14.177	0.704	0.583	14.601	-0.207	0.833
15.353	-0.063	0.222	13.909	0.103	0.583	14.390	0.605	0.833
15.363	-0.245	0.222	14.125	0.711	0.583	14.446	-0.031	0.833
15.484	-0.050	0.194	14.111	0.692	0.556	14.659	0.167	0.833
15.030	-0.173	0.139	14.019	0.710	0.583	14.404	-0.011	0.861
15.400	-0.037	0.139	14.216	0.028	0.583	14.414	0.002	0.833
15.455	-0.247	0.222	14.006	0.061	0.556	14.364	0.631	0.861
15.132	-0.186	0.139	13.901	0.659	0.556	14.550	0.374	0.833
15.211	-0.222	0.222	14.268	0.665	0.556	14.527	0.414	0.833
15.403	-0.218	0.167	14.262	-0.013	0.556	14.645	0.156	0.861
15.261	-0.230	0.222	14.116	0.062	0.583	14.334	0.666	0.861
15.498	-0.082	0.194	14.065	0.075	0.583	14.502	0.454	0.833
15.095	-0.181	0.167	13.967	0.703	0.583	14.573	0.333	0.833
15.406	-0.221	0.194	14.058	0.050	0.556	14.631	-0.243	0.833
15.078	0.002	0.167	14.266	0.008	0.583	14.562	0.321	0.861
15.485	-0.132	0.194	13.900	0.075	0.556	14.420	0.558	0.861
15.181	-0.011	0.167	14.317	0.645	0.556	14.360	0.640	0.833
15.023	0.009	0.194	14.279	0.674	0.583	14.478	-0.066	0.833
15.351	-0.212	0.167	14.057	0.691	0.556	14.583	0.280	0.861
15.195	-0.012	0.139	14.311	-0.033	0.556	14.540	-0.136	0.833
15.300	-0.206	0.167	14.013	0.086	0.583	14.449	0.531	0.833
15.253	-0.202	0.194	14.167	0.046	0.583	14.464	-0.081	0.861

X	Y	Z'	X	Y	Z'	X	Y	Z'
15.000	0.008	0.222	13.915	0.691	0.583	14.392	0.595	0.861
15.183	-0.192	0.139	14.314	-0.014	0.583	14.328	0.675	0.833
15.454	-0.080	0.222	14.072	0.713	0.583	14.476	0.493	0.833
15.251	-0.045	0.222	14.229	0.692	0.583	14.604	0.239	0.861
15.081	-0.180	0.139	13.953	0.069	0.556	14.446	0.520	0.861
15.331	-0.028	0.194	13.952	0.674	0.556	14.435	-0.046	0.861
15.235	-0.198	0.139	14.212	0.006	0.556	14.633	-0.300	0.861
15.126	-0.004	0.194	14.004	0.684	0.556	14.625	0.197	0.861
15.485	-0.133	0.167	14.216	0.679	0.556	14.373	0.023	0.861
15.092	0.000	0.139	14.110	0.038	0.556	14.494	-0.117	0.861
15.302	-0.054	0.222	14.162	0.023	0.556	14.471	0.481	0.861
15.146	-0.187	0.167	13.961	0.096	0.583	14.523	-0.153	0.861
15.451	-0.044	0.139	14.164	0.688	0.556	14.606	-0.263	0.861
15.304	-0.209	0.194	13.812	0.143	0.611	14.381	0.036	0.833
15.414	-0.253	0.222	14.122	0.087	0.611	14.617	0.250	0.833
15.198	-0.193	0.167	13.491	0.454	0.611	14.595	0.292	0.833
15.497	-0.083	0.167	13.691	0.622	0.611	14.923	-0.627	0.861
15.151	-0.024	0.222	14.089	0.734	0.611	14.679	0.124	0.833
15.312	-0.237	0.222	13.527	0.491	0.611	14.736	-0.004	0.833
15.437	-0.043	0.167	13.603	0.148	0.611	14.794	-0.182	0.861
15.279	-0.022	0.194	14.071	0.102	0.611	14.830	-0.556	0.861
15.232	-0.017	0.167	14.290	0.681	0.611	14.973	-0.565	0.833
15.481	-0.148	0.222	13.932	0.722	0.611	14.935	-0.479	0.833
15.488	-0.048	0.167	14.020	0.114	0.611	14.863	-0.307	0.833

X	Y	Z'	X	Y	Z'	X	Y	Z'
15.160	-0.213	0.222	14.192	0.718	0.611	14.881	-0.350	0.833
15.433	-0.042	0.194	13.832	0.692	0.611	14.773	-0.429	0.833
15.404	-0.071	0.222	13.550	0.146	0.611	14.917	-0.436	0.833
15.457	-0.228	0.194	13.457	0.414	0.611	14.902	-0.437	0.861
15.129	-0.005	0.167	13.647	0.593	0.611	14.956	-0.564	0.861
15.099	-0.183	0.194	13.783	0.672	0.611	14.791	-0.134	0.833
15.349	-0.031	0.139	13.917	0.132	0.611	14.718	0.039	0.833
15.481	-0.148	0.139	13.736	0.648	0.611	14.993	-0.608	0.833
15.249	-0.199	0.167	13.984	0.730	0.611	14.755	-0.047	0.833
15.355	-0.215	0.194	13.969	0.124	0.611	14.758	-0.097	0.861
15.503	-0.050	0.139	13.865	0.139	0.611	14.800	-0.468	0.833
15.074	0.003	0.194	14.036	0.735	0.611	14.746	-0.391	0.833
15.027	0.008	0.167	13.881	0.709	0.611	14.848	-0.309	0.861
14.996	-0.170	0.194	14.269	0.031	0.611	14.937	-0.522	0.861
15.246	-0.019	0.139	13.565	0.527	0.611	14.801	-0.520	0.861
15.386	-0.037	0.167	14.171	0.071	0.611	14.860	-0.591	0.861
15.454	-0.225	0.167	14.242	0.702	0.611	14.684	0.072	0.861
15.283	-0.023	0.167	14.141	0.729	0.611	14.716	-0.411	0.861
15.337	-0.211	0.139	13.655	0.149	0.611	14.930	-0.663	0.833
15.150	-0.189	0.194	14.220	0.052	0.611	14.969	-0.637	0.833
15.469	-0.198	0.139	13.760	0.146	0.611	14.866	-0.352	0.861
15.297	-0.025	0.139	13.606	0.561	0.611	14.718	-0.353	0.833
15.440	-0.224	0.139	13.445	0.145	0.611	14.919	-0.479	0.861
15.286	-0.205	0.139	14.316	0.009	0.611	14.899	-0.393	0.833

X	Y	Z'	X	Y	Z'	X	Y	Z'
15.468	-0.197	0.222	13.708	0.148	0.611	14.740	-0.054	0.861
15.100	-0.013	0.222	13.445	0.145	0.611	14.826	-0.507	0.833
15.050	-0.002	0.222	13.498	0.145	0.611	14.699	0.082	0.833
15.388	-0.217	0.139	14.538	-0.104	0.639	14.721	-0.012	0.861
15.008	-0.188	0.222	14.362	0.008	0.639	14.888	-0.627	0.861
15.473	-0.182	0.194	14.563	0.446	0.667	14.962	-0.603	0.861
15.494	-0.097	0.139	14.464	0.565	0.667	14.744	-0.448	0.861
15.334	-0.030	0.167	14.620	0.361	0.667	14.904	-0.623	0.833
15.201	-0.035	0.222	14.680	0.270	0.639	14.776	-0.139	0.861
15.041	0.007	0.139	14.653	0.314	0.639	14.809	-0.177	0.833
15.044	-0.175	0.167	14.755	-0.293	0.667	14.954	-0.522	0.833
15.382	-0.035	0.194	14.625	0.359	0.639	14.845	-0.263	0.833
15.493	-0.098	0.222	14.571	-0.113	0.667	14.830	-0.266	0.861
15.228	-0.016	0.194	14.596	0.402	0.639	14.852	-0.545	0.833
15.058	-0.196	0.222	14.498	0.526	0.667	14.812	-0.224	0.861
15.201	-0.196	0.194	14.359	0.034	0.667	14.773	-0.090	0.833
15.144	-0.006	0.139	14.618	-0.170	0.639	14.772	-0.484	0.861
13.112	-0.050	0.333	14.426	0.597	0.639	14.884	-0.394	0.861
13.244	-0.130	0.333	14.386	0.631	0.639	14.688	-0.374	0.861
13.107	0.051	0.306	14.730	0.179	0.639	14.930	-0.663	0.833
13.098	0.052	0.278	14.592	0.404	0.667	14.827	-0.220	0.833
13.384	-0.084	0.306	14.610	-0.147	0.667	14.703	0.030	0.861
13.268	0.180	0.306	14.403	0.007	0.667	14.879	-0.584	0.833
13.424	0.236	0.278	14.566	0.444	0.639	14.690	-0.316	0.833

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.173	0.131	0.306	14.452	-0.046	0.639	14.608	0.190	0.889
13.305	-0.156	0.389	14.746	0.136	0.667	14.866	-0.391	0.889
13.190	-0.147	0.389	14.344	0.661	0.639	14.547	0.312	0.889
13.122	-0.085	0.361	14.579	-0.136	0.639	14.454	-0.094	0.889
13.374	0.225	0.278	14.427	0.601	0.667	14.813	-0.265	0.889
13.263	-0.159	0.361	14.705	0.224	0.639	14.362	0.624	0.889
13.414	0.245	0.306	14.698	0.227	0.667	14.759	-0.140	0.889
13.311	-0.041	0.278	14.349	0.668	0.667	14.666	0.067	0.889
13.323	0.213	0.278	14.648	-0.181	0.667	14.935	-0.559	0.889
13.379	-0.150	0.361	14.446	-0.021	0.667	14.883	-0.433	0.889
13.316	0.202	0.306	14.732	-0.276	0.639	14.426	-0.058	0.889
13.189	-0.124	0.333	14.464	0.561	0.639	14.831	-0.307	0.889
13.204	-0.155	0.361	14.407	-0.018	0.639	14.483	0.432	0.889
13.320	0.193	0.333	14.754	0.133	0.639	14.438	0.511	0.889
13.273	0.200	0.278	14.673	0.272	0.667	14.815	-0.560	0.889
13.174	0.173	0.278	14.495	-0.074	0.639	14.561	-0.241	0.889
13.151	-0.134	0.361	14.685	-0.217	0.667	14.783	-0.528	0.889
13.362	-0.042	0.278	14.489	-0.050	0.667	14.368	0.012	0.889
13.244	0.106	0.361	14.500	0.524	0.639	14.685	0.026	0.889
13.415	0.254	0.333	14.768	-0.314	0.639	14.509	-0.166	0.889
13.184	-0.002	0.389	14.389	0.636	0.667	14.901	-0.475	0.889
13.203	0.064	0.361	14.531	0.487	0.667	14.693	-0.425	0.889
13.128	-0.049	0.306	14.647	0.317	0.667	14.397	-0.023	0.889
13.220	0.156	0.306	14.722	0.181	0.667	14.568	0.272	0.889

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.103	0.103	0.278	14.768	0.089	0.667	13.560	0.938	1.000
13.185	0.093	0.333	14.721	-0.254	0.667	13.668	0.999	0.972
13.104	-0.002	0.306	14.657	-0.205	0.639	13.573	0.839	1.000
13.286	0.147	0.361	14.695	-0.240	0.639	13.518	0.851	0.972
13.263	-0.159	0.361	14.530	-0.081	0.667	13.588	0.970	1.000
13.117	0.005	0.278	14.534	0.485	0.639	13.790	0.710	1.000
13.333	0.176	0.389	14.801	-0.354	0.639	13.850	0.650	1.000
13.321	-0.156	0.361	15.086	-0.615	0.667	13.793	1.027	0.972
13.367	0.224	0.333	14.952	-0.291	0.639	13.708	1.014	0.972
13.437	-0.143	0.361	15.022	-0.475	0.667	13.750	1.023	0.972
13.259	-0.040	0.278	14.800	0.040	0.639	13.538	0.863	1.000
13.363	-0.152	0.389	15.038	-0.481	0.639	13.535	0.814	0.972
13.413	-0.119	0.333	14.983	-0.607	0.639	13.612	0.822	1.000
13.229	0.128	0.333	15.073	-0.761	0.667	13.688	0.786	1.000
13.278	-0.087	0.306	14.918	-0.239	0.667	13.798	0.675	0.972
13.329	0.186	0.361	14.856	-0.097	0.667	13.574	0.796	0.972
13.365	0.224	0.306	14.833	-0.395	0.639	13.820	0.681	1.000
13.172	-0.078	0.306	15.001	-0.428	0.667	13.733	0.731	0.972
13.116	0.005	0.333	15.043	-0.521	0.667	13.620	0.998	1.000
13.145	0.054	0.333	14.823	-0.008	0.639	13.776	1.054	1.000
13.224	-0.088	0.306	15.060	-0.528	0.639	13.879	0.619	1.000
13.331	-0.086	0.306	15.104	-0.784	0.667	13.630	0.977	0.972
13.150	-0.109	0.389	15.021	-0.672	0.667	13.650	0.805	1.000
13.374	0.217	0.389	14.788	-0.332	0.667	13.565	0.922	0.972

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.418	0.261	0.361	14.834	-0.050	0.667	13.859	0.614	0.972
13.437	-0.081	0.306	15.164	-0.766	0.639	13.829	0.645	0.972
13.301	-0.128	0.333	14.895	-0.478	0.639	13.860	1.043	1.000
13.293	0.134	0.389	15.145	-0.718	0.639	13.724	0.764	1.000
13.255	0.090	0.389	15.108	-0.662	0.667	13.596	0.952	0.972
13.223	0.187	0.278	14.910	-0.197	0.639	13.696	0.754	0.972
13.244	-0.130	0.333	15.065	-0.568	0.667	13.574	0.796	0.972
13.247	-0.157	0.389	15.148	-0.756	0.667	13.560	0.938	1.000
13.414	-0.042	0.278	14.926	-0.521	0.639	13.655	1.022	1.000
13.133	0.097	0.306	14.994	-0.628	0.667	13.758	0.738	1.000
13.130	0.145	0.278	15.012	-0.651	0.639	13.537	0.902	1.000
13.156	-0.052	0.389	14.938	-0.541	0.667	13.615	0.783	0.972
13.218	0.045	0.389	14.819	-0.373	0.667	13.879	1.016	0.972
13.165	0.021	0.361	14.813	-0.004	0.667	13.656	0.771	0.972
13.224	-0.088	0.306	15.094	-0.784	0.639	13.537	0.889	0.972
13.208	-0.038	0.278	14.974	-0.339	0.639	13.766	0.704	0.972
13.417	0.256	0.389	15.103	-0.623	0.639	13.693	1.039	1.000
13.373	0.224	0.361	14.959	-0.333	0.667	13.734	1.050	1.000
13.134	-0.029	0.361	14.955	-0.564	0.639	13.836	1.024	0.972
13.158	-0.027	0.278	14.888	-0.149	0.639	13.819	1.051	1.000
13.357	-0.124	0.333	15.129	-0.709	0.667	14.099	0.885	0.972
13.420	-0.144	0.389	14.867	-0.102	0.639	14.277	0.121	0.972
13.208	-0.038	0.278	14.966	-0.585	0.667	13.978	0.489	0.972
13.139	-0.098	0.333	14.910	-0.498	0.667	14.116	0.323	0.972

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.274	0.161	0.333	14.995	-0.386	0.639	14.192	0.789	1.000
13.797	0.519	0.389	14.850	-0.415	0.667	14.125	0.327	1.000
13.609	-0.113	0.361	14.791	0.043	0.667	13.920	0.553	0.972
13.535	-0.125	0.389	14.897	-0.192	0.667	14.098	0.360	1.000
13.761	0.481	0.361	15.128	-0.797	0.639	14.188	0.791	0.972
13.465	0.296	0.361	15.124	-0.670	0.639	14.244	0.726	0.972
13.850	0.543	0.389	14.939	-0.286	0.667	14.043	0.940	1.000
13.592	-0.114	0.389	14.845	-0.055	0.639	14.088	0.357	0.972
13.696	0.463	0.389	15.081	-0.576	0.639	13.997	0.965	0.972
13.551	0.366	0.389	14.980	-0.380	0.667	13.890	0.584	0.972
13.877	-0.065	0.389	15.048	-0.716	0.667	14.044	0.426	1.000
13.598	0.400	0.389	14.777	0.086	0.639	14.143	0.290	0.972
13.820	-0.073	0.389	14.864	-0.437	0.639	14.135	0.852	1.000
13.763	-0.082	0.389	15.040	-0.695	0.639	13.949	0.521	0.972
13.461	0.294	0.389	14.880	-0.456	0.667	14.304	0.087	0.972
13.724	-0.092	0.361	15.067	-0.739	0.639	13.975	0.990	1.000
13.506	0.331	0.389	14.877	-0.144	0.667	14.297	0.658	0.972
13.935	-0.060	0.389	15.017	-0.433	0.639	14.075	0.912	1.000
13.494	-0.134	0.361	14.931	-0.244	0.639	14.282	0.128	1.000
13.478	-0.135	0.389	14.660	0.319	0.583	14.071	0.393	1.000
13.609	0.395	0.361	14.590	-0.189	0.556	14.256	0.161	1.000
13.958	0.584	0.389	14.416	0.595	0.583	14.224	0.189	0.972
13.954	-0.059	0.361	14.692	0.276	0.556	14.295	0.654	1.000
13.709	0.454	0.361	14.567	0.449	0.556	13.959	0.986	0.972

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.839	-0.073	0.361	14.407	-0.080	0.556	14.170	0.256	0.972
13.646	0.432	0.389	14.327	0.652	0.583	14.106	0.882	1.000
13.666	-0.102	0.361	14.675	-0.254	0.556	14.245	0.723	1.000
13.552	-0.123	0.361	14.628	-0.208	0.583	14.010	0.966	1.000
13.512	0.330	0.361	14.669	-0.241	0.583	14.216	0.759	0.972
13.867	0.530	0.361	14.587	-0.175	0.583	13.939	1.012	1.000
13.903	0.565	0.389	14.688	0.274	0.583	14.271	0.692	0.972
13.746	0.492	0.389	14.663	0.321	0.556	14.177	0.261	1.000
13.705	-0.092	0.389	14.410	0.592	0.556	14.005	0.456	0.972
13.648	-0.103	0.389	14.360	-0.056	0.556	13.900	1.029	1.000
14.338	-0.087	0.389	14.452	0.560	0.556	14.250	0.155	0.972
14.360	-0.083	0.361	14.496	0.526	0.583	14.309	0.095	1.000
14.186	0.621	0.389	14.493	0.526	0.556	14.033	0.423	0.972
14.244	0.617	0.389	14.742	0.183	0.583	14.033	0.941	0.972
14.128	0.619	0.389	14.747	0.185	0.556	13.920	1.003	0.972
14.281	-0.075	0.389	14.501	-0.131	0.556	14.197	0.223	0.972
14.322	0.587	0.361	14.633	-0.222	0.556	14.219	0.756	1.000
14.207	0.602	0.361	14.756	-0.323	0.556	13.963	0.524	1.000
14.473	-0.112	0.361	14.716	0.229	0.583	14.159	0.824	0.972
14.051	-0.055	0.389	14.546	-0.159	0.556	14.271	0.689	1.000
14.433	0.550	0.361	14.533	0.488	0.583	14.203	0.228	1.000
14.129	-0.054	0.361	14.361	-0.037	0.583	14.066	0.914	0.972
14.265	0.597	0.361	14.544	-0.144	0.583	13.991	0.492	1.000
14.224	-0.066	0.389	14.567	0.448	0.583	14.129	0.855	0.972

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.148	0.601	0.361	14.454	-0.088	0.583	14.017	0.459	1.000
14.411	0.570	0.389	14.408	-0.062	0.583	14.151	0.294	1.000
14.014	0.600	0.389	14.716	-0.288	0.556	13.936	0.556	1.000
14.033	0.584	0.361	14.720	0.231	0.556	14.060	0.389	0.972
13.977	0.569	0.361	14.499	-0.115	0.583	13.907	0.588	1.000
14.167	-0.060	0.389	14.531	0.488	0.556	14.164	0.821	1.000
14.090	0.594	0.361	14.631	0.363	0.583	14.230	0.194	1.000
13.993	-0.056	0.389	14.365	0.621	0.556	14.371	0.552	0.972
14.462	0.544	0.389	14.600	0.406	0.583	14.386	-0.013	0.972
14.301	0.607	0.389	14.454	-0.105	0.556	14.607	-0.317	1.000
14.450	-0.119	0.389	14.749	-0.310	0.583	14.515	-0.175	1.000
14.303	-0.072	0.361	14.601	0.408	0.556	14.655	-0.387	1.000
14.071	-0.054	0.361	14.767	0.137	0.583	14.606	0.091	0.972
14.071	0.612	0.389	14.372	0.625	0.583	14.641	0.012	0.972
14.357	0.592	0.389	14.710	-0.275	0.583	14.504	0.286	1.000
14.109	-0.056	0.389	14.633	0.365	0.556	14.387	0.512	1.000
14.394	-0.102	0.389	14.457	0.561	0.583	14.626	0.015	1.000
13.863	-0.053	0.306	14.997	-0.608	0.556	14.624	0.052	0.972
13.756	-0.059	0.306	14.888	-0.470	0.583	14.622	-0.321	0.972
13.878	-0.044	0.278	14.964	-0.243	0.556	14.646	-0.356	0.972
13.703	-0.062	0.306	14.848	-0.003	0.556	14.496	0.325	0.972
13.933	0.318	0.278	15.189	-0.776	0.583	14.348	0.588	0.972
13.803	-0.069	0.333	15.015	-0.639	0.583	14.660	-0.063	1.000
13.663	0.338	0.306	15.149	-0.678	0.583	14.362	0.028	1.000

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.463	0.283	0.333	15.188	-0.820	0.556	14.495	-0.147	0.972
13.544	-0.074	0.306	15.074	-0.727	0.583	14.631	-0.353	1.000
13.672	-0.042	0.278	15.182	-0.730	0.556	14.365	0.548	1.000
13.728	0.293	0.278	15.009	-0.340	0.556	14.549	-0.214	0.972
13.924	0.491	0.333	15.098	-0.534	0.556	14.490	-0.140	1.000
13.779	0.300	0.278	15.162	-0.681	0.556	14.323	0.623	0.972
13.569	-0.042	0.278	15.170	-0.726	0.583	14.448	0.400	1.000
13.525	0.257	0.278	14.896	-0.099	0.556	14.414	-0.038	1.000
13.915	-0.058	0.333	15.032	-0.388	0.556	14.588	0.130	0.972
13.620	-0.042	0.278	14.899	-0.482	0.556	14.522	0.247	1.000
13.517	-0.042	0.278	15.086	-0.532	0.583	14.539	-0.210	1.000
13.859	-0.063	0.333	14.872	-0.051	0.556	14.441	-0.079	0.972
13.613	0.321	0.306	14.816	0.043	0.583	14.335	0.061	1.000
13.692	-0.083	0.333	14.953	-0.244	0.583	14.552	0.209	0.972
13.868	0.396	0.306	14.824	0.045	0.556	14.540	0.209	1.000
13.576	0.267	0.278	15.020	-0.388	0.583	14.574	-0.249	0.972
13.466	-0.043	0.278	14.773	0.138	0.556	14.584	-0.281	1.000
13.636	-0.091	0.333	15.128	-0.629	0.583	14.476	0.364	0.972
13.677	0.285	0.278	14.953	-0.553	0.583	14.515	0.287	0.972
13.724	-0.042	0.278	15.064	-0.484	0.583	14.408	0.475	1.000
13.597	-0.070	0.306	14.998	-0.340	0.583	14.457	0.402	0.972
13.512	0.311	0.333	14.786	-0.348	0.583	14.394	0.516	0.972
13.662	0.389	0.333	15.148	-0.828	0.556	14.388	-0.005	1.000
13.831	0.307	0.278	14.886	-0.100	0.583	14.358	0.020	0.972

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.809	-0.056	0.306	15.059	-0.694	0.556	14.609	0.054	1.000
13.474	0.247	0.278	14.975	-0.292	0.583	14.465	-0.106	1.000
13.765	0.434	0.333	15.029	-0.651	0.556	14.428	0.438	1.000
13.563	0.303	0.306	14.840	-0.005	0.583	14.468	-0.113	0.972
13.525	-0.106	0.333	14.987	-0.291	0.556	14.675	-0.067	0.972
13.817	0.383	0.306	14.792	0.090	0.583	14.416	0.478	0.972
13.561	0.338	0.333	15.102	-0.772	0.583	14.319	0.619	1.000
13.580	-0.098	0.333	15.120	-0.583	0.556	14.658	-0.027	0.972
13.916	-0.052	0.306	14.830	-0.400	0.556	14.575	0.132	1.000
13.827	-0.043	0.278	14.919	-0.147	0.556	14.331	0.054	0.972
13.817	0.455	0.333	15.201	-0.780	0.556	14.676	-0.102	1.000
13.513	0.284	0.306	14.921	-0.511	0.583	14.562	-0.245	1.000
13.765	0.369	0.306	14.931	-0.196	0.583	14.343	0.584	1.000
13.469	-0.113	0.333	14.932	-0.523	0.556	14.533	0.248	0.972
13.650	-0.066	0.306	15.089	-0.738	0.556	14.671	-0.392	0.972
13.882	0.313	0.278	14.984	-0.596	0.583	14.485	0.324	1.000
13.627	0.276	0.278	15.141	-0.632	0.556	14.557	0.170	1.000
13.611	0.364	0.333	14.863	-0.052	0.583	14.592	0.093	1.000
13.930	-0.046	0.278	15.131	-0.816	0.583	14.414	-0.046	0.972
13.870	0.474	0.333	14.799	0.092	0.556	14.467	0.362	1.000
13.920	0.408	0.306	14.864	-0.441	0.556	14.522	-0.180	0.972
13.490	-0.077	0.306	15.054	-0.437	0.556	14.570	0.170	0.972
13.713	0.412	0.333	14.821	-0.388	0.583	14.599	-0.285	0.972
13.463	0.265	0.306	14.942	-0.195	0.556	14.440	-0.072	1.000

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.775	-0.042	0.278	14.965	-0.565	0.556	14.437	0.441	0.972
13.714	0.354	0.306	15.107	-0.581	0.583	14.643	-0.024	1.000
13.747	-0.075	0.333	15.076	-0.485	0.556	14.823	-0.454	1.000
14.445	-0.098	0.306	15.119	-0.783	0.556	14.759	-0.504	1.000
14.238	0.432	0.306	15.169	-0.813	0.583	14.705	-0.456	1.000
13.985	0.322	0.278	14.909	-0.148	0.583	14.680	-0.421	1.000
14.341	-0.081	0.278	15.045	-0.683	0.583	14.760	-0.265	0.972
14.395	0.291	0.278	15.042	-0.436	0.583	14.693	-0.141	1.000
14.363	-0.082	0.333	14.794	-0.361	0.556	14.791	-0.376	1.000
14.201	0.532	0.333	14.855	-0.429	0.583	14.742	-0.258	1.000
14.343	0.416	0.306	14.778	-0.332	0.611	14.810	-0.385	0.972
14.196	-0.059	0.333	14.422	0.595	0.611	14.726	-0.186	0.972
14.443	-0.098	0.278	14.408	-0.041	0.611	14.774	-0.337	1.000
14.129	-0.056	0.306	14.736	0.180	0.611	14.720	-0.463	0.972
14.191	0.323	0.278	15.052	-0.483	0.611	14.827	-0.424	0.972
14.392	-0.089	0.278	14.534	0.485	0.611	14.807	-0.415	1.000
14.185	0.435	0.306	15.158	-0.723	0.611	14.726	-0.219	1.000
14.288	-0.071	0.306	14.703	-0.259	0.611	14.730	-0.490	1.000
14.239	-0.068	0.278	14.380	0.627	0.611	14.776	-0.305	0.972
14.418	-0.093	0.333	14.877	-0.102	0.611	14.840	-0.498	0.972
14.084	-0.053	0.333	14.942	-0.245	0.611	14.743	-0.226	0.972
14.344	0.302	0.278	14.657	0.316	0.611	14.745	-0.498	0.972
14.033	0.518	0.333	14.940	-0.539	0.611	14.709	-0.180	1.000
14.085	-0.054	0.278	15.030	-0.436	0.611	14.709	-0.146	0.972

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.445	0.385	0.306	15.116	-0.627	0.611	14.844	-0.464	0.972
14.290	-0.074	0.278	14.854	-0.055	0.611	14.771	-0.533	0.972
13.969	-0.051	0.306	14.599	0.403	0.611	14.793	-0.345	0.972
14.139	0.326	0.278	14.663	-0.224	0.611	14.794	-0.480	1.000
14.367	0.507	0.333	14.685	0.271	0.611	14.692	-0.107	0.972
14.022	-0.052	0.306	15.137	-0.675	0.611	14.804	-0.522	0.972
14.131	0.435	0.306	14.742	-0.294	0.611	14.695	-0.428	0.972
14.472	0.467	0.333	14.461	0.561	0.611	14.758	-0.297	1.000
14.291	0.426	0.306	14.832	-0.007	0.611			
14.257	0.529	0.333	14.629	0.360	0.611			
14.140	-0.055	0.333	14.362	-0.016	0.611			
14.182	-0.059	0.306						

用于透平叶片的内部核心轮廓

技术领域

本发明涉及一种燃气透平的一个级的叶片，尤其涉及第二级透平叶片的内部核心轮廓。

为了达到包括总体改良的效率和翼面负荷在内的设计目标，对于燃气透平的热气通道部分的每一级，都必须满足许多系统需求。特别是，透平部的第二级的叶片必须满足该特殊级的运行需求，并满足叶片冷却面积和壁厚的要求。内部冷却需求必须达到最优化，即必须使一个特殊的内部核心轮廓满足该级性能需求，从而使透平在安全的、有效的和平稳的状态下运行。

发明内容

根据本发明的一个优选实施例，提供一种特殊的用于燃气透平的叶片（优选第二级叶片）的内部核心轮廓，以提高燃气透平的性能。应该理解，第二级叶片翼面的外部翼形提高了透平的不同级之间的相互作用，提供了改善的气动效率和机械负载。用于优选叶片的外部翼形在一个共同专利申请中提出，该共同专利申请号为 No. 10/320,655，于 2002 年 12 月 17 日提交，名称为“透平叶片的翼形”（“Airfoil Shape for a Turbine Bucket”）（Atty. Dkt. 839-1347），其公开的内容在此引入作为参考。同样的，内部核心的形状也是重要的，这不仅由于结构的原因，而且由于要以合适的壁厚达到内部冷却的最优化。

叶片内部核心轮廓通过多个点的一种特殊分布确定，所述点的分布满足必要的结构和冷却需求，借以获得提高的透平性能。这些点的这种特殊分布确定了内部标称核心轮廓，该分布由下面表 I 中 X、Y 和 Z 的笛卡儿坐标确定。对应于表 I 中示出的坐标值的 3700

个点，是用于低温即室温下的叶片，在沿着叶片翼面的长度方向不同的横截面处取的。正的 X、Y 和 Z 的方向分别为轴向朝向透平排气端、从发动机旋转方向的切向看向后的方向和径向向外朝向叶片顶部。X 和 Y 的坐标以长度单位给出，例如以英寸为单位，并且在各 Z 值处平滑地相结合，从而形成一个光滑、连续的内部核心轮廓横截面。Z 坐标以无量纲形式从 0 到 1 给出。通过将例如以英寸为单位的叶片高度尺寸，乘以表 I 的无量纲 Z 值，就可以获得叶片的内部核心轮廓。将在 X-Y 平面内确定的每个内部核心轮廓截面与 Z 方向上相邻的轮廓截面平滑地连结，则可形成完整的内部叶片核心轮廓。

优选的第二级透平叶片包括侧壁表面，若干肋在所述侧壁表面内部间延伸，并与所述侧壁一体。这些肋彼此间隔，并与叶片侧壁的内壁表面一起形成内部冷却通道，优选的是，沿着叶片值方向螺旋构形。X 和 Y 坐标之间延伸以形成在各 Z 值的等长度面上的轮廓截面的光滑连续的弧或线沿着冷却通道的内壁表面，并在沿着各侧壁的相邻的通道之间延伸。因此，每个内部核心轮廓截面具有包络部分，所述包络部分穿过介于肋和每个侧壁之间的结合部分，并沿着冷却通道的侧壁。这些内部核心轮廓截面至少在叶片的翼面部分，通常是翼面形状。

应该理解，因为在应用中每个叶片升温，由于机械负载和温度的原因，内部核心轮廓会变化。因此，由 X、Y 和 Z 的坐标给出的在低温或室温下的轮廓，是用于制造目的。由于制造的内部叶片核心轮廓可能与下面表中给出的标称轮廓不同，所以，在垂直于沿着标称轮廓任何截面位置的方向，从标称轮廓加上或减去 0.039 英寸的长度，则确定用于这种内部叶片核心轮廓的轮廓包络。所述轮廓对于这个变化是足以承受不会损害叶片的机械性能、冷却性能和气动性能。

也应该理解，叶片可以按几何比例增加或减小，从而用于引进

相似的透平设计。因此，下面给出的内部标称核心轮廓的以英寸为单位的 X 和 Y 坐标以及无量纲 Z 坐标，当 Z 坐标转换成以英寸为单位时，可以是相同常数或数值的函数。也就是说，以英寸为单位的 X 、 Y 和 Z 坐标可以乘以或除以同一个常数或数值，从而提供内部叶片核心轮廓按比例增加或减小的形式，同时保持核心轮廓的截面形状。

根据本发明的一个优选实施例，提供一种透平叶片，该叶片包括翼面、平台、叶根和楔形榫，具有基本上与表 I 中列出的 X 、 Y 和 Z 笛卡儿坐标值一致的内部标称核心轮廓，其中 Z 值是从 0 到 1 的无量纲值，可通过将 Z 值乘以以英寸为单位的叶片高度，将 Z 转换成以英寸为单位的 Z 长度，并且其中 X 和 Y 是以英寸为单位的长度，当用平滑连续的弧将所述 X 和 Y 相连接时，形成了沿着叶片在每个 Z 值处的内部核心轮廓截面，在 Z 值处的轮廓截面彼此互相平滑地连结，从而形成叶片内部核心轮廓。

根据本发明的一个优选实施例，提供一种透平叶片，该叶片包括翼面、平台、叶根和楔形榫，具有基本上与表 I 中列出的 X 、 Y 和 Z 笛卡儿坐标值一致的内部标称核心轮廓，其中 Z 值是从 0 到 1 的无量纲值，可通过将 Z 值乘以以英寸为单位的叶片高度，将 Z 转换成以英寸为单位的 Z 长度，并且其中 X 和 Y 是以英寸为单位的长度，当将所述 X 和 Y 与平滑连续的弧相连接时，形成沿着叶片在每个 Z 值处的内部核心轮廓截面，在 Z 值处的轮廓截面彼此互相平滑地连结，从而形成叶片内部核心轮廓，其中 X 、 Y 和 Z 值作为相同常数或数值的函数可按比例变化，从而提供按比例增加或按比例减小的内部核心轮廓。

根据本发明的一个优选实施例，提供一种透平，该透平包括具有多个叶片的透平叶轮，每个叶片包括翼面、平台、叶根和楔形榫，每个叶片具有基本上与表 I 中列出的 X 、 Y 和 Z 笛卡儿坐标值一致的内部标称核心轮廓，其中 Z 值是从 0 到 1 的无量纲值，可通过将

Z 值乘以以英寸为单位的叶片高度，将 Z 转换成以英寸为单位的 Z 长度，并且其中 X 和 Y 是以英寸为单位的长度，当用平滑连续的弧将所述 X 和 Y 相连接时，沿着叶片在各 Z 值处形成内部核心轮廓截面，在各 Z 值处的轮廓截面彼此互相平滑地连结，从而形成叶片内部核心轮廓。

附图说明

图 1 是穿过燃气透平的多个级的热气通道示意图，并图解了第二级叶片的翼面；

图 2 是根据本发明的一个优选实施例的一个叶片的透视图，结合叶片的平台、叶根和楔形榫对其进行说明；

图 3 是图 2 中叶片和与其相连的翼面和平台的径向向内看的视图；

图 4、图 5 和图 6 是沿着翼面高度方向，分别在大约 85%翼展和齿距以及 5%翼展位置截取的横断面剖视图，这些图说明了冷却通道和典型的叶片内部核心轮廓的剖面；

图 7 和图 8 分别为从叶片两侧看去的外侧正视图，叶片的外表面由虚线表示，叶片的内部核心轮廓由实线表示；

图 9 和图 10 分别为从叶片两侧看去的透视图，叶片的外表面由虚线表示，叶片的内部核心轮廓由实线表示。

具体实施方式

现在参考附图，尤其是图 1，该图图解了包括多个透平级的燃气透平 12 的一个热气通道，该通道总体在图中以 10 表示。图中示出三个级。例如，第一级包括多个周向隔开的喷嘴 14 和叶片 16。喷嘴沿周向彼此间隔，并固定在转子轴的周围。当然，第一级叶片 16 安装在透平转子 17 上。燃气透平 12 的第二级也示出，包括多个周向间隔的喷嘴 18 和安装在转子 17 上周向间隔的叶片 20。第三级也示出，包括多个周向间隔的喷嘴 22 和安装在转子 17 上的叶片 24。应该理解，喷嘴和叶片处于燃气透平 12 的热气通道 10 中，

通过热气通道 10 的热气流的方向由箭头 26 指示。

参考图 2, 应该理解, 这些叶片, 例如, 第二级的叶片 20 安装在转子上, 形成转子 17 的一部分, 转子未示出, 并且所述叶片 20 包括平台 30、叶根 37 和楔形榫 34。因此, 每个叶片 20 都安装有一个基本轴向或近轴向的入口楔形榫 34, 用于和转子 17 上的形状互补搭配的楔形榫 (未示出) 相连接。但是可以安装一个入口楔形榫。还应该理解, 每个叶片 20 都有一个如图 2-3 所示的翼面 32。因此, 在从叶片根部 31 到叶片顶部 33 间的任一横截面处, 每个叶片 20 都有一个外部叶片翼面轮廓, 该轮廓以如图 4-6 所示的翼面 32 的形状为特征。在第二级透平叶片的这个优选实施例中有六十个叶片翼面。虽然不够成本发明的一个部分, 但是第二级叶片翼面 32 包括多个一般为螺旋形状的内部冷却通道 35 (图 4-6), 从而构成多个空气冷却回路。这些空气冷却回路沿着翼面 32, 从翼面 32 向在出口位置的热气通道 (未示出) 排气。

更具体而言, 翼面 32 包括凸的和凹的外壁表面, 即分别为压力面 42 和负压面 44 (图 3), 它们和内部核心轮廓 40 (图 4-6) 共同确定一个翼面壁厚 “t”。翼面 32 还包括多个肋 46, 这些肋在翼面相对的侧壁 48 之间延伸。肋 46 分别在叶片的前缘 52 和尾缘 54 之间互相间隔, 从而与叶片侧壁 48 的内壁表面部分 49 一起, 确定多个通常为螺旋形状的内部冷却通道 35。

空间中有一组独特的形成合第二级叶片内核轮廓的点的分布, 能够满足该级需求, 即叶片冷却面积, 壁厚并可制造。确定叶片内部核心轮廓 40 的点的这种特殊分布包括与透平转动轴相关的 3700 个点的分布。在下面表 I 中给出的 X、Y 和 Z 值的笛卡儿坐标系确定了叶片翼面 32 沿着其长度方向在不同位置处的该内部核心轮廓 40。虽然当数值作适当变换时也可以用其它的长度单位, 但是在表 I 中以英寸为单位列出 X 和 Y 坐标的坐标值。在表 I 中 Z 值以无量纲形式从 0~1 列出。要将 Z 值转换成 Z 的坐标值, 例如以英寸为

单位，那么将表中给出的无量纲 Z 值乘以以英寸为单位的叶片高度就可以。叶片高度从楔形榫 34 连结部位延伸到翼面的顶盖 33。笛卡儿坐标系具有正交关系的 X 、 Y 和 Z 坐标轴，并且 X 轴与透平转子中心线平行，即旋转轴线和正的 X 坐标值是轴向朝向尾部，也就是透平的排气端。正的 Y 坐标值在转子的旋转方向上切向向后，正的 Z 坐标值径向向外延伸至叶片顶部。

在垂直于 X — Y 平面的 Z 方向上，通过确定给定位置处的 X 和 Y 的坐标值，在沿着翼面的长度方向每个 Z 值处就可以确定叶片的内部核心轮廓 40，例如叶片翼面部分，在图 4—6 中由虚线示出。通过用光滑连续的弧将 X 和 Y 值连结，就可以固定每个 Z 值处的每个内部核心轮廓 40。介于长度 Z 之间的不同内部位置的内部核心轮廓这样确定，通过光滑地连结彼此相邻的轮廓截面 40，从而形成核心轮廓。这些值描绘出在周围的非运行或非热条件下的内部核心轮廓。

X 和 Y 坐标之间延伸以形成各 Z 值处的截面轮廓 40 的光滑连续的弧沿着内壁表面的部分 49，并在沿着各侧壁 48 的相邻的通道 35 之间延伸，其中所述弧用于确定在各 Z 值处的每个轮廓截面 40。因此，每个内部核心轮廓 40 都有包络部分，该包络部分穿过介于肋 46 和侧壁 48 之间的结合部分，并与冷却通道的侧壁同向。叶片 20 的内部核心轮廓 40 在图 7—10 中由粗线条示出，并延伸至翼面 32、平台 30 和楔形榫 34 中。表 I 中 X 、 Y 和 Z 的坐标值用于叶片的内部核心轮廓，该叶片包括翼面 32、平台 30 和楔形榫 34。

表 I 的数值产生并示出至小数点后三位，用于确定翼面的内部核心轮廓。在翼面的实际内部轮廓中，必须考虑通常的制造公差以及涂层。因此，表 I 中给出的用于轮廓的值是用于标称的核心轮廓。因此应当理解，通常的±制造公差，即包括任何涂层厚度在内的±值被添加到下面表 I 中给出的 X 和 Y 值中。因此，在垂直于沿着内部核心轮廓的任何表面位置的方向上，±0.039 英寸的长度为这

个特殊的叶片设计和透平确定了一个内部核心轮廓包络，即在标称低温或室温下，在实际的内部核心轮廓上测量的点和同温下如下面表中给出的那些点的理想分布之间变化的范围。内部核心轮廓 40 相对于这个变化范围是足以承受的，不损害机械性能和冷却性能。

下面表 I 中给出的坐标值提供了用于叶片 20 的优选的标称内部核心轮廓包络。

表 I

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.299	0.221	0.111	14.033	-0.051	0.278	14.809	0.040	0.611
13.089	0.144	0.111	14.078	0.432	0.306	14.567	0.445	0.611
13.385	0.210	0.028	13.978	0.506	0.333	14.909	-0.496	0.611
13.232	0.229	0.056	14.393	-0.087	0.306	14.541	-0.125	0.611
13.096	0.094	0.111	14.136	-0.058	0.278	14.999	-0.625	0.611
13.250	0.226	0.000	14.187	-0.063	0.278	15.073	-0.531	0.611
13.405	0.026	0.028	13.971	-0.055	0.333	14.877	-0.455	0.611
13.148	0.226	0.000	14.088	0.526	0.333	15.113	-0.802	0.611
13.287	0.041	0.111	14.076	-0.053	0.306	14.986	-0.340	0.611
13.132	0.217	0.056	14.025	0.426	0.306	15.085	-0.757	0.611
13.149	0.058	0.056	13.982	-0.048	0.278	15.149	-0.806	0.611
13.149	0.058	0.056	14.308	-0.072	0.333	14.761	0.134	0.611
13.149	0.058	0.083	14.420	0.489	0.333	14.812	-0.372	0.611
13.107	0.192	0.111	14.144	0.532	0.333	14.785	0.087	0.611
13.104	0.080	0.028	14.235	-0.064	0.306	14.711	0.226	0.611
13.334	0.216	0.056	14.473	-0.107	0.333	15.028	-0.669	0.611
13.180	0.234	0.083	14.252	-0.064	0.333	14.499	0.524	0.611
13.199	0.233	0.000	14.341	-0.078	0.306	14.844	-0.413	0.611
13.196	0.233	0.111	14.036	0.325	0.278	15.057	-0.713	0.611
13.405	0.026	0.083	14.242	0.318	0.278	15.008	-0.388	0.611
13.236	0.047	0.111	14.444	0.276	0.278	14.623	-0.190	0.611
13.089	0.147	0.000	14.088	0.326	0.278	14.970	-0.582	0.611
13.283	0.222	0.083	14.028	-0.053	0.333	14.899	-0.150	0.611

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.131	0.062	0.000	14.293	0.312	0.278	15.177	-0.772	0.611
13.149	0.058	0.083	14.312	0.520	0.333	14.453	-0.068	0.611
13.233	0.047	0.000	13.973	0.418	0.306	14.498	-0.096	0.611
13.350	0.214	0.111	14.395	0.402	0.306	15.095	-0.579	0.611
13.334	0.216	0.083	13.921	0.551	0.361	14.336	0.656	0.611
13.149	0.057	0.028	14.417	-0.096	0.361	14.583	-0.157	0.611
13.200	0.051	0.083	13.896	-0.065	0.361	14.964	-0.293	0.611
13.303	0.039	0.056	14.378	0.571	0.361	14.921	-0.197	0.611
13.180	0.234	0.056	13.560	0.363	0.361	13.404	0.433	0.722
13.284	0.041	0.000	13.814	0.506	0.361	13.391	0.380	0.694
13.094	0.096	0.000	14.187	-0.058	0.361	13.395	0.330	0.694
13.438	0.022	0.000	13.659	0.425	0.361	13.440	0.533	0.750
13.088	0.128	0.083	14.245	-0.064	0.361	13.411	0.426	0.694
13.386	0.028	0.000	13.781	-0.082	0.361	13.407	0.384	0.722
13.354	0.032	0.083	14.013	-0.056	0.361	13.417	0.489	0.750
13.404	0.207	0.000	14.679	0.354	0.389	13.437	0.470	0.694
13.334	0.216	0.028	14.485	0.524	0.361	13.425	0.290	0.694
13.385	0.210	0.056	14.715	0.308	0.389	13.431	0.545	0.778
13.180	0.234	0.028	14.623	0.418	0.361	13.444	0.600	0.806
13.104	0.080	0.083	14.534	0.492	0.361	13.420	0.441	0.750
13.200	0.051	0.028	14.846	0.117	0.389	13.425	0.478	0.722
13.283	0.222	0.056	14.749	0.262	0.389	13.431	0.498	0.778
13.354	0.032	0.028	14.815	0.166	0.389	13.440	0.553	0.806
13.338	0.034	0.111	14.707	-0.249	0.389	13.435	0.343	0.722

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.405	0.026	0.056	14.843	0.146	0.361	13.599	0.486	0.806
13.303	0.038	0.028	14.956	-0.428	0.361	13.863	0.882	0.806
13.146	0.226	0.111	14.685	-0.209	0.361	13.454	0.456	0.778
13.088	0.128	0.028	14.659	-0.217	0.389	13.825	0.416	0.806
13.251	0.045	0.056	14.511	0.513	0.389	13.514	0.663	0.778
13.335	0.034	0.000	14.557	0.478	0.389	13.705	0.809	0.778
13.200	0.051	0.056	14.809	0.194	0.361	13.504	0.491	0.806
13.099	0.178	0.083	14.875	0.098	0.361	13.689	0.420	0.778
13.401	0.208	0.111	14.580	0.457	0.361	13.842	0.853	0.778
13.104	0.080	0.056	14.740	0.288	0.361	13.682	0.827	0.806
13.247	0.227	0.111	14.968	-0.477	0.389	13.602	0.776	0.806
13.441	0.022	0.111	14.557	-0.161	0.389	13.551	0.489	0.806
13.302	0.220	0.000	14.914	-0.387	0.361	13.816	0.875	0.806
13.354	0.032	0.056	14.755	-0.282	0.389	13.496	0.434	0.778
13.149	0.057	0.028	14.905	0.017	0.389	13.781	0.434	0.806
13.437	0.203	0.028	14.735	-0.238	0.361	13.483	0.626	0.778
13.437	0.204	0.083	14.664	0.376	0.361	13.662	0.786	0.778
13.252	0.045	0.083	14.966	-0.052	0.361	13.462	0.512	0.806
13.390	0.028	0.111	14.872	-0.347	0.361	13.545	0.433	0.778
13.231	0.229	0.028	14.783	0.214	0.389	13.565	0.746	0.806
13.134	0.061	0.111	14.906	0.048	0.361	13.504	0.491	0.806
13.232	0.229	0.083	14.936	-0.002	0.361	13.725	0.847	0.806
13.185	0.053	0.111	14.876	0.067	0.389	13.737	0.451	0.806
13.099	0.178	0.056	14.933	-0.033	0.389	13.455	0.587	0.778

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.181	0.053	0.000	14.600	0.439	0.389	13.641	0.803	0.806
13.252	0.045	0.028	14.609	-0.187	0.389	13.622	0.760	0.778
13.132	0.217	0.083	14.929	-0.434	0.389	13.593	0.432	0.778
13.283	0.222	0.028	14.641	0.397	0.389	13.641	0.428	0.778
13.196	0.233	0.111	14.961	-0.084	0.389	13.828	0.380	0.778
13.132	0.217	0.028	14.802	-0.316	0.389	13.531	0.713	0.806
13.353	0.214	0.000	14.847	-0.353	0.389	13.692	0.467	0.806
13.437	0.203	0.056	14.504	-0.139	0.389	13.583	0.730	0.778
13.088	0.128	0.056	14.889	-0.393	0.389	13.795	0.843	0.778
13.109	0.194	0.000	15.246	-0.848	0.389	13.782	0.396	0.778
13.303	0.039	0.083	15.246	-0.628	0.361	13.499	0.677	0.806
13.099	0.178	0.028	15.294	-0.824	0.389	13.770	0.863	0.806
13.385	0.210	0.083	15.186	-0.555	0.389	13.646	0.479	0.806
13.712	0.170	0.000	15.006	-0.521	0.389	13.874	0.364	0.778
13.539	0.191	0.028	15.155	-0.413	0.361	13.869	0.398	0.806
13.815	-0.024	0.083	15.140	-0.448	0.389	13.547	0.698	0.778
13.744	0.166	0.083	15.104	-0.308	0.361	13.470	0.640	0.806
13.847	0.153	0.028	15.040	-0.239	0.389	13.749	0.829	0.778
13.709	0.170	0.111	15.294	-0.822	0.389	13.496	0.434	0.778
13.764	-0.018	0.083	15.179	-0.466	0.361	13.736	0.409	0.778
13.610	0.001	0.083	15.078	-0.612	0.389	13.963	0.328	0.778
13.657	0.177	0.111	15.267	-0.682	0.361	14.137	0.242	0.778
13.811	0.158	0.111	15.078	-0.256	0.361	14.051	0.288	0.778
13.760	0.164	0.111	15.091	-0.343	0.389	13.939	0.859	0.778

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.508	0.013	0.028	15.254	-0.715	0.389	14.096	0.845	0.806
13.662	-0.006	0.028	15.130	-0.361	0.361	14.291	0.719	0.778
13.559	0.007	0.083	15.176	-0.700	0.361	14.171	0.800	0.778
13.558	0.188	0.000	15.182	-0.751	0.389	14.038	0.311	0.806
13.590	0.185	0.028	15.105	-0.607	0.361	14.293	0.714	0.806
13.814	0.157	0.000	15.148	-0.704	0.389	14.236	0.179	0.806
13.965	0.139	0.111	15.014	-0.187	0.389	13.987	0.855	0.778
13.918	-0.037	0.028	15.202	-0.520	0.361	13.919	0.346	0.778
13.968	0.138	0.000	15.275	-0.769	0.389	14.299	0.137	0.778
13.851	-0.029	0.111	15.113	-0.658	0.389	14.094	0.266	0.778
13.488	0.197	0.028	15.116	-0.396	0.389	14.127	0.820	0.778
13.865	0.151	0.000	15.042	-0.566	0.389	14.253	0.749	0.778
13.642	0.178	0.028	15.163	-0.501	0.389	14.051	0.861	0.806
13.862	0.152	0.111	15.215	-0.799	0.389	13.997	0.335	0.806
13.917	0.144	0.000	14.988	-0.136	0.389	14.257	0.745	0.806
13.456	0.020	0.056	15.066	-0.291	0.389	14.198	0.208	0.806
13.693	0.172	0.056	15.232	-0.661	0.389	14.034	0.847	0.778
13.953	-0.041	0.111	15.209	-0.608	0.389	13.890	0.858	0.778
13.660	0.176	0.000	14.730	-0.218	0.333	14.005	0.873	0.806
13.713	-0.012	0.056	14.541	0.339	0.306	13.955	0.357	0.806
13.867	-0.031	0.028	14.632	0.283	0.306	14.159	0.235	0.806
13.867	-0.031	0.083	14.644	-0.145	0.278	14.081	0.835	0.778
13.744	0.166	0.056	14.696	0.299	0.333	14.178	0.218	0.778
13.744	0.166	0.028	14.922	0.048	0.333	13.911	0.883	0.806

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.815	-0.025	0.028	14.600	-0.140	0.306	13.958	0.880	0.806
13.898	0.147	0.056	14.650	-0.158	0.306	14.119	0.261	0.806
13.508	0.013	0.056	14.541	0.241	0.278	14.310	0.120	0.806
13.899	-0.035	0.000	14.778	-0.248	0.333	14.213	0.776	0.778
13.866	-0.031	0.056	14.521	0.440	0.333	14.008	0.308	0.778
13.848	-0.029	0.000	14.772	0.126	0.278	14.220	0.775	0.806
13.590	0.185	0.083	14.922	0.050	0.306	14.181	0.801	0.806
13.610	0.001	0.028	14.956	-0.386	0.333	13.912	0.378	0.806
13.949	0.141	0.056	14.736	0.259	0.333	14.219	0.192	0.778
13.543	0.009	0.111	14.839	-0.212	0.278	14.139	0.825	0.806
13.693	0.172	0.083	14.824	-0.280	0.333	14.079	0.287	0.806
13.555	0.189	0.111	14.613	0.374	0.333	14.259	0.165	0.778
13.488	0.197	0.056	14.843	-0.247	0.306	14.273	0.150	0.806
13.492	0.016	0.111	14.801	0.154	0.306	14.551	-0.110	0.806
13.949	0.141	0.028	14.568	0.409	0.333	14.422	0.574	0.806
13.795	0.159	0.056	14.544	-0.119	0.278	14.677	-0.253	0.806
13.748	-0.016	0.111	14.813	0.177	0.333	14.522	-0.048	0.778
13.507	0.195	0.000	14.682	-0.190	0.333	14.613	0.300	0.778
13.800	-0.022	0.111	14.588	0.220	0.278	14.657	0.214	0.778
13.713	-0.012	0.083	14.693	-0.160	0.278	14.559	0.380	0.806
13.661	-0.006	0.056	14.850	0.134	0.333	14.417	0.025	0.806
13.642	0.178	0.083	14.497	-0.110	0.306	14.583	-0.145	0.806
13.918	-0.037	0.083	14.861	0.074	0.278	14.391	0.610	0.806
13.914	0.145	0.111	14.494	-0.108	0.278	14.650	0.213	0.806

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.764	-0.018	0.056	14.527	-0.123	0.333	14.534	0.421	0.806
13.646	-0.003	0.111	14.494	0.364	0.306	14.413	0.049	0.778
13.763	0.163	0.000	14.493	0.259	0.278	14.540	0.425	0.778
13.795	0.160	0.083	14.748	-0.200	0.306	14.555	-0.082	0.778
13.610	0.001	0.056	14.869	-0.314	0.333	14.635	0.257	0.778
13.609	0.182	0.000	14.886	0.092	0.333	14.382	0.057	0.806
13.898	0.147	0.083	14.699	-0.178	0.306	14.671	0.170	0.806
13.488	0.197	0.083	14.635	0.198	0.278	14.615	-0.181	0.806
13.697	-0.010	0.111	14.681	0.175	0.278	14.565	0.384	0.778
13.457	0.020	0.028	14.718	0.220	0.306	14.360	0.646	0.806
13.455	0.201	0.000	14.887	-0.232	0.278	14.509	0.461	0.806
13.662	-0.005	0.083	14.594	-0.132	0.278	14.337	0.109	0.778
13.796	-0.022	0.000	14.890	-0.272	0.306	14.513	0.465	0.778
13.950	-0.041	0.000	14.655	0.338	0.333	14.456	0.543	0.778
13.694	-0.010	0.000	14.580	-0.142	0.333	14.394	0.617	0.778
13.745	-0.016	0.000	14.791	-0.193	0.278	14.346	0.089	0.806
13.847	0.153	0.056	14.906	0.048	0.278	14.519	-0.075	0.806
13.489	0.016	0.000	14.549	-0.124	0.306	14.605	0.297	0.806
13.815	-0.024	0.056	14.961	0.014	0.306	14.620	-0.154	0.778
13.713	-0.012	0.028	14.587	0.312	0.306	14.327	0.687	0.778
13.642	0.178	0.056	14.842	0.120	0.306	14.481	0.500	0.806
13.559	0.007	0.056	14.760	0.187	0.306	14.376	0.079	0.778
13.847	0.153	0.083	14.775	0.218	0.333	14.450	0.018	0.778
13.898	0.147	0.028	14.743	-0.176	0.278	14.485	0.504	0.778

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.559	0.007	0.028	14.675	0.252	0.306	14.425	0.580	0.778
13.949	0.141	0.083	14.817	0.101	0.278	14.590	0.342	0.778
13.643	-0.003	0.000	14.796	-0.223	0.306	14.486	-0.041	0.806
13.457	0.020	0.083	14.949	0.020	0.278	14.628	0.255	0.806
13.591	0.003	0.000	14.631	-0.165	0.333	14.452	0.537	0.806
13.764	-0.018	0.028	14.956	0.003	0.333	14.646	-0.217	0.806
13.539	0.191	0.083	14.727	0.151	0.278	14.582	0.339	0.806
13.508	0.014	0.083	14.913	-0.349	0.333	14.652	-0.190	0.778
13.590	0.185	0.056	14.937	-0.298	0.306	14.487	-0.014	0.778
13.795	0.159	0.028	14.883	0.085	0.306	14.361	0.652	0.778
13.539	0.191	0.056	14.934	-0.252	0.278	14.588	-0.118	0.778
13.693	0.172	0.028	15.275	-0.349	0.306	14.452	-0.007	0.806
13.540	0.009	0.000	15.299	-0.577	0.333	14.327	0.680	0.806
13.918	-0.037	0.056	14.993	-0.008	0.278	14.949	-0.630	0.778
14.052	0.128	0.056	15.079	-0.065	0.278	14.879	-0.269	0.778
14.360	-0.092	0.000	15.029	-0.294	0.278	14.954	-0.485	0.806
14.466	-0.104	0.111	15.334	-0.240	0.278	14.822	-0.424	0.778
13.969	-0.043	0.083	15.072	-0.384	0.306	15.007	-0.650	0.806
14.379	-0.094	0.028	15.199	-0.375	0.333	14.683	-0.227	0.778
14.430	-0.100	0.056	15.265	-0.397	0.278	15.033	-0.624	0.778
14.155	-0.066	0.000	15.155	-0.584	0.333	14.867	-0.526	0.806
14.277	-0.081	0.028	15.196	-0.484	0.306	14.807	-0.134	0.806
14.225	-0.075	0.028	15.039	-0.462	0.333	14.802	-0.092	0.778
14.463	-0.104	0.000	15.123	-0.335	0.278	14.762	-0.004	0.778

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.052	0.128	0.083	15.212	-0.263	0.306	14.751	-0.003	0.806
14.123	-0.062	0.083	15.121	-0.094	0.278	14.994	-0.536	0.778
14.221	0.108	0.111	15.054	-0.134	0.333	14.841	-0.181	0.778
14.224	0.107	0.000	15.308	-0.720	0.333	14.679	0.170	0.778
14.277	-0.081	0.083	15.400	-0.353	0.278	14.843	-0.222	0.806
14.205	0.109	0.056	15.346	-0.523	0.306	15.013	-0.615	0.806
14.327	0.094	0.000	15.206	-0.152	0.278	14.714	-0.265	0.778
14.375	0.089	0.111	15.312	-0.419	0.278	14.940	-0.648	0.806
14.462	0.078	0.028	14.983	-0.325	0.306	14.825	-0.178	0.806
14.258	-0.079	0.000	15.114	-0.229	0.333	14.742	0.040	0.778
14.000	0.134	0.083	15.171	-0.356	0.278	14.898	-0.314	0.778
14.410	0.084	0.056	15.171	-0.326	0.333	14.936	-0.403	0.778
14.379	-0.094	0.083	15.144	-0.180	0.306	14.817	-0.445	0.806
14.072	-0.056	0.028	15.076	-0.315	0.278	14.873	-0.507	0.778
14.173	0.113	0.000	15.276	-0.526	0.333	14.769	-0.046	0.806
14.276	-0.081	0.056	14.990	-0.042	0.333	14.973	-0.528	0.806
14.482	-0.106	0.028	15.304	-0.393	0.306	14.736	-0.327	0.806
14.103	0.122	0.028	15.380	-0.401	0.278	14.917	-0.607	0.806
14.429	0.081	0.000	15.231	-0.667	0.333	14.791	-0.405	0.806
14.257	0.103	0.028	15.164	-0.123	0.278	14.691	0.127	0.806
14.324	0.095	0.111	15.268	-0.709	0.333	15.013	-0.580	0.778
14.481	-0.106	0.056	15.413	-0.307	0.278	14.721	0.084	0.778
14.261	-0.079	0.111	15.314	-0.566	0.306	14.955	-0.447	0.778
14.053	-0.054	0.000	15.084	-0.182	0.333	15.044	-0.665	0.778

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.103	0.122	0.083	14.998	-0.423	0.333	15.003	-0.691	0.778
14.122	0.119	0.000	15.218	-0.376	0.278	14.967	-0.676	0.806
14.020	-0.050	0.056	15.037	-0.062	0.306	14.899	-0.548	0.778
14.257	0.103	0.083	15.028	-0.353	0.306	14.880	-0.309	0.806
14.225	-0.075	0.056	15.078	-0.502	0.333	14.936	-0.441	0.806
14.103	0.122	0.056	15.292	-0.210	0.278	14.770	-0.343	0.778
14.123	-0.062	0.028	15.237	-0.519	0.306	14.707	-0.290	0.806
14.257	0.103	0.056	15.178	-0.221	0.306	14.899	-0.353	0.806
14.072	-0.056	0.083	15.251	-0.475	0.333	14.860	-0.225	0.778
14.052	0.128	0.028	14.982	-0.273	0.278	14.764	-0.366	0.806
14.328	-0.087	0.056	15.114	-0.416	0.306	14.700	0.127	0.778
14.275	0.100	0.000	15.249	-0.181	0.278	14.848	-0.466	0.778
14.359	0.090	0.083	15.117	-0.542	0.333	14.712	0.084	0.806
14.174	-0.068	0.056	15.022	-0.088	0.333	14.974	-0.491	0.778
14.119	0.120	0.111	15.226	-0.425	0.333	14.993	-0.572	0.806
14.328	-0.087	0.028	15.358	-0.442	0.278	14.924	-0.589	0.778
14.205	0.109	0.083	15.193	-0.625	0.333	14.862	-0.266	0.806
14.430	-0.100	0.028	15.000	-0.024	0.306	14.917	-0.397	0.806
14.158	-0.066	0.111	15.074	-0.100	0.306	14.797	-0.383	0.778
13.969	-0.043	0.056	15.334	-0.437	0.306	14.822	-0.136	0.778
14.412	-0.098	0.000	15.276	-0.554	0.306	14.842	-0.485	0.806
14.170	0.114	0.111	15.375	-0.272	0.278	14.892	-0.566	0.806
14.020	-0.050	0.083	15.156	-0.449	0.306	14.788	-0.090	0.806
14.359	0.090	0.028	15.109	-0.140	0.306	14.743	-0.303	0.778

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.328	-0.087	0.083	15.365	-0.480	0.306	14.973	-0.672	0.778
14.308	0.097	0.083	15.143	-0.278	0.333	14.917	-0.358	0.778
14.480	0.075	0.000	15.244	-0.305	0.306	14.731	0.041	0.806
14.477	0.076	0.111	15.036	-0.036	0.278	14.782	-0.048	0.778
14.308	0.096	0.028	15.341	-0.681	0.333	13.648	0.688	0.694
14.462	0.078	0.056	15.321	-0.629	0.333	13.532	0.589	0.694
14.430	-0.100	0.083	15.280	-0.828	0.361	13.575	0.270	0.694
14.426	0.082	0.111	14.581	-0.156	0.361	13.828	0.248	0.694
14.359	0.090	0.056	15.244	-0.794	0.361	13.480	0.323	0.722
14.205	0.109	0.028	15.023	-0.153	0.361	13.800	0.795	0.722
14.309	-0.085	0.000	15.308	-0.791	0.361	13.585	0.670	0.722
14.002	-0.047	0.000	15.210	-0.747	0.361	13.829	0.780	0.694
14.000	0.134	0.056	15.033	-0.515	0.361	13.735	0.741	0.694
14.415	-0.098	0.111	14.528	-0.132	0.361	13.730	0.310	0.722
14.154	0.115	0.083	14.995	-0.471	0.361	13.681	0.315	0.722
14.071	-0.056	0.056	14.995	-0.102	0.361	13.778	0.256	0.694
14.016	0.133	0.111	14.775	0.241	0.361	13.848	0.809	0.722
14.174	-0.069	0.028	15.070	-0.561	0.361	13.727	0.262	0.694
14.020	-0.050	0.028	14.633	-0.182	0.361	13.624	0.701	0.722
14.000	0.134	0.028	14.828	-0.308	0.361	13.480	0.323	0.722
14.174	-0.068	0.083	15.225	-0.574	0.361	13.513	0.600	0.722
14.462	0.078	0.083	15.051	-0.205	0.361	13.548	0.636	0.722
14.379	-0.094	0.056	15.141	-0.653	0.361	13.780	0.302	0.722
14.378	0.088	0.000	14.783	-0.271	0.361	13.531	0.321	0.722

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.019	0.132	0.000	15.288	-0.737	0.361	13.676	0.266	0.694
14.154	0.115	0.028	14.703	0.333	0.361	13.665	0.730	0.722
14.070	0.126	0.000	13.407	0.033	0.528	13.781	0.763	0.694
14.104	-0.060	0.000	13.407	0.033	0.528	13.473	0.273	0.694
14.482	-0.106	0.083	13.353	0.035	0.528	13.690	0.716	0.694
14.207	-0.073	0.000	13.317	0.154	0.528	13.829	0.292	0.722
14.308	0.096	0.056	13.347	0.198	0.528	13.569	0.625	0.694
14.225	-0.075	0.083	13.295	0.105	0.528	13.878	0.794	0.694
14.410	0.084	0.028	13.412	0.284	0.528	13.581	0.321	0.722
14.123	-0.062	0.056	13.379	0.242	0.528	13.473	0.273	0.694
14.410	0.084	0.083	13.304	0.054	0.528	13.626	0.269	0.694
14.154	0.115	0.056	13.622	0.047	0.528	13.708	0.755	0.722
13.969	-0.043	0.028	13.769	0.553	0.500	13.524	0.271	0.694
13.902	-0.035	0.111	13.564	0.436	0.528	13.878	0.240	0.694
14.363	-0.092	0.111	13.551	0.009	0.500	13.498	0.551	0.694
13.504	0.196	0.111	13.485	0.363	0.528	13.466	0.511	0.694
14.005	-0.047	0.111	13.694	0.532	0.528	13.878	0.281	0.722
14.312	-0.085	0.111	13.514	0.039	0.528	13.607	0.658	0.694
13.606	0.183	0.111	13.606	0.470	0.528	13.631	0.319	0.722
14.056	-0.054	0.111	13.524	0.401	0.528	13.452	0.521	0.722
14.107	-0.060	0.111	13.787	0.585	0.528	13.753	0.777	0.722
13.452	0.202	0.111	13.461	0.035	0.528	13.481	0.561	0.722
14.210	-0.073	0.111	13.448	0.324	0.528	13.978	0.219	0.694
14.272	0.101	0.111	13.740	0.560	0.528	14.296	0.117	0.722

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.067	0.126	0.111	13.649	0.502	0.528	13.928	0.803	0.694
13.595	0.003	0.111	13.837	0.051	0.528	14.279	0.731	0.722
14.565	-0.117	0.000	13.729	0.052	0.528	14.163	0.187	0.722
14.923	0.021	0.083	13.836	0.608	0.528	14.145	0.798	0.722
14.584	-0.119	0.083	13.675	0.050	0.528	14.218	0.135	0.694
14.773	-0.142	0.111	13.783	0.052	0.528	14.264	0.113	0.694
14.635	-0.125	0.028	13.568	0.043	0.528	14.027	0.206	0.694
14.533	-0.113	0.028	13.918	0.619	0.500	14.096	0.811	0.722
14.620	-0.123	0.111	14.207	-0.012	0.528	14.076	0.191	0.694
14.667	0.052	0.056	14.096	0.672	0.528	14.270	0.731	0.694
14.820	0.034	0.028	13.944	0.044	0.528	14.253	0.142	0.722
14.615	0.059	0.083	14.308	-0.049	0.528	14.080	0.801	0.694
14.924	-0.161	0.000	13.937	0.645	0.528	14.225	0.755	0.694
14.890	0.025	0.000	13.997	0.037	0.528	13.979	0.807	0.694
14.564	0.065	0.028	14.050	0.028	0.528	14.023	0.241	0.722
14.943	-0.163	0.083	14.103	0.017	0.528	14.308	0.088	0.694
14.872	0.027	0.083	14.203	0.666	0.528	14.178	0.775	0.694
14.892	-0.157	0.056	13.989	0.658	0.528	14.312	0.703	0.694
14.734	0.045	0.111	14.306	0.638	0.528	14.236	0.757	0.722
14.788	0.037	0.000	14.042	0.668	0.528	13.947	0.823	0.722
14.513	0.071	0.028	13.886	0.628	0.528	14.208	0.166	0.722
14.533	-0.112	0.083	14.258	-0.030	0.528	14.130	0.790	0.694
14.943	-0.163	0.056	14.255	0.655	0.528	14.047	0.820	0.722
14.994	-0.169	0.083	13.890	0.048	0.528	14.191	0.779	0.722

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.939	0.019	0.111	14.155	0.003	0.528	13.975	0.256	0.722
14.892	-0.157	0.028	14.149	0.672	0.528	14.070	0.225	0.722
14.872	0.027	0.028	14.353	-0.079	0.500	13.897	0.818	0.722
14.840	-0.150	0.056	14.343	0.613	0.500	14.117	0.207	0.722
14.718	0.046	0.028	14.665	0.323	0.528	14.171	0.156	0.694
14.975	-0.167	0.000	14.489	0.526	0.528	13.928	0.230	0.694
14.722	-0.136	0.111	14.454	-0.117	0.528	13.927	0.269	0.722
14.513	0.071	0.083	14.529	0.489	0.528	13.997	0.824	0.722
14.738	-0.138	0.083	14.752	0.187	0.528	14.030	0.807	0.694
14.769	0.040	0.028	14.447	0.559	0.528	14.124	0.174	0.694
14.564	0.065	0.083	14.402	0.589	0.528	14.524	0.482	0.722
14.635	-0.125	0.056	14.637	-0.231	0.528	14.597	-0.121	0.694
14.974	0.015	0.028	14.680	-0.263	0.528	14.758	0.092	0.694
14.667	0.053	0.083	14.566	0.451	0.528	14.428	0.603	0.694
14.892	-0.157	0.083	14.502	-0.142	0.528	14.380	0.063	0.722
14.923	0.021	0.056	14.601	0.410	0.528	14.634	-0.155	0.694
14.568	-0.117	0.111	14.357	-0.070	0.528	14.437	0.006	0.694
14.789	-0.144	0.028	14.406	-0.093	0.528	14.736	0.138	0.694
14.634	0.056	0.000	14.722	-0.296	0.528	14.607	0.356	0.722
14.927	-0.161	0.111	14.593	-0.199	0.528	14.478	-0.024	0.694
14.667	0.052	0.028	14.634	0.367	0.528	14.714	-0.238	0.722
14.584	-0.119	0.056	14.695	0.279	0.528	14.462	0.560	0.722
14.580	0.063	0.111	14.763	-0.331	0.528	14.768	0.045	0.722
14.682	0.051	0.111	14.548	-0.169	0.528	14.394	0.634	0.722

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.942	0.019	0.000	14.355	0.616	0.528	14.613	-0.127	0.722
14.687	-0.131	0.056	14.724	0.233	0.528	14.463	0.566	0.694
14.635	-0.125	0.083	14.909	-0.489	0.528	14.421	0.034	0.722
14.840	-0.150	0.028	14.808	-0.370	0.500	14.670	-0.191	0.694
14.836	0.032	0.111	15.078	-0.436	0.500	14.640	0.318	0.694
14.974	0.015	0.083	15.134	-0.791	0.528	14.746	0.090	0.722
14.789	-0.144	0.083	14.913	-0.093	0.500	14.632	0.313	0.722
14.532	0.069	0.000	15.132	-0.585	0.528	14.713	0.183	0.694
14.785	0.038	0.111	14.805	0.094	0.528	14.552	0.441	0.722
14.529	0.070	0.111	15.195	-0.733	0.528	14.501	-0.027	0.722
14.923	0.021	0.028	14.998	-0.291	0.528	14.648	-0.163	0.722
14.564	0.065	0.056	15.044	-0.388	0.528	14.462	0.004	0.722
14.990	0.013	0.111	14.977	-0.572	0.528	14.705	-0.229	0.694
14.769	0.040	0.056	14.905	-0.097	0.528	14.391	0.638	0.694
14.687	-0.131	0.083	15.021	-0.340	0.528	14.519	-0.055	0.694
14.514	-0.110	0.000	15.175	-0.683	0.528	14.682	-0.200	0.722
14.873	-0.154	0.000	14.831	0.047	0.528	14.689	0.229	0.694
14.517	-0.110	0.111	15.164	-0.836	0.528	14.528	0.487	0.694
14.769	0.040	0.083	14.838	-0.408	0.528	14.746	-0.277	0.722
14.770	-0.142	0.000	14.944	-0.530	0.528	14.357	0.669	0.722
14.993	0.012	0.000	15.214	-0.784	0.528	14.577	-0.092	0.722
14.825	-0.148	0.111	15.154	-0.634	0.528	14.558	0.446	0.694
14.887	0.026	0.111	15.066	-0.437	0.528	14.679	0.225	0.722
14.583	0.063	0.000	15.042	-0.658	0.528	14.738	-0.267	0.694

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.789	-0.144	0.056	14.856	-0.001	0.528	14.496	0.527	0.694
14.994	-0.169	0.056	14.881	-0.049	0.528	14.558	-0.087	0.694
14.617	-0.123	0.000	14.873	-0.449	0.528	14.665	0.273	0.694
14.943	-0.163	0.028	15.104	-0.746	0.528	14.352	0.062	0.694
14.840	-0.150	0.083	14.779	0.141	0.528	14.587	0.404	0.694
14.718	0.046	0.056	15.089	-0.486	0.528	14.540	-0.059	0.722
14.738	-0.138	0.028	15.204	-0.825	0.528	14.770	-0.307	0.694
14.668	-0.129	0.000	14.975	-0.242	0.528	14.339	0.091	0.722
14.974	0.015	0.056	15.111	-0.535	0.528	14.395	0.034	0.694
14.687	-0.132	0.028	14.929	-0.145	0.528	14.724	0.135	0.722
14.820	0.034	0.083	14.952	-0.194	0.528	14.493	0.522	0.722
14.719	-0.136	0.000	15.010	-0.615	0.528	14.702	0.180	0.722
14.513	0.071	0.056	15.073	-0.702	0.528	14.319	0.701	0.722
14.533	-0.113	0.056	14.801	-0.369	0.528	14.614	0.362	0.694
14.738	-0.138	0.056	13.273	-0.130	0.417	14.353	0.672	0.694
14.820	0.034	0.056	13.180	-0.082	0.417	14.580	0.399	0.722
14.872	0.027	0.056	13.212	-0.041	0.444	14.428	0.598	0.722
14.839	0.031	0.000	13.444	0.279	0.417	14.656	0.269	0.722
14.584	-0.119	0.028	13.403	0.239	0.417	15.026	-0.513	0.694
14.994	-0.169	0.028	13.253	0.068	0.417	15.069	-0.606	0.694
14.737	0.044	0.000	13.358	-0.087	0.444	14.945	-0.557	0.694
14.718	0.046	0.083	13.363	0.199	0.417	15.024	-0.687	0.694
14.685	0.050	0.000	13.359	0.192	0.444	15.005	-0.467	0.694
14.822	-0.148	0.000	13.301	0.120	0.472	15.030	-0.551	0.722

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.615	0.059	0.028	13.246	0.025	0.472	14.831	-0.092	0.722
14.615	0.059	0.056	13.302	-0.088	0.444	14.929	-0.322	0.722
15.455	-0.226	0.056	13.256	-0.026	0.472	15.093	-0.688	0.722
15.493	-0.101	0.000	13.228	0.012	0.444	15.042	-0.741	0.722
15.353	-0.213	0.083	13.418	-0.041	0.472	15.018	-0.697	0.722
15.246	-0.018	0.111	13.363	-0.044	0.472	14.915	-0.525	0.722
15.454	-0.044	0.000	13.443	0.288	0.472	14.904	-0.233	0.694
15.078	-0.180	0.000	13.334	0.164	0.472	14.831	-0.388	0.694
15.026	0.008	0.056	13.217	-0.121	0.417	14.942	-0.567	0.722
15.249	-0.019	0.000	13.288	0.113	0.417	14.851	-0.138	0.722
15.502	-0.050	0.111	13.414	-0.083	0.444	15.119	-0.741	0.694
15.384	-0.036	0.056	13.397	0.234	0.444	14.823	-0.046	0.694
15.282	-0.023	0.028	13.247	-0.080	0.444	14.890	-0.230	0.722
15.297	-0.025	0.111	13.330	-0.129	0.417	15.009	-0.506	0.722
15.045	-0.175	0.083	13.405	0.248	0.472	14.861	-0.441	0.722
15.097	-0.182	0.056	13.256	0.060	0.444	15.083	-0.724	0.722
15.481	-0.148	0.111	13.436	0.274	0.444	14.949	-0.368	0.722
15.301	-0.026	0.000	13.220	0.022	0.417	14.776	-0.317	0.722
15.403	-0.038	0.000	13.192	-0.027	0.417	14.805	-0.357	0.722
15.469	-0.198	0.111	13.325	0.157	0.417	14.999	-0.643	0.694
15.097	-0.182	0.028	13.308	-0.042	0.472	14.944	-0.327	0.694
15.404	-0.219	0.056	13.387	-0.124	0.417	14.860	-0.430	0.694
15.286	-0.205	0.111	13.289	0.106	0.444	14.917	-0.514	0.694
15.498	-0.082	0.028	13.369	0.207	0.472	14.844	-0.093	0.694

X	Y	Z'	X	Y	Z'	X	Y	Z'
15.436	-0.042	0.056	13.363	-0.044	0.472	14.802	0.000	0.694
15.333	-0.029	0.083	13.443	-0.117	0.417	15.049	-0.732	0.694
15.333	-0.029	0.028	13.270	0.074	0.472	14.968	-0.610	0.722
15.506	-0.051	0.000	13.323	0.150	0.444	15.076	-0.768	0.694
15.148	-0.188	0.028	13.621	0.422	0.417	15.111	-0.698	0.694
15.451	-0.044	0.111	13.766	0.511	0.417	14.889	-0.472	0.694
15.337	-0.211	0.111	13.668	0.453	0.417	15.047	-0.559	0.694
15.388	-0.218	0.111	13.476	0.312	0.444	14.964	-0.374	0.694
15.282	-0.023	0.056	13.698	0.482	0.444	14.834	-0.399	0.722
15.498	-0.082	0.083	13.637	-0.017	0.472	14.780	0.046	0.694
15.230	-0.017	0.028	13.580	-0.060	0.444	14.884	-0.186	0.694
15.147	-0.007	0.000	13.692	-0.011	0.472	14.984	-0.420	0.694
15.333	-0.030	0.056	13.528	-0.029	0.472	14.972	-0.600	0.694
15.353	-0.213	0.028	13.780	-0.062	0.417	14.989	-0.460	0.722
15.148	-0.188	0.083	13.653	0.466	0.472	15.072	-0.642	0.722
15.400	-0.037	0.111	13.609	0.433	0.472	14.994	-0.653	0.722
15.302	-0.207	0.056	13.898	0.583	0.444	14.924	-0.280	0.694
15.404	-0.220	0.028	13.795	0.537	0.444	14.789	0.000	0.722
15.180	-0.192	0.000	13.949	-0.046	0.417	14.864	-0.139	0.694
15.097	-0.182	0.083	13.922	0.581	0.417	14.909	-0.276	0.722
15.487	-0.048	0.083	13.746	-0.038	0.444	14.810	-0.046	0.722
15.041	0.007	0.111	13.795	0.550	0.472	14.801	-0.347	0.694
15.179	-0.010	0.083	13.611	-0.089	0.417	15.090	-0.652	0.694
15.129	-0.186	0.000	13.914	-0.026	0.444	14.969	-0.414	0.722

X	Y	Z'	X	Y	Z'	X	Y	Z'
15.044	0.006	0.000	13.487	0.316	0.417	14.870	-0.184	0.722
15.132	-0.186	0.111	13.482	0.327	0.472	15.051	-0.597	0.722
15.179	-0.011	0.028	13.499	-0.108	0.417	14.888	-0.483	0.722
15.025	0.009	0.083	13.893	-0.049	0.417	14.653	-0.173	0.750
15.092	0.000	0.111	13.716	0.483	0.417	14.159	0.799	0.750
15.384	-0.036	0.028	13.651	0.451	0.444	13.530	0.649	0.750
15.498	-0.082	0.056	13.802	-0.004	0.472	14.478	0.000	0.750
15.487	-0.048	0.056	13.845	0.574	0.472	14.361	0.661	0.750
15.334	-0.211	0.000	13.747	-0.007	0.472	14.279	0.144	0.750
15.144	-0.006	0.111	13.635	-0.052	0.444	14.518	0.472	0.750
15.235	-0.199	0.111	13.896	0.595	0.472	14.062	0.258	0.750
15.148	-0.188	0.056	13.691	-0.045	0.444	13.829	0.338	0.750
15.473	-0.182	0.083	13.525	-0.068	0.444	13.587	0.376	0.750
15.081	-0.180	0.111	13.723	-0.070	0.417	14.286	0.725	0.750
15.025	0.008	0.028	13.836	-0.055	0.417	14.856	-0.183	0.750
15.231	-0.017	0.056	13.473	-0.036	0.472	14.113	0.816	0.750
15.232	-0.199	0.000	13.469	-0.076	0.444	14.953	-0.409	0.750
15.435	-0.042	0.028	13.555	-0.099	0.417	13.488	0.378	0.750
15.353	-0.213	0.056	13.948	0.613	0.472	15.053	-0.633	0.750
15.455	-0.226	0.028	13.518	0.349	0.444	13.467	0.573	0.750
15.485	-0.132	0.056	13.817	0.537	0.417	14.959	-0.618	0.750
15.481	-0.151	0.000	13.869	0.560	0.417	13.643	0.744	0.750
15.198	-0.013	0.000	13.846	0.561	0.444	14.829	-0.409	0.750
15.485	-0.133	0.028	13.530	0.353	0.417	14.754	0.041	0.750

X	Y	Z'	X	Y	Z'	X	Y	Z'
15.179	-0.011	0.056	13.912	-0.002	0.472	14.516	-0.032	0.750
15.250	-0.201	0.083	13.747	0.524	0.472	14.324	0.694	0.750
15.128	-0.004	0.028	13.561	0.385	0.444	14.321	0.117	0.750
15.282	-0.023	0.083	13.857	-0.002	0.472	14.490	0.512	0.750
15.077	0.002	0.028	13.699	0.496	0.472	14.107	0.239	0.750
15.283	-0.205	0.000	13.575	0.388	0.417	13.876	0.324	0.750
15.128	-0.004	0.083	13.606	0.419	0.444	13.636	0.373	0.750
15.077	0.002	0.083	13.523	0.364	0.472	14.065	0.828	0.750
15.045	-0.175	0.056	13.667	-0.079	0.417	15.033	-0.589	0.750
15.045	-0.176	0.028	13.858	-0.029	0.444	14.685	-0.210	0.750
15.352	-0.032	0.000	13.565	0.399	0.472	14.984	-0.661	0.750
15.404	-0.219	0.083	13.746	0.511	0.444	14.733	0.086	0.750
15.385	-0.217	0.000	13.950	0.601	0.444	13.603	0.715	0.750
15.455	-0.226	0.083	13.802	-0.033	0.444	14.855	-0.451	0.750
15.128	-0.004	0.056	13.582	-0.023	0.472	14.204	0.778	0.750
15.027	-0.173	0.000	14.446	-0.122	0.472	13.821	0.825	0.750
15.199	-0.194	0.083	14.144	0.626	0.417	14.645	0.262	0.750
15.250	-0.201	0.028	14.004	0.616	0.444	14.717	-0.248	0.750
15.250	-0.201	0.056	14.031	0.612	0.417	14.934	-0.363	0.750
15.302	-0.207	0.028	14.247	-0.060	0.444	14.552	-0.065	0.750
15.435	-0.042	0.083	14.377	0.590	0.472	14.361	0.089	0.750
15.199	-0.194	0.028	14.001	0.627	0.472	14.459	0.551	0.750
15.384	-0.036	0.083	14.059	0.627	0.444	14.151	0.217	0.750
15.199	-0.194	0.056	14.407	-0.108	0.444	13.923	0.309	0.750

X	Y	Z'	X	Y	Z'	X	Y	Z'
15.468	-0.201	0.000	14.025	-0.028	0.444	14.711	0.130	0.750
15.230	-0.017	0.083	14.137	-0.039	0.444	13.918	0.839	0.750
15.485	-0.132	0.083	14.426	0.564	0.472	14.622	0.305	0.750
15.487	-0.048	0.028	14.171	0.634	0.444	13.685	0.368	0.750
15.077	0.002	0.056	14.395	-0.101	0.472	14.816	-0.093	0.750
15.473	-0.183	0.056	14.192	-0.048	0.444	14.395	0.626	0.750
15.437	-0.224	0.000	14.468	0.537	0.417	14.914	-0.318	0.750
15.506	-0.051	0.000	13.970	-0.026	0.444	15.013	-0.544	0.750
15.302	-0.207	0.083	14.201	0.625	0.417	14.690	0.174	0.750
15.473	-0.183	0.028	14.387	0.583	0.444	15.008	-0.704	0.750
15.095	0.000	0.000	14.292	-0.064	0.472	13.565	0.684	0.750
15.494	-0.098	0.111	14.226	0.630	0.444	14.881	-0.493	0.750
14.978	-0.167	0.111	14.055	0.638	0.472	13.538	0.376	0.750
14.671	-0.129	0.111	14.220	0.639	0.472	13.774	0.811	0.750
15.195	-0.012	0.111	13.976	0.598	0.417	14.747	-0.287	0.750
15.440	-0.224	0.111	14.115	0.633	0.444	13.967	0.839	0.750
14.876	-0.155	0.111	14.452	-0.125	0.417	14.587	-0.100	0.750
14.631	0.057	0.111	14.398	-0.106	0.417	14.836	-0.137	0.750
15.030	-0.173	0.111	14.274	0.628	0.472	14.246	0.753	0.750
15.183	-0.192	0.111	14.344	-0.082	0.472	14.401	0.060	0.750
15.349	-0.031	0.111	14.354	-0.090	0.444	14.428	0.589	0.750
13.193	0.207	0.250	14.327	0.612	0.472	14.195	0.195	0.750
13.291	-0.001	0.250	14.288	-0.076	0.417	14.573	0.390	0.750
13.244	0.211	0.250	14.233	-0.065	0.417	13.970	0.294	0.750

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.139	0.022	0.250	14.077	-0.015	0.472	14.598	0.348	0.750
13.188	0.007	0.250	14.165	0.644	0.472	13.733	0.361	0.750
13.093	0.109	0.250	14.110	0.644	0.472	14.796	-0.048	0.750
13.394	-0.008	0.250	14.459	-0.128	0.444	13.488	0.378	0.750
13.239	0.003	0.250	14.343	-0.090	0.417	14.895	-0.273	0.750
13.296	0.214	0.250	14.367	0.589	0.417	14.993	-0.499	0.750
13.144	0.193	0.250	14.335	0.604	0.444	15.042	-0.707	0.750
13.399	0.220	0.250	14.081	-0.032	0.444	14.907	-0.535	0.750
13.342	-0.004	0.250	14.087	0.621	0.417	13.728	0.793	0.750
13.188	0.007	0.250	14.120	-0.049	0.417	14.775	-0.327	0.750
13.107	0.158	0.250	14.176	-0.056	0.417	14.620	-0.136	0.750
13.104	0.059	0.250	14.257	0.619	0.417	14.440	0.031	0.750
13.347	0.217	0.250	14.131	-0.024	0.472	14.238	0.170	0.750
13.250	0.046	0.167	14.313	0.607	0.417	14.016	0.277	0.750
13.306	0.038	0.194	14.281	0.620	0.444	14.668	0.218	0.750
13.221	0.035	0.222	14.063	-0.046	0.417	13.782	0.351	0.750
13.089	0.126	0.194	14.301	-0.074	0.444	13.869	0.834	0.750
13.338	0.035	0.139	14.418	0.566	0.417	14.775	-0.003	0.750
13.281	0.223	0.194	13.967	-0.004	0.472	14.876	-0.228	0.750
13.146	0.226	0.139	14.472	0.534	0.472	13.684	0.770	0.750
13.425	0.014	0.222	14.006	-0.045	0.417	14.973	-0.454	0.750
13.099	0.176	0.194	14.185	-0.035	0.472	13.445	0.399	0.750
13.236	0.047	0.139	14.022	-0.009	0.472	15.073	-0.678	0.750
13.119	0.198	0.222	14.239	-0.048	0.472	14.016	0.835	0.750

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.332	0.216	0.194	14.436	0.557	0.444	14.546	0.432	0.750
13.182	0.234	0.167	14.805	0.158	0.417	13.497	0.612	0.750
13.152	0.056	0.194	14.803	0.142	0.444	14.933	-0.576	0.750
13.170	0.041	0.222	14.774	0.206	0.417	14.803	-0.368	0.750
13.089	0.144	0.139	14.888	-0.444	0.472	13.471	0.725	0.889
13.094	0.153	0.222	14.877	-0.403	0.417	13.664	0.909	0.889
13.387	0.210	0.167	14.514	0.505	0.417	13.491	0.765	0.889
13.299	0.221	0.139	14.869	0.011	0.472	13.527	0.667	0.889
13.419	0.211	0.222	14.757	0.201	0.472	13.712	0.666	0.917
13.350	0.214	0.139	14.917	-0.443	0.417	13.825	0.620	0.944
13.287	0.041	0.139	14.835	-0.364	0.417	13.643	0.738	0.944
13.087	0.130	0.167	14.842	0.059	0.472	13.781	0.578	0.889
13.403	0.027	0.167	14.729	-0.292	0.472	13.583	0.914	0.944
13.147	0.058	0.167	14.609	-0.204	0.444	13.552	0.832	0.889
13.335	0.216	0.167	14.792	-0.327	0.417	13.536	0.845	0.917
13.408	0.025	0.194	14.743	0.237	0.444	13.518	0.775	0.944
13.284	0.222	0.167	14.967	-0.151	0.444	13.520	0.800	0.889
13.196	0.233	0.139	14.638	0.388	0.417	13.603	0.903	0.917
13.368	0.214	0.222	14.772	-0.326	0.472	13.819	0.553	0.889
13.441	0.022	0.139	14.748	-0.291	0.417	13.506	0.811	0.917
13.247	0.227	0.139	14.679	0.328	0.444	13.685	0.723	0.944
13.401	0.208	0.139	14.851	-0.404	0.472	13.858	0.590	0.944
13.178	0.233	0.194	14.709	0.299	0.417	13.629	0.699	0.917
13.374	0.019	0.222	14.607	-0.196	0.417	13.502	0.813	0.944

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.233	0.229	0.167	14.955	-0.485	0.417	13.485	0.772	0.917
13.147	0.058	0.167	14.527	0.492	0.444	13.655	0.964	0.944
13.162	0.223	0.222	14.515	0.500	0.472	13.551	0.885	0.944
13.107	0.079	0.194	14.920	-0.038	0.417	13.856	0.975	0.917
13.100	0.179	0.167	14.684	-0.260	0.472	13.702	0.623	0.889
13.133	0.218	0.167	14.545	-0.170	0.472	13.696	0.981	0.944
13.198	0.052	0.167	14.926	-0.485	0.472	13.486	0.684	0.889
13.122	0.059	0.222	14.556	0.463	0.472	13.856	0.527	0.889
13.131	0.216	0.194	14.835	0.110	0.417	13.856	0.562	0.917
13.272	0.030	0.222	14.861	0.046	0.444	13.749	0.643	0.917
13.390	0.028	0.139	14.747	-0.298	0.444	13.568	0.875	0.917
13.196	0.233	0.139	14.593	-0.199	0.472	13.557	0.757	0.944
13.152	0.056	0.194	14.864	0.061	0.417	13.723	0.702	0.944
13.438	0.203	0.167	14.639	-0.229	0.472	13.839	0.951	0.889
13.384	0.210	0.194	14.832	0.094	0.444	13.660	0.641	0.889
13.102	0.081	0.167	14.893	0.012	0.417	13.825	1.001	0.944
13.170	0.041	0.222	14.674	0.344	0.417	13.869	0.996	0.944
13.095	0.102	0.222	14.774	0.190	0.444	13.681	0.946	0.917
13.265	0.221	0.222	14.921	-0.086	0.472	13.557	0.757	0.944
13.435	0.204	0.194	14.909	-0.452	0.444	13.671	0.686	0.917
13.357	0.031	0.194	14.483	0.526	0.444	13.641	0.927	0.917
13.230	0.229	0.194	14.702	-0.265	0.444	13.522	0.851	0.944
13.134	0.061	0.139	14.915	-0.052	0.444	13.811	0.975	0.917
13.301	0.039	0.167	14.974	-0.138	0.417	13.758	0.676	0.944

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.214	0.225	0.222	14.946	-0.135	0.472	13.500	0.733	0.917
13.203	0.050	0.194	14.655	-0.225	0.417	13.618	0.941	0.944
13.323	0.024	0.222	14.696	0.293	0.472	13.723	0.961	0.917
13.095	0.094	0.139	14.962	-0.526	0.472	13.822	0.590	0.917
13.316	0.218	0.222	14.664	0.338	0.472	13.767	0.971	0.917
13.352	0.033	0.167	14.888	-0.003	0.444	13.541	0.715	0.917
13.254	0.044	0.194	14.556	-0.169	0.417	13.600	0.748	0.944
13.107	0.192	0.139	14.505	-0.146	0.417	13.786	0.617	0.917
13.184	0.053	0.139	14.831	-0.372	0.444	13.792	0.648	0.944
13.915	0.233	0.250	14.558	0.469	0.417	13.585	0.707	0.917
13.863	0.233	0.250	14.941	-0.101	0.444	13.541	0.715	0.917
13.445	-0.011	0.250	14.630	0.381	0.472	13.738	0.993	0.944
13.806	-0.033	0.250	14.607	0.414	0.444	13.781	1.000	0.944
13.605	0.229	0.250	14.727	0.248	0.472	14.223	0.171	0.917
13.651	-0.023	0.250	14.644	0.372	0.444	14.133	0.849	0.944
13.553	0.227	0.250	14.947	-0.494	0.444	14.282	0.104	0.917
13.857	-0.036	0.250	14.703	-0.257	0.417	14.292	0.095	0.944
13.497	-0.014	0.250	14.895	-0.037	0.472	14.063	0.898	0.917
13.703	-0.026	0.250	14.569	0.454	0.444	14.100	0.878	0.944
13.708	0.232	0.250	14.791	-0.334	0.444	14.046	0.372	0.917
13.657	0.231	0.250	14.742	0.253	0.417	14.194	0.205	0.917
13.909	-0.040	0.250	14.812	-0.364	0.472	13.980	0.464	0.944
13.811	0.233	0.250	14.656	-0.234	0.444	14.308	0.080	0.889
13.760	0.233	0.250	14.599	0.429	0.417	14.168	0.815	0.889

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.548	-0.017	0.250	14.594	0.423	0.472	14.152	0.264	0.944
13.754	-0.029	0.250	14.970	-0.185	0.472	14.132	0.843	0.889
13.450	0.223	0.250	14.815	0.107	0.472	13.911	0.987	0.944
13.502	0.225	0.250	14.712	0.283	0.444	14.105	0.306	0.917
13.600	-0.020	0.250	14.497	-0.145	0.472	14.025	0.375	0.889
14.166	-0.064	0.250	14.511	-0.150	0.444	13.953	0.972	0.944
13.966	0.232	0.250	14.561	-0.176	0.444	14.303	0.693	0.889
14.371	-0.089	0.250	14.786	0.155	0.472	14.134	0.272	0.917
14.473	-0.104	0.250	14.948	-0.088	0.417	13.925	0.467	0.889
14.224	0.217	0.250	14.871	-0.412	0.444	14.255	0.722	0.944
13.960	-0.044	0.250	15.186	-0.804	0.444	14.099	0.872	0.917
14.114	-0.058	0.250	15.224	-0.710	0.444	13.900	0.968	0.917
14.320	-0.082	0.250	15.232	-0.831	0.472	14.283	0.689	0.944
14.422	-0.096	0.250	15.213	-0.654	0.417	14.264	0.129	0.944
14.012	-0.049	0.250	15.028	-0.573	0.417	14.311	0.070	0.917
14.069	0.229	0.250	15.263	-0.816	0.444	14.201	0.785	0.917
14.275	0.210	0.250	15.098	-0.662	0.417	13.930	0.942	0.889
14.217	-0.069	0.250	15.158	-0.555	0.444	14.009	0.431	0.944
14.268	-0.075	0.250	15.135	-0.533	0.472	14.121	0.278	0.889
14.121	0.226	0.250	15.161	-0.790	0.472	14.164	0.818	0.944
14.063	-0.053	0.250	15.199	-0.800	0.417	14.066	0.906	0.944
14.018	0.231	0.250	15.240	-0.788	0.472	13.991	0.405	0.889
14.427	0.184	0.250	15.169	-0.549	0.417	14.090	0.311	0.889
14.326	0.203	0.250	15.019	-0.580	0.444	14.168	0.815	0.917

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.172	0.222	0.250	15.202	-0.658	0.444	13.889	0.532	0.917
14.478	0.172	0.250	15.017	-0.251	0.444	14.253	0.138	0.917
14.377	0.194	0.250	15.042	-0.333	0.472	14.076	0.339	0.917
14.970	0.018	0.250	15.179	-0.634	0.472	14.311	0.655	0.944
14.827	-0.175	0.250	15.167	-0.753	0.417	14.015	0.912	0.889
14.524	-0.113	0.250	15.066	-0.383	0.472	13.943	0.957	0.917
14.775	0.085	0.250	15.136	-0.504	0.444	14.225	0.755	0.944
14.574	-0.122	0.250	15.113	-0.453	0.444	13.889	0.560	0.944
14.877	-0.186	0.250	15.217	-0.847	0.444	13.983	0.436	0.917
14.528	0.159	0.250	15.124	-0.445	0.417	14.234	0.754	0.917
14.777	-0.163	0.250	15.026	-0.240	0.417	14.236	0.163	0.944
14.725	0.100	0.250	15.090	-0.402	0.444	14.058	0.344	0.889
14.676	0.116	0.250	15.263	-0.814	0.444	14.195	0.787	0.944
14.627	0.131	0.250	15.019	-0.284	0.472	14.265	0.722	0.917
14.921	0.035	0.250	15.100	-0.393	0.417	14.015	0.404	0.917
14.577	0.145	0.250	15.236	-0.706	0.417	14.038	0.398	0.944
14.978	-0.210	0.250	15.113	-0.483	0.472	14.067	0.365	0.944
14.625	-0.132	0.250	15.191	-0.836	0.472	13.920	0.528	0.944
14.824	0.068	0.250	15.051	-0.291	0.417	14.025	0.921	0.917
14.726	-0.152	0.250	15.147	-0.497	0.417	13.921	0.500	0.917
14.872	0.052	0.250	15.066	-0.352	0.444	14.208	0.197	0.944
14.927	-0.198	0.250	15.063	-0.618	0.417	13.993	0.953	0.944
14.676	-0.142	0.250	15.031	-0.612	0.472	14.030	0.931	0.944
15.374	-0.325	0.250	15.278	-0.814	0.417	14.164	0.238	0.917

X	Y	Z'	X	Y	Z'	X	Y	Z'
15.447	-0.176	0.250	15.180	-0.607	0.444	14.124	0.298	0.944
15.355	-0.131	0.250	15.258	-0.759	0.417	13.985	0.941	0.917
15.401	-0.154	0.250	15.122	-0.712	0.444	13.952	0.468	0.917
15.260	-0.090	0.250	15.041	-0.301	0.444	14.134	0.844	0.917
15.227	-0.278	0.250	15.191	-0.602	0.417	14.095	0.331	0.944
15.308	-0.109	0.250	14.997	-0.568	0.472	13.950	0.496	0.944
15.115	-0.035	0.250	15.133	-0.707	0.417	14.180	0.231	0.944
15.018	0.000	0.250	15.098	-0.700	0.472	14.296	0.690	0.917
15.458	-0.259	0.250	15.221	-0.736	0.472	13.773	0.917	0.861
15.469	-0.209	0.250	15.053	-0.624	0.444	13.485	0.693	0.833
15.128	-0.249	0.250	15.245	-0.761	0.444	13.459	0.670	0.861
15.212	-0.071	0.250	15.000	-0.189	0.417	13.696	0.571	0.861
15.067	-0.017	0.250	15.065	-0.655	0.472	13.569	0.814	0.861
15.276	-0.293	0.250	15.090	-0.433	0.472	13.605	0.542	0.833
15.078	-0.235	0.250	15.230	-0.845	0.417	13.512	0.550	0.833
15.423	-0.341	0.250	15.201	-0.685	0.472	13.778	0.530	0.861
15.177	-0.263	0.250	15.158	-0.584	0.472	13.609	0.599	0.861
15.028	-0.222	0.250	15.130	-0.744	0.472	13.781	0.478	0.833
15.446	-0.309	0.250	15.154	-0.757	0.444	13.621	0.821	0.833
15.325	-0.309	0.250	15.088	-0.668	0.444	13.747	0.883	0.833
15.164	-0.053	0.250	14.984	-0.536	0.444	13.517	0.611	0.861
13.932	0.171	0.222	14.995	-0.234	0.472	13.864	0.436	0.833
13.459	0.019	0.194	14.992	-0.529	0.417	13.559	0.547	0.833
13.555	0.189	0.139	14.992	-0.201	0.444	13.535	0.782	0.861

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.691	0.173	0.194	15.277	-0.812	0.417	13.583	0.793	0.833
13.640	0.179	0.194	15.076	-0.342	0.417	13.819	0.507	0.861
13.528	0.003	0.222	14.728	-0.298	0.500	13.864	0.928	0.861
13.845	0.154	0.194	14.937	-0.142	0.500	13.516	0.728	0.833
13.579	-0.002	0.222	14.185	0.655	0.500	13.728	0.905	0.861
13.767	-0.019	0.194	15.219	-0.829	0.500	13.651	0.532	0.833
13.733	-0.018	0.222	13.931	0.021	0.500	13.695	0.517	0.833
13.486	0.198	0.194	14.961	-0.190	0.500	13.653	0.588	0.861
13.862	0.151	0.139	13.273	0.064	0.500	13.738	0.498	0.833
13.537	0.192	0.194	14.595	-0.203	0.500	13.818	0.925	0.861
13.657	0.177	0.139	14.131	0.657	0.500	13.685	0.888	0.861
13.504	0.196	0.139	15.188	-0.685	0.500	13.858	0.483	0.861
13.950	0.140	0.167	13.393	0.244	0.500	13.517	0.611	0.861
13.797	0.159	0.167	14.726	0.239	0.500	13.475	0.713	0.861
13.557	0.008	0.167	13.675	0.497	0.500	13.449	0.610	0.833
13.709	0.170	0.139	14.888	-0.045	0.500	13.476	0.629	0.861
13.813	-0.024	0.167	14.639	-0.234	0.500	13.563	0.606	0.861
13.477	0.008	0.222	14.023	0.647	0.500	13.823	0.458	0.833
13.745	0.165	0.167	15.167	-0.635	0.500	13.458	0.655	0.833
13.681	-0.013	0.222	15.149	-0.793	0.500	13.792	0.895	0.833
13.592	0.184	0.167	14.696	0.284	0.500	13.644	0.867	0.861
13.965	0.139	0.139	13.823	0.025	0.500	13.703	0.866	0.833
13.694	0.172	0.167	15.227	-0.786	0.500	13.470	0.569	0.833
13.848	0.153	0.167	13.334	-0.002	0.500	13.503	0.749	0.861

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.711	-0.011	0.167	14.549	-0.173	0.500	13.548	0.762	0.833
13.613	0.000	0.194	13.466	0.325	0.500	13.661	0.845	0.833
13.921	-0.037	0.194	15.087	-0.704	0.500	13.738	0.551	0.861
13.606	0.183	0.139	14.391	0.589	0.500	13.838	0.903	0.833
13.778	0.184	0.222	13.443	-0.001	0.500	13.605	0.842	0.861
13.865	-0.030	0.167	14.837	0.052	0.500	14.277	0.122	0.861
13.784	-0.024	0.222	14.562	0.455	0.500	14.000	0.905	0.861
13.562	0.006	0.194	14.438	0.560	0.500	14.111	0.282	0.861
13.595	0.003	0.139	13.505	0.363	0.500	14.110	0.849	0.833
13.492	0.016	0.139	14.040	0.009	0.500	14.244	0.164	0.833
13.470	0.207	0.222	13.283	0.014	0.500	14.269	0.732	0.861
13.937	-0.040	0.222	13.768	0.024	0.500	14.137	0.254	0.833
13.762	-0.018	0.167	15.118	-0.748	0.500	14.005	0.371	0.861
13.829	0.180	0.222	13.631	0.466	0.500	13.932	0.904	0.833
13.664	-0.006	0.194	13.660	0.018	0.500	14.173	0.225	0.833
13.506	0.014	0.167	14.755	0.193	0.500	14.062	0.311	0.833
13.540	0.191	0.167	14.302	-0.059	0.500	13.896	0.456	0.861
13.676	0.192	0.222	13.970	0.635	0.500	14.100	0.283	0.833
13.489	0.197	0.167	13.867	0.600	0.500	13.885	0.906	0.833
13.886	-0.035	0.222	15.008	-0.288	0.500	14.067	0.869	0.833
13.643	0.178	0.167	14.146	-0.012	0.500	13.984	0.363	0.833
13.811	0.158	0.139	14.919	-0.490	0.500	14.226	0.771	0.833
13.742	0.167	0.194	13.358	0.202	0.500	14.023	0.885	0.833
13.716	-0.012	0.194	13.714	0.022	0.500	14.043	0.889	0.861

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.646	-0.003	0.139	15.055	-0.387	0.500	14.041	0.343	0.861
13.624	0.196	0.222	15.022	-0.617	0.500	14.313	0.101	0.833
13.452	0.202	0.139	14.453	-0.123	0.500	14.150	0.826	0.833
13.608	0.001	0.167	13.817	0.578	0.500	13.910	0.925	0.861
13.869	-0.031	0.194	13.606	0.014	0.500	14.209	0.195	0.833
13.851	-0.029	0.139	14.954	-0.532	0.500	13.978	0.897	0.833
13.727	0.188	0.222	14.403	-0.100	0.500	14.162	0.820	0.861
13.543	0.009	0.139	14.665	0.329	0.500	14.189	0.800	0.833
13.916	-0.037	0.167	15.101	-0.485	0.500	13.968	0.400	0.861
13.881	0.175	0.222	14.810	0.099	0.500	14.309	0.090	0.861
13.800	-0.022	0.139	13.877	0.023	0.500	14.084	0.869	0.861
13.511	0.013	0.194	14.684	-0.265	0.500	13.905	0.413	0.833
13.947	0.142	0.194	14.598	0.415	0.500	13.945	0.388	0.833
13.818	-0.025	0.194	15.145	-0.585	0.500	14.076	0.313	0.861
13.660	-0.005	0.167	15.055	-0.660	0.500	14.144	0.251	0.861
13.455	0.020	0.167	14.985	-0.239	0.500	14.235	0.763	0.861
13.896	0.148	0.194	14.077	0.654	0.500	14.302	0.700	0.861
13.899	0.146	0.167	14.251	-0.041	0.500	14.244	0.155	0.861
13.794	0.161	0.194	15.123	-0.535	0.500	14.124	0.845	0.861
13.748	-0.016	0.139	13.296	0.113	0.500	14.296	0.708	0.833
13.697	-0.010	0.139	14.093	-0.001	0.500	14.279	0.132	0.833
13.573	0.200	0.222	14.199	-0.026	0.500	14.177	0.219	0.861
13.589	0.185	0.194	13.588	0.433	0.500	13.955	0.918	0.861
13.953	-0.041	0.139	15.208	-0.735	0.500	14.262	0.741	0.833

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.522	0.204	0.222	14.482	0.528	0.500	13.932	0.428	0.861
13.914	0.145	0.139	15.032	-0.337	0.500	14.199	0.792	0.861
13.902	-0.035	0.139	13.326	0.159	0.500	14.211	0.187	0.861
13.967	-0.043	0.167	13.986	0.016	0.500	14.024	0.338	0.833
13.835	-0.029	0.222	14.845	-0.410	0.500	14.056	0.892	0.889
13.630	-0.008	0.222	13.389	-0.004	0.500	14.271	0.726	0.889
13.760	0.164	0.139	15.179	-0.839	0.500	13.742	0.601	0.889
14.155	0.115	0.167	13.721	0.527	0.500	13.624	0.887	0.889
14.312	-0.085	0.139	14.769	-0.332	0.500	13.794	0.948	0.889
14.443	0.110	0.222	14.239	0.646	0.500	14.183	0.212	0.889
14.158	-0.066	0.139	14.783	0.146	0.500	14.152	0.245	0.889
14.207	0.108	0.167	13.389	-0.004	0.500	14.277	0.113	0.889
14.412	0.083	0.167	13.497	0.004	0.500	13.885	0.949	0.889
14.290	0.132	0.222	14.523	0.493	0.500	14.214	0.179	0.889
14.477	0.076	0.139	13.428	0.285	0.500	13.587	0.861	0.889
14.056	-0.054	0.139	14.989	-0.574	0.500	13.958	0.436	0.889
14.309	0.096	0.167	14.633	0.372	0.500	13.891	0.498	0.889
14.086	0.156	0.222	13.546	0.399	0.500	13.706	0.927	0.889
14.119	0.120	0.139	14.501	-0.147	0.500	13.973	0.929	0.889
14.306	0.098	0.194	14.292	0.632	0.500	13.750	0.940	0.889
14.330	-0.088	0.194	14.882	-0.450	0.500	14.246	0.146	0.889
14.272	0.101	0.139	14.863	0.004	0.500	14.238	0.757	0.889
14.210	-0.073	0.139	13.382	0.331	0.639	13.572	0.660	0.889
14.101	0.123	0.194	13.377	0.331	0.667	14.095	0.869	0.889

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.429	-0.100	0.167	13.313	0.146	0.556	13.527	0.667	0.889
14.324	0.095	0.139	13.350	0.239	0.583	13.616	0.653	0.889
14.415	-0.098	0.139	13.379	0.283	0.583	14.204	0.786	0.889
14.275	-0.081	0.167	13.346	0.237	0.611	14.378	0.584	0.917
14.040	-0.051	0.222	13.362	0.284	0.639	14.570	0.198	0.944
14.279	-0.081	0.194	13.433	0.106	0.583	14.607	-0.322	0.917
14.177	-0.069	0.194	13.442	0.368	0.583	14.556	-0.249	0.917
14.193	-0.069	0.222	13.428	0.325	0.556	14.432	0.472	0.944
14.188	0.145	0.222	13.397	0.378	0.667	14.638	-0.353	0.889
14.433	-0.100	0.194	13.439	0.418	0.639	14.641	-0.356	0.944
14.018	-0.049	0.167	13.394	0.329	0.611	14.468	0.430	0.917
14.050	0.130	0.194	13.372	0.233	0.639	14.535	-0.203	0.889
14.074	-0.056	0.194	13.385	0.281	0.667	14.647	0.108	0.889
14.121	-0.062	0.167	13.334	0.195	0.556	14.338	0.046	0.889
14.228	-0.075	0.194	13.355	0.186	0.611	14.646	0.069	0.917
14.002	0.134	0.167	13.381	0.112	0.583	14.627	0.149	0.889
14.016	0.133	0.139	13.394	0.152	0.611	14.582	-0.285	0.917
14.221	0.107	0.139	13.406	0.195	0.639	14.586	-0.279	0.889
14.152	0.117	0.194	13.364	0.240	0.556	14.570	0.231	0.917
14.361	0.089	0.167	13.321	0.096	0.556	14.662	-0.002	0.944
14.377	-0.093	0.167	13.421	0.069	0.556	14.410	0.510	0.944
14.053	0.127	0.167	13.421	0.069	0.556	14.352	0.621	0.917
14.091	-0.057	0.222	13.416	0.241	0.667	14.505	0.392	0.889
14.341	0.125	0.222	13.409	0.327	0.583	14.665	-0.390	0.889

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.392	0.117	0.222	13.368	0.073	0.556	14.389	0.588	0.889
14.005	-0.047	0.139	13.433	0.106	0.583	14.484	-0.144	0.944
14.460	0.079	0.194	13.329	0.190	0.583	14.616	-0.320	0.944
14.326	-0.087	0.167	13.367	0.285	0.611	14.530	0.311	0.917
14.170	0.114	0.139	13.409	0.376	0.639	14.513	0.316	0.944
14.255	0.105	0.194	13.423	0.422	0.667	14.626	0.078	0.944
14.172	-0.068	0.167	13.337	0.140	0.583	14.644	0.038	0.944
14.224	-0.074	0.167	13.424	0.372	0.611	14.333	0.660	0.889
14.142	-0.063	0.222	13.395	0.283	0.556	14.531	-0.212	0.917
14.070	-0.056	0.167	13.769	0.181	0.639	14.447	0.469	0.917
14.067	0.126	0.139	13.826	0.211	0.667	14.453	0.433	0.944
14.382	-0.094	0.194	13.518	0.544	0.667	14.368	0.002	0.917
14.261	-0.079	0.139	13.799	0.709	0.639	14.363	0.584	0.944
14.104	0.121	0.167	13.847	0.727	0.639	14.665	0.029	0.917
14.408	0.086	0.194	13.820	0.176	0.639	14.588	0.231	0.889
14.448	-0.102	0.222	13.457	0.186	0.639	14.526	0.352	0.889
14.426	0.082	0.139	13.561	0.186	0.639	14.511	-0.179	0.944
14.363	-0.091	0.139	13.620	0.225	0.667	14.461	0.472	0.889
14.346	-0.088	0.222	13.813	0.746	0.667	14.589	0.191	0.917
14.397	-0.095	0.222	13.877	0.204	0.667	14.414	0.550	0.889
13.983	0.166	0.222	13.672	0.224	0.667	14.451	-0.104	0.917
14.023	-0.050	0.194	13.620	0.604	0.639	14.611	-0.316	0.889
14.239	0.138	0.222	13.662	0.635	0.639	14.510	0.351	0.917
14.480	-0.106	0.167	13.505	0.499	0.639	14.481	-0.130	0.889

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.244	-0.075	0.222	13.466	0.228	0.667	14.340	0.036	0.917
14.137	0.150	0.222	13.517	0.226	0.667	14.457	-0.110	0.944
14.107	-0.060	0.139	13.717	0.184	0.639	14.590	-0.284	0.944
14.295	-0.082	0.222	13.471	0.459	0.639	14.552	0.237	0.944
14.463	0.077	0.167	13.862	0.762	0.667	14.375	-0.007	0.944
13.988	-0.046	0.222	13.569	0.226	0.667	14.589	0.158	0.944
13.972	-0.044	0.194	13.466	0.228	0.667	14.493	0.355	0.944
13.999	0.136	0.194	13.751	0.688	0.639	14.661	-0.393	0.917
14.357	0.092	0.194	13.484	0.505	0.667	14.425	0.508	0.917
14.258	0.102	0.167	13.766	0.726	0.667	14.396	-0.033	0.917
14.034	0.161	0.222	13.580	0.571	0.639	14.489	0.390	0.917
14.375	0.089	0.139	13.723	0.221	0.667	14.430	-0.075	0.944
14.125	-0.062	0.194	13.509	0.185	0.639	14.424	-0.068	0.917
14.466	-0.104	0.139	13.453	0.464	0.667	14.564	-0.249	0.944
14.204	0.111	0.194	13.633	0.647	0.667	14.473	0.394	0.944
14.754	-0.146	0.222	13.593	0.615	0.667	14.347	0.027	0.944
14.689	-0.132	0.194	13.720	0.703	0.667	14.505	-0.175	0.917
14.976	0.014	0.167	13.555	0.580	0.667	14.550	0.271	0.917
14.767	0.041	0.194	13.676	0.676	0.667	14.627	0.110	0.917
14.740	-0.138	0.194	13.613	0.186	0.639	14.402	0.547	0.917
14.843	-0.151	0.194	13.774	0.217	0.667	14.634	-0.358	0.917
14.499	-0.109	0.222	13.457	0.186	0.639	14.402	-0.041	0.944
14.747	0.057	0.222	13.872	0.170	0.639	14.338	0.620	0.944
14.617	0.058	0.167	13.706	0.663	0.639	14.538	-0.214	0.944

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.685	-0.131	0.167	13.541	0.536	0.639	14.532	0.277	0.944
14.494	0.102	0.222	13.665	0.186	0.639	14.325	0.656	0.917
14.696	0.066	0.222	14.078	0.159	0.667	14.667	-0.391	0.944
14.665	0.054	0.194	14.000	0.757	0.639	14.387	0.548	0.944
14.562	0.067	0.194	14.175	0.097	0.639	14.608	0.118	0.944
14.668	0.052	0.167	14.014	0.784	0.667	14.319	0.061	0.944
14.945	-0.164	0.194	14.270	0.056	0.639	14.478	-0.139	0.917
14.535	-0.113	0.194	14.127	0.143	0.667	14.608	0.150	0.917
14.927	-0.161	0.139	14.262	0.723	0.667	14.767	-0.243	0.944
14.703	-0.139	0.222	13.975	0.154	0.639	14.895	-0.505	0.917
14.722	-0.136	0.139	14.205	0.731	0.639	14.795	-0.224	0.889
14.613	0.060	0.194	14.117	0.775	0.667	14.722	-0.057	0.889
14.631	0.057	0.139	14.253	0.712	0.639	14.878	-0.614	0.889
14.568	-0.117	0.139	14.175	0.126	0.667	14.878	-0.463	0.917
14.972	0.016	0.194	14.076	0.130	0.639	14.738	-0.134	0.917
14.634	-0.125	0.167	13.927	0.195	0.667	14.836	-0.405	0.944
14.957	-0.179	0.222	14.307	0.697	0.667	14.720	-0.093	0.917
14.595	0.084	0.222	13.948	0.752	0.639	14.839	-0.547	0.944
14.682	0.051	0.139	14.126	0.114	0.639	14.808	-0.561	0.917
14.601	-0.123	0.222	14.223	0.078	0.639	14.777	-0.182	0.889
14.873	0.027	0.167	14.223	0.106	0.667	14.861	-0.422	0.917
14.839	-0.150	0.167	13.912	0.774	0.667	14.741	-0.099	0.889
14.990	0.013	0.139	13.978	0.185	0.667	14.722	-0.460	0.889
14.921	0.022	0.194	14.300	0.689	0.639	14.844	-0.381	0.917

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.798	0.047	0.222	14.104	0.755	0.639	14.756	-0.175	0.917
14.580	0.063	0.139	13.897	0.742	0.639	14.750	-0.203	0.944
14.550	-0.116	0.222	14.167	0.762	0.667	14.715	-0.122	0.944
14.941	-0.162	0.167	14.052	0.759	0.639	14.918	-0.517	0.889
14.620	-0.123	0.139	14.026	0.143	0.639	14.694	-0.426	0.944
14.822	0.033	0.167	14.269	0.084	0.667	14.853	-0.446	0.944
14.894	-0.157	0.194	14.028	0.173	0.667	14.718	-0.462	0.917
14.906	-0.171	0.222	14.155	0.746	0.639	14.848	-0.349	0.889
14.855	-0.163	0.222	14.215	0.745	0.667	14.876	-0.523	0.944
14.992	-0.168	0.167	14.317	0.033	0.639	14.803	-0.563	0.944
14.890	-0.156	0.167	13.924	0.163	0.639	14.870	-0.486	0.944
14.978	-0.167	0.139	14.066	0.782	0.667	14.778	-0.528	0.917
14.529	0.070	0.139	13.963	0.782	0.667	14.876	-0.571	0.917
14.716	0.048	0.194	14.315	0.060	0.667	14.802	-0.324	0.944
14.582	-0.119	0.167	13.527	0.073	0.556	14.752	-0.495	0.889
14.848	0.037	0.222	13.634	0.079	0.556	14.846	-0.593	0.889
14.484	-0.106	0.194	13.865	0.675	0.583	14.785	-0.284	0.944
14.825	-0.148	0.139	13.721	0.609	0.583	14.704	-0.016	0.889
14.785	0.038	0.139	13.620	0.509	0.556	14.721	-0.461	0.944
14.646	0.075	0.222	13.851	0.641	0.556	14.774	-0.216	0.917
14.876	-0.154	0.139	13.794	0.081	0.556	14.702	-0.053	0.917
14.734	0.044	0.139	13.581	0.077	0.556	14.916	-0.590	0.889
14.924	0.021	0.167	13.802	0.620	0.556	14.809	-0.298	0.917
14.771	0.039	0.167	13.856	0.108	0.583	14.689	-0.428	0.917

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.804	-0.154	0.222	13.463	0.365	0.556	14.680	-0.042	0.944
14.531	-0.112	0.167	13.676	0.581	0.583	14.912	-0.546	0.917
14.719	0.046	0.167	13.803	0.111	0.583	14.819	-0.365	0.944
14.949	0.018	0.222	13.474	0.070	0.556	14.733	-0.163	0.944
14.870	0.028	0.194	13.754	0.596	0.556	14.698	-0.082	0.944
14.652	-0.131	0.222	13.551	0.483	0.583	14.792	-0.257	0.917
14.939	0.019	0.139	13.592	0.111	0.583	14.748	-0.495	0.944
14.773	-0.142	0.139	13.476	0.408	0.583	14.747	-0.496	0.917
14.736	-0.137	0.167	13.687	0.081	0.556	14.684	-0.012	0.917
14.792	-0.145	0.194	13.633	0.550	0.583	14.838	-0.594	0.917
14.671	-0.129	0.139	13.591	0.518	0.583	14.827	-0.340	0.917
14.511	0.073	0.194	13.538	0.441	0.556	14.776	-0.529	0.944
14.587	-0.119	0.194	13.750	0.113	0.583	14.639	0.209	0.833
14.517	-0.110	0.139	13.578	0.476	0.556	14.510	-0.101	0.833
14.836	0.032	0.139	13.847	0.079	0.556	14.660	-0.337	0.861
14.818	0.035	0.194	13.708	0.569	0.556	14.540	0.361	0.861
14.566	0.064	0.167	13.741	0.082	0.556	14.665	0.114	0.861
14.787	-0.144	0.167	13.768	0.634	0.583	14.420	0.568	0.833
14.638	-0.125	0.194	13.663	0.540	0.556	14.661	-0.280	0.833
14.887	0.026	0.139	13.513	0.447	0.583	14.347	0.068	0.833
14.514	0.071	0.167	13.486	0.106	0.583	14.341	0.057	0.861
14.544	0.093	0.222	13.539	0.109	0.583	14.495	0.441	0.861
14.899	0.028	0.222	13.645	0.113	0.583	14.551	-0.189	0.861
15.472	-0.183	0.167	13.816	0.656	0.583	14.579	-0.226	0.861

X	Y	Z'	X	Y	Z'	X	Y	Z'
15.177	-0.010	0.194	13.499	0.404	0.556	14.571	-0.171	0.833
15.048	-0.177	0.194	13.697	0.114	0.583	14.518	0.401	0.861
15.109	-0.205	0.222	14.177	0.704	0.583	14.601	-0.207	0.833
15.353	-0.063	0.222	13.909	0.103	0.583	14.390	0.605	0.833
15.363	-0.245	0.222	14.125	0.711	0.583	14.446	-0.031	0.833
15.484	-0.050	0.194	14.111	0.692	0.556	14.659	0.167	0.833
15.030	-0.173	0.139	14.019	0.710	0.583	14.404	-0.011	0.861
15.400	-0.037	0.139	14.216	0.028	0.583	14.414	0.002	0.833
15.455	-0.247	0.222	14.006	0.061	0.556	14.364	0.631	0.861
15.132	-0.186	0.139	13.901	0.659	0.556	14.550	0.374	0.833
15.211	-0.222	0.222	14.268	0.665	0.556	14.527	0.414	0.833
15.403	-0.218	0.167	14.262	-0.013	0.556	14.645	0.156	0.861
15.261	-0.230	0.222	14.116	0.062	0.583	14.334	0.666	0.861
15.498	-0.082	0.194	14.065	0.075	0.583	14.502	0.454	0.833
15.095	-0.181	0.167	13.967	0.703	0.583	14.573	0.333	0.833
15.406	-0.221	0.194	14.058	0.050	0.556	14.631	-0.243	0.833
15.078	0.002	0.167	14.266	0.008	0.583	14.562	0.321	0.861
15.485	-0.132	0.194	13.900	0.075	0.556	14.420	0.558	0.861
15.181	-0.011	0.167	14.317	0.645	0.556	14.360	0.640	0.833
15.023	0.009	0.194	14.279	0.674	0.583	14.478	-0.066	0.833
15.351	-0.212	0.167	14.057	0.691	0.556	14.583	0.280	0.861
15.195	-0.012	0.139	14.311	-0.033	0.556	14.540	-0.136	0.833
15.300	-0.206	0.167	14.013	0.086	0.583	14.449	0.531	0.833
15.253	-0.202	0.194	14.167	0.046	0.583	14.464	-0.081	0.861

X	Y	Z'	X	Y	Z'	X	Y	Z'
15.000	0.008	0.222	13.915	0.691	0.583	14.392	0.595	0.861
15.183	-0.192	0.139	14.314	-0.014	0.583	14.328	0.675	0.833
15.454	-0.080	0.222	14.072	0.713	0.583	14.476	0.493	0.833
15.251	-0.045	0.222	14.229	0.692	0.583	14.604	0.239	0.861
15.081	-0.180	0.139	13.953	0.069	0.556	14.446	0.520	0.861
15.331	-0.028	0.194	13.952	0.674	0.556	14.435	-0.046	0.861
15.235	-0.198	0.139	14.212	0.006	0.556	14.633	-0.300	0.861
15.126	-0.004	0.194	14.004	0.684	0.556	14.625	0.197	0.861
15.485	-0.133	0.167	14.216	0.679	0.556	14.373	0.023	0.861
15.092	0.000	0.139	14.110	0.038	0.556	14.494	-0.117	0.861
15.302	-0.054	0.222	14.162	0.023	0.556	14.471	0.481	0.861
15.146	-0.187	0.167	13.961	0.096	0.583	14.523	-0.153	0.861
15.451	-0.044	0.139	14.164	0.688	0.556	14.606	-0.263	0.861
15.304	-0.209	0.194	13.812	0.143	0.611	14.381	0.036	0.833
15.414	-0.253	0.222	14.122	0.087	0.611	14.617	0.250	0.833
15.198	-0.193	0.167	13.491	0.454	0.611	14.595	0.292	0.833
15.497	-0.083	0.167	13.691	0.622	0.611	14.923	-0.627	0.861
15.151	-0.024	0.222	14.089	0.734	0.611	14.679	0.124	0.833
15.312	-0.237	0.222	13.527	0.491	0.611	14.736	-0.004	0.833
15.437	-0.043	0.167	13.603	0.148	0.611	14.794	-0.182	0.861
15.279	-0.022	0.194	14.071	0.102	0.611	14.830	-0.556	0.861
15.232	-0.017	0.167	14.290	0.681	0.611	14.973	-0.565	0.833
15.481	-0.148	0.222	13.932	0.722	0.611	14.935	-0.479	0.833
15.488	-0.048	0.167	14.020	0.114	0.611	14.863	-0.307	0.833

X	Y	Z'	X	Y	Z'	X	Y	Z'
15.160	-0.213	0.222	14.192	0.718	0.611	14.881	-0.350	0.833
15.433	-0.042	0.194	13.832	0.692	0.611	14.773	-0.429	0.833
15.404	-0.071	0.222	13.550	0.146	0.611	14.917	-0.436	0.833
15.457	-0.228	0.194	13.457	0.414	0.611	14.902	-0.437	0.861
15.129	-0.005	0.167	13.647	0.593	0.611	14.956	-0.564	0.861
15.099	-0.183	0.194	13.783	0.672	0.611	14.791	-0.134	0.833
15.349	-0.031	0.139	13.917	0.132	0.611	14.718	0.039	0.833
15.481	-0.148	0.139	13.736	0.648	0.611	14.993	-0.608	0.833
15.249	-0.199	0.167	13.984	0.730	0.611	14.755	-0.047	0.833
15.355	-0.215	0.194	13.969	0.124	0.611	14.758	-0.097	0.861
15.503	-0.050	0.139	13.865	0.139	0.611	14.800	-0.468	0.833
15.074	0.003	0.194	14.036	0.735	0.611	14.746	-0.391	0.833
15.027	0.008	0.167	13.881	0.709	0.611	14.848	-0.309	0.861
14.996	-0.170	0.194	14.269	0.031	0.611	14.937	-0.522	0.861
15.246	-0.019	0.139	13.565	0.527	0.611	14.801	-0.520	0.861
15.386	-0.037	0.167	14.171	0.071	0.611	14.860	-0.591	0.861
15.454	-0.225	0.167	14.242	0.702	0.611	14.684	0.072	0.861
15.283	-0.023	0.167	14.141	0.729	0.611	14.716	-0.411	0.861
15.337	-0.211	0.139	13.655	0.149	0.611	14.930	-0.663	0.833
15.150	-0.189	0.194	14.220	0.052	0.611	14.969	-0.637	0.833
15.469	-0.198	0.139	13.760	0.146	0.611	14.866	-0.352	0.861
15.297	-0.025	0.139	13.606	0.561	0.611	14.718	-0.353	0.833
15.440	-0.224	0.139	13.445	0.145	0.611	14.919	-0.479	0.861
15.286	-0.205	0.139	14.316	0.009	0.611	14.899	-0.393	0.833

X	Y	Z'	X	Y	Z'	X	Y	Z'
15.468	-0.197	0.222	13.708	0.148	0.611	14.740	-0.054	0.861
15.100	-0.013	0.222	13.445	0.145	0.611	14.826	-0.507	0.833
15.050	-0.002	0.222	13.498	0.145	0.611	14.699	0.082	0.833
15.388	-0.217	0.139	14.538	-0.104	0.639	14.721	-0.012	0.861
15.008	-0.188	0.222	14.362	0.008	0.639	14.888	-0.627	0.861
15.473	-0.182	0.194	14.563	0.446	0.667	14.962	-0.603	0.861
15.494	-0.097	0.139	14.464	0.565	0.667	14.744	-0.448	0.861
15.334	-0.030	0.167	14.620	0.361	0.667	14.904	-0.623	0.833
15.201	-0.035	0.222	14.680	0.270	0.639	14.776	-0.139	0.861
15.041	0.007	0.139	14.653	0.314	0.639	14.809	-0.177	0.833
15.044	-0.175	0.167	14.755	-0.293	0.667	14.954	-0.522	0.833
15.382	-0.035	0.194	14.625	0.359	0.639	14.845	-0.263	0.833
15.493	-0.098	0.222	14.571	-0.113	0.667	14.830	-0.266	0.861
15.228	-0.016	0.194	14.596	0.402	0.639	14.852	-0.545	0.833
15.058	-0.196	0.222	14.498	0.526	0.667	14.812	-0.224	0.861
15.201	-0.196	0.194	14.359	0.034	0.667	14.773	-0.090	0.833
15.144	-0.006	0.139	14.618	-0.170	0.639	14.772	-0.484	0.861
13.112	-0.050	0.333	14.426	0.597	0.639	14.884	-0.394	0.861
13.244	-0.130	0.333	14.386	0.631	0.639	14.688	-0.374	0.861
13.107	0.051	0.306	14.730	0.179	0.639	14.930	-0.663	0.833
13.098	0.052	0.278	14.592	0.404	0.667	14.827	-0.220	0.833
13.384	-0.084	0.306	14.610	-0.147	0.667	14.703	0.030	0.861
13.268	0.180	0.306	14.403	0.007	0.667	14.879	-0.584	0.833
13.424	0.236	0.278	14.566	0.444	0.639	14.690	-0.316	0.833

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.173	0.131	0.306	14.452	-0.046	0.639	14.608	0.190	0.889
13.305	-0.156	0.389	14.746	0.136	0.667	14.866	-0.391	0.889
13.190	-0.147	0.389	14.344	0.661	0.639	14.547	0.312	0.889
13.122	-0.085	0.361	14.579	-0.136	0.639	14.454	-0.094	0.889
13.374	0.225	0.278	14.427	0.601	0.667	14.813	-0.265	0.889
13.263	-0.159	0.361	14.705	0.224	0.639	14.362	0.624	0.889
13.414	0.245	0.306	14.698	0.227	0.667	14.759	-0.140	0.889
13.311	-0.041	0.278	14.349	0.668	0.667	14.666	0.067	0.889
13.323	0.213	0.278	14.648	-0.181	0.667	14.935	-0.559	0.889
13.379	-0.150	0.361	14.446	-0.021	0.667	14.883	-0.433	0.889
13.316	0.202	0.306	14.732	-0.276	0.639	14.426	-0.058	0.889
13.189	-0.124	0.333	14.464	0.561	0.639	14.831	-0.307	0.889
13.204	-0.155	0.361	14.407	-0.018	0.639	14.483	0.432	0.889
13.320	0.193	0.333	14.754	0.133	0.639	14.438	0.511	0.889
13.273	0.200	0.278	14.673	0.272	0.667	14.815	-0.560	0.889
13.174	0.173	0.278	14.495	-0.074	0.639	14.561	-0.241	0.889
13.151	-0.134	0.361	14.685	-0.217	0.667	14.783	-0.528	0.889
13.362	-0.042	0.278	14.489	-0.050	0.667	14.368	0.012	0.889
13.244	0.106	0.361	14.500	0.524	0.639	14.685	0.026	0.889
13.415	0.254	0.333	14.768	-0.314	0.639	14.509	-0.166	0.889
13.184	-0.002	0.389	14.389	0.636	0.667	14.901	-0.475	0.889
13.203	0.064	0.361	14.531	0.487	0.667	14.693	-0.425	0.889
13.128	-0.049	0.306	14.647	0.317	0.667	14.397	-0.023	0.889
13.220	0.156	0.306	14.722	0.181	0.667	14.568	0.272	0.889

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.103	0.103	0.278	14.768	0.089	0.667	13.560	0.938	1.000
13.185	0.093	0.333	14.721	-0.254	0.667	13.668	0.999	0.972
13.104	-0.002	0.306	14.657	-0.205	0.639	13.573	0.839	1.000
13.286	0.147	0.361	14.695	-0.240	0.639	13.518	0.851	0.972
13.263	-0.159	0.361	14.530	-0.081	0.667	13.588	0.970	1.000
13.117	0.005	0.278	14.534	0.485	0.639	13.790	0.710	1.000
13.333	0.176	0.389	14.801	-0.354	0.639	13.850	0.650	1.000
13.321	-0.156	0.361	15.086	-0.615	0.667	13.793	1.027	0.972
13.367	0.224	0.333	14.952	-0.291	0.639	13.708	1.014	0.972
13.437	-0.143	0.361	15.022	-0.475	0.667	13.750	1.023	0.972
13.259	-0.040	0.278	14.800	0.040	0.639	13.538	0.863	1.000
13.363	-0.152	0.389	15.038	-0.481	0.639	13.535	0.814	0.972
13.413	-0.119	0.333	14.983	-0.607	0.639	13.612	0.822	1.000
13.229	0.128	0.333	15.073	-0.761	0.667	13.688	0.786	1.000
13.278	-0.087	0.306	14.918	-0.239	0.667	13.798	0.675	0.972
13.329	0.186	0.361	14.856	-0.097	0.667	13.574	0.796	0.972
13.365	0.224	0.306	14.833	-0.395	0.639	13.820	0.681	1.000
13.172	-0.078	0.306	15.001	-0.428	0.667	13.733	0.731	0.972
13.116	0.005	0.333	15.043	-0.521	0.667	13.620	0.998	1.000
13.145	0.054	0.333	14.823	-0.008	0.639	13.776	1.054	1.000
13.224	-0.088	0.306	15.060	-0.528	0.639	13.879	0.619	1.000
13.331	-0.086	0.306	15.104	-0.784	0.667	13.630	0.977	0.972
13.150	-0.109	0.389	15.021	-0.672	0.667	13.650	0.805	1.000
13.374	0.217	0.389	14.788	-0.332	0.667	13.565	0.922	0.972

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.418	0.261	0.361	14.834	-0.050	0.667	13.859	0.614	0.972
13.437	-0.081	0.306	15.164	-0.766	0.639	13.829	0.645	0.972
13.301	-0.128	0.333	14.895	-0.478	0.639	13.860	1.043	1.000
13.293	0.134	0.389	15.145	-0.718	0.639	13.724	0.764	1.000
13.255	0.090	0.389	15.108	-0.662	0.667	13.596	0.952	0.972
13.223	0.187	0.278	14.910	-0.197	0.639	13.696	0.754	0.972
13.244	-0.130	0.333	15.065	-0.568	0.667	13.574	0.796	0.972
13.247	-0.157	0.389	15.148	-0.756	0.667	13.560	0.938	1.000
13.414	-0.042	0.278	14.926	-0.521	0.639	13.655	1.022	1.000
13.133	0.097	0.306	14.994	-0.628	0.667	13.758	0.738	1.000
13.130	0.145	0.278	15.012	-0.651	0.639	13.537	0.902	1.000
13.156	-0.052	0.389	14.938	-0.541	0.667	13.615	0.783	0.972
13.218	0.045	0.389	14.819	-0.373	0.667	13.879	1.016	0.972
13.165	0.021	0.361	14.813	-0.004	0.667	13.656	0.771	0.972
13.224	-0.088	0.306	15.094	-0.784	0.639	13.537	0.889	0.972
13.208	-0.038	0.278	14.974	-0.339	0.639	13.766	0.704	0.972
13.417	0.256	0.389	15.103	-0.623	0.639	13.693	1.039	1.000
13.373	0.224	0.361	14.959	-0.333	0.667	13.734	1.050	1.000
13.134	-0.029	0.361	14.955	-0.564	0.639	13.836	1.024	0.972
13.158	-0.027	0.278	14.888	-0.149	0.639	13.819	1.051	1.000
13.357	-0.124	0.333	15.129	-0.709	0.667	14.099	0.885	0.972
13.420	-0.144	0.389	14.867	-0.102	0.639	14.277	0.121	0.972
13.208	-0.038	0.278	14.966	-0.585	0.667	13.978	0.489	0.972
13.139	-0.098	0.333	14.910	-0.498	0.667	14.116	0.323	0.972

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.274	0.161	0.333	14.995	-0.386	0.639	14.192	0.789	1.000
13.797	0.519	0.389	14.850	-0.415	0.667	14.125	0.327	1.000
13.609	-0.113	0.361	14.791	0.043	0.667	13.920	0.553	0.972
13.535	-0.125	0.389	14.897	-0.192	0.667	14.098	0.360	1.000
13.761	0.481	0.361	15.128	-0.797	0.639	14.188	0.791	0.972
13.465	0.296	0.361	15.124	-0.670	0.639	14.244	0.726	0.972
13.850	0.543	0.389	14.939	-0.286	0.667	14.043	0.940	1.000
13.592	-0.114	0.389	14.845	-0.055	0.639	14.088	0.357	0.972
13.696	0.463	0.389	15.081	-0.576	0.639	13.997	0.965	0.972
13.551	0.366	0.389	14.980	-0.380	0.667	13.890	0.584	0.972
13.877	-0.065	0.389	15.048	-0.716	0.667	14.044	0.426	1.000
13.598	0.400	0.389	14.777	0.086	0.639	14.143	0.290	0.972
13.820	-0.073	0.389	14.864	-0.437	0.639	14.135	0.852	1.000
13.763	-0.082	0.389	15.040	-0.695	0.639	13.949	0.521	0.972
13.461	0.294	0.389	14.880	-0.456	0.667	14.304	0.087	0.972
13.724	-0.092	0.361	15.067	-0.739	0.639	13.975	0.990	1.000
13.506	0.331	0.389	14.877	-0.144	0.667	14.297	0.658	0.972
13.935	-0.060	0.389	15.017	-0.433	0.639	14.075	0.912	1.000
13.494	-0.134	0.361	14.931	-0.244	0.639	14.282	0.128	1.000
13.478	-0.135	0.389	14.660	0.319	0.583	14.071	0.393	1.000
13.609	0.395	0.361	14.590	-0.189	0.556	14.256	0.161	1.000
13.958	0.584	0.389	14.416	0.595	0.583	14.224	0.189	0.972
13.954	-0.059	0.361	14.692	0.276	0.556	14.295	0.654	1.000
13.709	0.454	0.361	14.567	0.449	0.556	13.959	0.986	0.972

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.839	-0.073	0.361	14.407	-0.080	0.556	14.170	0.256	0.972
13.646	0.432	0.389	14.327	0.652	0.583	14.106	0.882	1.000
13.666	-0.102	0.361	14.675	-0.254	0.556	14.245	0.723	1.000
13.552	-0.123	0.361	14.628	-0.208	0.583	14.010	0.966	1.000
13.512	0.330	0.361	14.669	-0.241	0.583	14.216	0.759	0.972
13.867	0.530	0.361	14.587	-0.175	0.583	13.939	1.012	1.000
13.903	0.565	0.389	14.688	0.274	0.583	14.271	0.692	0.972
13.746	0.492	0.389	14.663	0.321	0.556	14.177	0.261	1.000
13.705	-0.092	0.389	14.410	0.592	0.556	14.005	0.456	0.972
13.648	-0.103	0.389	14.360	-0.056	0.556	13.900	1.029	1.000
14.338	-0.087	0.389	14.452	0.560	0.556	14.250	0.155	0.972
14.360	-0.083	0.361	14.496	0.526	0.583	14.309	0.095	1.000
14.186	0.621	0.389	14.493	0.526	0.556	14.033	0.423	0.972
14.244	0.617	0.389	14.742	0.183	0.583	14.033	0.941	0.972
14.128	0.619	0.389	14.747	0.185	0.556	13.920	1.003	0.972
14.281	-0.075	0.389	14.501	-0.131	0.556	14.197	0.223	0.972
14.322	0.587	0.361	14.633	-0.222	0.556	14.219	0.756	1.000
14.207	0.602	0.361	14.756	-0.323	0.556	13.963	0.524	1.000
14.473	-0.112	0.361	14.716	0.229	0.583	14.159	0.824	0.972
14.051	-0.055	0.389	14.546	-0.159	0.556	14.271	0.689	1.000
14.433	0.550	0.361	14.533	0.488	0.583	14.203	0.228	1.000
14.129	-0.054	0.361	14.361	-0.037	0.583	14.066	0.914	0.972
14.265	0.597	0.361	14.544	-0.144	0.583	13.991	0.492	1.000
14.224	-0.066	0.389	14.567	0.448	0.583	14.129	0.855	0.972

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.148	0.601	0.361	14.454	-0.088	0.583	14.017	0.459	1.000
14.411	0.570	0.389	14.408	-0.062	0.583	14.151	0.294	1.000
14.014	0.600	0.389	14.716	-0.288	0.556	13.936	0.556	1.000
14.033	0.584	0.361	14.720	0.231	0.556	14.060	0.389	0.972
13.977	0.569	0.361	14.499	-0.115	0.583	13.907	0.588	1.000
14.167	-0.060	0.389	14.531	0.488	0.556	14.164	0.821	1.000
14.090	0.594	0.361	14.631	0.363	0.583	14.230	0.194	1.000
13.993	-0.056	0.389	14.365	0.621	0.556	14.371	0.552	0.972
14.462	0.544	0.389	14.600	0.406	0.583	14.386	-0.013	0.972
14.301	0.607	0.389	14.454	-0.105	0.556	14.607	-0.317	1.000
14.450	-0.119	0.389	14.749	-0.310	0.583	14.515	-0.175	1.000
14.303	-0.072	0.361	14.601	0.408	0.556	14.655	-0.387	1.000
14.071	-0.054	0.361	14.767	0.137	0.583	14.606	0.091	0.972
14.071	0.612	0.389	14.372	0.625	0.583	14.641	0.012	0.972
14.357	0.592	0.389	14.710	-0.275	0.583	14.504	0.286	1.000
14.109	-0.056	0.389	14.633	0.365	0.556	14.387	0.512	1.000
14.394	-0.102	0.389	14.457	0.561	0.583	14.626	0.015	1.000
13.863	-0.053	0.306	14.997	-0.608	0.556	14.624	0.052	0.972
13.756	-0.059	0.306	14.888	-0.470	0.583	14.622	-0.321	0.972
13.878	-0.044	0.278	14.964	-0.243	0.556	14.646	-0.356	0.972
13.703	-0.062	0.306	14.848	-0.003	0.556	14.496	0.325	0.972
13.933	0.318	0.278	15.189	-0.776	0.583	14.348	0.588	0.972
13.803	-0.069	0.333	15.015	-0.639	0.583	14.660	-0.063	1.000
13.663	0.338	0.306	15.149	-0.678	0.583	14.362	0.028	1.000

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.463	0.283	0.333	15.188	-0.820	0.556	14.495	-0.147	0.972
13.544	-0.074	0.306	15.074	-0.727	0.583	14.631	-0.353	1.000
13.672	-0.042	0.278	15.182	-0.730	0.556	14.365	0.548	1.000
13.728	0.293	0.278	15.009	-0.340	0.556	14.549	-0.214	0.972
13.924	0.491	0.333	15.098	-0.534	0.556	14.490	-0.140	1.000
13.779	0.300	0.278	15.162	-0.681	0.556	14.323	0.623	0.972
13.569	-0.042	0.278	15.170	-0.726	0.583	14.448	0.400	1.000
13.525	0.257	0.278	14.896	-0.099	0.556	14.414	-0.038	1.000
13.915	-0.058	0.333	15.032	-0.388	0.556	14.588	0.130	0.972
13.620	-0.042	0.278	14.899	-0.482	0.556	14.522	0.247	1.000
13.517	-0.042	0.278	15.086	-0.532	0.583	14.539	-0.210	1.000
13.859	-0.063	0.333	14.872	-0.051	0.556	14.441	-0.079	0.972
13.613	0.321	0.306	14.816	0.043	0.583	14.335	0.061	1.000
13.692	-0.083	0.333	14.953	-0.244	0.583	14.552	0.209	0.972
13.868	0.396	0.306	14.824	0.045	0.556	14.540	0.209	1.000
13.576	0.267	0.278	15.020	-0.388	0.583	14.574	-0.249	0.972
13.466	-0.043	0.278	14.773	0.138	0.556	14.584	-0.281	1.000
13.636	-0.091	0.333	15.128	-0.629	0.583	14.476	0.364	0.972
13.677	0.285	0.278	14.953	-0.553	0.583	14.515	0.287	0.972
13.724	-0.042	0.278	15.064	-0.484	0.583	14.408	0.475	1.000
13.597	-0.070	0.306	14.998	-0.340	0.583	14.457	0.402	0.972
13.512	0.311	0.333	14.786	-0.348	0.583	14.394	0.516	0.972
13.662	0.389	0.333	15.148	-0.828	0.556	14.388	-0.005	1.000
13.831	0.307	0.278	14.886	-0.100	0.583	14.358	0.020	0.972

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.809	-0.056	0.306	15.059	-0.694	0.556	14.609	0.054	1.000
13.474	0.247	0.278	14.975	-0.292	0.583	14.465	-0.106	1.000
13.765	0.434	0.333	15.029	-0.651	0.556	14.428	0.438	1.000
13.563	0.303	0.306	14.840	-0.005	0.583	14.468	-0.113	0.972
13.525	-0.106	0.333	14.987	-0.291	0.556	14.675	-0.067	0.972
13.817	0.383	0.306	14.792	0.090	0.583	14.416	0.478	0.972
13.561	0.338	0.333	15.102	-0.772	0.583	14.319	0.619	1.000
13.580	-0.098	0.333	15.120	-0.583	0.556	14.658	-0.027	0.972
13.916	-0.052	0.306	14.830	-0.400	0.556	14.575	0.132	1.000
13.827	-0.043	0.278	14.919	-0.147	0.556	14.331	0.054	0.972
13.817	0.455	0.333	15.201	-0.780	0.556	14.676	-0.102	1.000
13.513	0.284	0.306	14.921	-0.511	0.583	14.562	-0.245	1.000
13.765	0.369	0.306	14.931	-0.196	0.583	14.343	0.584	1.000
13.469	-0.113	0.333	14.932	-0.523	0.556	14.533	0.248	0.972
13.650	-0.066	0.306	15.089	-0.738	0.556	14.671	-0.392	0.972
13.882	0.313	0.278	14.984	-0.596	0.583	14.485	0.324	1.000
13.627	0.276	0.278	15.141	-0.632	0.556	14.557	0.170	1.000
13.611	0.364	0.333	14.863	-0.052	0.583	14.592	0.093	1.000
13.930	-0.046	0.278	15.131	-0.816	0.583	14.414	-0.046	0.972
13.870	0.474	0.333	14.799	0.092	0.556	14.467	0.362	1.000
13.920	0.408	0.306	14.864	-0.441	0.556	14.522	-0.180	0.972
13.490	-0.077	0.306	15.054	-0.437	0.556	14.570	0.170	0.972
13.713	0.412	0.333	14.821	-0.388	0.583	14.599	-0.285	0.972
13.463	0.265	0.306	14.942	-0.195	0.556	14.440	-0.072	1.000

X	Y	Z'	X	Y	Z'	X	Y	Z'
13.775	-0.042	0.278	14.965	-0.565	0.556	14.437	0.441	0.972
13.714	0.354	0.306	15.107	-0.581	0.583	14.643	-0.024	1.000
13.747	-0.075	0.333	15.076	-0.485	0.556	14.823	-0.454	1.000
14.445	-0.098	0.306	15.119	-0.783	0.556	14.759	-0.504	1.000
14.238	0.432	0.306	15.169	-0.813	0.583	14.705	-0.456	1.000
13.985	0.322	0.278	14.909	-0.148	0.583	14.680	-0.421	1.000
14.341	-0.081	0.278	15.045	-0.683	0.583	14.760	-0.265	0.972
14.395	0.291	0.278	15.042	-0.436	0.583	14.693	-0.141	1.000
14.363	-0.082	0.333	14.794	-0.361	0.556	14.791	-0.376	1.000
14.201	0.532	0.333	14.855	-0.429	0.583	14.742	-0.258	1.000
14.343	0.416	0.306	14.778	-0.332	0.611	14.810	-0.385	0.972
14.196	-0.059	0.333	14.422	0.595	0.611	14.726	-0.186	0.972
14.443	-0.098	0.278	14.408	-0.041	0.611	14.774	-0.337	1.000
14.129	-0.056	0.306	14.736	0.180	0.611	14.720	-0.463	0.972
14.191	0.323	0.278	15.052	-0.483	0.611	14.827	-0.424	0.972
14.392	-0.089	0.278	14.534	0.485	0.611	14.807	-0.415	1.000
14.185	0.435	0.306	15.158	-0.723	0.611	14.726	-0.219	1.000
14.288	-0.071	0.306	14.703	-0.259	0.611	14.730	-0.490	1.000
14.239	-0.068	0.278	14.380	0.627	0.611	14.776	-0.305	0.972
14.418	-0.093	0.333	14.877	-0.102	0.611	14.840	-0.498	0.972
14.084	-0.053	0.333	14.942	-0.245	0.611	14.743	-0.226	0.972
14.344	0.302	0.278	14.657	0.316	0.611	14.745	-0.498	0.972
14.033	0.518	0.333	14.940	-0.539	0.611	14.709	-0.180	1.000
14.085	-0.054	0.278	15.030	-0.436	0.611	14.709	-0.146	0.972

X	Y	Z'	X	Y	Z'	X	Y	Z'
14.445	0.385	0.306	15.116	-0.627	0.611	14.844	-0.464	0.972
14.290	-0.074	0.278	14.854	-0.055	0.611	14.771	-0.533	0.972
13.969	-0.051	0.306	14.599	0.403	0.611	14.793	-0.345	0.972
14.139	0.326	0.278	14.663	-0.224	0.611	14.794	-0.480	1.000
14.367	0.507	0.333	14.685	0.271	0.611	14.692	-0.107	0.972
14.022	-0.052	0.306	15.137	-0.675	0.611	14.804	-0.522	0.972
14.131	0.435	0.306	14.742	-0.294	0.611	14.695	-0.428	0.972
14.472	0.467	0.333	14.461	0.561	0.611	14.758	-0.297	1.000
14.291	0.426	0.306	14.832	-0.007	0.611			
14.257	0.529	0.333	14.629	0.360	0.611			
14.140	-0.055	0.333	14.362	-0.016	0.611			
14.182	-0.059	0.306						

也应该理解，上面表中公开的内部核心轮廓可以按几何比例增加或减小，从而用于其它相似的透平设计。因此，在表 I 中列出的坐标值可以按比例增加或减小，这样内部轮廓的形状保持不变。表 I 中坐标值依比例确定的一个版本可以是取表 I 中的 X、Y 和 Z 的坐标值，并将其中无量纲的 Z 坐标值通过乘以或除以一个常数转换成以英寸为单位。

虽然与目前认为是最实用和最优选的实施例相结合对本发明进行了描述，但是应该理解，本发明不局限于所公开的实施例，相反的，本发明意于涵盖不同的修正和等效配置，这些包含在从属权利要求的精神和范围之中。

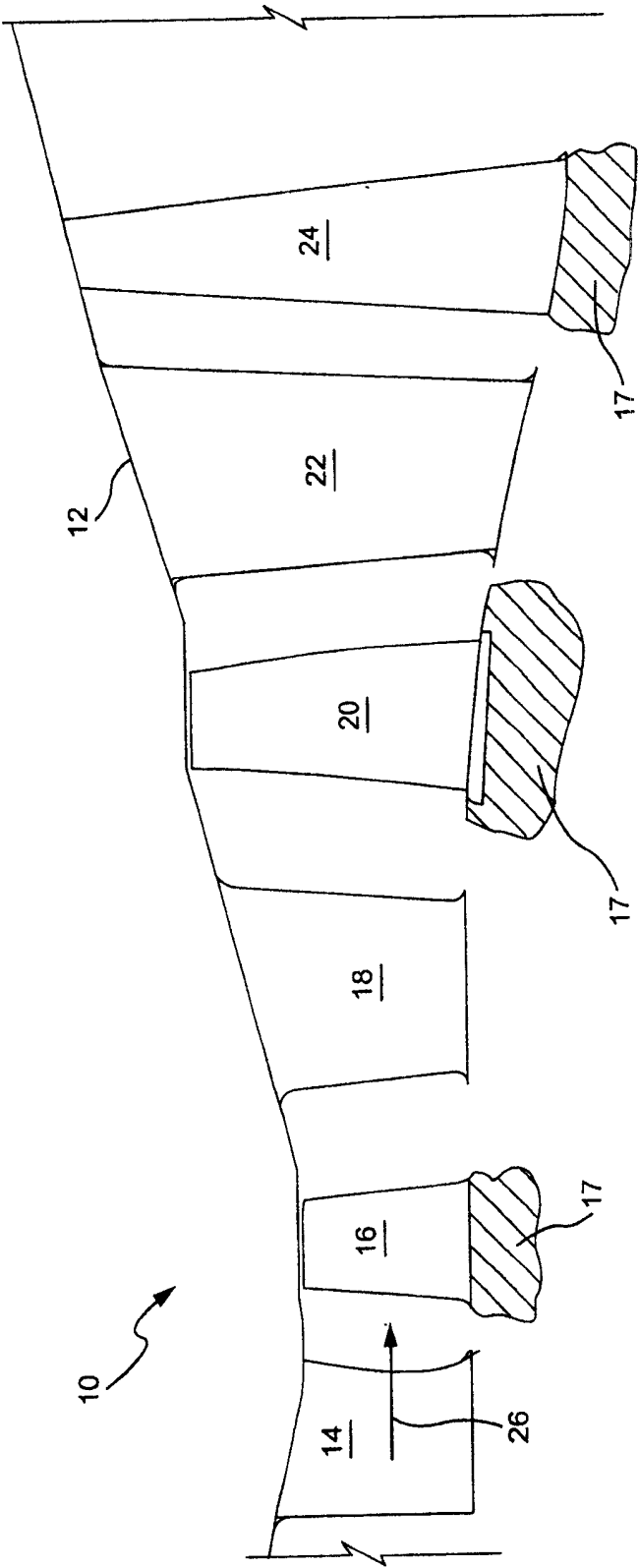


图 1

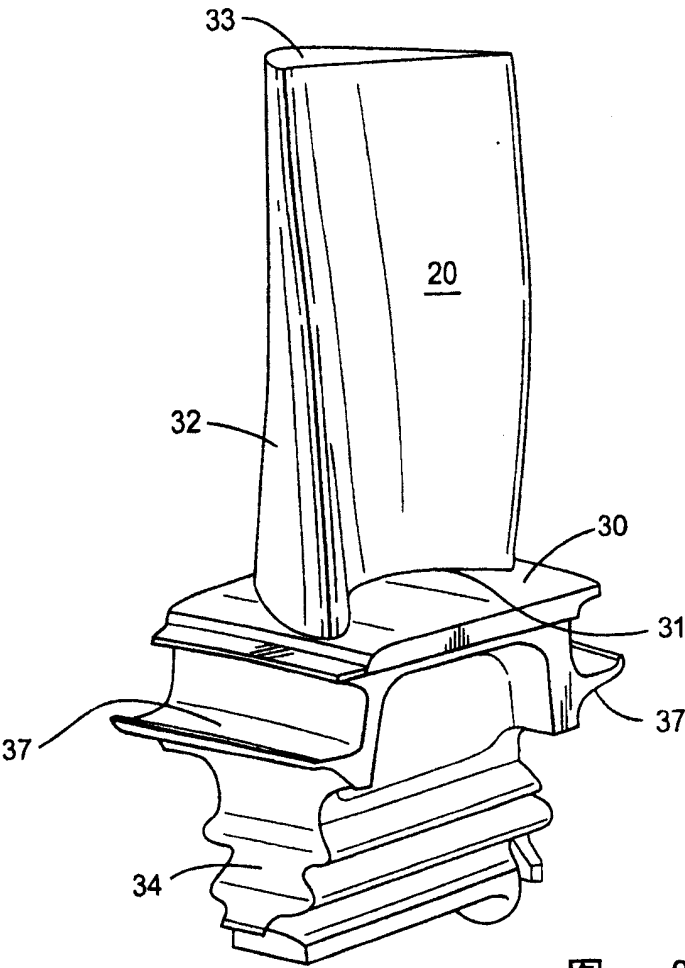


图 2

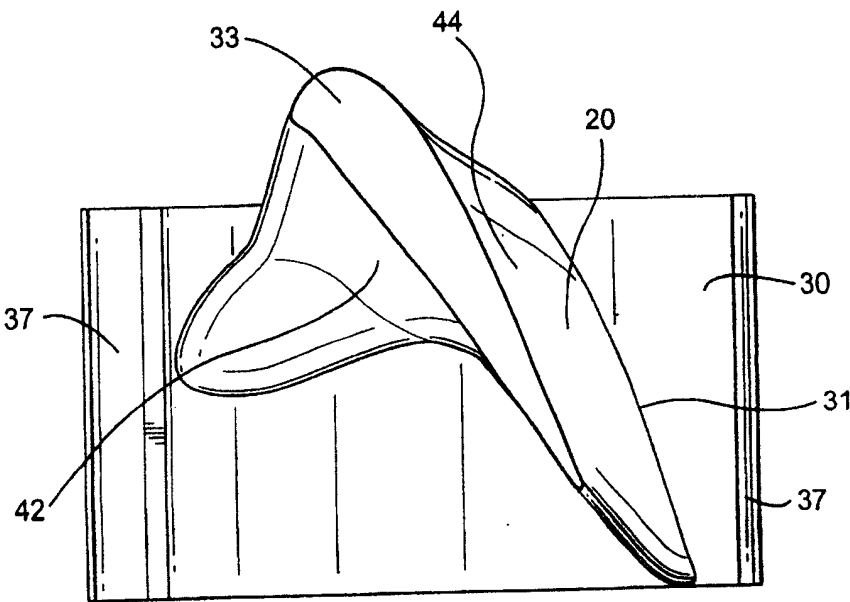


图 3

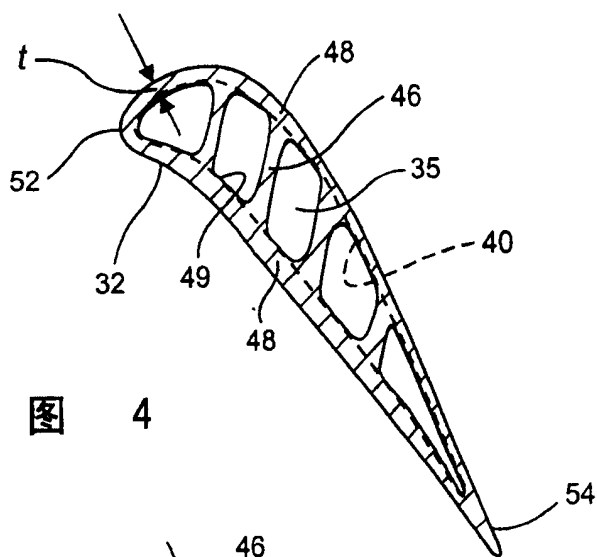


图 4

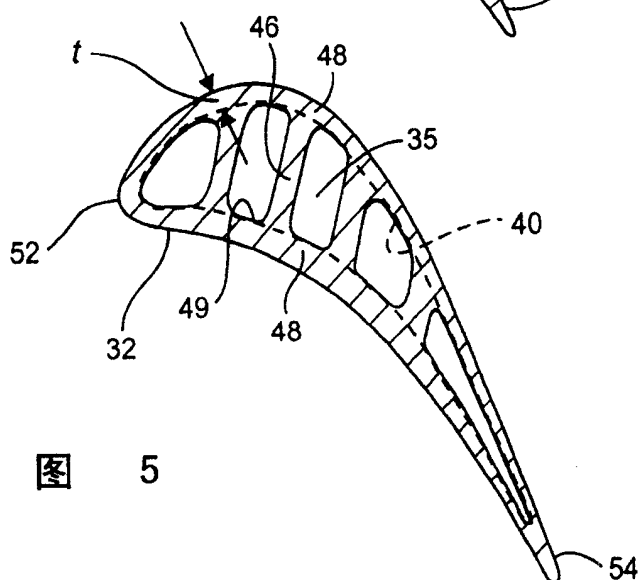


图 5

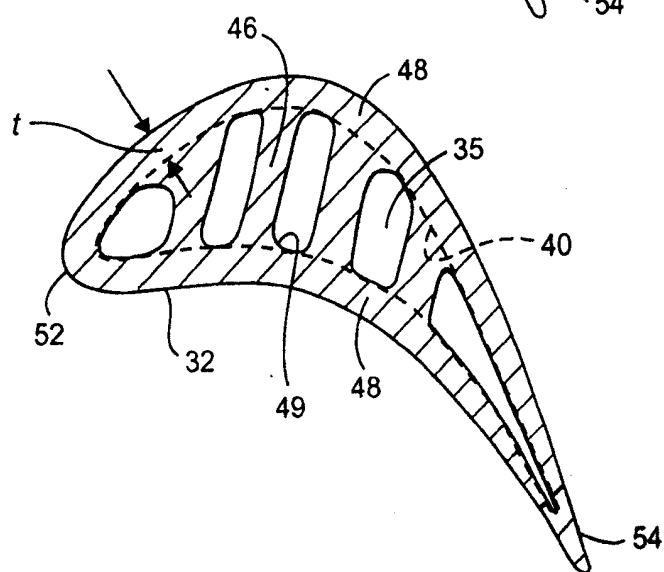


图 6

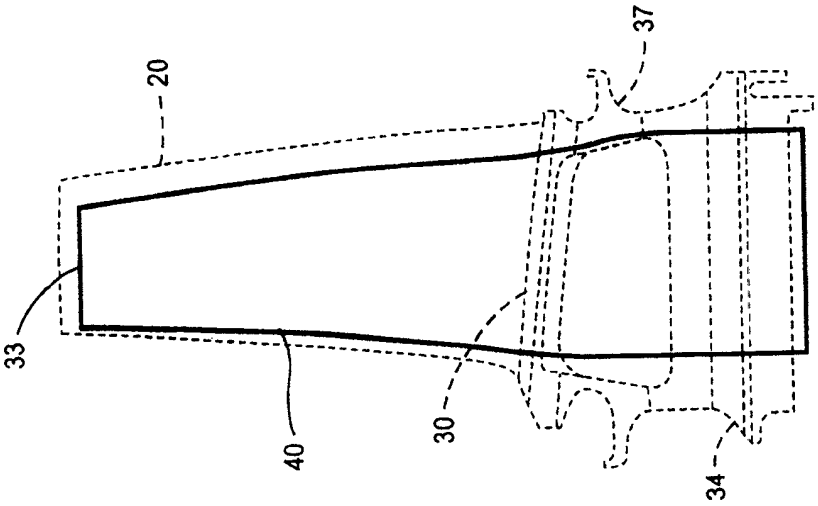


图 8

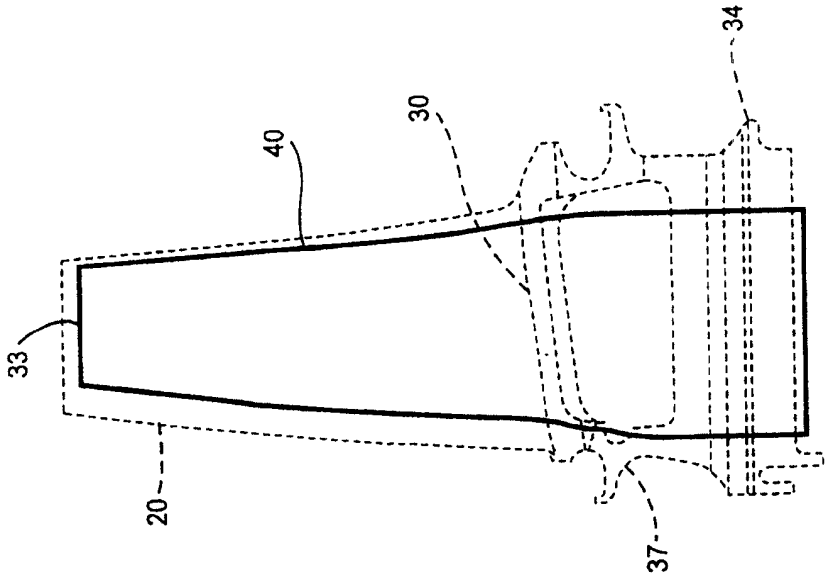


图 7

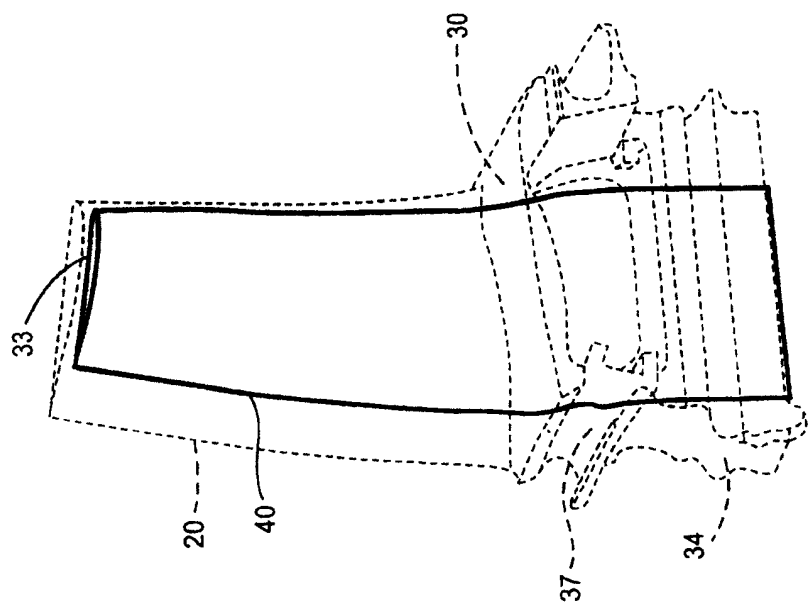


图 9

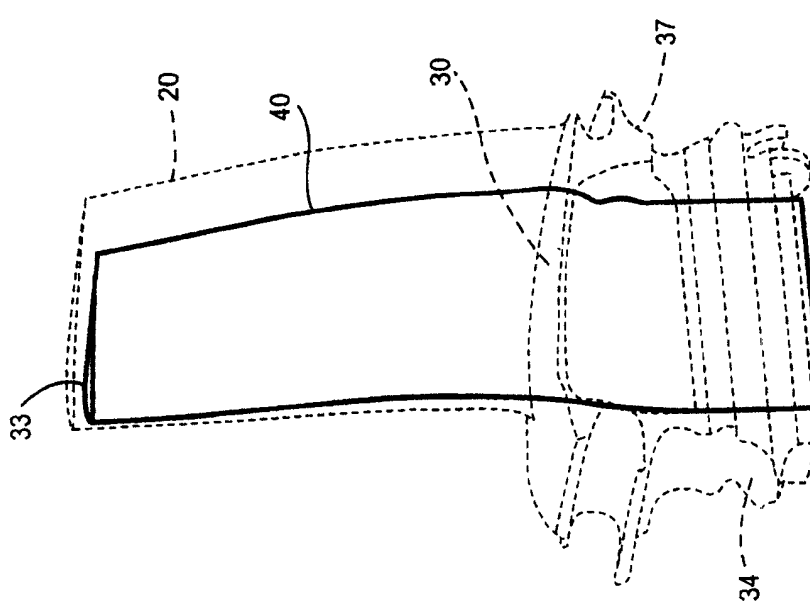


图 10