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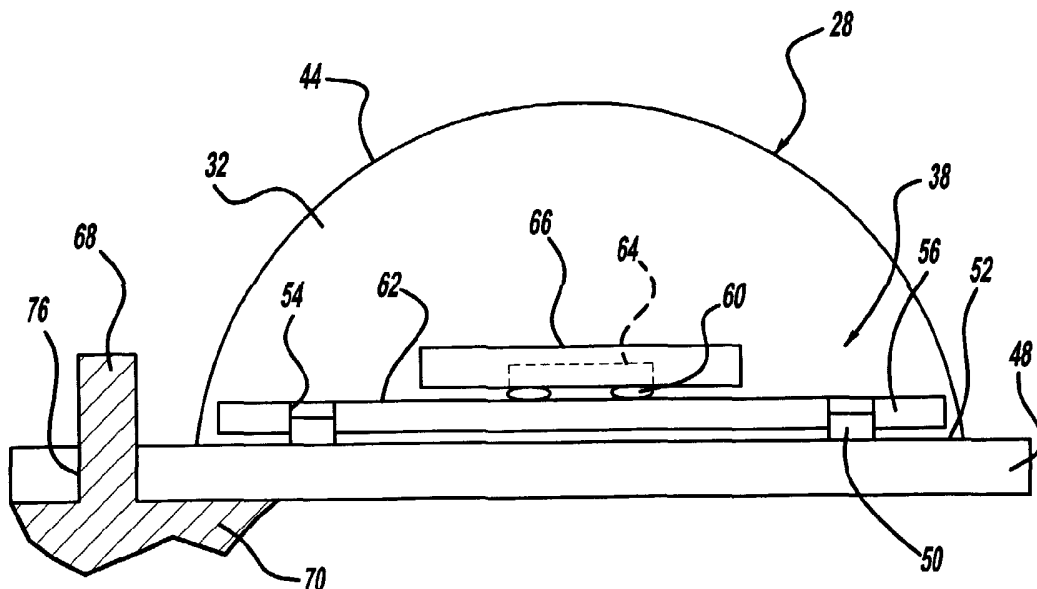
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- Declarations under Rule 4.17:**
— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,

[Continued on next page]

(54) Title: WHITE LED HEADLIGHT



(57) Abstract: A vehicle headlight (12) that employs a plurality of LED units (38) that emit white light. Each LED unit (38) employs chip-on-board technology where LED semiconductor chips (64) are mounted directly to a submount substrate (56) using solder or stud bumps (60). An elongated lens (28) is molded over the LED unit (38) in contact with a base substrate (48). Light emitted from the semiconductor chip (64) is reflected and directed by the lens (28) to generate a beam of light (58). Some of the light emitted from the LED semiconductor chip (64) is redirected back to the submount substrate (56) to be reflected back into the lens (28) to increase the light intensity of the LED unit (38). Several of the elongated lens (28) and associated LED units (38) are optically glued to a single prism (24) that collects all of the light beams from all of the LED units (38).



- CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)
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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H01J 1/62, 63/04 ; B60Q 1/04

US CL : 313/ 498, 502, 503, 512, 110,112,46; 362/235, 61, 337, 800

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
USPAT, EPO, JPO, DERWENT

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 4,774,434 A (BENNION) 27 September 1988 (27.09.1998) Fig 10, lines 35 of column 12-lines 45 of column 13	1-6, 20,25-27, 40-44, 62-64 ----- 7-13, 19,21, 23, 28-33, 45-47,65-70
X --- Y	US 6,345,903 B1 (KOIKE et al.) 12 February 2002 (12.02.2002) Fig 10, Fig 23, column 7	40-45, 65-70 ----- 11, 58,60, 62-70, 131-135
Y	US 5,857,767 A (HOCHSTEIN) 12 January 1999 (12.01.1999) Fig 2, & Fig 4, see Column 4	28-30, 65-70
Y	US 5,998,925 A (SHIMIZU et al.) 07 December 1999 (07.12.1999) see Abstract	23
Y	US 5,813,753 A (VRIENS et al.) 29 September 1998 (29.09.1998)	10, 19,58,60
Y	US 5,854,867 A (LEE et al.) 29 December 1998 (29.12.1998) lines 26-38 of column 4	131-135



Further documents are listed in the continuation of Box C.



See patent family annex.

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INTERNATIONAL SEARCH REPORT

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C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4,951,179 A (MACHIDA) 21 August 1990 (21.08.1990) Fig 14 & 15, lines 38-67 of column 4	7-13, 21, 31-33, 45-47, 60, 69-70