

(19) (KR)
(12) (A)

(51) 。 Int. Cl.⁷ (11) 10-2004-0063152
G02B 27/28 (43) 2004 07 12

(21) 10-2004-7007520
(22) 2004 05 17
2004 05 17
(86) PCT/US2002/037166 (87) WO 2003/052489
(86) 2002 11 19 (87) 2003 06 26

(30) 01403044.9 2001 11 27 EP(EP)

(71) 92648 46

(72) , -35830 7

46038 가 9978

46038 7594

(74) :

(54)

; 1 , 1 2 (27) ; 2
; ; 1
; , 1 (20), 1 (30),
· (26) 1/4 (32)
(24) (10) ·

4a

, , , 1/4 ,

LCOS LCD LCOS

LCOS LCD (imager) LCD LCOS (polarizer)

(illumination)

(ray) (electrical field)가

가

2

45 ° 1/4 1/4 2 (plate) 1/

90 °

(integrating rod)(10232430) (fl

y eye lens) (PBS) (array) . PBS 가 . PBS

가

가

가 LCD LCOS

가

가

가 LCD LCOS

(integrator) 1/4 (plate)

1 2

1 2

1

1

1 2 (forward direction)
 ; 1 ; 2
 ; , 1 ; 1
 .
 , ;
 2 - 2 ;
 - ; , 1
 - 1
 .

1 (pipe) (rod)

2(a) 2(b)

3(a) 3(b)

4(a), 4(b), 4(c) 4(d)

5 (waveform)

4) LCD LCOS(liquid crystal on silicon) (12) (reflector)(1
 (10) 1 (14) (image)(16) (20)
 (18) (20) (integrator), (24)
 (22)

(beam)
 가 (mirrored side)
 LCOS LCD () (format)

(reflective wall) (26) (20) 2 (sid
 e wall) 4(a)~4(d) (30)
 2(a) 2(b) 가 3(a) 3(b)
 (hole)(18)

(, s)

s

p

s

가

4(a)~4(d)

4(a)

Moxtek

Proflux

(30)

(38)

(27)

, 4(a) (27) 1/4 (32)

1/4 4(b) (18) 1/4

4

; 4(a) 4(b)

4(c) 4(d) (26)

Unaxis Silflex

4(a) 4(b) (assembly) 4(c) 4(d)

(34) (27) (38) 45 ° (36) 4(d)

(27) 45 ° 90 °

(40)

(retardation f
(dashed

ilm)(42) (27) 4(c) 4(d)

line) 4(c) 4(d)

ASAP

Radiant 16 (side) 11.08 × 6.23mm 98% (Silflex

p 85% Moxtek Proflux

1/4 85% s 3.25mm 가

0.472 5 가

가 s 가 Moxtek

3 6.33mm 0.32

, G = 0.472/0.323 = 1.46

, PBS

(gap) (burner) 1.3mm

(tooling) PBS

5 1 (light flux) 6.33mm 32.3%

32.3%가 가 46%

가 3.25mm 47.2%

(57)

1.

(20) - 1 2 (, p s) (12)

(18), 1 2

(30) - ;

(26);

- (32) 1 -

1 2. ,

2 3. ,
1/4

1 4. ,
1/4

4 5. ,

1 6. ,

2 7. ,

3 8. ,

1 9. ,

8 10. ,

1 11. ,

1/4

12.

8 ,

1/4 .

13.

1 ,

1/4 .

14.

8 ,

1/4 .

15.

1 ,

,

16.

1 ,

,

;

45 °

.

17.

1 ,

, 45 ° 90 °

1 2 ,

18.

(24) (10) ,

1 2 (27) (forward direction) ;

1 ;

2 ;

1 ;

1 1

.

19.

18 ,

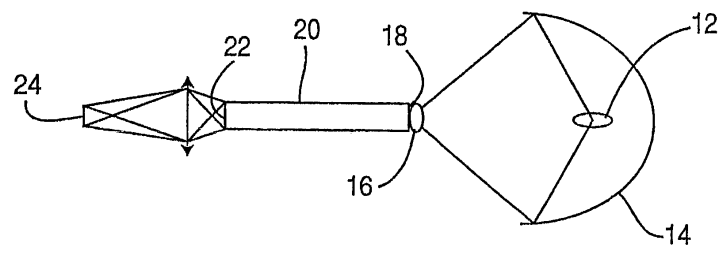
.

20. 18, $\frac{1}{4}$ 가 .

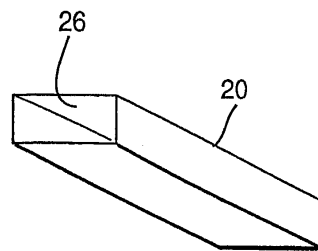
21. ,
(12);
(26) (20); (18) (27)
1 2 - 2
- (30);
1 -
(32)

21 **23.** ,
1/4 .

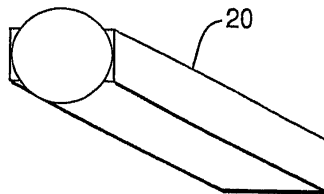
1

10

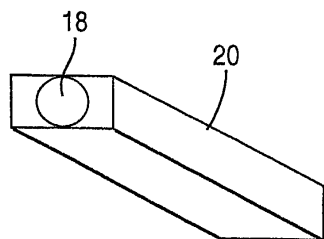
2a



2b



3a



3b

