

### STRADELLA-8-HV-T2

IESNA Type II (medium) beam, applicable for European P-class standard pedestrian lighting and M-class roads. Variant with improved creepage distance for high voltage circuit designs.

Dimensions	49.5 x 49.5 mm
Height	5 mm
Fastening	pin, screw
ROHS compliant	yes 🛈

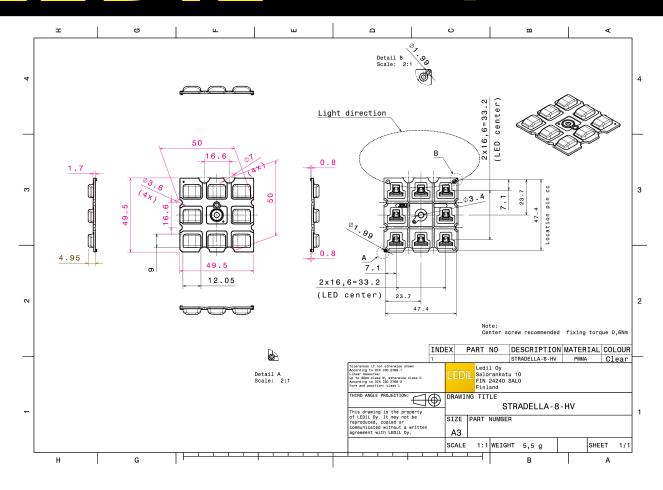


MATERIALS:

Component	Туре	Material	Colour	Finish
STRADELLA-8-HV-T2	Multi-lens	PMMA	clear	

#### **ORDERING INFORMATION:**

Component	Qty in box	MOQ	MPQ	Box weight (kg)
C15981_STRADELLA-8-HV-T2	800	160	160	5.3
» Box size: 480 x 280 x 300 mm				



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See also our general installation guide: <u>www.ledil.com/installation\_guide</u>



#### **OPTICAL RESULTS (MEASURED):**

				THY	KHT
				96*	T
LED	J Series 3030				200
FWHM / FWTM	Asymmetric				L
Efficiency	97 %			50°	400
Peak intensity	0.8 cd/lm				600
LEDs/each optic	1			$X \times I$	
Light colour	White			45*	800
Required compone	ents:				1000
					1230
				30*	1430
				139	0° 15°
				90*	
LED	XD16				7
FWHM / FWTM	Asymmetric			789	too
Efficiency	94 %			XX	400
Peak intensity	0.9 cd/lm			60*	
LEDs/each optic	1			X M	600
Light colour	White			45*	
Required compone	ents:				800
				XT	1000
					1230
					0° 15°
				90*	FTT
	XT-E				9
1 - 1 )	XIE			750	
	Asymmetric				
FWHM / FWTM	Asymmetric 94 %				
Efficiency	94 %			604	400
FWHM / FWTM Efficiency Peak intensity	94 % 0.8 cd/lm			áði -	400
FWHM / FWTM Efficiency Peak intensity LEDs/each optic	94 % 0.8 cd/lm 1			61 67	40
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	94 % 0.8 cd/lm 1 White			6	80 60 00
FWHM / FWTM Efficiency Peak intensity LEDs/each optic	94 % 0.8 cd/lm 1 White			6	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	94 % 0.8 cd/lm 1 White			6.	40
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	94 % 0.8 cd/lm 1 White				40 50 00 100 100
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	94 % 0.8 cd/lm 1 White				60 100 100 100 0 <sup>1</sup> 12 <sup>2</sup> 0 <sup>1</sup> 12 <sup>3</sup>
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	94 % 0.8 cd/lm 1 White ents:			5° 15°	40 60 00 100 120 0 <sup>1</sup> 22 <sup>0</sup> 0 <sup>1</sup> 2 <sup>3</sup>
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	94 % 0.8 cd/lm 1 White ents:			50° 15 <sup>5</sup>	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	94 % 0.8 cd/lm 1 White ents:			- 40° - 40° - 30° - 35°	40 60 90 100 100 0' 10'
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	94 % 0.8 cd/lm 1 White ents:			30° 13°	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone <b>Composition</b> <b>Composition</b> <b>Composition</b>	94 % 0.8 cd/lm 1 White ents: LUXEON TX Asymmetric 94 %			33° 13'	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Model of the second sec	94 % 0.8 cd/lm 1 White ents: <b>.EDS</b> LUXEON TX Asymmetric			45	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Composition Required compone Efficiency Peak intensity LEDs/each optic	94 % 0.8 cd/m 1 White ents: EDS LUXEON TX Asymmetric 94 % 0.8 cd/m 1				
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Composition Required compone Composition LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	94 % 0.8 cd/m 1 White ents: EDS LUXEON TX Asymmetric 94 % 0.8 cd/m 1 White			6° 3° 30°	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Composition Required compone Efficiency Peak intensity LEDs/each optic	94 % 0.8 cd/m 1 White ents: EDS LUXEON TX Asymmetric 94 % 0.8 cd/m 1 White			5° 5°	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Composition Required compone Composition LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	94 % 0.8 cd/m 1 White ents: EDS LUXEON TX Asymmetric 94 % 0.8 cd/m 1 White			30° 15°	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Composition Required compone Composition LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	94 % 0.8 cd/m 1 White ents: EDS LUXEON TX Asymmetric 94 % 0.8 cd/m 1 White			50° - 13°	



#### **OPTICAL RESULTS (MEASURED):**

OSRAM Opto Semiconductors		90* 99*
LED	OSCONIQ S 3030 (QSLR31)	7
FWHM / FWTM	Asymmetric	75 200 75
Efficiency	94 %	440
Peak intensity	0.8 cd/lm	60* 60*
LEDs/each optic	1	60
Light colour	White	45* 800 45*
Required compone		
		1000
		1200
		30° 1400 30° 30°
PHILIP	20	THAY YEATT
		90* 90*
LED	Fortimo FastFlex LED 4x8up PR G5	750 200 750
FWHM / FWTM	Asymmetric	
Efficiency	94 %	60* 60*
Peak intensity	0.9 cd/lm	
LEDs/each optic	1	
Light colour	White	45* 1000 45*
Required compone	nts:	1200
		3400
		30* 1600 15* 30* 30*
SEOUL		
SEOUL SEMICONDUCTOR		90* 90*
LED	SEOUL DC 3030C	75° 200 75°
FWHM / FWTM	Asymmetric	
Efficiency	94 %	ave
Peak intensity	0.9 cd/lm	600
LEDs/each optic	1	200
Light colour	White	e5*
Required compone	nts:	
		1220
		1430
		30° 15° 30°
SEOUL		
SEOUL SEMICONDUCTOR		90+ 90
LED	Z5M4	770
FWHM / FWTM	Asymmetric	
Efficiency	97 %	50* 50*
Peak intensity	0.6 cd/lm	$\times$ / $\uparrow$
LEDs/each optic	1	
Light colour	White	45* 000 45*
Required compone	nts:	
		$\times$ $\square$ $\times$
		1000
		30*
		15° 0° 15°



		90* 90
LED	XP-G2	
FWHM / FWTM	Asymmetric	75° 75°
Efficiency	94 %	XXXXXXX
Peak intensity	0.7 cd/lm	400
LEDs/each optic	1	
Light colour	White	
Required components:	Wille	45° 810 45
Required components.		
		1000
		1220
		30* 15 <sup>5</sup> 0 <sup>6</sup> 15 <sup>4</sup> 30
LED	XP-G2 HE	90* 90
ED FWHM / FWTM	Asymmetric	75%
Efficiency	93 %	200
Peak intensity	0.4 cd/lm	.60 <sup>4</sup> 300 60
LEDs/each optic	1	
Light colour	White	
Required components:		
required components.		800
		700
		200
		30* <u>15</u> <sup>5</sup> 0 <sup>6</sup> 15* 30
CREE <del>\$</del> LEDs		9°
LED	XP-G3	4
FWHM / FWTM	Asymmetric	750 500 76
Efficiency	84 %	
Peak intensity	0.4 cd/lm	50* 60
LEDs/each optic	1	30
Light colour	White	45* 400 45
Required components:		
		X/T/X
Protective plate	, glass	00
		30* 700 500
CREE ≑		126 06 1251
LEDS		90* 90
LED	XP-G3	75%
FWHM / FWTM	Asymmetric	
Efficiency	94 %	00 V V V
Peak intensity LEDs/each optic	0.5 cd/lm	400
	1 White	
Light colour Required components:	AALUIG.	45° 000 45
required components:		$ \times  \setminus\times$
		$\times$ /   $\setminus$ $\times$
		30° 15° 30



CREE ≑		
LEDS	XQ-E HD	90*
FWHM / FWTM		73° - 200 - 73°
	Asymmetric 95 %	
Efficiency Peak intensity	95 % 0.7 cd/lm	504 604
LEDs/each optic	1	
Light colour	White	000
Required components:	White	· · · · · · · · · · · · · · · · · · ·
Required components.		
		1000
		30* 1200 30* 30*
		90° 90°
LED	XQ-E HI	70
FWHM / FWTM	Asymmetric	400
Efficiency	96 %	50 <sup>4</sup> 60 <sup>4</sup>
Peak intensity	0.9 cd/lm	X / so
LEDs/each optic	1 White	X / 000
Light colour Required components:	white	di di
Required components:		1000
		1200
		1430
		30° 15° 0° 15° 30°
	05	127 <sup>4</sup> 0 <sup>4</sup> 12 <sup>4</sup> 10 <sup>4</sup>
		30* 30*   30* 30*
LED	LUXEON 3030 2D (Round LES)	20 <sup>2</sup> 12 <sup>2</sup> 0 <sup>2</sup> 12 <sup>2</sup> 0 <sup>2</sup>
LED FWHM / FWTM	LUXEON 3030 2D (Round LES) Asymmetric	20 20 20 20 20 20 20 20 20 20
LED FWHM / FWTM Efficiency	LUXEON 3030 2D (Round LES) Asymmetric 94 %	60° 10° 10° 10° 10° 10° 10° 10° 1
LED FWHM / FWTM Efficiency Peak intensity	LUXEON 3030 2D (Round LES) Asymmetric 94 % 0.8 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON 3030 2D (Round LES) Asymmetric 94 % 0.8 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON 3030 2D (Round LES) Asymmetric 94 % 0.8 cd/lm	2 <sup>3</sup> 12 <sup>9</sup> 0 <sup>4</sup> 12 <sup>7</sup> 29 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON 3030 2D (Round LES) Asymmetric 94 % 0.8 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON 3030 2D (Round LES) Asymmetric 94 % 0.8 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON 3030 2D (Round LES) Asymmetric 94 % 0.8 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON 3030 2D (Round LES) Asymmetric 94 % 0.8 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) Asymmetric 94 % 0.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) Asymmetric 94 % 0.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) Asymmetric 94 % 0.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) Asymmetric 94 % 0.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) Asymmetric 94 % 0.8 cd/lm 1 White S LUXEON 3030 2D (Square LES) Asymmetric 94 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) Asymmetric 94 % 0.8 cd/lm 1 White S LUXEON 3030 2D (Square LES) Asymmetric 94 % 0.8 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) Asymmetric 94 % 0.8 cd/lm 1 White S LUXEON 3030 2D (Square LES) Asymmetric 94 % 0.8 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) Asymmetric 94 % 0.8 cd/lm 1 White S LUXEON 3030 2D (Square LES) Asymmetric 94 % 0.8 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) Asymmetric 94 % 0.8 cd/lm 1 White S LUXEON 3030 2D (Square LES) Asymmetric 94 % 0.8 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) Asymmetric 94 % 0.8 cd/lm 1 White S LUXEON 3030 2D (Square LES) Asymmetric 94 % 0.8 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) Asymmetric 94 % 0.8 cd/lm 1 White S LUXEON 3030 2D (Square LES) Asymmetric 94 % 0.8 cd/lm 1	



	LUXEON 3535 2D	
FWHM / FWTM	Asymmetric	
Efficiency	94 %	
Peak intensity	0.8 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		
		30*
LED	LUXEON C	
FWHM / FWTM	Asymmetric	75
Efficiency	78 %	
Peak intensity	0.6 cd/lm	AU 400
LEDs/each optic	1	=
Light colour	White	42'
Required components:		
Protective plate	e, glass	200
<b>A</b>		
🥙 LUMILED	)S	8*
LED	LUXEON CZ	
FWHM / FWTM	Asymmetric	
Efficiency	96 %	400
Peak intensity	0.8 cd/lm	605
LEDs/each optic	1	600
Light colour	White	at 200
Required components:		
riequieu compensitori		1000
		1200
		30° 1400 125 <sup>°</sup> 0° 15°
<b>Μ</b> ΝΙCΗΙΛ		
LED	NF2x757D	
FWHM / FWTM	Asymmetric	
Efficiency	94 %	
Peak intensity	0.9 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		



#### **OPTICAL RESULTS (SIMULATED):**

#### **Μ**ΝΙCΗΙΛ

LED	NVSxx19B/NVSxx19C
FWHM / FWTM	Asymmetric
Efficiency	84 %
Peak intensity	0.5 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

Protective plate, glass

#### OSRAM Opto Semiconductore

LED	Duris S5 (2 chip)
FWHM / FWTM	Asymmetric
Efficiency	94 %
Peak intensity	0.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OSRAM Opto Semiconductors		90° 80°
LED	OSCONIQ C 2424	
FWHM / FWTM	Asymmetric	The two the tw
Efficiency	96 %	400
Peak intensity	0.9 cd/lm	50° 60.
LEDs/each optic	1	
Light colour	White	45* 810 45*
Required components:		1000
		1200
		30° 1400 30° 30° 30°
OCDAM		
OSRAM Opto Semiconductors		90 <sup>4</sup> 90 <sup>4</sup>
OSRAM Opto Semiconductors LED	OSCONIQ C 2424	90
Opto Semiconductors	OSCONIQ C 2424 Asymmetric	23° 00 90°
opto Semiconductors LED FWHM / FWTM Efficiency		2°
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity	Asymmetric	,70 00 00 00
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	Asymmetric 86 % 0.7 cd/lm 1	2° 00 00 00
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 86 % 0.7 cd/lm	2° 00 00 00
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	Asymmetric 86 % 0.7 cd/lm 1	50 <sup>5</sup> 40 60 <sup>5</sup> 60
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Asymmetric 86 % 0.7 cd/lm 1 White	50 <sup>5</sup> 40 60 <sup>5</sup> 60
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 86 % 0.7 cd/lm 1 White	50° 60° 60°



OSRAM Opto Semiconductors		art at a star
LED	OSCONIQ C 3030	
FWHM / FWTM	Asymmetric	75%
Efficiency	97 %	
Peak intensity	0.7 cd/lm	80* 400 807
LEDs/each optic	1 White	
Light colour Required components:	White	e2. 300 e2.
Required components.		X   X
		1000
		30 <sup>4</sup> 15 <sup>5</sup> 0 <sup>6</sup> 15 <sup>5</sup> 30 <sup>6</sup>
OSRAM		
Opto Semiconductors	OSCONIQ C 3030	90° 90°
FWHM / FWTM		73° 78°
	Asymmetric 86 %	
Efficiency Peak intensity	0.5 cd/lm	60*
	1	400
LEDs/each optic		
Light colour	White	6°* 65*
Required components:		
Protective plate	, glass	
		200
		30* 15 <sup>4</sup> 30*
OSRAM Opto Semiconductors		
LED	OSLON Square CSSRM2/CSSRM3	
FWHM / FWTM		75°
Efficiency	Asymmetric 83 %	
Peak intensity	0.4 cd/lm	40
LEDs/each optic	1	
Light colour	White	400
Required components:	White	65* 500 45*
Protective plate	, glass	
		700
		90* <u>19</u> <sup>5</sup> 0 <sup>6</sup> 19* 30*
OSRAM		
Opto Semiconductors	OSLON Square CSSRM2/CSSRM3	
FWHM / FWTM	Asymmetric	75%
Efficiency	95 %	
Peak intensity	0.6 cd/lm	.50 <sup>4</sup> 400 50*
LEDs/each optic	1	$  \times /   \top \setminus \times  $
Light colour	White	
Required components:	AALUG	
Required components:		
		$\times / \top \setminus X$
		1000
		30° and 30°
		15' 0" 15"



#### **OPTICAL RESULTS (SIMULATED):**

#### OSRAM

LED	OSI
FWHM / FWTM	Asy
Efficiency	94 9
Peak intensity	0.8
LEDs/each optic	1
Light colour	Whi
Required components:	

	OSLON Square EC
M	Asymmetric
	94 %
у	0.8 cd/lm
ptic	1
	White

PHILIPS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	Fortimo FastFlex LED 4x8up PR G5 Asymmetric 86 % 0.7 cd/lm 1 White	
	, 9000	5000 20* 12 <sup>0</sup> 12 <sup>0</sup> 20*
SAMSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plat	LH151B Asymmetric 85 % 0.9 cd/lm 1 White	
SAMSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	C LH181A Asymmetric 94 % 0.7 cd/lm 1 White	



SAMSUN	IG	
LED	LH181B	*
FWHM / FWTM	Asymmetric	738
Efficiency	85 %	
Peak intensity	0.6 cd/lm	50 <sup>4</sup> 400 6
LEDs/each optic	1	X/T X
Light colour	White	45° 210 4
Required components:		
- [· · · · · ]· · · ·		800
Protective plate	e, glass	$\times$
		1000
SAMSUN	IG	
LED	LH181B	90
LED FWHM / FWTM	Asymmetric	750 200 75'
Efficiency	94 %	
Peak intensity	0.7 cd/lm	604 400 60
LEDs/each optic	1	
Light colour	White	45° 600
Required components:		
		00
		1000
		30 <sup>4</sup> 13 <sup>5</sup> 1830 15 <sup>4</sup> 30 <sup>4</sup>
SAMSUN	IG	90* 90
SAMSUN		90*
SAMSUN LED FWHM / FWTM	LH351B	90° 73° 730 73° 73
LED		90* 92 73* 730 700 700 700 700
LED FWHM / FWTM Efficiency	LH351B Asymmetric	
LED FWHM / FWTM	LH351B Asymmetric 85 %	
LED FWHM / FWTM Efficiency Peak intensity	LH351B Asymmetric 85 % 0.5 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LH351B Asymmetric 85 % 0.5 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LH351B Asymmetric 85 % 0.5 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH351B Asymmetric 85 % 0.5 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LH351B Asymmetric 85 % 0.5 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	LH351B Asymmetric 85 % 0.5 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	LH351B Asymmetric 85 % 0.5 cd/lm 1 White e, glass	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate SAMSUN LED	LH351B Asymmetric 85 % 0.5 cd/lm 1 White e, glass	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate SAMSUN LED FWHM / FWTM	LH351B Asymmetric 85 % 0.5 cd/lm 1 White e, glass UG LM301B Asymmetric	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate SAMSUN LED FWHM / FWTM Efficiency	LH351B Asymmetric 85 % 0.5 cd/lm 1 White e, glass UG LM301B Asymmetric 96 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Protective plate SAMSUN LED FWHM / FWTM Efficiency Peak intensity	LH351B Asymmetric 85 % 0.5 cd/lm 1 White e, glass UG LM301B Asymmetric	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Protective plate SANSSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LH351B Asymmetric 85 % 0.5 cd/lm 1 White e, glass VC LM301B Asymmetric 96 % 0.8 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Protective plate SANNSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH351B Asymmetric 85 % 0.5 cd/lm 1 White e, glass	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Protective plate SANSSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LH351B Asymmetric 85 % 0.5 cd/lm 1 White e, glass	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate SANNSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH351B Asymmetric 85 % 0.5 cd/lm 1 White e, glass	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate SANNSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH351B Asymmetric 85 % 0.5 cd/lm 1 White e, glass	



SEOUL SEOUL SEMICONDUCTOR		90°
LED	Z8Y19	
FWHM / FWTM	Asymmetric	75° 40 75°
Efficiency	93 %	400
Peak intensity	0.8 cd/lm	60°
LEDs/each optic	1	50
Light colour	White	65*
Required components:		
		1000
		1200
		30*
		15 <sup>5</sup> 0 <sup>6</sup> 15 <sup>6</sup>
SEOUL		
CTOW CTHICONDUCTOR		ant
SEOUL SEMICONDUCTOR	78722	90 <sup>4</sup> 90 <sup>*</sup>
LED	Z8Y22 Asymmetric	23
LED FWHM / FWTM	Asymmetric	
LED FWHM / FWTM Efficiency	Asymmetric 93 %	
LED FWHM / FWTM Efficiency Peak intensity	Asymmetric	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	Asymmetric 93 % 0.7 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 93 % 0.7 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	Asymmetric 93 % 0.7 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 93 % 0.7 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 93 % 0.7 cd/lm 1	