

STRADELLA-IP-28-VSM

IESNA Type V (square) beam for wide areas lighting such as car parks. Variant made from PMMA.

SPECIFICATION:

Dimensions	100.0 x 100.0 mm
Height	9.5 mm
Fastening	screw
Ingress protection classes	IP66, IP67
ROHS compliant	yes 🛈

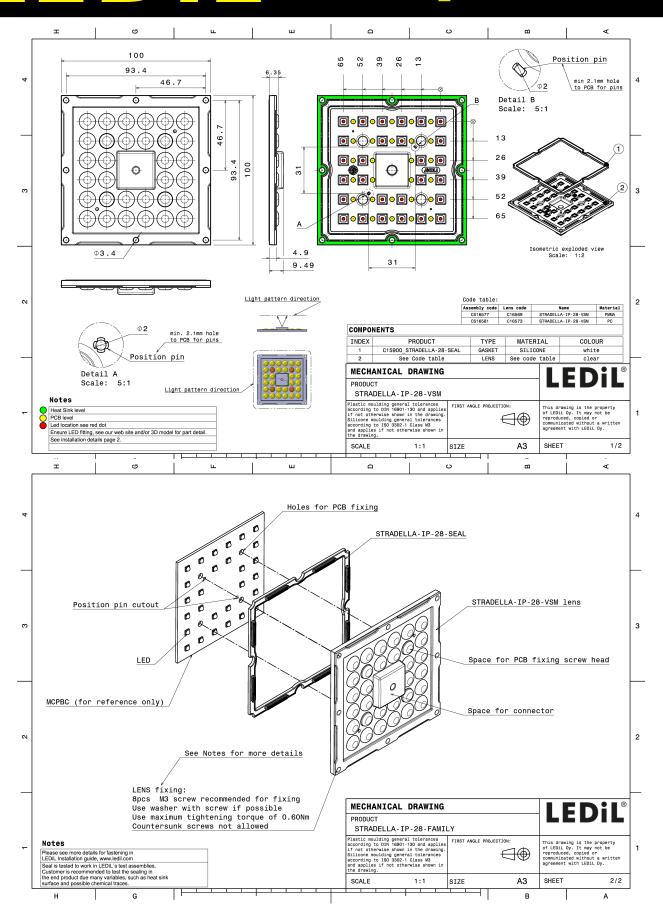


MATERIALS:

Component	Туре	Material	Colour	Finish
STRADELLA-IP-28-VSM	Multi-lens	PMMA	clear	
STRADELLA-28-SEAL	Seal	Silicone	white	

ORDERING INFORMATION:

Component		Qty in box	MOQ	MPQ	Box weight (kg)
CS16577_STRADELLA-IP-28-VSM	Multi-lens	156	78	78	6.0
» Box size: 476 x 273 x 247 mm					



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See also our general installation guide: www.ledil.com/installation_guide



		90°
LED	HiQLED STR28 CR JE2835 4x7 xxx	
FWHM / FWTM	129.0° / 140.0°	73° 100 78°
Efficiency	94 %	
Peak intensity	0.5 cd/lm	60 ⁴ 200 60*
LEDs/each optic	1	
Light colour	' White	30
Required compone		45" 400
Required compone		\times
		30° 13° 500 30° 30°
ELECTRONICS		
		90* 90*
LED	HiQLED STR28 CR JK3030 4x7 xxx	700 700
FWHM / FWTM	128.0° / 137.0°	
Efficiency	94 %	.50° 200 60°
Peak intensity	0.5 cd/lm	
LEDs/each optic	1	
Light colour	White	45* 400 45*
Required compone	nts:	
		200
		60
		30* 30*
		133 ³ 700 13 ³
		90* 90*
LED	QUICK FLUX STR28 XD2x14 xxx G8	
FWHM / FWTM	141.0° / 148.0°	75* 100-75*
Efficiency	94 %	
Peak intensity	0.5 cd/lm	.60* <u>200</u> 60*
LEDs/each optic	1	$\vee \times / \wedge \times \vee$
Light colour	White	45°
Required compone	nts:	
		500
		X T X
		30° 13° 30°
CONET		
	QUICK FLUX STR28 XP2x14 xxx G7	
FWHM / FWTM	146.0° / 159.0°	75* 75*
Efficiency	94 %	
Peak intensity	94 % 0.4 cd/lm	.50° 60°.
LEDs/each optic	0.4 cd/im 1	
	1	
Light colour	White	
Light colour	White	45° 6°
Light colour Required compone		6° 6° 6°
		6° 0° 0°.
		6° 0° 0° 0°
		200 200 200 00 00 00 00 00 00 0



	QUICK FLUX STR28 XT2x14 xxx G5	
FWHM / FWTM	146.0° / 157.0°	751 751
	94 %	
Efficiency		.50° 50°.
Peak intensity	0.4 cd/lm	
LEDs/each optic	1	30
Light colour	White	45° 57
Required componer	its:	400
		30° 30°
		90* 90*
LED	J Series 2835	
FWHM / FWTM	129.0° / 140.0°	73* 100 75*
Efficiency	94 %	
Peak intensity	0.5 cd/lm	50 ⁴ 200 50 ⁴
LEDs/each optic	1	300
Light colour	White	45' 5'
Required componer	Its:	400
		500
		30° 15° 30°
LED	J Series 3030	90*
FWHM / FWTM		770 700 770
	128.0° / 137.0° 94 %	
Efficiency		50° 200 50°.
Peak intensity	0.5 cd/lm	30
LEDs/each optic	1 White	$\times \times / \wedge \times \times$
Light colour		· 65* 400 65*
Required componer	IIS.	
		000
		30* 15 ⁵ 390 15* 30*
CREE ≑		
LEDS		90* 90*
LED	J Series 3030	
FWHM / FWTM	138.0° / 148.0°	73° 100 73°.
Efficiency	98 %	50 ¹⁶ 200 500 1
Peak intensity	0.4 cd/lm	$\wedge \times / \land \times /$
LEDs/each optic	1	X / m X
Light colour	White	45°
Required componer	Its:	400
		\times / \top / \times
		ano 600
		15 ⁵ 0° 15 ⁶ 30°



		90*
LED	XD16	
FWHM / FWTM	141.0° / 148.0°	25*
Efficiency	94 %	
Peak intensity	0.5 cd/lm	.53* 200
LEDs/each optic	1	\times \times \wedge \times \times
Light colour	White	451 340
Required compone		
		460
		30° 25° 0° 10°
		90°
LED	XP-G3	
FWHM / FWTM	146.0° / 159.0°	75*
Efficiency	94 %	
Peak intensity	0.4 cd/lm	.60 ⁴ 200
LEDs/each optic	1	
Light colour	White	451 300
Required compone		\times
		400
		560
		30° 13° 0° 15°
		90*
LED	XT-E	
FWHM / FWTM	146.0° / 157.0°	734
Efficiency	94 %	
Peak intensity	0.4 cd/lm	60 ⁴ 200
LEDs/each optic		
LLDS/CaUI Uplic	1	$\nabla \times (\cap \times)$
	1 White	
Light colour	White	67
	White	57 30
Light colour	White	6, 30
Light colour	White	6°
Light colour	White	400 300 300 500 500 500 500 500 5
Light colour Required compone	White Its:	
Light colour Required component	White Its:	
Light colour Required component MICHIA LED	White its: NF2W585AR	
Light colour Required component MICHIA LED FWHM / FWTM	White its: NF2W585AR Asymmetric	
Light colour Required component NICHIM LED FWHM / FWTM Efficiency	White Its: NF2W585AR Asymmetric 94 %	
Light colour Required component NICHIA LED FWHM / FWTM Efficiency Peak intensity	White Its: NF2W585AR Asymmetric 94 % 0.4 cd/lm	
Light colour Required component NICHIA LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	White tts: NF2W585AR Asymmetric 94 % 0.4 cd/lm 1	
Light colour Required component NICHIA LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	White tts: NF2W585AR Asymmetric 94 % 0.4 cd/lm 1 White	
Light colour Required component NICHIA LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	White tts: NF2W585AR Asymmetric 94 % 0.4 cd/lm 1 White	
Light colour Required component NICHIA LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	White tts: NF2W585AR Asymmetric 94 % 0.4 cd/lm 1 White	
Light colour Required component NICHIA LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	White tts: NF2W585AR Asymmetric 94 % 0.4 cd/lm 1 White	



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LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NF2W585AR Asymmetric 94 % 0.4 cd/lm 1 White		5° 50 6° 200 6° 200 6° 200 6° 200 6° 200 6° 200 6° 200 6° 200 6° 200 6° 200 8° 200
ØNICHI			
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSW219F 153.0° / 161.0° 94 % 0.4 cd/lm 1 White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSW319B 154.0° / 166.0° 94 % 0.3 cd/lm 1 White		
OSRAM Opto Semiconductors		Luminister: EERL (b) CS36577 5770-8021-N-P 32 V304, Claude 3-5) Lumpor 1: Covarna Dans, 52 Sciahalda (307 V51827 CS4402 SA333-1) _782 419mg259mA_CCT=5009L (P=4 88565V U=19 548V	90* 90*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	Duris S5 (Single chip) 138.0° / 146.0° 94 % 0.4 cd/lm 1 White nts:	300 200 200 200 100 50 50 50 50 50 50 50 50 50	



OSRAM		TXX XXI
Opto Semiconductors		90* 90*
LED	OSCONIQ S 3030 (QSLR31)	
FWHM / FWTM	Asymmetric	75°
Efficiency	94 %	
Peak intensity	0.4 cd/lm	50°
LEDs/each optic	1	X X
Light colour	White	45* 45*
Required componer	nts:	400
		200
		30° 600 30°
		112 ³ 0 ⁶ 13 ⁵
OSRAM Opto Semiconductors		90° 90°
LED	OSLON Square CSSRM2/CSSRM3	
FWHM / FWTM	144.0° / 151.0°	75° 75°
Efficiency	96 %	
Peak intensity	0.4 cd/lm	.50 ⁴ 200 60 ⁴
LEDs/each optic	1	$\vee \times \times \vee$
Light colour	White	45* 3%
Required componer	nts:	400
		\times \land \times
		30° 15° 80 15° 30°
SAMSU	ING	
SAMSU		84
LED	HiLOM SC28 (LH181B)	90° 92°
LED FWHM / FWTM	HiLOM SC28 (LH181B) 125.0° / 134.0°	90° 92° 98° 500 98°
LED FWHM / FWTM Efficiency	HiLOM SC28 (LH181B) 125.0° / 134.0° 94 %	
LED FWHM / FWTM Efficiency Peak intensity	HiLOM SC28 (LH181B) 125.0° / 134.0° 94 % 0.4 cd/m	20 20 20 20 20 20 20 20 20 20 20 20 20 2
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	HiLOM SC28 (LH181B) 125.0° / 134.0° 94 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	HiLOM SC28 (LH181B) 125.0° / 134.0° 94 % 0.4 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	HiLOM SC28 (LH181B) 125.0° / 134.0° 94 % 0.4 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	HiLOM SC28 (LH181B) 125.0° / 134.0° 94 % 0.4 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	HiLOM SC28 (LH181B) 125.0° / 134.0° 94 % 0.4 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	HILOM SC28 (LH181B) 125.0° / 134.0° 94 % 0.4 cd/lm 1 White hts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	HILOM SC28 (LH181B) 125.0° / 134.0° 94 % 0.4 cd/lm 1 White hts:	60 50 50 25° 82 25° 33°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	HILOM SC28 (LH181B) 125.0° / 134.0° 94 % 0.4 cd/lm 1 White hts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	HILOM SC28 (LH181B) 125.0° / 134.0° 94 % 0.4 cd/lm 1 White hts: NG HILOM SM28 (LM301B)	60 50 50 25° 82 25° 33°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer SAMSU LED FWHM / FWTM	HILOM SC28 (LH181B) 125.0° / 134.0° 94 % 0.4 cd/lm 1 White hts: NGC HILOM SM28 (LM301B) 129.0° / 142.0°	<u>50</u> <u>50</u> <u>50</u> <u>50</u> <u>50</u> <u>50</u> <u>50</u> <u>50</u>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer SAMSU LED FWHM / FWTM Efficiency	HILOM SC28 (LH181B) 125.0° / 134.0° 94 % 0.4 cd/lm 1 White hts: NIC HILOM SM28 (LM301B) 129.0° / 142.0° 94 %	<u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u> <u>500</u>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer SAMSU LED FWHM / FWTM Efficiency Peak intensity	HILOM SC28 (LH181B) 125.0° / 134.0° 94 % 0.4 cd/lm 1 White hts: NCC HILOM SM28 (LM301B) 129.0° / 142.0° 94 % 0.5 cd/lm	<u>50</u> <u>50</u> <u>50</u> <u>50</u> <u>50</u> <u>50</u> <u>50</u> <u>50</u>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen Required componen Equired componen SAMSU LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	HILOM SC28 (LH181B) 125.0° / 134.0° 94 % 0.4 cd/lm 1 White hts: NCC HILOM SM28 (LM301B) 129.0° / 142.0° 94 % 0.5 cd/lm 1	<u>50</u> <u>50</u> <u>50</u> <u>50</u> <u>50</u> <u>50</u> <u>50</u> <u>50</u>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component SAMSU LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	HILOM SC28 (LH181B) 125.0° / 134.0° 94 % 0.4 cd/lm 1 White hts: NCC HILOM SM28 (LM301B) 129.0° / 142.0° 94 % 0.5 cd/lm 1 White	<u>50</u> <u>50</u> <u>50</u> <u>50</u> <u>50</u> <u>50</u> <u>50</u> <u>50</u>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen Required componen Equired componen SAMSU LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	HILOM SC28 (LH181B) 125.0° / 134.0° 94 % 0.4 cd/lm 1 White hts: NCC HILOM SM28 (LM301B) 129.0° / 142.0° 94 % 0.5 cd/lm 1 White	<u>50</u> <u>50</u> <u>50</u> <u>50</u> <u>50</u> <u>50</u> <u>50</u> <u>50</u>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component SAMSU LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	HILOM SC28 (LH181B) 125.0° / 134.0° 94 % 0.4 cd/lm 1 White hts: NCC HILOM SM28 (LM301B) 129.0° / 142.0° 94 % 0.5 cd/lm 1 White	<u>50</u> <u>50</u> <u>50</u> <u>50</u> <u>50</u> <u>50</u> <u>50</u> <u>50</u>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component SAMSU LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	HILOM SC28 (LH181B) 125.0° / 134.0° 94 % 0.4 cd/lm 1 White hts: NCC HILOM SM28 (LM301B) 129.0° / 142.0° 94 % 0.5 cd/lm 1 White	<u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u>



SEOUL		
SEOUL SEMICONDUCTOR		90*
LED	Z5M3	
FWHM / FWTM	147.0° / 162.0°	
Efficiency	94 %	
Peak intensity	0.4 cd/lm	. @ ¹⁶ 200 60 ⁺ .
LEDs/each optic	1	
Light colour	White	-57 - 500 - 67
Required compone	nts:	
		40
		**
		30 ⁴ 25 ⁵ 0 ⁶ 25 ⁴



OPTICAL RESULTS (SIMULATED):

		THAT ATT
LED	XP-E2	90* 90*
FWHM / FWTM	130.0° / 137.0°	75° 100 75°
Efficiency	95 %	200
Peak intensity	0.6 cd/lm	50* 300 50*
LEDs/each optic	1	
Light colour	White	
Required components:	Wille	45* 500 45*
		600
		700
		30° 13 ⁵ 0 ⁶ 15° 30°
)S	90* 90*
LED	LUXEON V2	
FWHM / FWTM	150.0° / 158.0°	750 750
Efficiency	94 %	
Peak intensity	0.4 cd/lm	.66* 200 60*
LEDs/each optic	1	
Light colour	White	45' 300
Required components:		
		400
		200
		\times / T / \times
		(30° 15° 2° 15° 30°)
Μ ΝΙCΗΙΛ		90* 90*
LED	NF2x757G	
FWHM / FWTM	144.0° / 155.0°	750 700 700 700
	144.0 / 105.0	
Efficiency	93 %	
Efficiency Peak intensity		ar <u>30</u> ar
	93 %	00 00 00 00 00 00 00 00 00 00 00 00 00
Peak intensity	93 % 0.3 cd/lm	av <u>300</u> av
Peak intensity LEDs/each optic	93 % 0.3 cd/lm 1	5° 60° 60°.
Peak intensity LEDs/each optic Light colour	93 % 0.3 cd/lm 1	5 ⁵ 20 6 ⁵ 6 ⁷
Peak intensity LEDs/each optic Light colour	93 % 0.3 cd/lm 1	a ⁵ 30 8 ⁵ 30 40 40
Peak intensity LEDs/each optic Light colour	93 % 0.3 cd/lm 1	204 200 00 01 02 00 00 00 00 00 00 00 00 00
Peak intensity LEDs/each optic Light colour Required components:	93 % 0.3 cd/lm 1	
Peak intensity LEDs/each optic Light colour	93 % 0.3 cd/lm 1	
Peak intensity LEDs/each optic Light colour Required components:	93 % 0.3 cd/lm 1	
Peak intensity LEDs/each optic Light colour Required components: OBSRAM Opto Semiconductors LED FWHM / FWTM	93 % 0.3 cd/lm 1 White OSCONIQ C 2424 142.0° / 150.0°	
Peak intensity LEDs/each optic Light colour Required components:	93 % 0.3 cd/lm 1 White OSCONIQ C 2424 142.0° / 150.0° 94 %	
Peak intensity LEDs/each optic Light colour Required components:	93 % 0.3 cd/lm 1 White OSCONIQ C 2424 142.0° / 150.0°	
Peak intensity LEDs/each optic Light colour Required components:	93 % 0.3 cd/lm 1 White OSCONIQ C 2424 142.0° / 150.0° 94 % 0.4 cd/lm 1	
Peak intensity LEDs/each optic Light colour Required components:	93 % 0.3 cd/lm 1 White OSCONIQ C 2424 142.0° / 150.0° 94 % 0.4 cd/lm	
Peak intensity LEDs/each optic Light colour Required components:	93 % 0.3 cd/lm 1 White OSCONIQ C 2424 142.0° / 150.0° 94 % 0.4 cd/lm 1	
Peak intensity LEDs/each optic Light colour Required components:	93 % 0.3 cd/lm 1 White OSCONIQ C 2424 142.0° / 150.0° 94 % 0.4 cd/lm 1	
Peak intensity LEDs/each optic Light colour Required components:	93 % 0.3 cd/lm 1 White OSCONIQ C 2424 142.0° / 150.0° 94 % 0.4 cd/lm 1	
Peak intensity LEDs/each optic Light colour Required components: ODE SERIENT COLOR SERIENT ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	93 % 0.3 cd/lm 1 White OSCONIQ C 2424 142.0° / 150.0° 94 % 0.4 cd/lm 1	



OPTICAL RESULTS (SIMULATED):

OSRAM		
Opto Semiconductors	OSCONIQ P 3030	90* 90*
FWHM / FWTM		75° 7°
	146.0° / 156.0°	
Efficiency	95 %	60 ⁴ 200 69 ⁴
Peak intensity	0.5 cd/lm	
LEDs/each optic	1	30
Light colour	White	400 45*
Required components:		\times \land \times
		30* 15 ³ 0 ⁶ 15 ⁴ 30 ⁴ .
SAMSUN	IG	
		90* 90*
LED	LH181B	73* 200 78*
FWHM / FWTM	140.0° / 148.0°	
Efficiency	93 %	60 ⁴ 200 60 ⁴
Peak intensity	0.4 cd/lm	
LEDs/each optic		
Light colour	White	45, 400 45,
Required components:		\times
1		10" 0" 10"
CUNCIN	10	
SAMSUN		12 ⁻ V 12 ⁻
LED	LH351B	
LED FWHM / FWTM	LH351B 151.0° / 162.0°	
LED FWHM / FWTM Efficiency	LH351B 151.0° / 162.0° 94 %	
LED FWHM / FWTM Efficiency Peak intensity	LH351B 151.0° / 162.0° 94 % 0.3 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LH351B 151.0° / 162.0° 94 % 0.3 cd/m 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH351B 151.0° / 162.0° 94 % 0.3 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LH351B 151.0° / 162.0° 94 % 0.3 cd/m 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH351B 151.0° / 162.0° 94 % 0.3 cd/m 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH351B 151.0° / 162.0° 94 % 0.3 cd/m 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH351B 151.0° / 162.0° 94 % 0.3 cd/m 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LH351B 151.0° / 162.0° 94 % 0.3 cd/m 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LH351B 151.0° / 162.0° 94 % 0.3 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: seoul semiconouctor LED	LH351B 151.0° / 162.0° 94 % 0.3 cd/lm 1 White SEOUL DC 3030C	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: SECOUL SEMICONDUCTOR LED FWHM / FWTM	LH351B 151.0° / 162.0° 94 % 0.3 cd/lm 1 White SEOUL DC 3030C 146.0° / 156.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: seoul sEMICONDUCTOR LED FWHM / FWTM Efficiency	LH351B 151.0° / 162.0° 94 % 0.3 cd/lm 1 White SEOUL DC 3030C 146.0° / 156.0° 95 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: seoul semiconductor LED FWHM / FWTM Efficiency Peak intensity	LH351B 151.0° / 162.0° 94 % 0.3 cd/m 1 White SEOUL DC 3030C 146.0° / 156.0° 95 % 0.4 cd/m	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: SEOUL SEMICONDUCTOR LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LH351B 151.0° / 162.0° 94 % 0.3 cd/lm 1 White SEOUL DC 3030C 146.0° / 156.0° 95 % 0.4 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: SEOUL SEMICONDUCTOR LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH351B 151.0° / 162.0° 94 % 0.3 cd/m 1 White SEOUL DC 3030C 146.0° / 156.0° 95 % 0.4 cd/m	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: SEOUL SEMICONDUCTOR LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LH351B 151.0° / 162.0° 94 % 0.3 cd/lm 1 White SEOUL DC 3030C 146.0° / 156.0° 95 % 0.4 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: SEOUL SEMICONDUCTOR LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH351B 151.0° / 162.0° 94 % 0.3 cd/lm 1 White SEOUL DC 3030C 146.0° / 156.0° 95 % 0.4 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: SEOUL SEMICONDUCTOR LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH351B 151.0° / 162.0° 94 % 0.3 cd/lm 1 White SEOUL DC 3030C 146.0° / 156.0° 95 % 0.4 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: SEOUL SEMICONDUCTOR LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH351B 151.0° / 162.0° 94 % 0.3 cd/lm 1 White SEOUL DC 3030C 146.0° / 156.0° 95 % 0.4 cd/lm 1	



OPTICAL RESULTS (SIMULATED):

SEOUL		THAT KAT
		90* 90*
LED	Z5M1/Z5M2	73° marthurson 73°
FWHM / FWTM	147.0° / 158.0°	
Efficiency	94 %	60* 200 60*
Peak intensity	0.4 cd/lm	
LEDs/each optic	1	
Light colour	White	6° 6°
Required components:		400
		200
		\times \land \times
		500 30°
		15 ³ 0 ⁶ 15 ⁴
SEOUL SEMICONDUCTOR		90* 90*
LED	Z8Y19	
FWHM / FWTM	138.0° / 148.0°	75° 75°
Efficiency	93 %	
Peak intensity	0.4 cd/lm	50 ⁴ 200 50 ⁴
LEDs/each optic	1	\land
Light colour	White	ar
Required components:	White	e e
Required components.		400
		\times
		30 ⁴ 500 30 ⁴ 30 ⁴
SEOUL		
SEOUL SEMICONDUCTOR		90* 90*
LED	Z8Y22	
FWHM / FWTM	140.0° / 148.0°	200 75*
Efficiency	92 %	
Peak intensity	0.4 cd/lm	20
LEDs/each optic	1	
Light colour	White	45* 310 45*
Required components:		\times
		400
		$ \times \times $
		30 ⁴ 15 ⁵ 0 ⁶ 15 ⁴ 30 ⁴



GENERAL INFORMATION:

NOTE: The typical beam angle will be changed by different color, chip size and chip position tolerance. The typical total beam angle is the full angle measured where the luminous intensity is half of the peak value.

MATERIALS:

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