

# PRODUCT DATASHEET C16503\_STRADELLA-16-T3

## STRADELLA-16-T3

IESNA Type III (medium) beam for roads that are equal to or wider than mounting height

#### **SPECIFICATION:**

Dimensions	49.5 x 49.5 mm
Height	3.7 mm
Fastening	pin, screw
ROHS compliant	yes 🛈



#### **MATERIALS:**

Component	Туре	Material	Colour	Finish
STRADELLA-16-T3	Multi-lens	PMMA	clear	

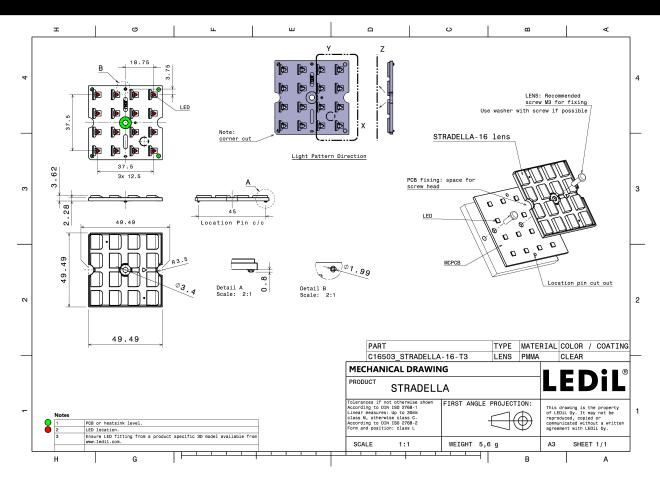
#### **ORDERING INFORMATION:**

Component
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C16503\_STRADELLA-16-T3 » Box size: 476 x 273 x 292 mm

Qty in box	MOQ	MPQ	Box weight (kg)
800	160	160	5.3

# PRODUCT DATASHEET C16503\_STRADELLA-16-T3



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



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

CREES       J Series 3030         VMM / FWTM       Asymmetric         Efficiency       97 %         Waki Intentity       0.4 od/m         LEDviauch optic       1         July colou       Write         Required components:       Image: Status of 104 - xx: 70 - LS30:06 NTC         Wite Extreme to the status of 104 - xx: 70 - LS30:06 NTC       Image: Status of 104 - xx: 70 - LS30:06 NTC         Wite Argumetric       Image: Status of 104 - xx: 70 - LS30:06 NTC         Wite Argumetric       Image: Status of 104 - xx: 70 - LS30:06 NTC         Wite Argumetric       Image: Status of 104 - xx: 70 - LS30:06 NTC         Wite Argumetric       Image: Status of 104 - xx: 70 - LS30:06 NTC         Wite Argumetric       Image: Status of 104 - xx: 70 - LS30:06 NTC         Wite Argumetric       Image: Status of 104 - xx: 70 - LS30:06 NTC         Wite Argumetric       Image: Status of 104 - xx: 70 - LS30:06 NTC         Wite Argumetric       Image: Status of 104 - xx: 70 - LS30:06 NTC         Wite Argumetric       Image: Status of 104 - xx: 70 - LS30:06 NTC         Wite Argumetric       Image: Status of 104 - xx: 70 - LS30:06 NTC         Wite Argumetric       Image: Status of 104 - xx: 70 - LS30:06 NTC         Wite Argumetric       Image: Status of 104 - xx: 70 - LS30:06 NTC         Wite Argumetric       I			
ED       J Series 3030         VPM / FWTM       Asymmetric         Efficiency       97 %         Peak intensity       0.4 od/m         Light colour       White         Required components:       Secure 2000         VELECTRID       EHP-223.5x50-1604-xx:70-L530-06-NTC         WHM / FWTM       Asymmetric         Efficiency       97 %         Resk intensity       0.5 cof/m         LED K       EHP-223.5x50-1604-xx:70-L530-06-NTC         WHM / FWTM       Asymmetric         Efficiency       97 %         Resk intensity       0.5 cof/m         LED K       EAST76         WHM / FWTM       Asymmetric         Efficiency       97 %         Peak intensity       0.5 cof/m         LEDS/act optic       1         LED N       NE2X576         WHM / FWTM       Asymmetric         Efficiency       97 %         Peak intensity       0.5 cof/m         LEDS/act optic       1         LeDs/act optic       1 </th <th>CREE ≑</th> <th></th> <th></th>	CREE ≑		
WHM / FVTM       Asymmetric         Efficiency       97 %         Reak intensity       0.4 cd/m         EDS/acth optic       1         Jajht colour       White         Required components:       Image: Components:         Image: Components		l Series 3030	90" 90"
Efficiency 97 %   Pask intensity 0.4 cd/tm   LEb/sech optic 1   Light colour White   Required components:			75° 100 75°
Peak Intensity 0.4 cd/m .EDS/each optio 1 .eDS/each optio 2 ED EHP-223.5x50-1604-xx-70-LS30-06-NTC WMM / FWTM Asymmetric Efficiency 97% Peak Intensity 0.5 cd/m .EDS/each optic 1 .ipht colour White Required components: ED NEX/57G WMM / FWTM Asymmetric Efficiency 97% Required components: Efficiency 97% Required componen			
EDØlasch optic       1         Ight tookur       White         Required components:       Image: Components in the second of the s			60 <sup>4</sup> 80 <sup>4</sup>
ight colour White Required components: ED EHP-223.5x50-1604-xx-70-LS30-06-NTC WMM /FVTM Asymmetric Efficiency 97% Pack intensity 0.5 colon LEDs/each optic 1 Jght colour White Required components: ED NF2x/757G WHM /FVTM Asymmetric Efficiency 97% Pack intensity 0.5 colon LEDs/each optic 1 Jght colour White Required components: ED NF2x/757G WHM /FVTM Asymmetric Efficiency 97% Pack intensity 0.4 colon LEDs/each optic 1 Jght colour White Required components: ED NF2x/757G WHM /FVTM Asymmetric Efficiency 97% Pack intensity 0.4 colon LEDs/each optic 1 Jght colour White Required components: ED NF2x/757H WHM /FVTM Asymmetric Efficiency 94% Pack intensity 0.4 colon LEDs/each optic 1 Jght colour White			
Required components: ED ELECTRID LED ELP-223.5x50-1604-xx-70-LS30-06-NTC WMM / FVTTM Asymmetric Elficiency 0.7 % Pask intensity 0.5 collm LED KEXFTG WMM / Pask intensity 0.5 collm LED NF2x757G WMM / PATTM Required components: WMM / PATTMA / P			30
ELECTRID         LED       EHP-223.5x50-1604-xx-70-LS30-06-NTC         WMM /FVTM       Asymmetric         Efficiency       97 %         Peak intensity       0.5 colfm         EDSteach optic       1         Jipht colour       White         Required components:       Image: Colour optic colour opticolour opticolour optic colour opticolour optic colour o			40
ED       EHP-223.5x50-1604-xx-70-LS30-06-NTC         WHH / FWTM       Asymmetric         fifticiency       97 %         Pack intensity       0.5 col/m         LEDS/each optic       1         .ight colour       White         Required components       Image: Color with the second secon	rtoquiroù oompone		
ED       EHP-223.5x50-1604-xx-70-LS30-06-NTC         WHH / FVTM       Asymmetric         filticiency       97 %         Pack intensity       0.5 cd/m         LEDS/each optic       1         .ight colour       White         Required components:			500
ED       EHP-223.5x50-1604-xx-70-LS30-06-NTC         WHH / FVTM       Asymmetric         filticiency       97 %         Pack intensity       0.5 cd/m         LEDS/each optic       1         .ight colour       White         Required components:			
ED       EHP-223.5x50-1604-xx-70-LS30-06-NTC         WHH / FVTM       Asymmetric         filticiency       97 %         Pack intensity       0.5 cd/m         LEDS/each optic       1         .ight colour       White         Required components:			30° 15 <sup>5</sup> 0 <sup>8</sup> 15° 30°
ED       EHP-223.5x50-1604-xx-70-LS30-06-NTC         WHH / FVTM       Asymmetric         filticiency       97 %         Pack intensity       0.5 cd/m         LEDS/each optic       1         .ight colour       White         Required components:			NY YA
WHM / FWTM       Asymmetric         Efficiency       97 %         Pask intensity       0.5 cd/m         EDs/each optic       1         .equired components:			90* 90*
Efficiency 97% Peak intensity 0.5 cd/m LEDs/each optic 1 Light colour White Required components: LED NE2x757G WHM / FWTM Asymmetric Efficiency 97% Peak intensity 0.5 cd/m LEDs/each optic 1 Light colour White Required components: LED NFSW757H WHM / FWTM Asymmetric Efficiency 94% Peak intensity 0.4 cd/m LEDs/each optic 1 LED NFSW757H WHM / FWTM Asymmetric Efficiency 94% Peak intensity 0.4 cd/m LEDs/each optic 1 LED NFSW757H WHM / FWTM Asymmetric Efficiency 94% Peak intensity 0.4 cd/m LEDs/each optic 1 LED NFSW757H WHM / FWTM Asymmetric Efficiency 94%			75* 300 75*
Peak intensity 0.5 cd/lm LEDs/each optic 1 .ight colour White Required components:			
LEDs/each optic 1 Light colour White Required components: ED NF2x757G WHM / FWTM Asymmetric Efficiency 97 % Peak intensity 0.5 cd/lm LEDs/each optic 1 Light colour White Required components: ED NFSW757H WHM / FWTM Asymmetric EDS/each optic 1 LED NFSW757H WHM / FWTM Asymmetric ED NFSW757H WHM / FWTM Asymmetric EED AFF ASYMPTA EED			60° 60°
light colour White Required components: ED NF2x757G WHM / FWTM Asymmetric filiciency 97 % Peak intensity 0.5 cd/lm EDS/each optic 1 light colour White Required components: ED NFSW757H WHM / FWTM Asymmetric filiciency 94 % Peak intensity 0.4 cd/lm EDS/each optic 1 ight colour White WHICHIA WHM / FWTM Asymmetric filiciency 94 % Peak intensity 0.4 cd/lm EDS/each optic 1 ight colour 1 White WHICHIA WHICH			
Required components: ED NF2x757G WHM / FWTM Asymmetric Efficiency 97 % Peak intensity 0.5 cd/lm ED/each optic 1 Ejbt colour White Required components: ED NFSW757H WHM / FWTM Asymmetric Efficiency 94 % Peak intensity 0.4 cd/lm EDS/each optic 1 ight colour White			$X \times / T \setminus X \times$
ED NF2x757G WHM / FWTM Asymmetric Efficiency 97 % Peak intensity 0.5 cd/lm LEDs/each optic 1 LeDs/each optic 1 ED NFSW757H WHM / FWTM Asymmetric ED NFSW757H WHM / FWTM Asymmetric ED NFSW757H WHM / FWTM Asymmetric ED 0 0.4 cd/lm LEDs/each optic 1 LEDs/each optic 1			45* 400 45*
int       int       int       int         int       int       int       int         interesting       97 %       interesting       9.5 cd/lm         Peak intensity       0.5 cd/lm       interesting       interesting       interesting         interesting       0.5 cd/lm       interesting       interesting       interesting       interesting         interesting       0.5 cd/lm       interesting       interesting       interesting       interesting         interesting       0.5 cd/lm       interesting       interesting       interesting       interesting         interesting       0.4 cd/lm       interesting       interesting       interesting <th>Required compone</th> <th>nts:</th> <th></th>	Required compone	nts:	
LED       NF2x757G         WHM / FWTM       Asymmetric         Efficiency       97 %         Peak intensity       0.5 cd/lm         LEDs/each optic       1         Light colour       White         Required components:       Image: Colour of the second of t			
LED       NF2x757G         WHM / FWTM       Asymmetric         Efficiency       97 %         Peak intensity       0.5 cd/lm         LEDs/each optic       1         Light colour       White         Required components:       Image: Colour of the second of t			000
ED       NF2x757G         FWHM / FWTM       Asymmetric         Efficiency       97 %         Peak intensity       0.5 cd/lm         LEDs/each optic       1         Light colour       White         Required components:       Image: Component (Component)         ED       NFSW757H         WHM / FWTM       Asymmetric         Efficiency       94 %         Peak intensity       0.4 cd/lm         LEDs/each optic       1         Light colour       White			30° 12° 500 12° 30°
ED       NF2x757G         FWHM / FWTM       Asymmetric         Efficiency       97 %         Peak intensity       0.5 cd/lm         LEDs/each optic       1         Light colour       White         Required components:       Image: Component (Component)         ED       NFSW757H         WHM / FWTM       Asymmetric         Efficiency       94 %         Peak intensity       0.4 cd/lm         LEDs/each optic       1         Light colour       White	<b>ØNICHI</b>		
WHM / FWTM       Asymmetric         Efficiency       97 %         Peak intensity       0.5 cd/lm         LEDs/each optic       1         Light colour       White         Required components:       Image: Component in the im			90* 90*
Efficiency 97 % Peak intensity 0.5 cd/m EDs/each optic 1 Light colour White Required components: ED NFSW757H WHM / FWTM Asymmetric Efficiency 94 % Peak intensity 0.4 cd/m EDS/each optic 1 Light colour White			75* 100 77*
Peak intensity 0.5 cd/lm LEDs/each optic 1 Light colour White Required components:			
LEDs/each optic 1 Light colour White Required components:			604 604
Light colour White Required components: ED NFSW757H WHM / FWTM Asymmetric Efficiency 94 % Peak intensity 0.4 cd/m LEDs/each optic 1 Light colour White			X
Required components:			
Image: Second system       Image: Second system         Image: Second			
LED NFSW757H WHM / FWTM Asymmetric Efficiency 94 % Peak intensity 0.4 cd/lm LEDs/each optic 1 Light colour White			
LED NFSW757H WHM / FWTM Asymmetric Efficiency 94 % Peak intensity 0.4 cd/lm LEDs/each optic 1 Light colour White			
LED NFSW757H WHM / FWTM Asymmetric Efficiency 94 % Peak intensity 0.4 cd/lm LEDs/each optic 1 Light colour White			
LED     NFSW757H       FWHM / FWTM     Asymmetric       Efficiency     94 %       Peak intensity     0.4 cd/lm       LEDs/each optic     1       Light colour     White			30* 30* 30*
LED     NFSW757H       FWHM / FWTM     Asymmetric       Efficiency     94 %       Peak intensity     0.4 cd/lm       LEDs/each optic     1       Light colour     White	<b>WNICHI</b>		THAT FALL
FWHM / FWTM     Asymmetric       Efficiency     94 %       Peak intensity     0.4 cd/lm       LEDs/each optic     1       Light colour     White			90* 90*
Efficiency 94 % Peak intensity 0.4 cd/lm LEDs/each optic 1 Light colour White			750 100 770.
Peak intensity     0.4 cd/lm       LEDs/each optic     1       Light colour     White			
LEDs/each optic 1 Light colour White			6.0*
Light colour White at a start of the start o			
			× / × ×
	Light colour	W/bite	
50 30* 15 60 15* 30*			é
30* <u>10</u> <u>60</u> 30 <sup>4</sup>			6° 6°
30* 500 30* 30*			6° 6°
			5° 6°



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

		90* 90
LED	NFSx757D	
FWHM / FWTM	Asymmetric	75 20 100 75
Efficiency	94 %	
Peak intensity	0.6 cd/lm	50° (60
LEDs/each optic	1	
Light colour	White	45'
Required compone	nts:	
		800
		30° 25 <sup>5</sup> 2 <sup>6</sup> 15 <sup>4</sup> 30
OSRAM Opto Semiconductors		90 <sup>4</sup>
LED	Duris S5 (2 chip)	
FWHM / FWTM	Asymmetric	75°
Efficiency	94 %	
Peak intensity	0.5 cd/lm	60*
LEDs/each optic	1	
Light colour	White	400 450
Required compone		
		000
		X 700
		30* 13° 30
OSRAM Opto Semiconductors		
LED	Duris S5 (2 chip)	90 <sup>-</sup> 99
FWHM / FWTM	Asymmetric	75% 100 75
Efficiency	94 %	
Peak intensity	0.5 cd/lm	
LEDs/each optic	1	
Light colour	Purple	
Required compone		400 80
Required compone	no.	
		010
		30° 15° 30
OSRAM		THY EFT
Opto Semiconductors		90* 90
	OSCONIQ S 3030 (QSLR31)	750 100 775
FWHM / FWTM	Asymmetric	
Efficiency	94 %	60 E
Peak intensity	0.4 cd/lm	
LEDs/each optic	1	
Light colour	White	45* 400 45
Required compone	nts:	X/TX
		30° 500 50 50 50 50 50 50 50 50 50 50 50 50
		ag 0° 10°



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

PHILIP	25	90* 99*
LED	Fortimo FastFlex LED 4x16 DHE G4	
FWHM / FWTM	Asymmetric	100 75*
Efficiency	94 %	
Peak intensity	0.5 cd/lm	10 <sup>4</sup> X 10 <sup>4</sup> 80 <sup>4</sup>
LEDs/each optic	1	
Light colour	White	
Required componer	nts:	400
		X/T/X
		000 000
		30 15 <sup>4</sup> 0 <sup>6</sup> 15 <sup>4</sup>
SCIO	LUX	90° 90'
LED	XLE-S48XTEHE (XT-E HE)	
FWHM / FWTM	Asymmetric	75*
Efficiency	94 %	
Peak intensity	0.4 cd/lm	60 <sup>4</sup> 60 <sup>4</sup>
LEDs/each optic	1	300
Light colour	White	á9°
Required componer	nts:	
		200
		30° 500 30°
		15 <sup>2</sup> 0 <sup>8</sup> 15 <sup>4</sup>
TRIDON		90* 90*
LED		
	RLE 4x16 4000lm MP ADV2 OTD	
FWHM / FWTM	RLE 4x16 4000lm MP ADV2 OTD Asymmetric	75 100 75
		75
FWHM / FWTM Efficiency Peak intensity	Asymmetric 94 % 0.6 cd/lm	25
FWHM / FWTM Efficiency Peak intensity LEDs/each optic	Asymmetric 94 % 0.6 cd/lm 1	20
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 94 % 0.6 cd/lm 1 White	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic	Asymmetric 94 % 0.6 cd/lm 1 White	23° 100 75° 64° 60° 60° 80° 60°
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 94 % 0.6 cd/lm 1 White	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 94 % 0.6 cd/lm 1 White	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 94 % 0.6 cd/lm 1 White	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	Asymmetric 94 % 0.6 cd/lm 1 White hts:	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	Asymmetric 94 % 0.6 cd/lm 1 White hts:	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	Asymmetric 94 % 0.6 cd/lm 1 White nts: RLE 4x16 4000lm MP ADV2 OTD	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen <b>TRIDON</b> LED FWHM / FWTM	Asymmetric 94 % 0.6 cd/lm 1 White hts: RLE 4x16 4000lm MP ADV2 OTD Asymmetric	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer <b>TRIDON</b> LED FWHM / FWTM Efficiency	Asymmetric 94 % 0.6 cd/lm 1 White hts: RLE 4x16 4000lm MP ADV2 OTD Asymmetric 94 %	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen Required componen Efficiency Peak intensity	Asymmetric 94 % 0.6 cd/lm 1 White hts: RLE 4x16 4000lm MP ADV2 OTD Asymmetric 94 % 0.5 cd/lm	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen Required componen Efficiency Peak intensity LEDs/each optic	Asymmetric 94 % 0.6 cd/lm 1 White tts:	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Required component Equired component Pequired component FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 94 % 0.6 cd/lm 1 White tts: RLE 4x16 4000lm MP ADV2 OTD Asymmetric 94 % 0.5 cd/lm 1 White	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen Required componen Efficiency Peak intensity LEDs/each optic	Asymmetric 94 % 0.6 cd/lm 1 White tts: RLE 4x16 4000lm MP ADV2 OTD Asymmetric 94 % 0.5 cd/lm 1 White	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Equired component FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 94 % 0.6 cd/lm 1 White tts: RLE 4x16 4000lm MP ADV2 OTD Asymmetric 94 % 0.5 cd/lm 1 White	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Required component Equired component Pequired component FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 94 % 0.6 cd/lm 1 White tts: RLE 4x16 4000lm MP ADV2 OTD Asymmetric 94 % 0.5 cd/lm 1 White	



bridgelux.		90°
LED	CSP 2727 (BXCP)	4
FWHM / FWTM	Asymmetric	
Efficiency	94 %	
Peak intensity	0.5 cd/lm	60* 60*
LEDs/each optic	1	
Light colour	White	400 G*
Required components:		500
		60
		700
		139° 139° 0° 15° 30°
bridgelux.		90° 90'
LED	CSP 2727 (BXCP)	4
FWHM / FWTM	Asymmetric	73°
Efficiency	80 %	
Peak intensity	0.4 cd/lm	-60°
LEDs/each optic	1	
Light colour	White	43° 30 43°.
Required components:		
Protective plate	e, glass	200
		30* 30*
LED	J Series 3030	
FWHM / FWTM	Asymmetric	734 44 200 780
Efficiency	81 %	
Peak intensity	0.4 cd/lm	60* 60*
LEDs/each optic	1	
Light colour	White	45* 300 45*
Required components:		$\times$ / $\times$
		400
Protective plate	e, glass	
		250
CREE <del>\$</del>		<u> </u>
LEDs		90* 90*
LED	XD16	me Cry 200
FWHM / FWTM	Asymmetric	
Efficiency	92 %	.60°
Peak intensity	0.5 cd/lm	
LEDs/each optic	1	$\times \times / \square \times \times$
Light colour	White	45* 400 45*
Required components:		500
		$ X  \top  X $
		600 X
1		
		30° 15 <sup>5</sup> 700 30° 30°



	)S	81
LED FWHM / FWTM Efficiency LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) Asymmetric % 1 White	22° 400 40° 40° 40° 40° 40° 40° 40° 40° 40° 40°
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	NCSxE17A Asymmetric 91 % 0.6 cd/lm 1 Green	20- 20- 20- 20- 20- 20- 20- 20-
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	NFSWE11A Asymmetric 91 % 0.8 cd/lm 1 White	90, 90, 90, 90, 90, 90, 90, 90,
ED FWHM / FWTM Efficiency LEDs/each optic Light colour Required components:	NVSxE21A Asymmetric 0 % 1 White	



OSRAM Opto Semiconductors		
LED	Duris S5 (2 chip)	30° 90°
FWHM / FWTM	Asymmetric	75° C Y 75°
Efficiency	80 %	
Peak intensity	0.3 cd/lm	504 - 604
LEDs/each optic	1	
Light colour	White	
Required components:	White	30
		X   X
Protective plate	e, glass	400
		30* 13 <sup>5</sup> 30° 15* 30°
OSRAM Opto Semiconductors		90* 90*
LED	OSCONIQ C 3030	Cy V
FWHM / FWTM	Asymmetric	73°
Efficiency	94 %	
Peak intensity	0.5 cd/lm	807
LEDs/each optic	1	200
Light colour	White	45* 400 45*
Required components:		
		500
		600
		30* 30*
OCDAM		15 <sup>5</sup> 700 15*
OSRAM Opto Semiconductors		50° 50°
OSRAM Opto Semiconductors	OSCONIQ C 3030	8 <sup>+</sup> 8 <sup>+</sup>
Opto Semiconductors	OSCONIQ C 3030 Asymmetric	50* 73* 100 72*
Opto Semiconductors		90° 90° 73° 100 72°
<sup>Opto Semiconductors</sup> LED FWHM / FWTM	Asymmetric	90° - 90° 73° - 100 - 90° 60° - 60°
opto Semiconductors LED FWHM / FWTM Efficiency	Asymmetric 78 %	80°
opto semiconductors LED FWHM / FWTM Efficiency Peak intensity	Asymmetric 78 % 0.3 cd/lm	5° 5° 5° 5° 5° 5° 5°
<sup>opto Semiconductors</sup> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	Asymmetric 78 % 0.3 cd/lm 1	90° 90° 73° 100 90° 40° 60° 40° 60°
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Asymmetric 78 % 0.3 cd/lm 1 White	92* 73* 100 100 100 100 100 100 100 10
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 78 % 0.3 cd/lm 1 White	90° 90° 73° 100 72° 60° 60° 70° 80° 70° 80° 70° 80° 70° 80° 70° 80° 80°
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Asymmetric 78 % 0.3 cd/lm 1 White	30
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	Asymmetric 78 % 0.3 cd/lm 1 White	20
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate PHILIPS	Asymmetric 78 % 0.3 cd/lm 1 White 3, glass	20
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate PHILIPS LED	Asymmetric 78 % 0.3 cd/lm 1 White 9, glass Fortimo FastFlex LED 4x16 DHE G4	20
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate PHILIPS LED FWHM / FWTM	Asymmetric 78 % 0.3 cd/lm 1 White P, glass Fortimo FastFlex LED 4x16 DHE G4 Asymmetric	20 10 10 10 10 10 10 10 10 10 1
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate PHILIPS LED FWHM / FWTM Efficiency	Asymmetric 78 % 0.3 cd/lm 1 White P, glass Fortimo FastFlex LED 4x16 DHE G4 Asymmetric 86 %	20 10 10 10 10 10 10 10 10 10 1
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Protective plate ED FWHM / FWTM Efficiency Peak intensity	Asymmetric 78 % 0.3 cd/lm 1 White a, glass Fortimo FastFlex LED 4x16 DHE G4 Asymmetric 86 % 0.4 cd/lm	20 10 10 10 10 10 10 10 10 10 1
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	Asymmetric 78 % 0.3 cd/lm 1 White a, glass Fortimo FastFlex LED 4x16 DHE G4 Asymmetric 86 % 0.4 cd/lm 1	200 200 200 00 00 00 00 00 00 0
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 78 % 0.3 cd/lm 1 White a, glass Fortimo FastFlex LED 4x16 DHE G4 Asymmetric 86 % 0.4 cd/lm	50° 50° 50° 50° 50° 50° 50° 50° 50° 50°
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	Asymmetric 78 % 0.3 cd/lm 1 White a, glass Fortimo FastFlex LED 4x16 DHE G4 Asymmetric 86 % 0.4 cd/lm 1	200 200 200 00 00 00 00 00 00 0
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Asymmetric 78 % 0.3 cd/lm 1 White Portimo FastFlex LED 4x16 DHE G4 Asymmetric 86 % 0.4 cd/lm 1 White	200 100 100 100 100 100 100 100
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 78 % 0.3 cd/lm 1 White Portimo FastFlex LED 4x16 DHE G4 Asymmetric 86 % 0.4 cd/lm 1 White	200 100 100 100 100 100 100 100



0.0.0.0.0.0.0		
SAMSUN	IG	90*9
LED	LH181B	
FWHM / FWTM	Asymmetric	730
Efficiency	83 %	
Peak intensity	0.4 cd/lm	
LEDs/each optic	1	
Light colour	White	.45° 200
Required components:		
Protective plate	, glass	W N
		500 30 <sup>14</sup> 12 <sup>2</sup> 0 <sup>4</sup> 12 <sup>4</sup>
SAMSUN	IG	94
LED	LH181B	
FWHM / FWTM	Asymmetric	75*
Efficiency	94 %	Min-
Peak intensity	0.5 cd/lm	
LEDs/each optic	1	30
Light colour	White	45* 400 4
Required components:		
		60
		30* 35 <sup>3</sup> 709 15* 3
SAMSUN	IC	
		90* 9
LED	LM101B	170 200
FWHM / FWTM	Asymmetric 93 %	- when t
Efficiency Peak intensity	93 % 0.7 cd/lm	.60*
LEDs/each optic	1	
Light colour	White	
Required components:		
		50
		700
		80
		30° 25° 0° 15° 3
SAMSUN	IG	20*
		ling
LED	LM301A	730
FWHM / FWTM	Asymmetric	Anna Minna Jos
Efficiency	0 %	
LEDs/each optic	1	
Light colour	White	45* 400 4
Required components:		500
		00
		20* 700
		30 3



SAMSU	N G		90°
LED	LM302Z plus		30'
FWHM / FWTM	Asymmetric		nº Cry
Efficiency	78 %		100
Peak intensity	0.3 cd/lm		ere the test of test o
LEDs/each optic	1		200
Light colour	White		45*
Required components:			300
Protective plat	e, glass		
			30* <u>15</u> <sup>5</sup> 0 <sup>8</sup> 15*
SEOUL			90°
LED	Z8Y19		
FWHM / FWTM	Asymmetric		73 %
Efficiency	80 %		200
Peak intensity	0.4 cd/lm		
LEDs/each optic	1		X / 30
Light colour	White		45*
Required components:			400
Protective plat	e, glass		200
			50° 600
SEOUL			
SEOUL SEMICONDUCTOR	Z8Y22		9°*
FWHM / FWTM	Asymmetric		73%
Efficiency	81 %		- Comba lo
Peak intensity	0.4 cd/lm		60* <u>200</u>
LEDs/each optic	1		
Light colour	White		45*
Required components:			400
			$\times$
Protective plat	e, glass		300
			30* <u>15</u> <sup>3</sup> 690 <u>15</u> *
SEOUL			
SEOUL SEMICONDUCTOR	Z8Y22T		5V.
FWHM / FWTM	Asymmetric		75%
Efficiency	94 %		
Peak intensity	0.4 cd/lm		sort
LEDs/each optic	1		X / w / X
Light colour	White		45"
Required components:			460
			600



SECULI SEMICONDUCTOR LED FWHM / FWTM	Z8Y22T Asymmetric
Efficiency	82 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour	White
Required components	s:
Protective pl	late, glass