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With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



## TINA2-M

~30° medium beam optimized for CREE XP-E.  
Assembly with holder and installation tape.

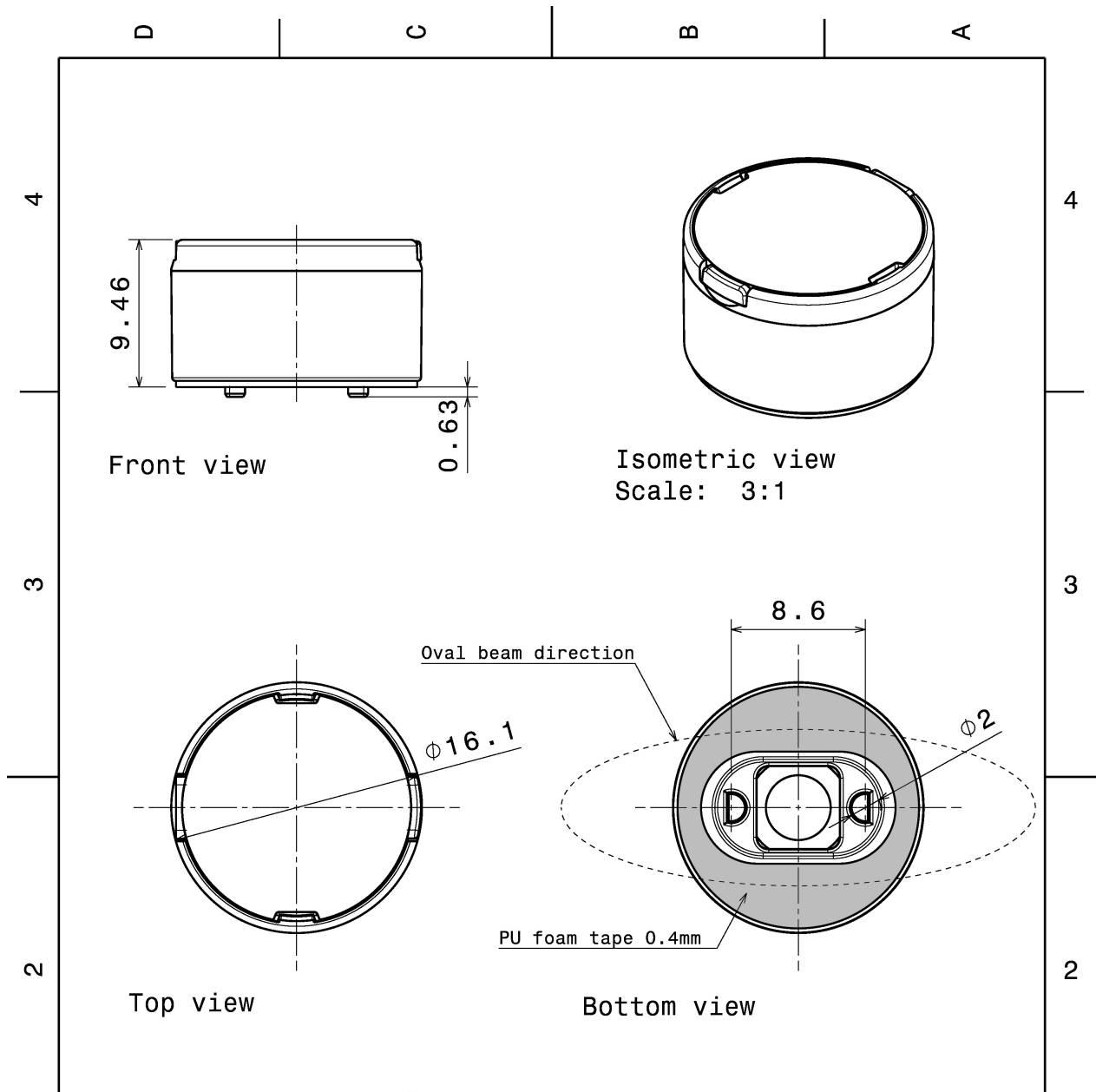
### TECHNICAL SPECIFICATIONS:

Dimensions	Ø 16 mm
Height	9.5 mm
Fastening	tape, pin
Colour	black
Box size	451 x 241 x 298 mm
Box weight	8.3 kg
Quantity in Box	4140 pcs
ROHS compliant	yes ⓘ



### MATERIAL SPECIFICATIONS:

Component	Type	Material	Colour
TINA2-XP-M	Lens	PMMA	clear
TINA2-HLD-BLK	Holder	PC	black
TINA-TAPE3	Tape	PU tape	black



INDEX	PART NO	DESCRIPTION	MATERIAL	COLOUR
1	-	TINA2-lens	PMMA	
2	C12372	TINA2-HLD-BLK	PC	black

Tolerances if not otherwise shown  
According to DIN ISO 2768-1  
Linear measures:  
Up to 30mm class M, otherwise class C.  
According to DIN ISO 2768-2  
Form and position: class L

**LEDiL** LediL Oy  
Salorankatu 10  
FIN 24240 SALO  
Finland

THIRD ANGLE PROJECTION:

DRAWING TITLE  
**TINA2 series datasheet**

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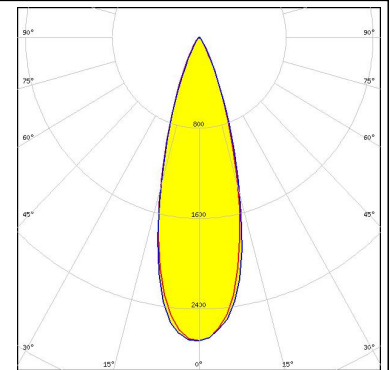
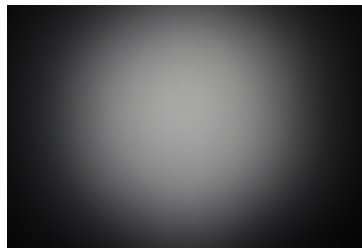
SIZE	PART NUMBER
A4	-

SCALE	3:1	WEIGHT	1,3 g	SHEET	1/1
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### PHOTOMETRIC DATA (MEASURED):

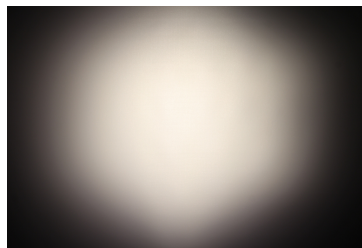
**CREE** 

LED XB-H  
FWHM 31.0°  
Efficiency 85 %  
Peak intensity 2.700 cd/lm  
Required components:



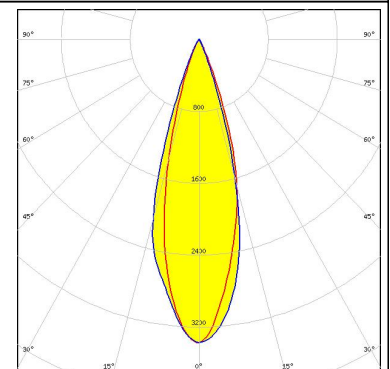
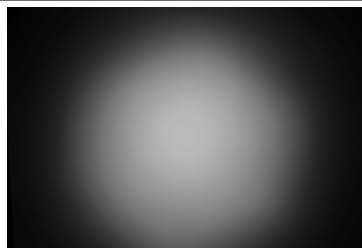
**CREE** 

LED XQ-E  
FWHM 29.0°  
Efficiency 84 %  
Peak intensity 3.200 cd/lm  
Required components:



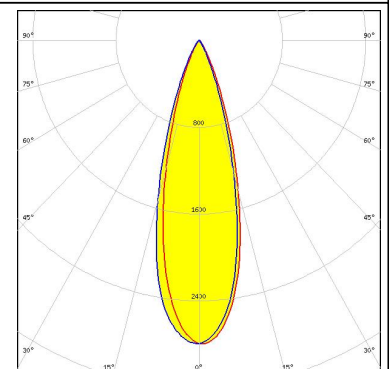
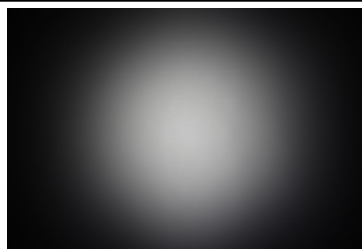
 **LUMILEDS**

LED LUXEON CZ  
FWHM 28.0°  
Efficiency 89 %  
Peak intensity 3.400 cd/lm  
Required components:



 **LUMILEDS**

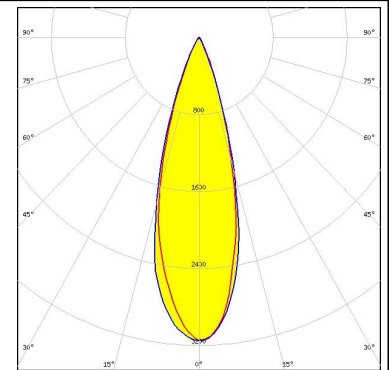
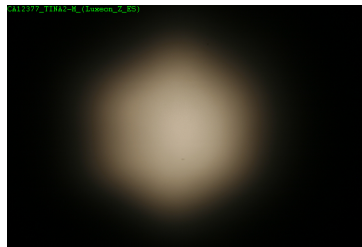
LED LUXEON TX  
FWHM 30.0°  
Efficiency 86 %  
Peak intensity 2.800 cd/lm  
Required components:



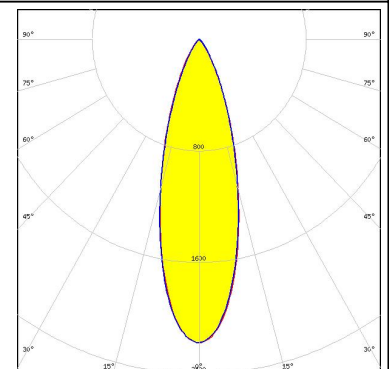
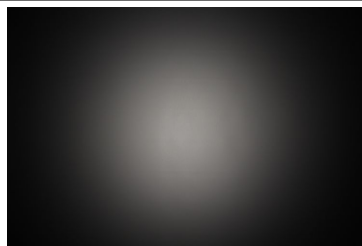
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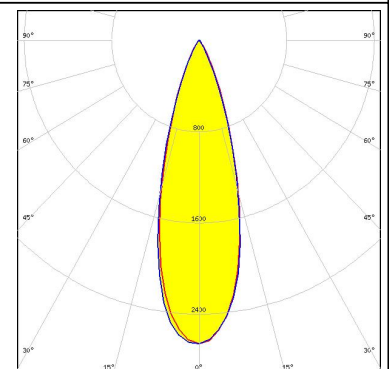
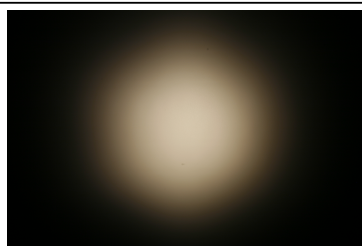
LED LUXEON Z ES  
 FWHM 31.0°  
 Efficiency 88 %  
 Peak intensity 3.200 cd/lm  
 Required components:



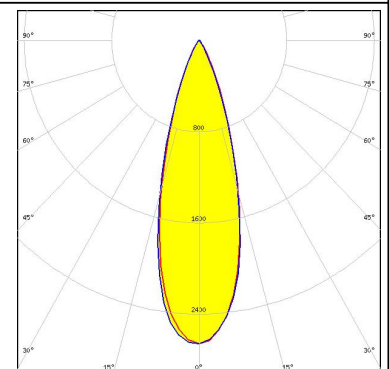
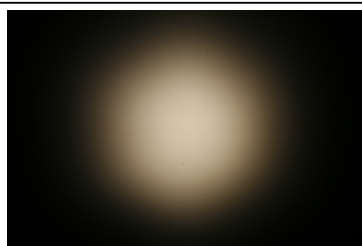
LED NVSxx19B/NVSxx19C  
 FWHM 29.0°  
 Efficiency 85 %  
 Peak intensity 2.700 cd/lm  
 Required components:



LED NWSx229A  
 FWHM 26.0°  
 Efficiency 86 %  
 Peak intensity 2.200 cd/lm  
 Required components:



LED Oslon Square EC  
 FWHM 30.0°  
 Efficiency 85 %  
 Peak intensity 2.200 cd/lm  
 Required components:



## PHOTOMETRIC DATA (MEASURED):

**OSRAM**  
Opto Semiconductors

LED Oslon Square PC  
FWHM 29.0°  
Efficiency 86 %  
Peak intensity 2.400 cd/lm  
Required components:

**OSRAM**  
Opto Semiconductors

LED Oslon SSL 150  
FWHM 30.0°  
Efficiency 87 %  
Peak intensity 2.500 cd/lm  
Required components:

**OSRAM**  
Opto Semiconductors

LED Oslon SSL 80  
FWHM 31.0°  
Efficiency 84 %  
Peak intensity 2.280 cd/lm  
Required components:

**OSRAM**  
Opto Semiconductors

LED SFH 4715S  
FWHM 28.0°  
Efficiency %  
Peak intensity cd/lm  
Required components:

## PHOTOMETRIC DATA (MEASURED):

**OSRAM**  
Opto Semiconductors

LED SFH 4725S

FWHM 27.0°

Efficiency %

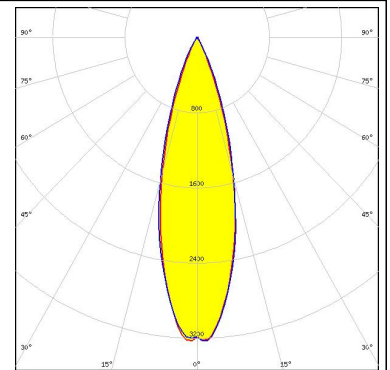
Peak intensity cd/lm

Required components:

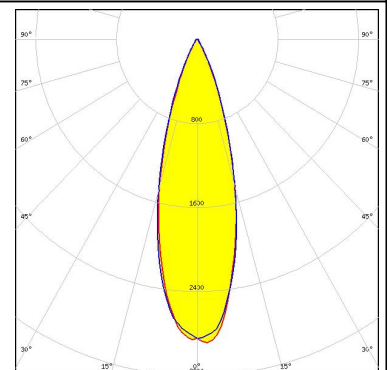
### PHOTOMETRIC DATA (SIMULATED):



LED XQ-E HI  
FWHM 29.0°  
Efficiency 90 %  
Peak intensity 3.200 cd/lm  
Required components:



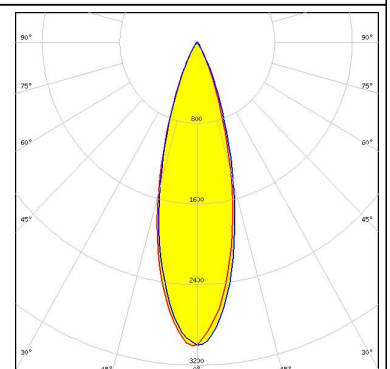
LED LUXEON C  
FWHM 30.0°  
Efficiency 93 %  
Peak intensity 2.900 cd/lm  
Required components:



LED LUXEON IR Compact  
FWHM 29.0°  
Efficiency 83 %  
Peak intensity 0.000 cd/lm  
Required components:



LED NFSx757G  
FWHM 29.0°  
Efficiency 90 %  
Peak intensity 3.010 cd/lm  
Required components:

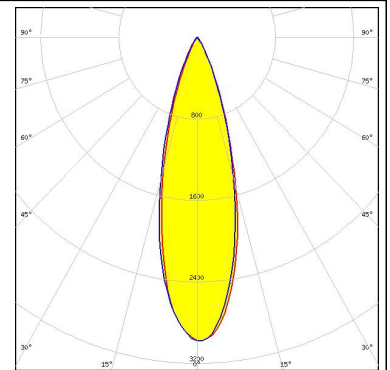




### PHOTOMETRIC DATA (SIMULATED):

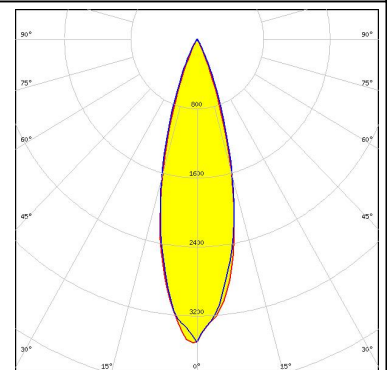
**OSRAM**  
Opto Semiconductors

LED Duris S5 (2 chip)  
FWHM 29.0°  
Efficiency 92 %  
Peak intensity 2.980 cd/lm  
Required components:



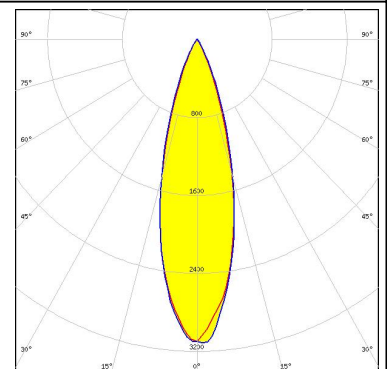
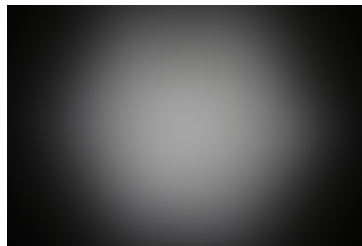
**OSRAM**  
Opto Semiconductors

LED Oslon Black Flat  
FWHM 28.0°  
Efficiency 91 %  
Peak intensity 3.500 cd/lm  
Required components:



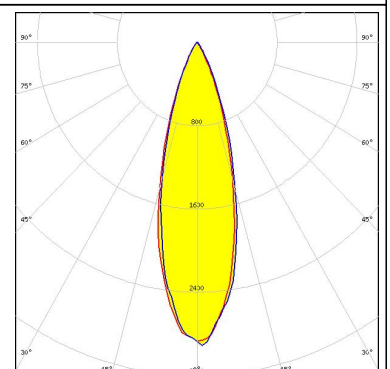
**OSRAM**  
Opto Semiconductors

LED Oslon Square Flat  
FWHM 29.0°  
Efficiency 89 %  
Peak intensity 3.130 cd/lm  
Required components:



**OSRAM**  
Opto Semiconductors

LED Oslon Square Gen3  
FWHM 29.0°  
Efficiency 90 %  
Peak intensity 2.935 cd/lm  
Required components:



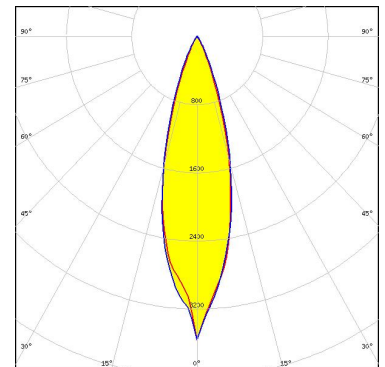
**PHOTOMETRIC DATA (SIMULATED):**

**OSRAM**  
Opto Semiconductors

LED SFH 4770S  
FWHM 27.0°  
Efficiency 85 %  
Peak intensity 3.200 cd/lm  
Required components:

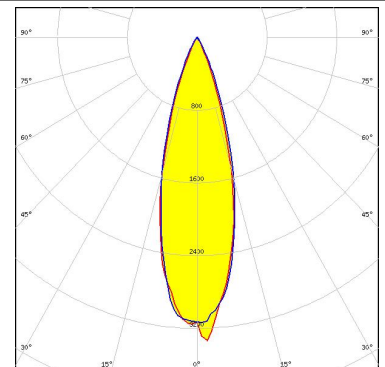
**OSRAM**  
Opto Semiconductors

LED Synios P2720 1 mm  
FWHM 27.0°  
Efficiency 91 %  
Peak intensity 3.560 cd/lm  
Required components:



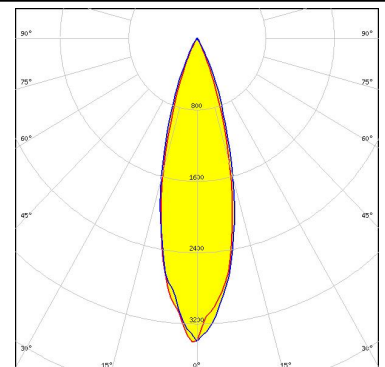
**OSRAM**  
Opto Semiconductors

LED Synios P2720 1/2 mm  
FWHM 29.0°  
Efficiency 93 %  
Peak intensity 3.370 cd/lm  
Required components:



**OSRAM**  
Opto Semiconductors

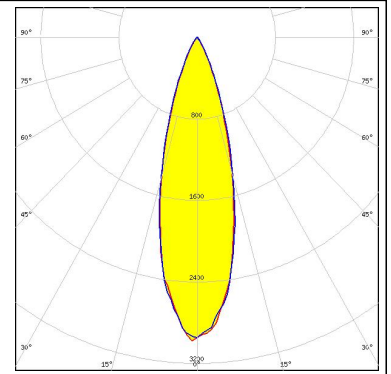
LED Synios P2720 1/4 mm  
FWHM 28.0°  
Efficiency 91 %  
Peak intensity 3.140 cd/lm  
Required components:



**PHOTOMETRIC DATA (SIMULATED):**

## **SAMSUNG**

LED                    LH181B  
FWHM                29.0°  
Efficiency            90 %  
Peak intensity       3.000 cd/lm  
Required components:



### 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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