



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

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

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



## ANGELA-S-B

~10° spot beam compatible with BJB connectors

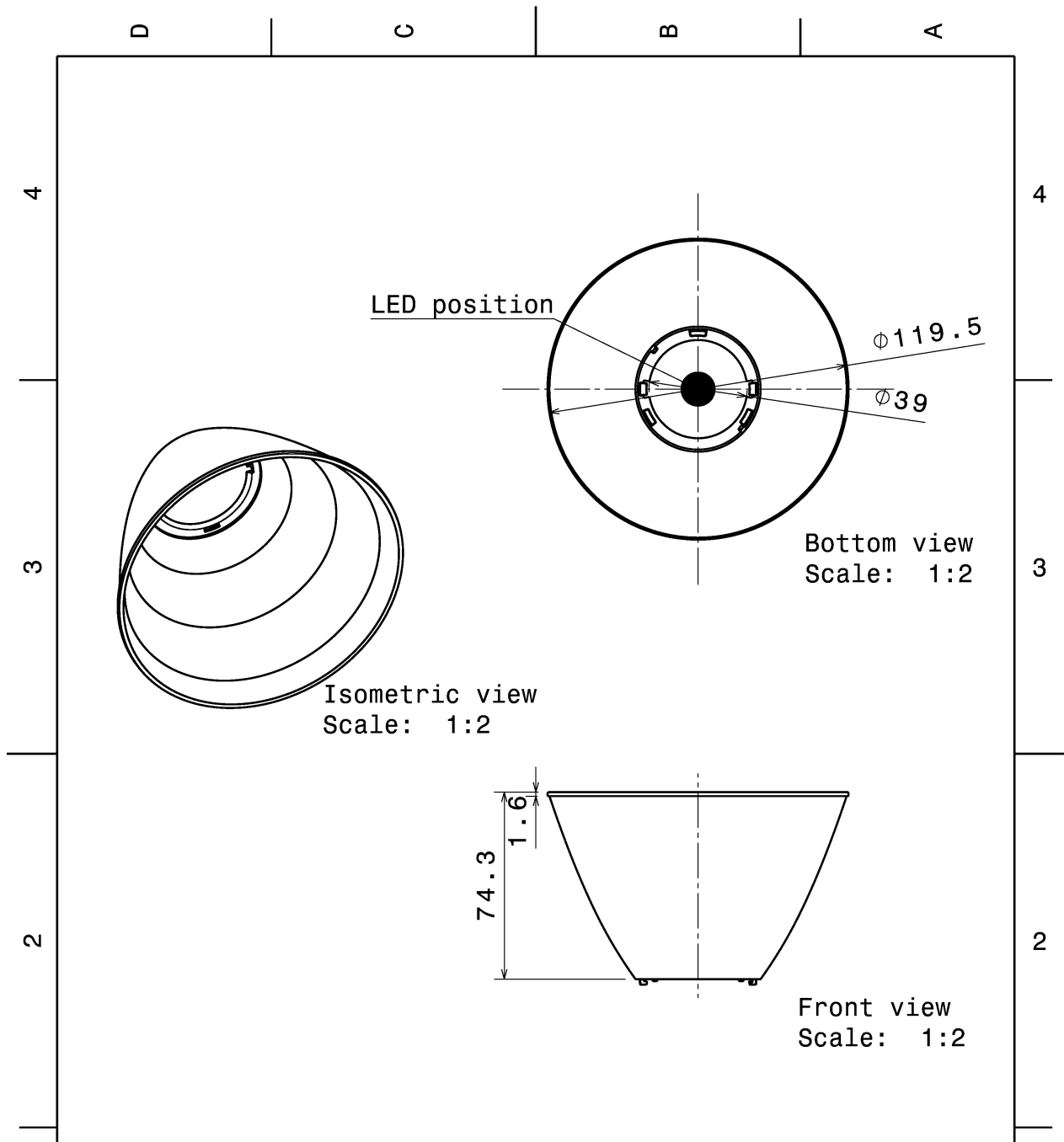
### TECHNICAL SPECIFICATIONS:

Dimensions	Ø 119.5 mm
Height	74.5 mm
Fastening	socket
Colour	metal
Box size	398 x 298 x 265 mm
Box weight	8.6 kg
Quantity in Box	180 pcs
ROHS compliant	yes ⓘ



### MATERIAL SPECIFICATIONS:

Component	Type	Material	Colour	Coating
ANGELA-S-B	Reflector	PC	metal	HMDS



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

Angela-B

This drawing is the property  
of LEDiL Oy. It may not be  
reproduced, copied or  
communicated without a written  
agreement with LEDiL Oy."

SIZE PART NUMBER

A4


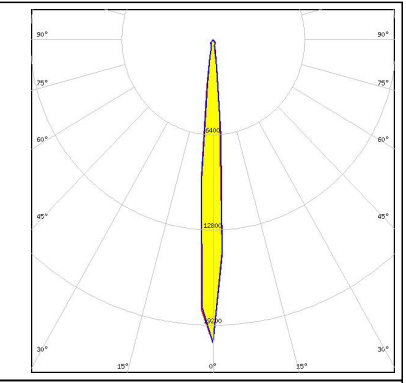
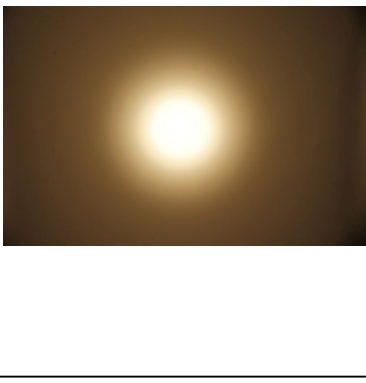
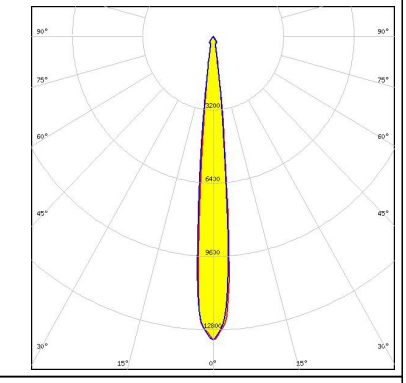
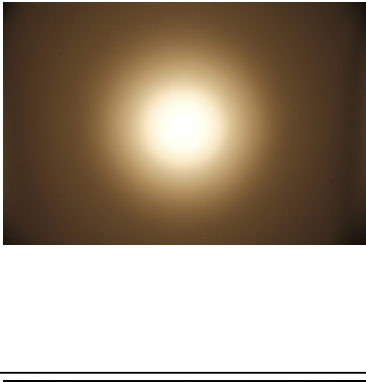
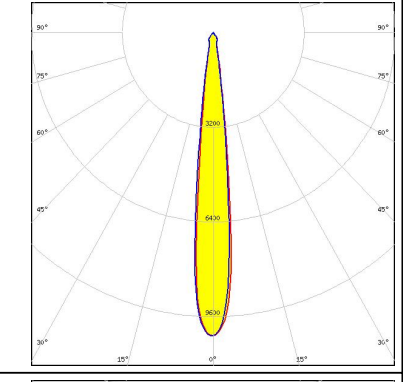

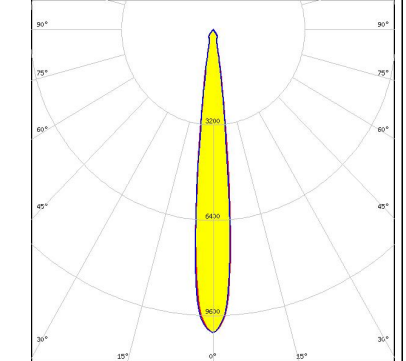
-

SCALE 1:2 WEIGHT

-

SHEET 1/1

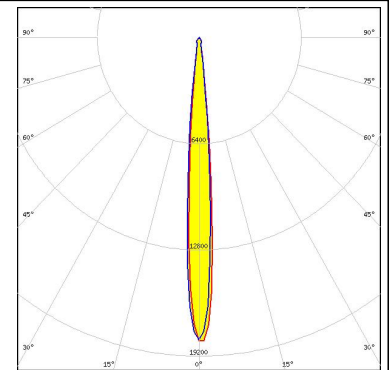
#### PHOTOMETRIC DATA (MEASURED):

<p>bridgelux.</p> <p>LED BXRA ES Rectangle</p> <p>FWHM 8.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 20.740 cd/lm</p> <p>Required components:</p> <p>BJB: 47.319.2040</p>		
<p>bridgelux.</p> <p>LED V15 Gen6</p> <p>FWHM 11.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 13.000 cd/lm</p> <p>Required components:</p> <p>BJB: 47.319.2224</p>		
<p>bridgelux.</p> <p>LED V18 Gen6</p> <p>FWHM 12.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 10.000 cd/lm</p> <p>Required components:</p> <p>BJB: 47.319.2274</p>		
<p>bridgelux.</p> <p>LED V18 Gen7</p> <p>FWHM 12.0°</p> <p>Efficiency 91 %</p> <p>Peak intensity 10.200 cd/lm</p> <p>Required components:</p> <p>BJB: 47.319.2350</p>		

**PHOTOMETRIC DATA (MEASURED):**

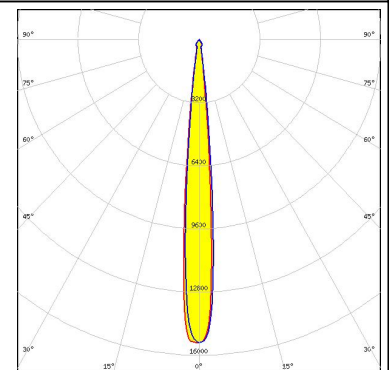
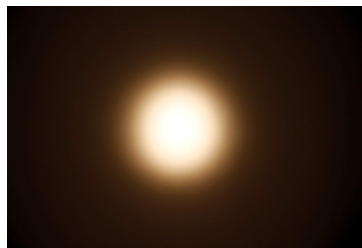
**CITIZEN**

LED CLL03x/CLU03x  
FWHM 9.0°  
Efficiency 94 %  
Peak intensity 18.300 cd/lm  
Required components:  
BJB: 47.319.2021



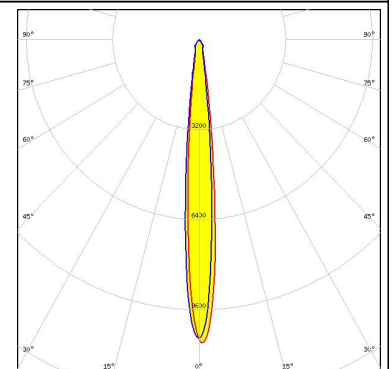
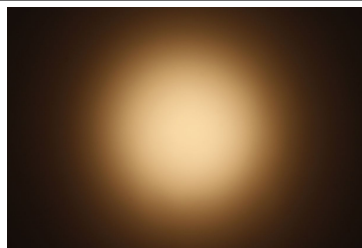
**CITIZEN**

LED CLL03x/CLU03x  
FWHM 10.0°  
Efficiency 93 %  
Peak intensity 15.400 cd/lm  
Required components:  
A.A.G. STUCCHI: 8101/G2



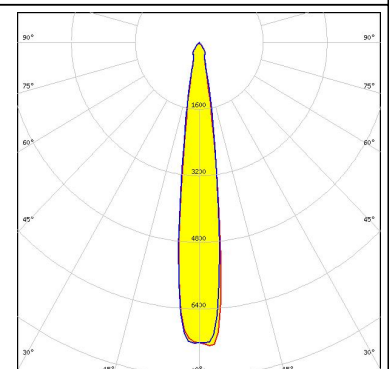
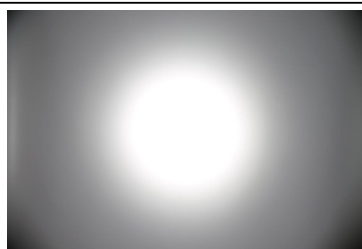
**CITIZEN**

LED CLL03x/CLU03x  
FWHM 10.0°  
Efficiency 86 %  
Peak intensity 10.780 cd/lm  
Required components:  
F13671\_ANGLE-RZ-LENS  
A.A.G. STUCCHI: 8101/G2



**CITIZEN**

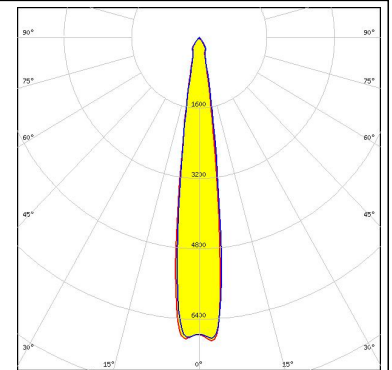
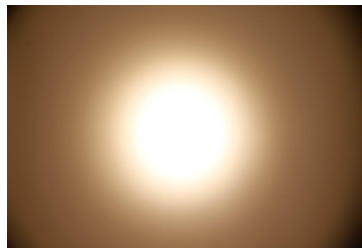
LED CLL04x/CLU04x  
FWHM 15.0°  
Efficiency 92 %  
Peak intensity 7.300 cd/lm  
Required components:  
BJB: 47.319.2030



#### PHOTOMETRIC DATA (MEASURED):

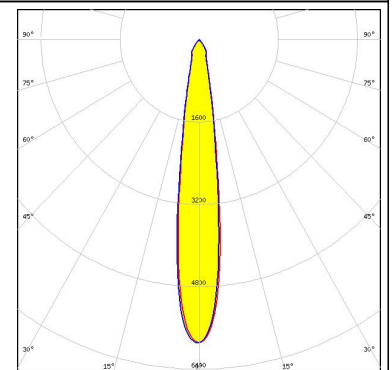
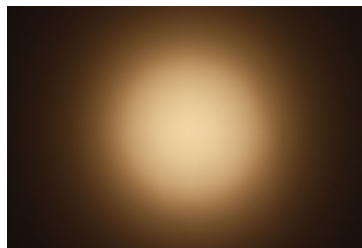
#### CITIZEN

LED CLL04x/CLU04x  
 FWHM 15.0°  
 Efficiency 92 %  
 Peak intensity 6.900 cd/lm  
 Required components:  
 A.A.G. STUCCHI: 8102/G2



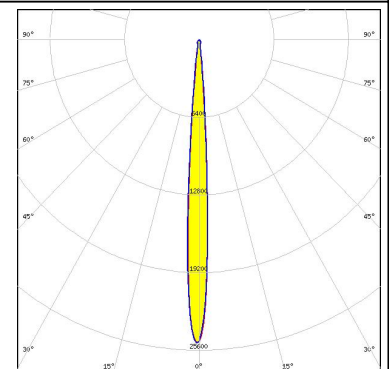
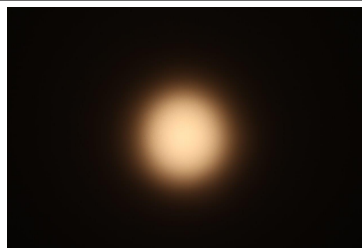
#### CITIZEN

LED CLL04x/CLU04x  
 FWHM 15.0°  
 Efficiency 86 %  
 Peak intensity 5.890 cd/lm  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 A.A.G. STUCCHI: 8102/G2



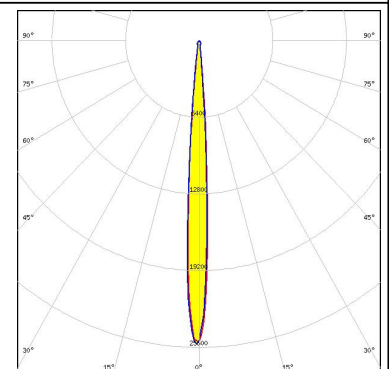
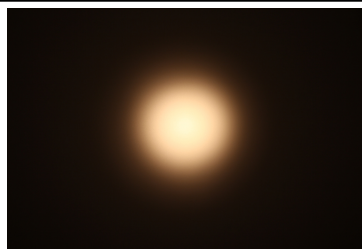
#### CITIZEN

LED CLU720/721  
 FWHM 7.0°  
 Efficiency 94 %  
 Peak intensity 25.000 cd/lm  
 Required components:  
 A.A.G. STUCCHI: 8101/G2



#### CITIZEN

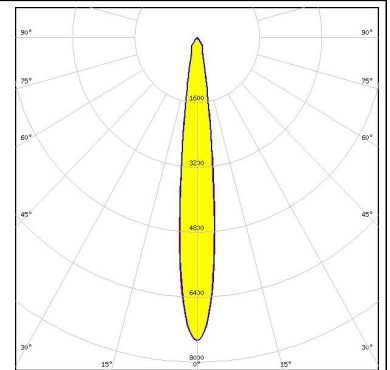
LED CLU720/721  
 FWHM 7.0°  
 Efficiency 94 %  
 Peak intensity 25.300 cd/lm  
 Required components:  
 BJB: 47.319.2021



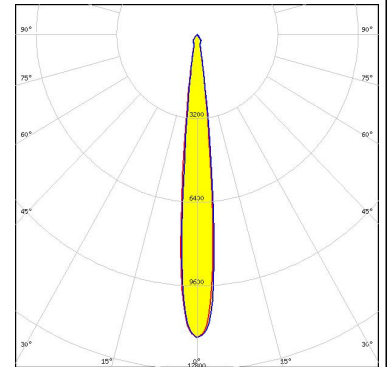
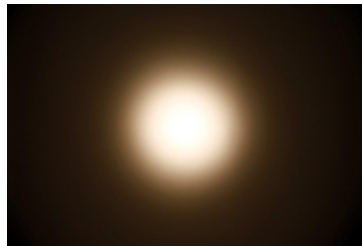
**PHOTOMETRIC DATA (MEASURED):**



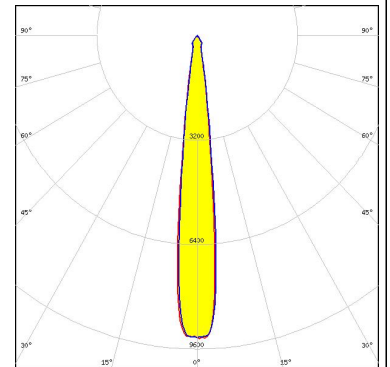
LED CXA/B 25xx  
 FWHM 13.0°  
 Efficiency 86 %  
 Peak intensity 7.500 cd/lm  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 BJB: 47.319.2141



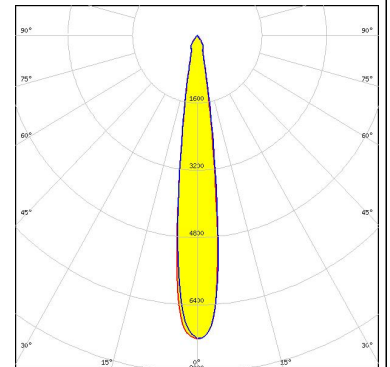
LED CXA/B 25xx  
 FWHM 11.0°  
 Efficiency 92 %  
 Peak intensity 11.590 cd/lm  
 Required components:  
 A.A.G. STUCCHI: 8401/G2



LED CXA/B 25xx  
 FWHM 13.0°  
 Efficiency 89 %  
 Peak intensity 9.300 cd/lm  
 Required components:  
 BJB: 47.319.2141



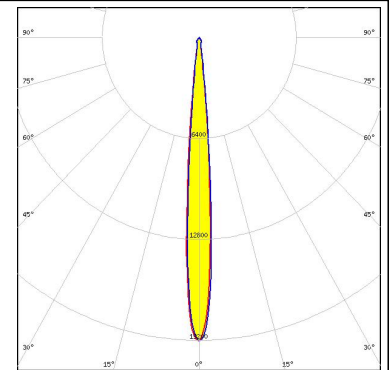
LED CXA/B 30xx  
 FWHM 15.0°  
 Efficiency 91 %  
 Peak intensity 7.200 cd/lm  
 Required components:  
 A.A.G. STUCCHI: 8404/G2



#### PHOTOMETRIC DATA (MEASURED):

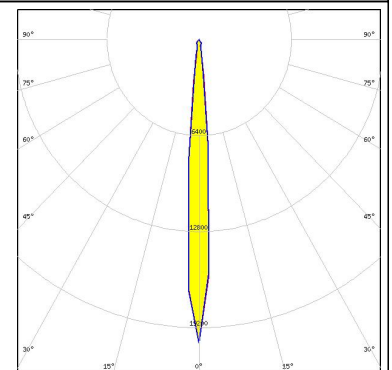
##### LG Innotek

LED COB 10W/13W/17W/24W  
 FWHM 9.0°  
 Efficiency 93 %  
 Peak intensity 19.240 cd/lm  
 Required components:  
 A.A.G. STUCCHI: 8600/G2



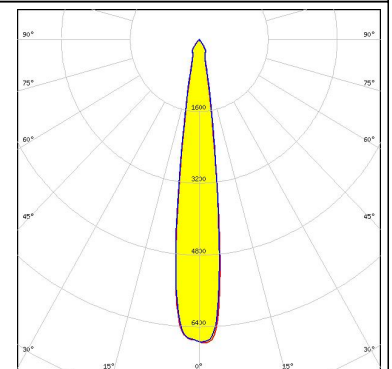
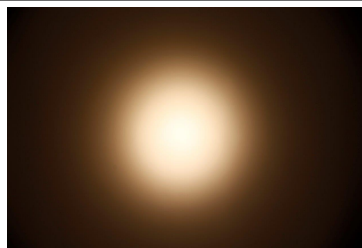
##### LG Innotek

LED COB 10W/13W/17W/24W  
 FWHM 8.0°  
 Efficiency 94 %  
 Peak intensity 16.200 cd/lm  
 Required components:  
 BJB: 47.319.2080



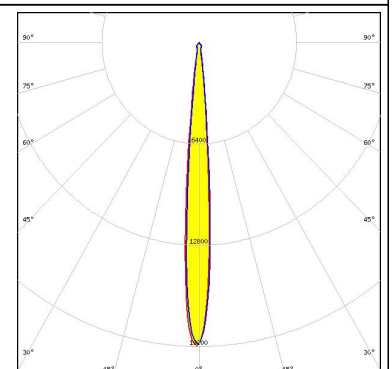
##### LG Innotek

LED COB 40W/60W  
 FWHM 15.0°  
 Efficiency 91 %  
 Peak intensity 6.760 cd/lm  
 Required components:  
 A.A.G. STUCCHI: 8102/G2



##### LUMILEDS

LED LUXEON CoB 1204/1205  
 FWHM 9.0°  
 Efficiency 93 %  
 Peak intensity 19.200 cd/lm  
 Required components:  
 A.A.G. STUCCHI: 8301/G2

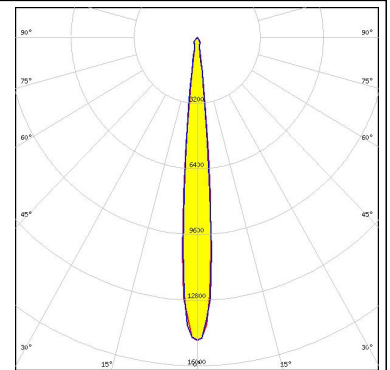




#### PHOTOMETRIC DATA (MEASURED):

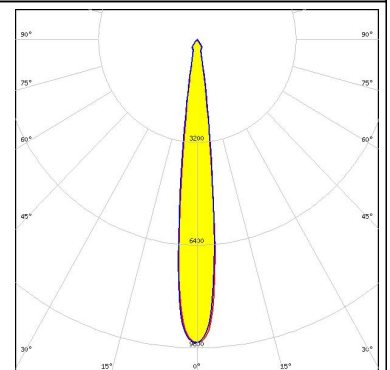
##### LUMILEDS

LED LUXEON CoB 1208  
 FWHM 10.0°  
 Efficiency 94 %  
 Peak intensity 14.800 cd/lm  
 Required components:  
 A.A.G. STUCCHI: 8301/G2



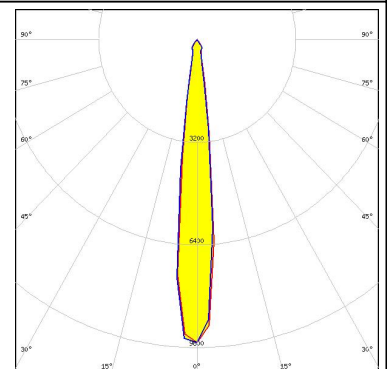
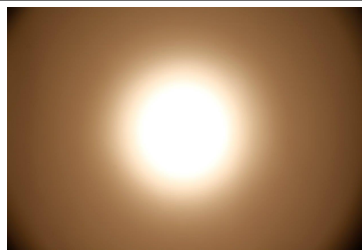
##### LUMILEDS

LED LUXEON CoB 1211  
 FWHM 13.0°  
 Efficiency 90 %  
 Peak intensity 9.400 cd/lm  
 Required components:  
 BJB: 47.319.2030



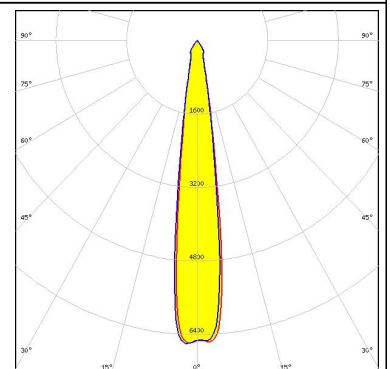
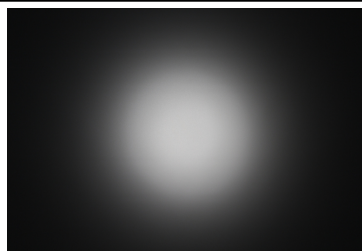
##### LUMILEDS

LED LUXEON CoB 1211  
 FWHM 13.0°  
 Efficiency 91 %  
 Peak intensity 9.500 cd/lm  
 Required components:  
 A.A.G. STUCCHI: 8102/G2



##### LUMILEDS

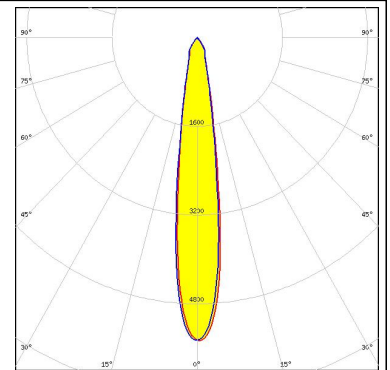
LED LUXEON CoB 1216/1812  
 FWHM 15.0°  
 Efficiency 89 %  
 Peak intensity 6.620 cd/lm  
 Required components:  
 BJB: 47.319.2030



#### PHOTOMETRIC DATA (MEASURED):

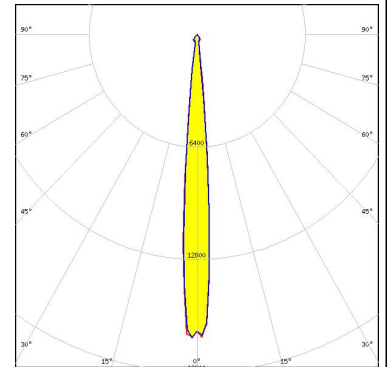
#### LUMILEDS

LED LUXEON CoB 1216/1812  
 FWHM 16.0°  
 Efficiency 85 %  
 Peak intensity 5.470 cd/lm  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 BJB: 47.319.2030



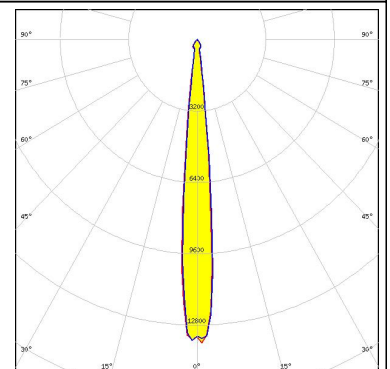
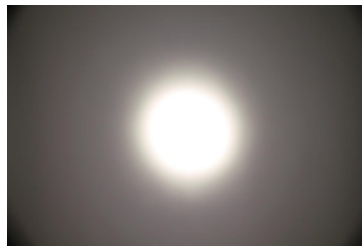
#### LUMILEDS

LED LUXEON K12  
 FWHM 9.0°  
 Efficiency 94 %  
 Peak intensity 17.300 cd/lm  
 Required components:  
 BJB: 47.319.2070



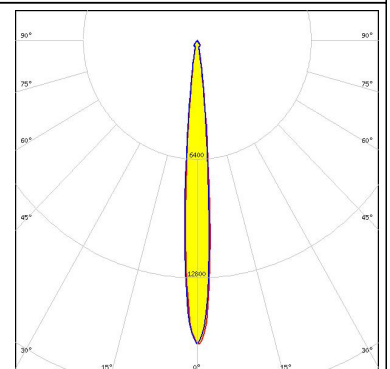
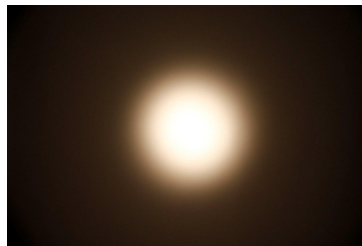
#### LUMILEDS

LED LUXEON K16  
 FWHM 11.0°  
 Efficiency 94 %  
 Peak intensity 13.600 cd/lm  
 Required components:  
 BJB: 47.319.2070

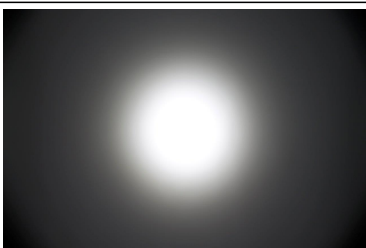
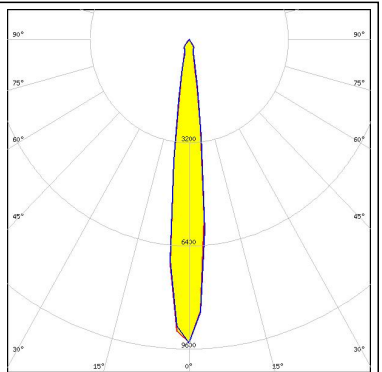
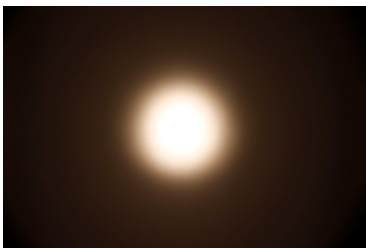
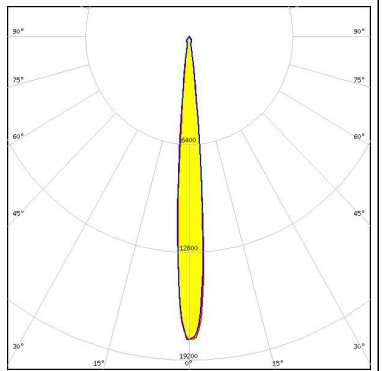

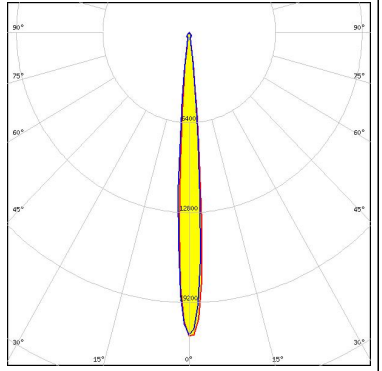

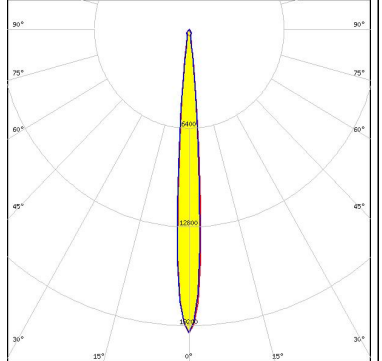


#### LUMINUS

LED CXM-14  
 FWHM 9.0°  
 Efficiency 93 %  
 Peak intensity 16.300 cd/lm  
 Required components:  
 BJB: 47.319.2021



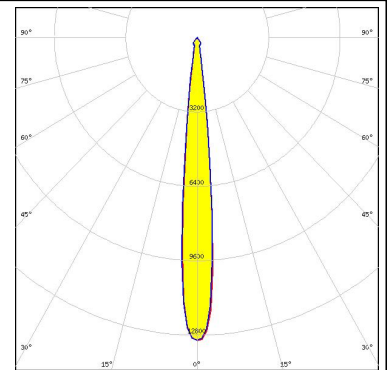
#### PHOTOMETRIC DATA (MEASURED):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq E30            FWHM 12.0°            Efficiency 91 %            Peak intensity 9.400 cd/lm            Required components:            BJB: 47.319.2090</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq P13            FWHM 9.2°            Efficiency 93 %            Peak intensity 18.050 cd/lm            Required components:            A.A.G. STUCCHI: 8502/G2</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq S13            FWHM 8.0°            Efficiency 94 %            Peak intensity 21.570 cd/lm            Required components:            A.A.G. STUCCHI: 8502/G2</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq S13 Gen2            FWHM 8.5°            Efficiency 89 %            Peak intensity 19.700 cd/lm            Required components:            BJB: 47.319.2021</p>		

**PHOTOMETRIC DATA (MEASURED):**

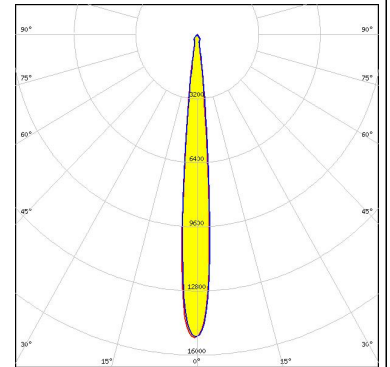
**OSRAM**  
Opto Semiconductors

LED Soleriq S19  
FWHM 11.0°  
Efficiency 93 %  
Peak intensity 13.050 cd/lm  
Required components:  
BJB: 47.319.2170



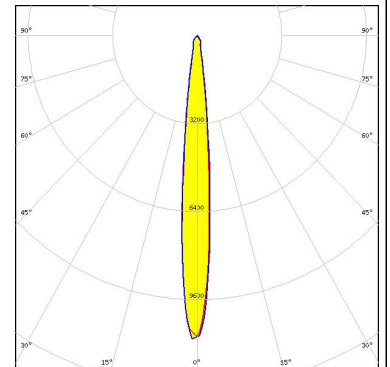
**SAMSUNG**

LED COB D Series LES 14.5 mm  
FWHM 10.0°  
Efficiency 91 %  
Peak intensity 15.150 cd/lm  
Required components:  
A.A.G. STUCCHI: 8101/G2



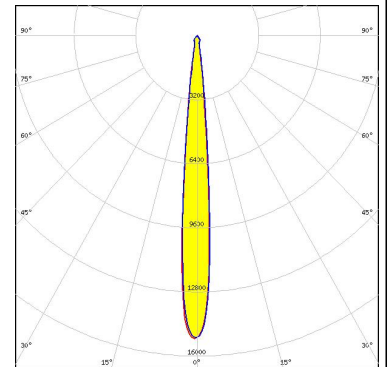
**SAMSUNG**

LED COB D Series LES 14.5 mm  
FWHM 11.0°  
Efficiency 87 %  
Peak intensity 11.030 cd/lm  
Required components:  
F13671\_ANGLE-RZ-LENS  
BJB: 47.319.2021



**SAMSUNG**

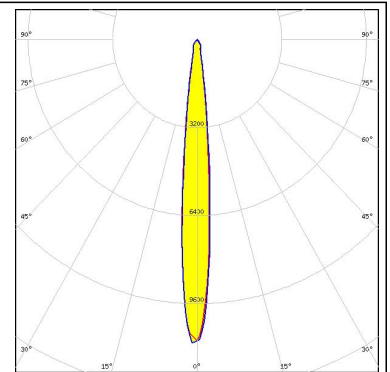
LED COB D Series LES 14.5 mm  
FWHM 10.0°  
Efficiency 91 %  
Peak intensity 15.150 cd/lm  
Required components:  
BJB: 47.319.2021



#### PHOTOMETRIC DATA (MEASURED):

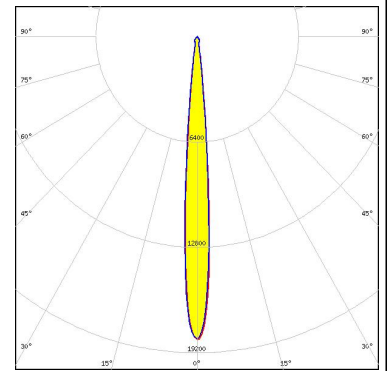
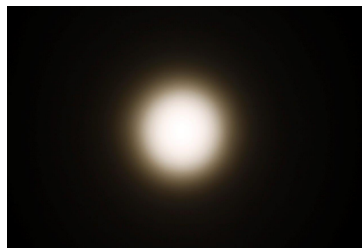
### SAMSUNG

LED COB D Series LES 14.5 mm  
 FWHM 11.0°  
 Efficiency 87 %  
 Peak intensity 11.030 cd/lm  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 A.A.G. STUCCHI: 8101/G2



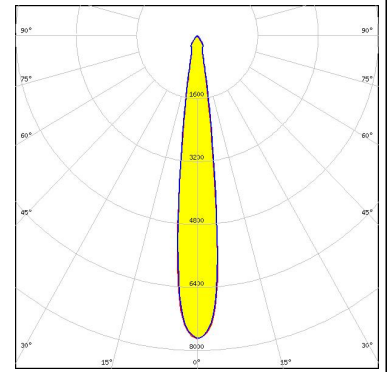
SEOUL SEMICONDUCTOR

LED ZC12/18  
 FWHM 9.0°  
 Efficiency 93 %  
 Peak intensity 18.400 cd/lm  
 Required components:  
 A.A.G. STUCCHI: 8101/G2



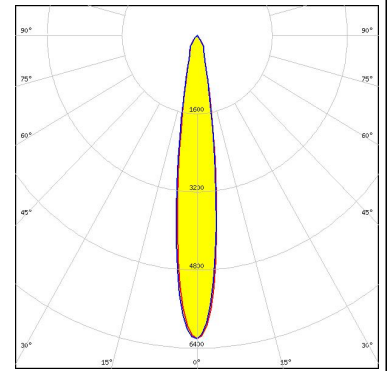
SEOUL SEMICONDUCTOR

LED ZC25/40/60  
 FWHM 14.0°  
 Efficiency 91 %  
 Peak intensity 7.700 cd/lm  
 Required components:  
 A.A.G. STUCCHI: 8102/G2



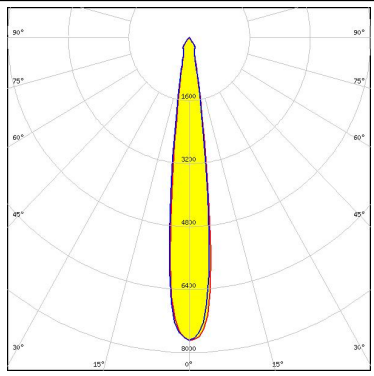

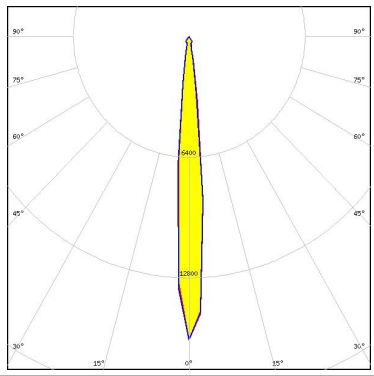

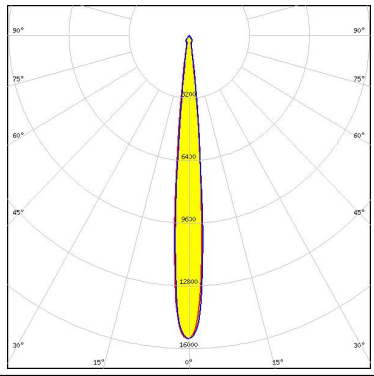

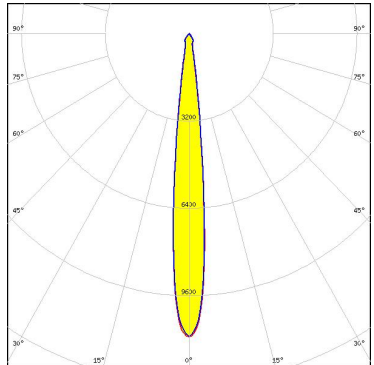


SEOUL SEMICONDUCTOR

LED ZC25/40/60  
 FWHM 16.0°  
 Efficiency 87 %  
 Peak intensity 6.210 cd/lm  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 BJB: 47.319.2030



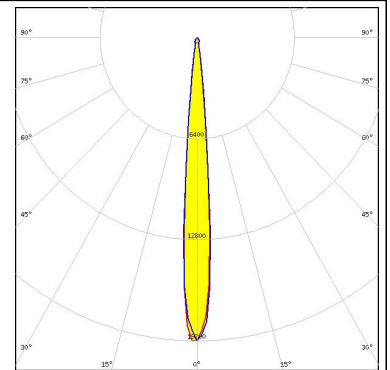
#### PHOTOMETRIC DATA (MEASURED):

<p> SEUL SEMICONDUCTOR</p> <p>LED ZC25/40/60            FWHM 14.0°            Efficiency 93 %            Peak intensity 7.700 cd/lm            Required components:            BJB: 47.319.2030</p>		
<p><b>SHARP</b></p> <p>LED Mega Zenigata (GW6DME)            FWHM 10.0°            Efficiency 94 %            Peak intensity 16.100 cd/lm            Required components:            BJB: 47.319.2011</p>		
<p><b>SHARP</b></p> <p>LED Mega Zenigata (GW6DME)            FWHM 10.0°            Efficiency 94 %            Peak intensity 15.500 cd/lm            Required components:            A.A.G. STUCCHI: 8301/G2</p>		
<p><b>XICATO</b></p> <p>LED XTM - 19mm LES            FWHM 12.0°            Efficiency 91 %            Peak intensity 11.000 cd/lm            Required components:            C15743_XTM-ADAPTER-50-B</p>		

#### PHOTOMETRIC DATA (SIMULATED):

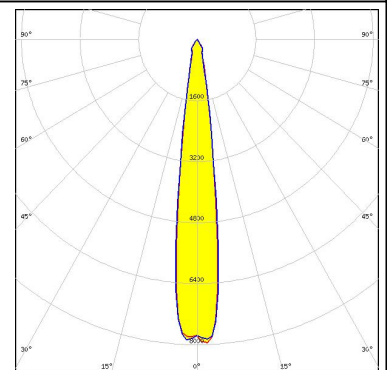
#### CITIZEN

LED CLL03x/CLU03x  
 FWHM 9.3°  
 Efficiency 94 %  
 Peak intensity 19.200 cd/lm  
 Required components:  
 BJB: 47.319.2021



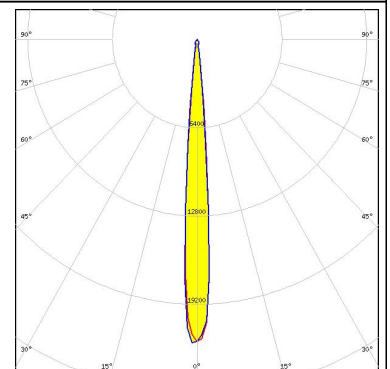
#### CITIZEN

LED CLL04x/CLU04x  
 FWHM 14.0°  
 Efficiency 93 %  
 Peak intensity 8.000 cd/lm  
 Required components:  
 BJB: 47.319.2030



#### CITIZEN

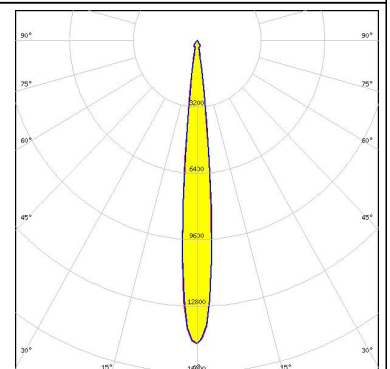
LED CLU730/731  
 FWHM 8.5°  
 Efficiency 92 %  
 Peak intensity 22.200 cd/lm  
 Required components:  
 BJB: 47.319.2030



#### OSRAM

Opto Semiconductors

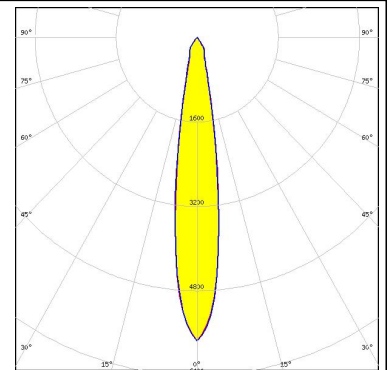
LED Soleriq S15  
 FWHM 10.0°  
 Efficiency 90 %  
 Peak intensity 14.600 cd/lm  
 Required components:  
 BJB: 47.319.2021



**PHOTOMETRIC DATA (SIMULATED):**

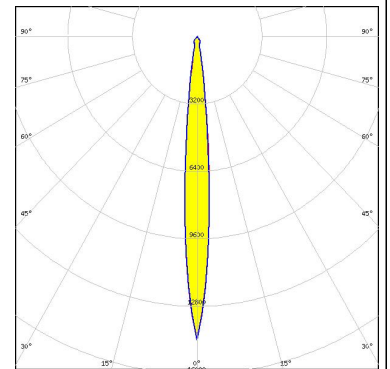
**SAMSUNG**

LED COB D Series LES 22 mm  
 FWHM 17.0°  
 Efficiency 87 %  
 Peak intensity 5.750 cd/lm  
 Required components:  
 BJB: 47.319.2030



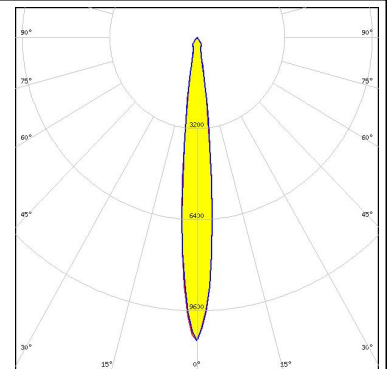
**TRIDONIC**

LED SLE G6 LES15 H D50  
 FWHM 9.7°  
 Efficiency 89 %  
 Peak intensity 14.300 cd/lm  
 Required components:



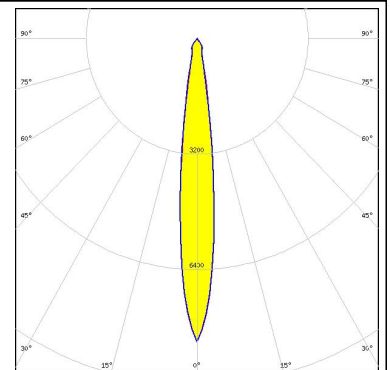
**TRIDONIC**

LED SLE G6 LES17 H  
 FWHM 12.0°  
 Efficiency 88 %  
 Peak intensity 10.700 cd/lm  
 Required components:



**TRIDONIC**

LED SLE G6 LES19 H  
 FWHM 13.0°  
 Efficiency 89 %  
 Peak intensity 8.400 cd/lm  
 Required components:





## PHOTOMETRIC DATA (SIMULATED):

### TRIDONIC

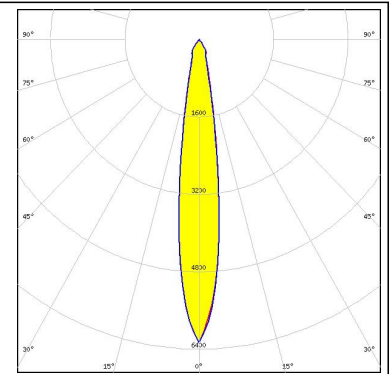
LED SLE G6 LES23 H

FWHM 16.0°

Efficiency 88 %

Peak intensity 6.270 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.

Due to use of high power COB's with this product, special attention to proper thermal design is highly recommended. LEDiL has no liability for direct, indirect or consecutive damages arising from the LEDiL products being used outside of the recommended temperature range.

### MATERIALS:

As part of our continuous research and improvement processes, and to ensure the best possible quality and availability of our products, LEDiL reserves the right to change material grades without notice.

### PRODUCT DATA USER AGREEMENT AND DISCLAIMER:

The measured data in the provided downloadable LEDiL Product Datasheets and Mechanical 2D-Drawings is rounded and provided as reference for planning. LEDiL Oy's optical specifications have been verified by conducting performance testing of the products in accordance with the company's quality system. The reported data are averaged results of multiple measurements with typical variation. LEDiL Oy reserves the right to without prior notification make changes and improvements to its products.

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