

## LENINA-M

~30° medium beam

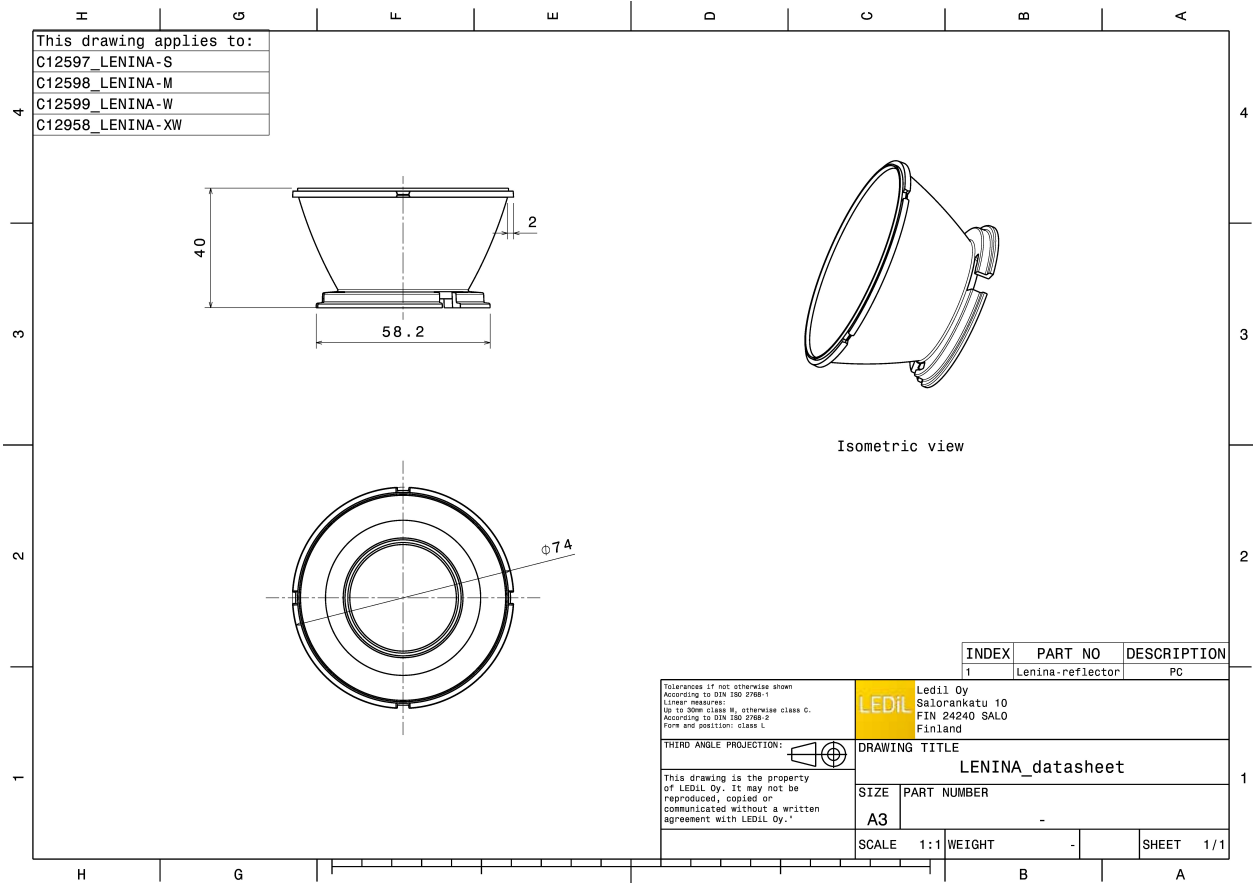
### TECHNICAL SPECIFICATIONS:

Dimensions	Ø 74 mm
Height	40 mm
Fastening	
Colour	metal
Box size	476 x 273 x 197 mm
Box weight	2 kg
Quantity in Box	60 pcs
ROHS compliant	yes ⓘ

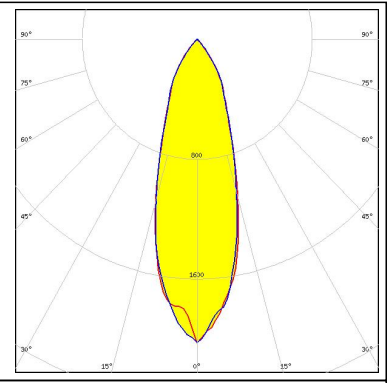
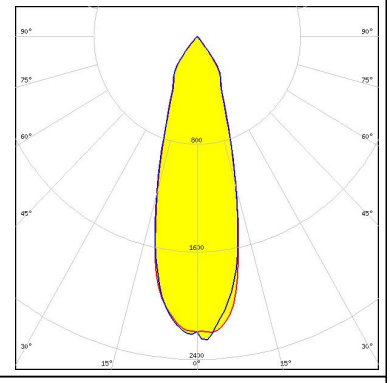
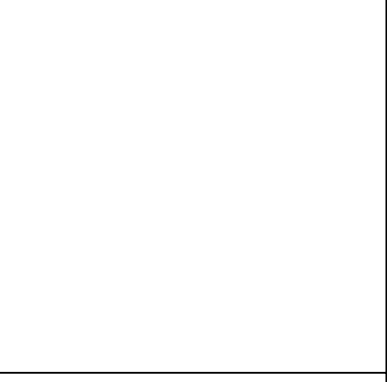



### MATERIAL SPECIFICATIONS:


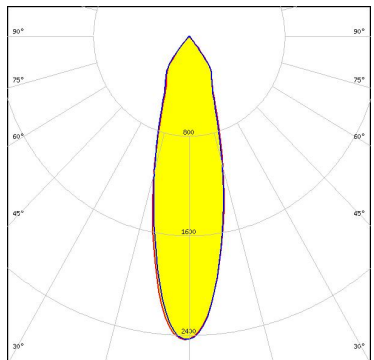
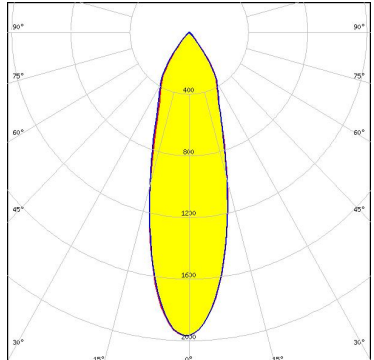
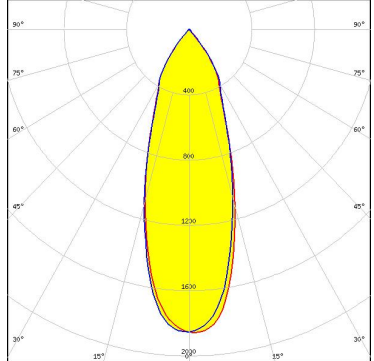
Component	Type	Material	Colour	Coating
LENINA-M	Reflector	PC	metal	lacquer



### PHOTOMETRIC DATA (MEASURED):

<p>bridgelux.</p> <p>LED BXRA ES Rectangle</p> <p>FWHM 36.0°</p> <p>Efficiency 78 %</p> <p>Peak intensity cd/lm</p> <p>Required components:</p> <p>C12153_LENINA-STD-BASE-BXRA</p> <p>C12606_LENINA-DL</p> <p>LEDiL: LEDiL</p>	
<p>bridgelux.</p> <p>LED BXRA ES Rectangle</p> <p>FWHM 29.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity cd/lm</p> <p>Required components:</p> <p>C12153_LENINA-STD-BASE-BXRA</p>	
<p>bridgelux.</p> <p>LED BXRA RS</p> <p>FWHM 44.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 1.373 cd/lm</p> <p>Required components:</p> <p>C12229_LENINA-STD-BASE-RS</p>	
<p>bridgelux.</p> <p>LED BXRA RS</p> <p>FWHM 47.0°</p> <p>Efficiency 80 %</p> <p>Peak intensity 1.220 cd/lm</p> <p>Required components:</p> <p>C12229_LENINA-STD-BASE-RS</p> <p>C12606_LENINA-DL</p>	

**PHOTOMETRIC DATA (MEASURED):**

<p>bridgelux.</p> <p>LED V10 Gen6 FWHM 21.0° Efficiency 84 % Peak intensity 3.170 cd/lm Required components: C13186_LENINA-STD-BASE-CXA15 C12606_LENINA-DL</p>	
<p>bridgelux.</p> <p>LED VERO13 FWHM 28.0° Efficiency 91 % Peak intensity 2.400 cd/lm Required components: C13868_LENINA-STD-BASE-VERO13-18</p>	
<p>bridgelux.</p> <p>LED VERO13 FWHM 31.0° Efficiency 87 % Peak intensity 2.000 cd/lm Required components: C13868_LENINA-STD-BASE-VERO13-18 C12606_LENINA-DL</p>	
<p>bridgelux.</p> <p>LED VERO18 FWHM 35.0° Efficiency 90 % Peak intensity 1.860 cd/lm Required components: C13868_LENINA-STD-BASE-VERO13-18</p>	

### PHOTOMETRIC DATA (MEASURED):

bridgelux.

LED VERO18

FWHM 37.0°

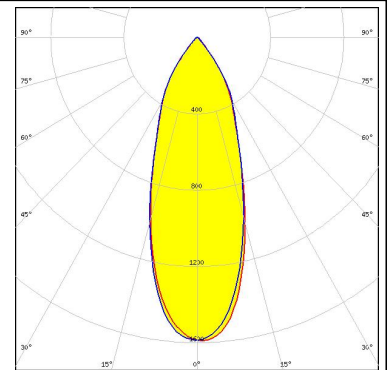
Efficiency 86 %

Peak intensity 1.600 cd/lm

Required components:

C13868\_LENINA-STD-BASE-VERO13-18

C12606\_LENINA-DL



bridgelux.

LED VERO29

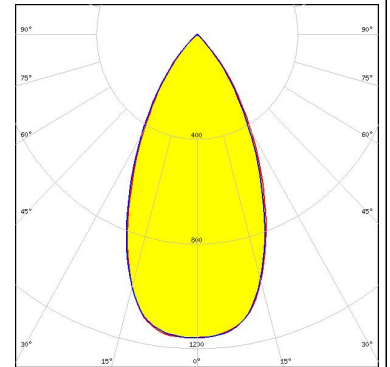
FWHM 52.0°

Efficiency 89 %

Peak intensity 1.160 cd/lm

Required components:

C13867\_LENINA-STD-BASE-VERO29



bridgelux.

LED VERO29

FWHM 52.0°

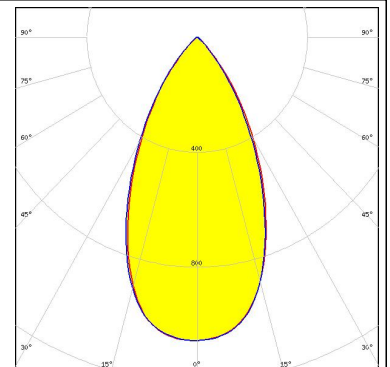
Efficiency 85 %

Peak intensity 1.060 cd/lm

Required components:

C13867\_LENINA-STD-BASE-VERO29

C12606\_LENINA-DL



## CITIZEN

LED CL-L340

FWHM 30.0°

Efficiency 86 %

Peak intensity cd/lm

Required components:

C11995\_LENINA-STD-BASE-CL340

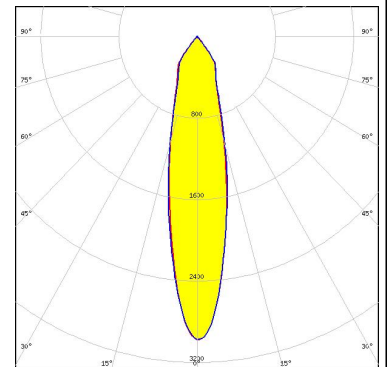
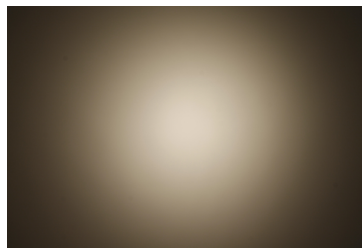
### PHOTOMETRIC DATA (MEASURED):

#### CITIZEN

LED CL-L340  
FWHM 35.0°  
Efficiency 78 %  
Peak intensity cd/lm  
Required components:  
C11995\_LENINA-STD-BASE-CL340  
C12606\_LENINA-DL

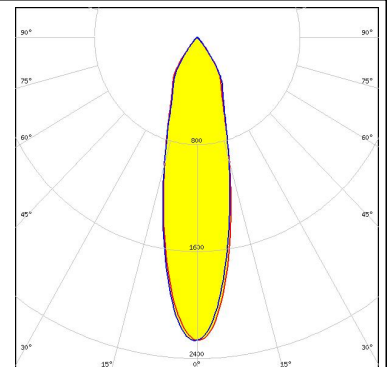
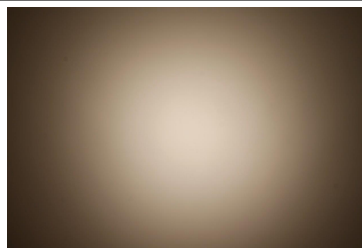
#### CITIZEN

LED CLL02x/CLU02x (LES10)  
FWHM 23.0°  
Efficiency 91 %  
Peak intensity 3.000 cd/lm  
Required components:  
C13868\_LENINA-STD-BASE-VERO13-18  
Bender Wirth: 434 Typ L1



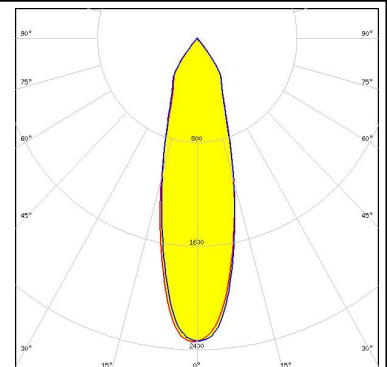
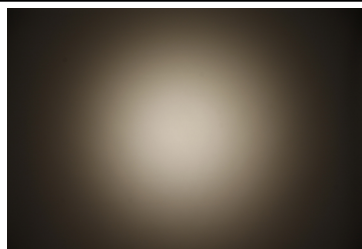
#### CITIZEN

LED CLL02x/CLU02x (LES10)  
FWHM 26.0°  
Efficiency 87 %  
Peak intensity 2.300 cd/lm  
Required components:  
C13868\_LENINA-STD-BASE-VERO13-18  
C12606\_LENINA-DL  
Bender Wirth: 434 Typ L1



#### CITIZEN

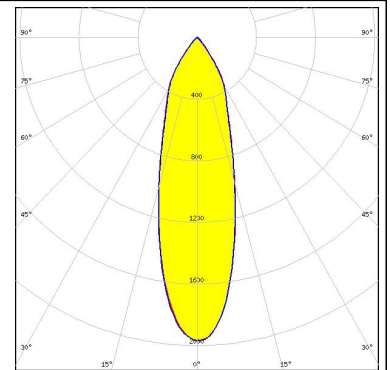
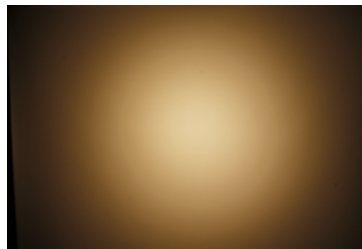
LED CLL03x/CLU03x  
FWHM 29.0°  
Efficiency 91 %  
Peak intensity 2.300 cd/lm  
Required components:  
C13868\_LENINA-STD-BASE-VERO13-18  
Bender Wirth: 433 Typ L1



**PHOTOMETRIC DATA (MEASURED):**

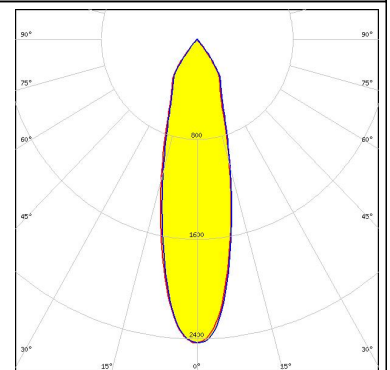
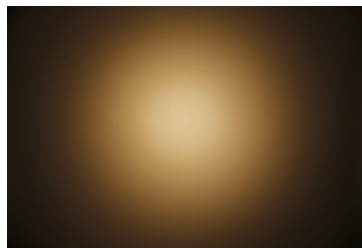
**CITIZEN**

LED CLL03x/CLU03x  
 FWHM 30.0°  
 Efficiency 87 %  
 Peak intensity 2.000 cd/lm  
 Required components:  
 C12691\_LENINA-STD-BASE-CLL030  
 C12606\_LENINA-DL



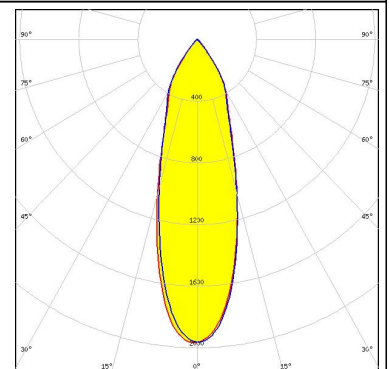
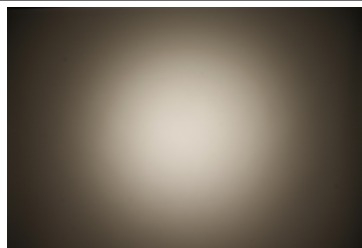
**CITIZEN**

LED CLL03x/CLU03x  
 FWHM 28.0°  
 Efficiency 91 %  
 Peak intensity 2.400 cd/lm  
 Required components:  
 C12691\_LENINA-STD-BASE-CLL030



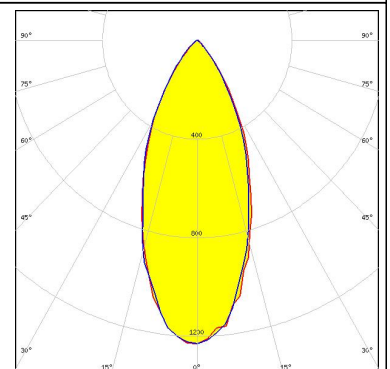
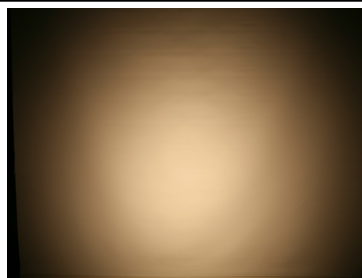
**CITIZEN**

LED CLL03x/CLU03x  
 FWHM 31.0°  
 Efficiency 88 %  
 Peak intensity 2.000 cd/lm  
 Required components:  
 C13868\_LENINA-STD-BASE-VERO13-18  
 C12606\_LENINA-DL  
 Bender Wirth: 433 Typ L1



**CITIZEN**

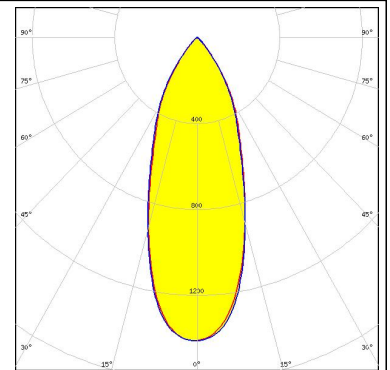
LED CLL04x/CLU04x  
 FWHM 43.0°  
 Efficiency 78 %  
 Peak intensity 1.200 cd/lm  
 Required components:  
 C12692\_LENINA-STD-BASE-CLL040  
 C12606\_LENINA-DL



**PHOTOMETRIC DATA (MEASURED):**

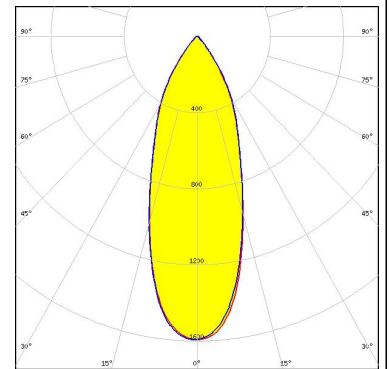
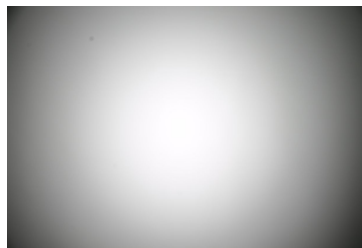
**CITIZEN**

LED CLL04x/CLU04x  
 FWHM 38.0°  
 Efficiency 76 %  
 Peak intensity 1.400 cd/lm  
 Required components:  
 C12606\_LENINA-DL  
 A.A.G. STUCCHI: 8102/G2 + S-8000/12



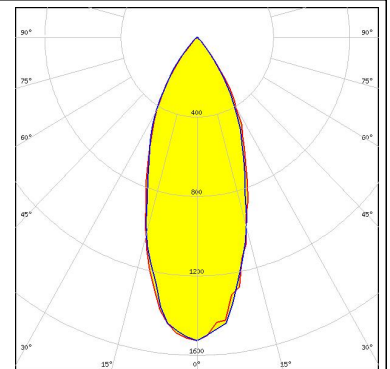
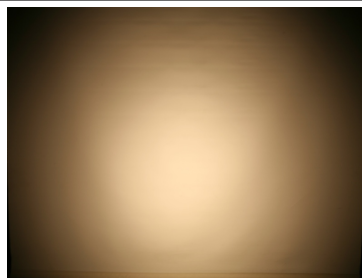
**CITIZEN**

LED CLL04x/CLU04x  
 FWHM 37.0°  
 Efficiency 87 %  
 Peak intensity 1.600 cd/lm  
 Required components:  
 C12606\_LENINA-DL  
 IDEAL: 50-2204CT + 50-2100LN



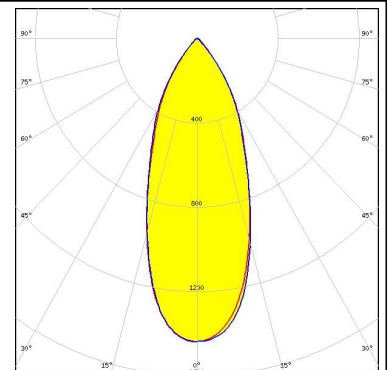
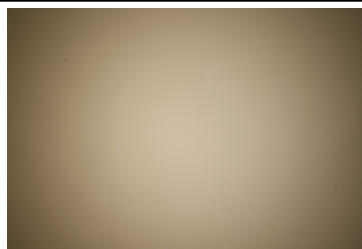
**CITIZEN**

LED CLL04x/CLU04x  
 FWHM 40.0°  
 Efficiency 86 %  
 Peak intensity 1.500 cd/lm  
 Required components:  
 C12692\_LENINA-STD-BASE-CLL040



**CITIZEN**

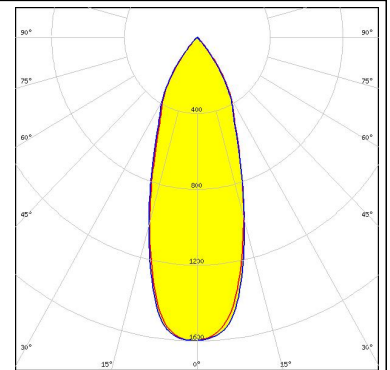
LED CLL04x/CLU04x  
 FWHM 40.0°  
 Efficiency 87 %  
 Peak intensity 1.400 cd/lm  
 Required components:  
 C13867\_LENINA-STD-BASE-VERO29  
 C12606\_LENINA-DL  
 Bender Wirth: 431 Typ L3



### PHOTOMETRIC DATA (MEASURED):

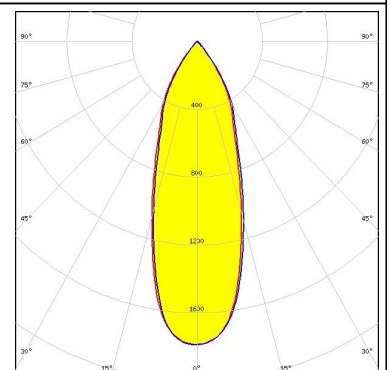
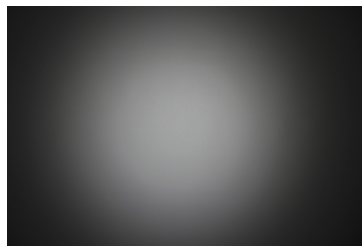
#### CITIZEN

LED CLL04x/CLU04x  
 FWHM 36.0°  
 Efficiency 83 %  
 Peak intensity 1.600 cd/lm  
 Required components:  
 A.A.G. STUCCHI: 8102/G2 + S-8000/12



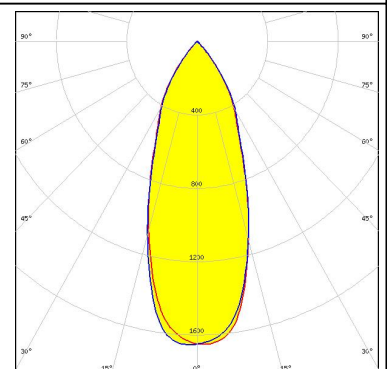
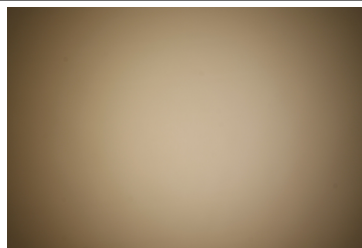
#### CITIZEN

LED CLL04x/CLU04x  
 FWHM 35.0°  
 Efficiency 90 %  
 Peak intensity 1.800 cd/lm  
 Required components:  
 IDEAL: 50-2204CT + 50-2100LN



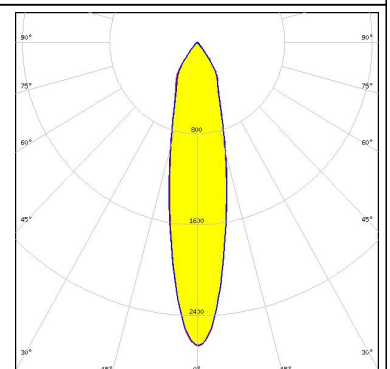
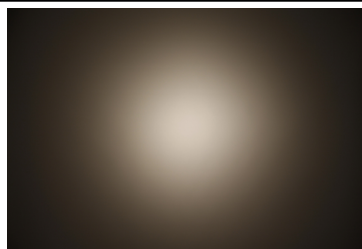
#### CITIZEN

LED CLL04x/CLU04x  
 FWHM 39.0°  
 Efficiency 92 %  
 Peak intensity 1.700 cd/lm  
 Required components:  
 C13867\_LENINA-STD-BASE-VERO29  
 Bender Wirth: 431 Typ L3



#### CITIZEN

LED CLU700/701  
 FWHM 23.0°  
 Efficiency 87 %  
 Peak intensity 2.700 cd/lm  
 Required components:  
 C13868\_LENINA-STD-BASE-VERO13-18  
 C12606\_LENINA-DL  
 Bender Wirth: 434 Typ L1



### PHOTOMETRIC DATA (MEASURED):

#### CITIZEN

LED CLU700/701

FWHM 17.0°

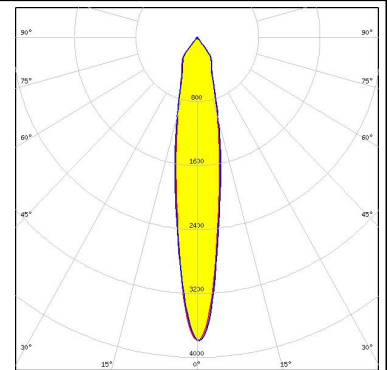
Efficiency 91 %

Peak intensity 3.800 cd/lm

Required components:

C13868\_LENINA-STD-BASE-VERO13-18

Bender Wirth: 434 Typ L1



#### CITIZEN

LED CLU710/711

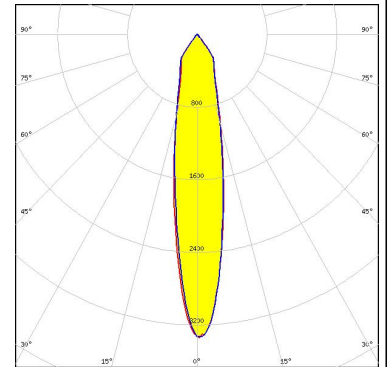
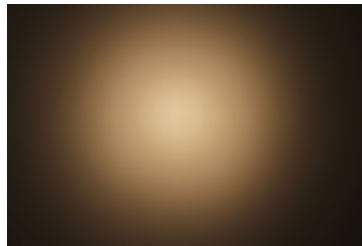
FWHM 19.0°

Efficiency 93 %

Peak intensity 3.300 cd/lm

Required components:

C12691\_LENINA-STD-BASE-CLL030



#### CITIZEN

LED CLU710/711

FWHM 24.0°

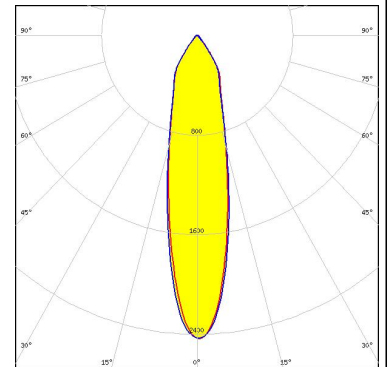
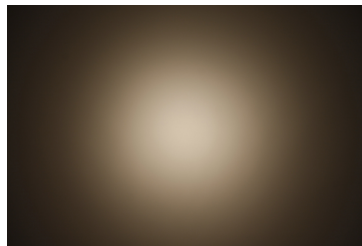
Efficiency 89 %

Peak intensity 2.400 cd/lm

Required components:

C12691\_LENINA-STD-BASE-CLL030

C12606\_LENINA-DL



#### CITIZEN

LED CLU720/721

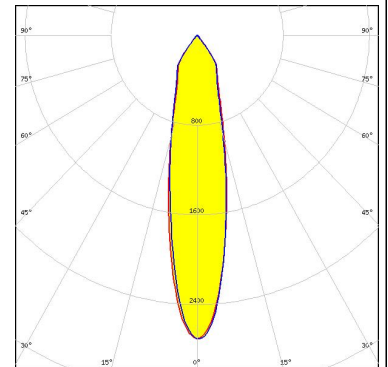
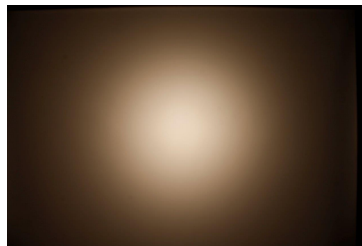
FWHM 23.0°

Efficiency 88 %

Peak intensity 2.700 cd/lm

Required components:

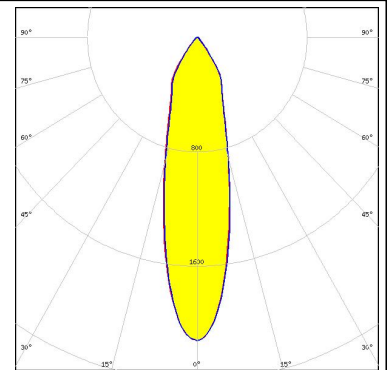
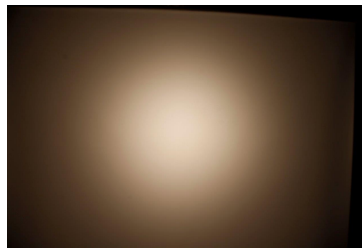
C12691\_LENINA-STD-BASE-CLL030



**PHOTOMETRIC DATA (MEASURED):**

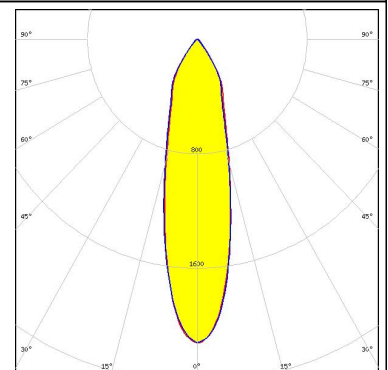
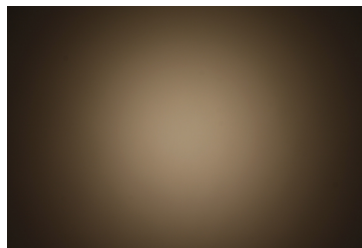
**CITIZEN**

LED CLU720/721  
 FWHM 26.0°  
 Efficiency 84 %  
 Peak intensity 2.100 cd/lm  
 Required components:  
 C12691\_LENINA-STD-BASE-CLL030  
 C12606\_LENINA-DL



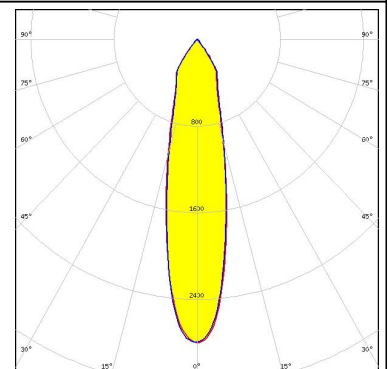
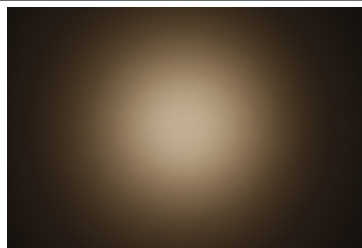
**CITIZEN**

LED CLU730/731  
 FWHM 26.0°  
 Efficiency 84 %  
 Peak intensity 2.100 cd/lm  
 Required components:  
 C12692\_LENINA-STD-BASE-CLL040  
 C12606\_LENINA-DL



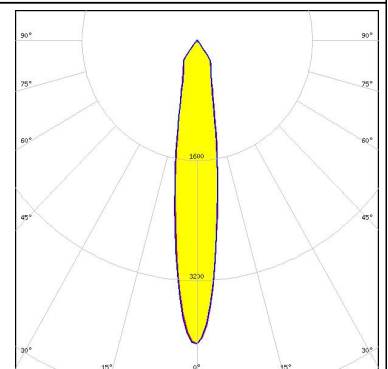
**CITIZEN**

LED CLU730/731  
 FWHM 24.0°  
 Efficiency 94 %  
 Peak intensity 2.800 cd/lm  
 Required components:  
 C12692\_LENINA-STD-BASE-CLL040



**CREE**

LED CXA/B 15xx  
 FWHM 17.0°  
 Efficiency 91 %  
 Peak intensity 4.050 cd/lm  
 Required components:  
 C13186\_LENINA-STD-BASE-CXA15



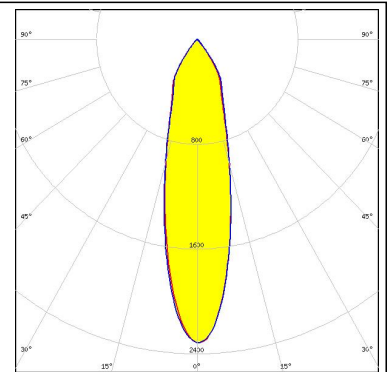
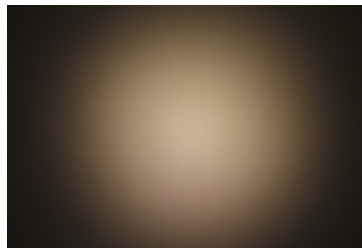
### PHOTOMETRIC DATA (MEASURED):



LED CXA/B 15xx  
FWHM 26.0°  
Efficiency 87 %  
Peak intensity 2.300 cd/lm

Required components:

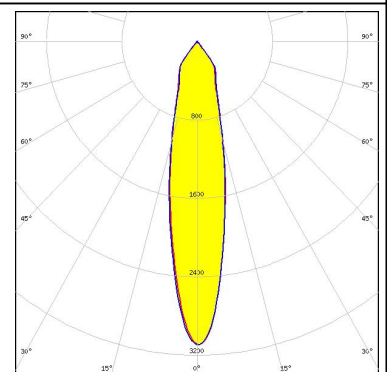
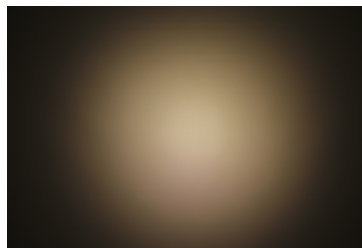
C13868\_LENINA-STD-BASE-VERO13-18  
C12606\_LENINA-DL  
Bender Wirth: 441 Typ L1



LED CXA/B 15xx  
FWHM 22.0°  
Efficiency %  
Peak intensity 3.100 cd/lm

Required components:

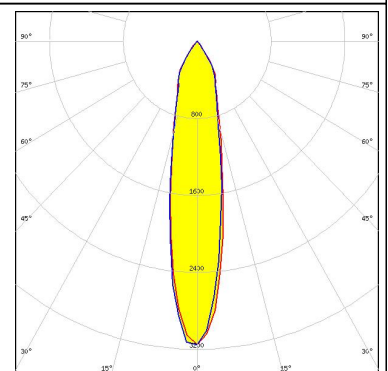
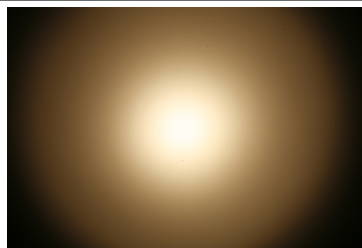
C13868\_LENINA-STD-BASE-VERO13-18  
Bender Wirth: 441 Typ L1



LED CXA/B 15xx  
FWHM 22.0°  
Efficiency 86 %  
Peak intensity 3.200 cd/lm

Required components:

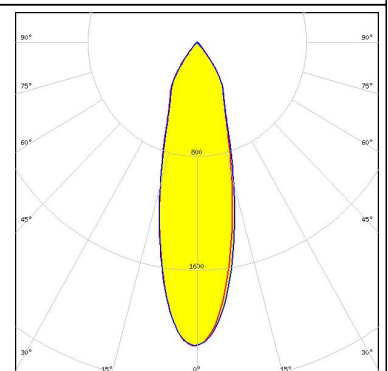
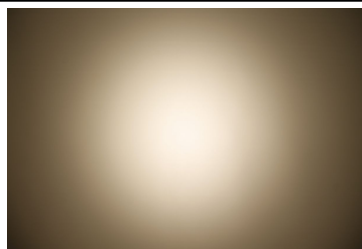
C13186\_LENINA-STD-BASE-CXA15  
C12606\_LENINA-DL



LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
FWHM 29.0°  
Efficiency 88 %  
Peak intensity 2.100 cd/lm

Required components:

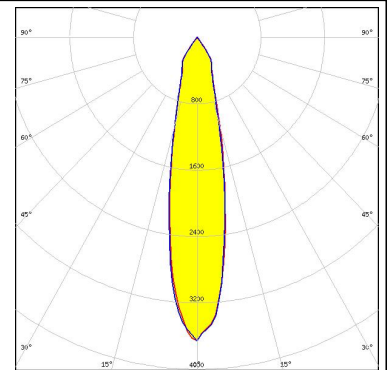
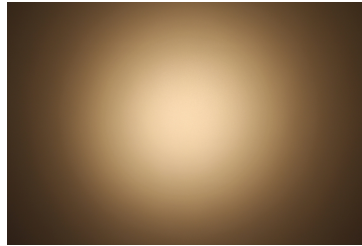
C13868\_LENINA-STD-BASE-VERO13-18  
C12606\_LENINA-DL  
Bender Wirth: 437 Typ L1



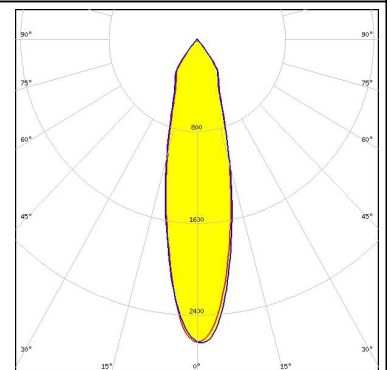
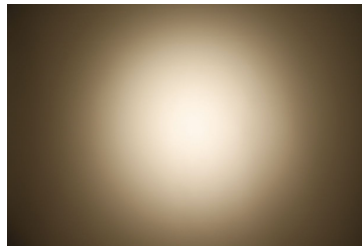
### PHOTOMETRIC DATA (MEASURED):



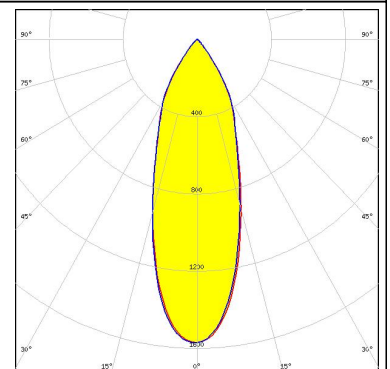
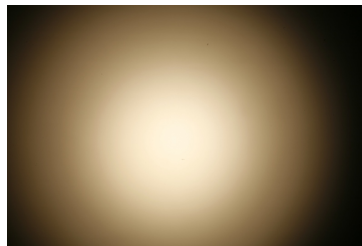
LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
 FWHM 21.0°  
 Efficiency 92 %  
 Peak intensity 3.900 cd/lm  
 Required components:  
 C14146\_LENINA-STD-BASE-CXA18  
 LEDiL: LEDiL



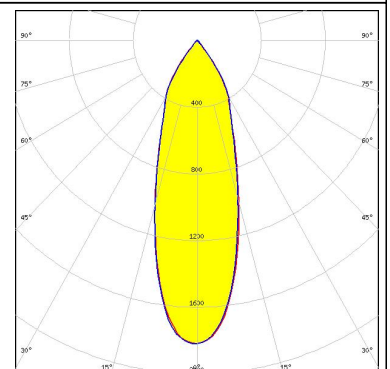
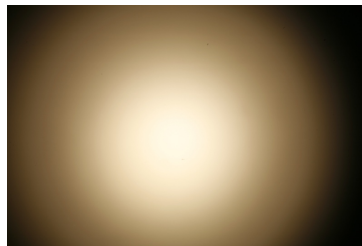
LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
 FWHM 26.0°  
 Efficiency 92 %  
 Peak intensity 2.600 cd/lm  
 Required components:  
 C13868\_LENINA-STD-BASE-VERO13-18  
 Bender Wirth: 437 Typ L1



LED CXA/B 25xx  
 FWHM 35.0°  
 Efficiency 78 %  
 Peak intensity 1.600 cd/lm  
 Required components:  
 C13324\_LENINA-STD-BASE-CXA25  
 C12606\_LENINA-DL



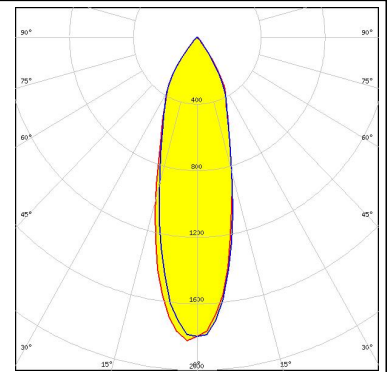
LED CXA/B 25xx  
 FWHM 33.0°  
 Efficiency 86 %  
 Peak intensity 1.900 cd/lm  
 Required components:  
 C13324\_LENINA-STD-BASE-CXA25



**PHOTOMETRIC DATA (MEASURED):**

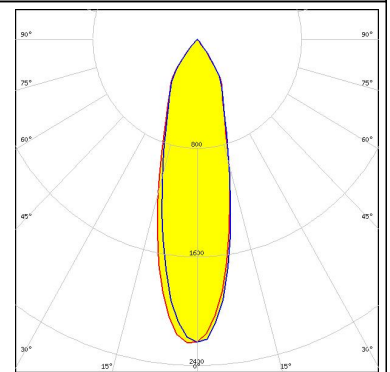
**CREE** ⇄

LED CXA2011  
 FWHM 33.0°  
 Efficiency 77 %  
 Peak intensity 1.800 cd/lm  
 Required components:  
 C12105\_LENINA-STD-BASE-CXA20  
 C12606\_LENINA-DL



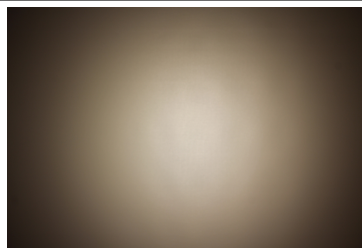
**CREE** ⇄

LED CXA2011  
 FWHM 28.0°  
 Efficiency 85 %  
 Peak intensity 2.200 cd/lm  
 Required components:  
 C12105\_LENINA-STD-BASE-CXA20



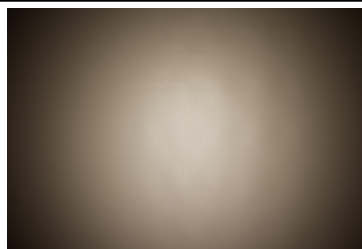
**EVERLIGHT**

LED CHI3030 19W  
 FWHM 39.0°  
 Efficiency 91 %  
 Peak intensity 1.500 cd/lm  
 Required components:  
 C13867\_LENINA-STD-BASE-VERO29  
 C12606\_LENINA-DL  
 Bender Wirth: 468 Typ L3

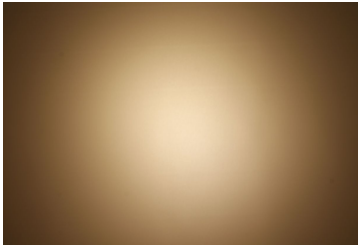
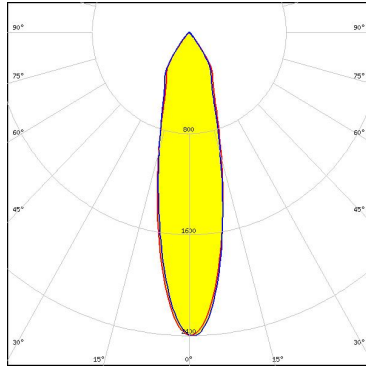
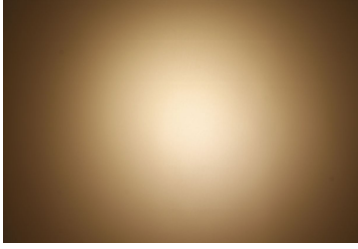
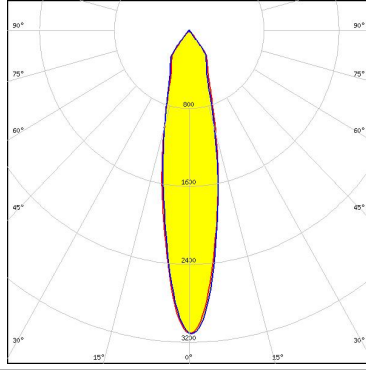
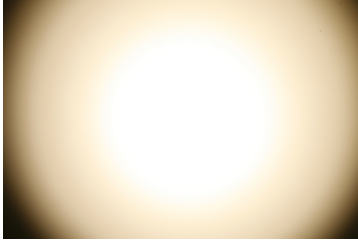
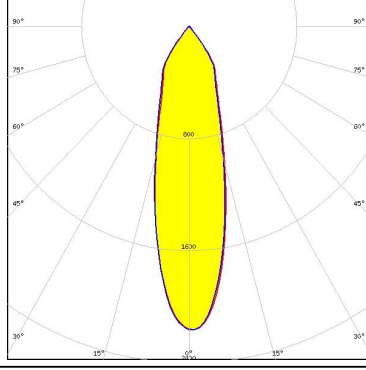

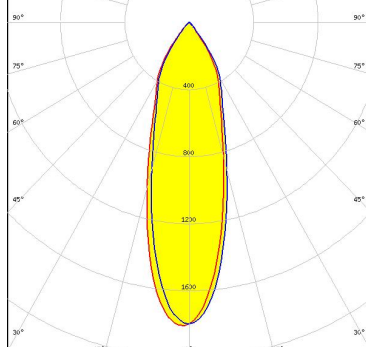


**EVERLIGHT**

LED CHI3030 29W  
 FWHM 47.0°  
 Efficiency 87 %  
 Peak intensity 1.200 cd/lm  
 Required components:  
 C13867\_LENINA-STD-BASE-VERO29  
 C12606\_LENINA-DL  
 Bender Wirth: 468 Typ L3



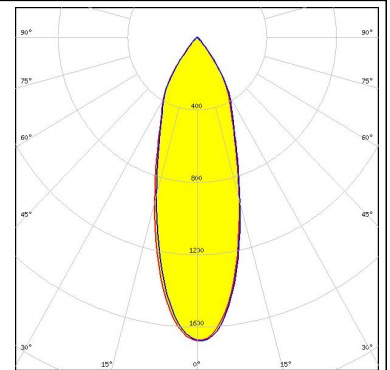
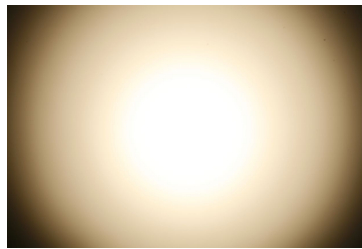
### PHOTOMETRIC DATA (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1202/1203</p> <p>FWHM 26.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 2.400 cd/lm</p> <p>Required components: C13868_LENINA-STD-BASE-VERO13-18 C12606_LENINA-DL Bender Wirth: 438 Typ L1</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1202/1203</p> <p>FWHM 22.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 3.100 cd/lm</p> <p>Required components: C13868_LENINA-STD-BASE-VERO13-18 Bender Wirth: 438 Typ L1</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1204/1205</p> <p>FWHM 28.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 2.200 cd/lm</p> <p>Required components: C12292_LENINA-STD-BASE-MEZ</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1204/1205</p> <p>FWHM 30.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 1.800 cd/lm</p> <p>Required components: C12292_LENINA-STD-BASE-MEZ C12606_LENINA-DL</p>		

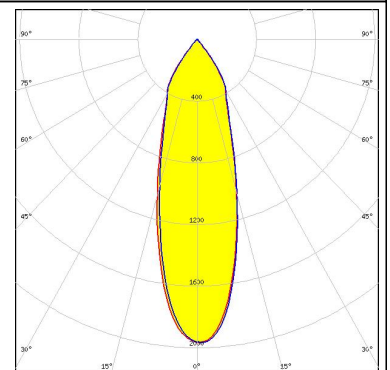
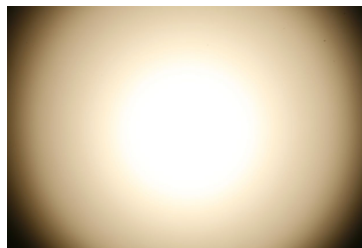
#### PHOTOMETRIC DATA (MEASURED):



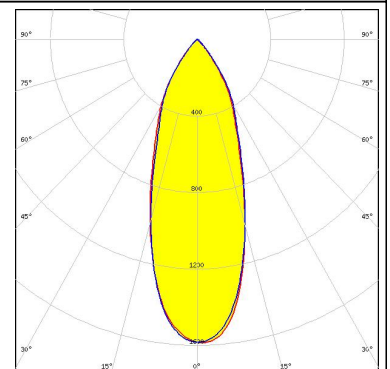
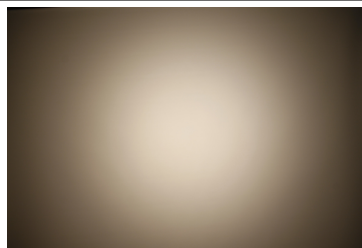
LED LUXEON CoB 1208  
 FWHM 33.0°  
 Efficiency 83 %  
 Peak intensity 1.700 cd/lm  
 Required components:  
 C12292\_LENINA-STD-BASE-MEZ  
 C12606\_LENINA-DL



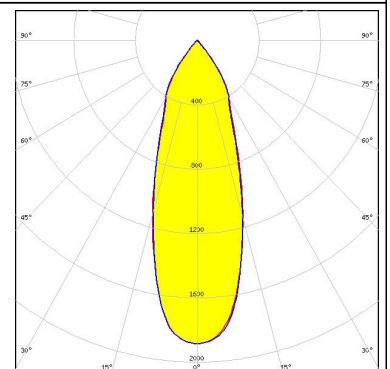
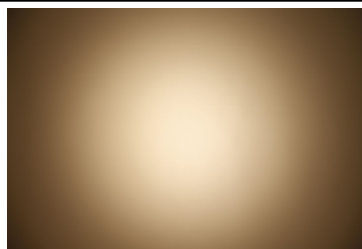
LED LUXEON CoB 1208  
 FWHM 31.0°  
 Efficiency 88 %  
 Peak intensity 2.000 cd/lm  
 Required components:  
 C12292\_LENINA-STD-BASE-MEZ



LED LUXEON CoB 1211  
 FWHM 37.0°  
 Efficiency 87 %  
 Peak intensity 1.600 cd/lm  
 Required components:  
 C13867\_LENINA-STD-BASE-VERO29  
 C12606\_LENINA-DL  
 Bender Wirth: 431 Typ L3



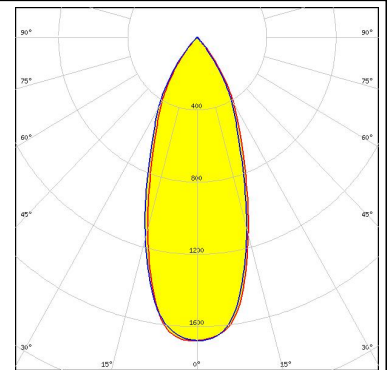
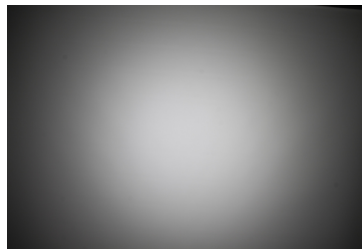
LED LUXEON CoB 1211  
 FWHM 35.0°  
 Efficiency 93 %  
 Peak intensity 1.900 cd/lm  
 Required components:  
 C13867\_LENINA-STD-BASE-VERO29  
 Bender Wirth: 431 Typ L3



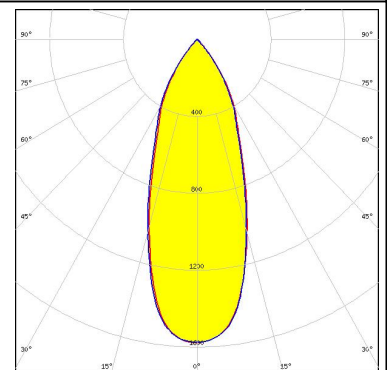
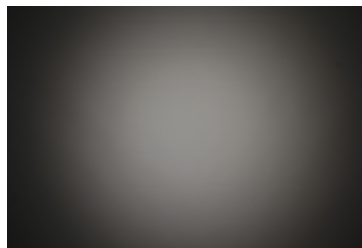
### PHOTOMETRIC DATA (MEASURED):



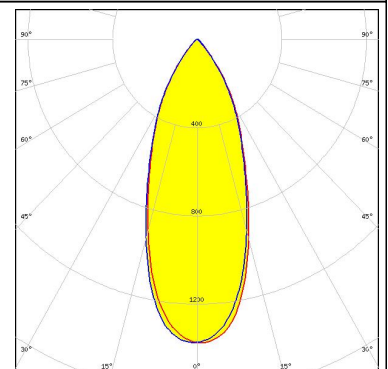
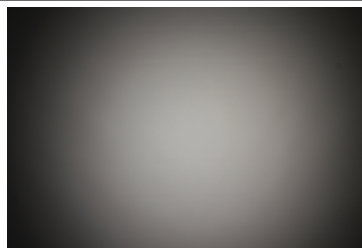
LED LUXEON CoB 1216/1812  
 FWHM 39.0°  
 Efficiency 92 %  
 Peak intensity 1.700 cd/lm  
 Required components:  
 C12692\_LENINA-STD-BASE-CLL040



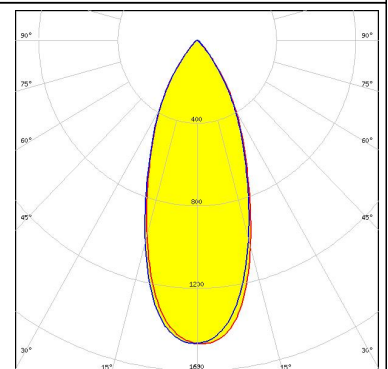
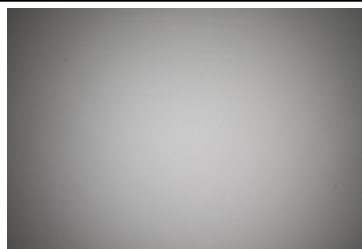
LED LUXEON CoB 1216/1812  
 FWHM 38.0°  
 Efficiency 85 %  
 Peak intensity 1.580 cd/lm  
 Required components:  
 A.A.G. STUCCHI: 8102/G2 + S-8000/12



LED LUXEON CoB 1216/1812  
 FWHM 39.0°  
 Efficiency 81 %  
 Peak intensity 1.380 cd/lm  
 Required components:  
 C12606\_LENINA-DL  
 A.A.G. STUCCHI: 8102/G2 + S-8000/12



LED LUXEON CoB 1216/1812  
 FWHM 40.0°  
 Efficiency 88 %  
 Peak intensity 1.470 cd/lm  
 Required components:  
 C12692\_LENINA-STD-BASE-CLL040  
 C12606\_LENINA-DL  
 LEDiL: LEDiL



## PHOTOMETRIC DATA (MEASURED):

### LUMILEDS

LED LUXEON K12

FWHM 28.0°

Efficiency 89 %

Peak intensity 2.300 cd/lm

Required components:

C12924\_LENINA-STD-BASE-LUXEON-K



### LUMILEDS

LED LUXEON K12

FWHM 30.0°

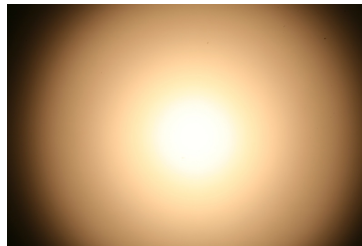
Efficiency 83 %

Peak intensity 1.900 cd/lm

Required components:

C12924\_LENINA-STD-BASE-LUXEON-K

C12606\_LENINA-DL



### LUMILEDS

LED LUXEON K16

FWHM 34.0°

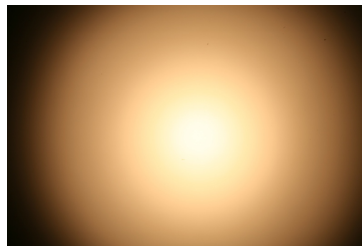
Efficiency 79 %

Peak intensity 1.500 cd/lm

Required components:

C12924\_LENINA-STD-BASE-LUXEON-K

C12606\_LENINA-DL



### LUMILEDS

LED LUXEON K16

FWHM 30.0°

Efficiency 85 %


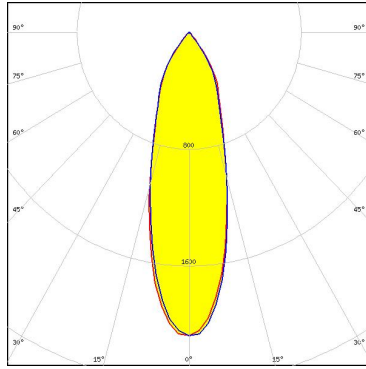
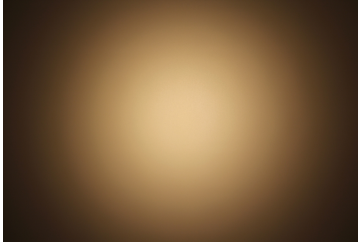
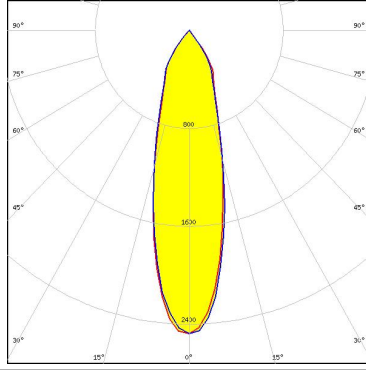
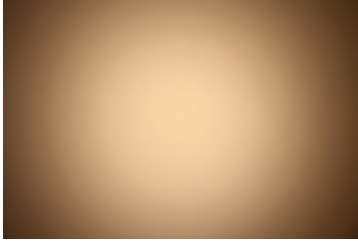



Peak intensity 2.000 cd/lm

Required components:

C12924\_LENINA-STD-BASE-LUXEON-K



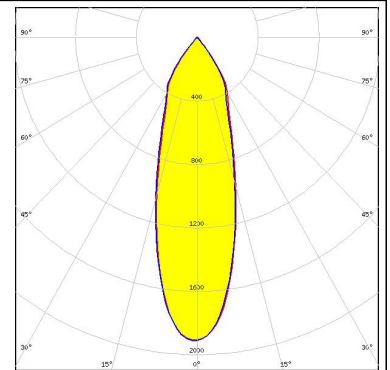
**PHOTOMETRIC DATA (MEASURED):**

<p><b>LUMINUS</b></p> <p>LED CXM-14            FWHM 31.0°            Efficiency 89 %            Peak intensity 2.100 cd/lm            Required components:            C12691_LENINA-STD-BASE-CLL030            C12606_LENINA-DL            LEDiL: LEDiL</p>		
<p><b>LUMINUS</b></p> <p>LED CXM-14            FWHM 28.0°            Efficiency 93 %            Peak intensity 2.500 cd/lm            Required components:            C12691_LENINA-STD-BASE-CLL030            LEDiL: LEDiL</p>		
<p><b>LUMINUS</b></p> <p>LED CXM-22            FWHM 39.0°            Efficiency 92 %            Peak intensity 1.800 cd/lm            Required components:            C12692_LENINA-STD-BASE-CLL040            LEDiL: LEDiL</p>		
<p><b>LUMINUS</b></p> <p>LED CXM-22            FWHM 40.0°            Efficiency 89 %            Peak intensity 1.600 cd/lm            Required components:            C12692_LENINA-STD-BASE-CLL040            C12606_LENINA-DL            LEDiL: LEDiL</p>		

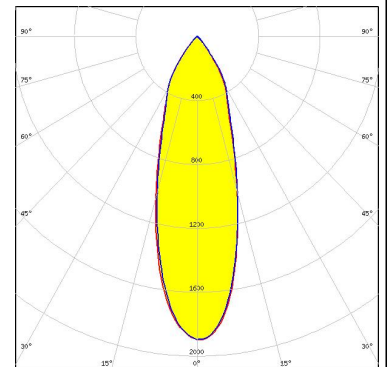
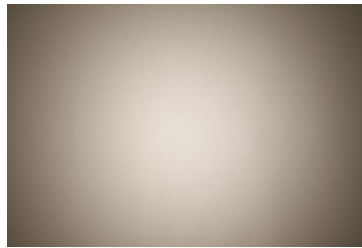
### PHOTOMETRIC DATA (MEASURED):



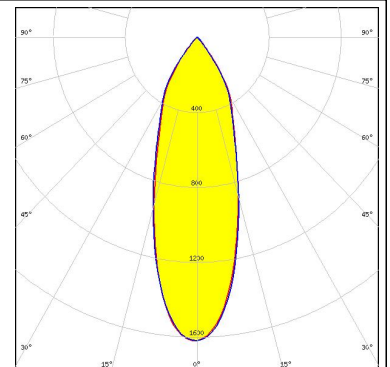
LED COB J-Type  
 FWHM 31.0°  
 Efficiency 86 %  
 Peak intensity 1.910 cd/lm  
 Required components:  
 C12292\_LENINA-STD-BASE-MEZ



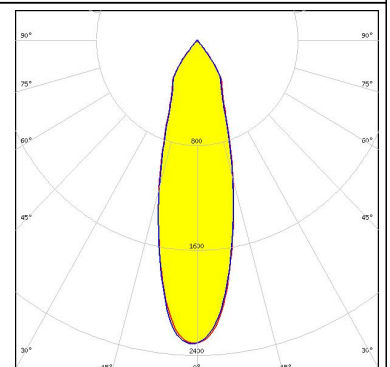
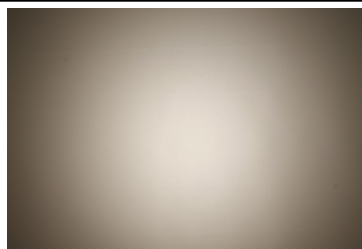
LED COB J-Type  
 FWHM 32.0°  
 Efficiency 89 %  
 Peak intensity 1.900 cd/lm  
 Required components:  
 C13868\_LENINA-STD-BASE-VERO13-18  
 C12606\_LENINA-DL




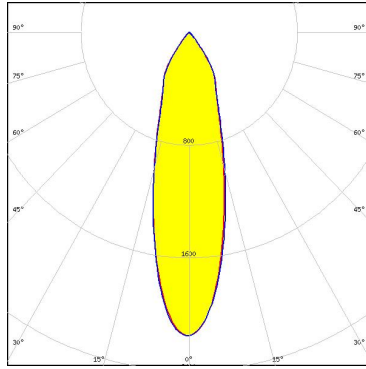
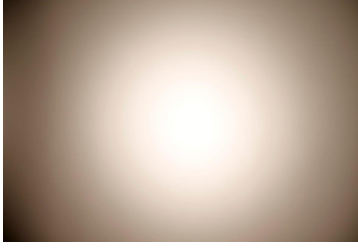
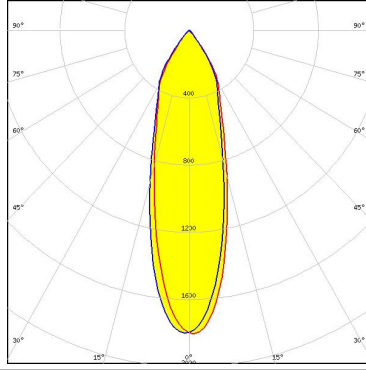
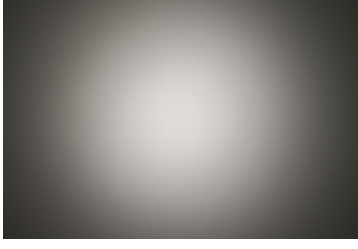
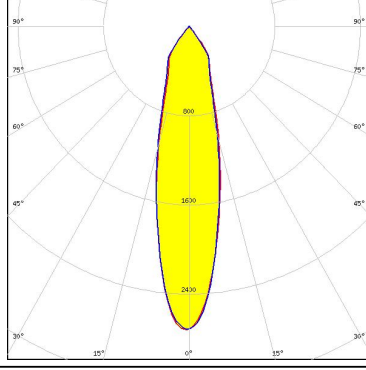
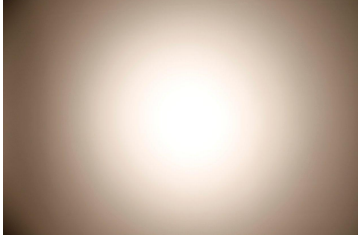
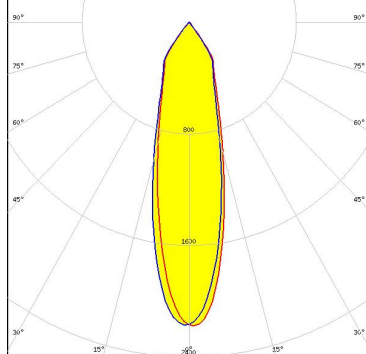
LED COB J-Type  
 FWHM 33.0°  
 Efficiency 81 %  
 Peak intensity 1.620 cd/lm  
 Required components:  
 C12292\_LENINA-STD-BASE-MEZ  
 C12606\_LENINA-DL




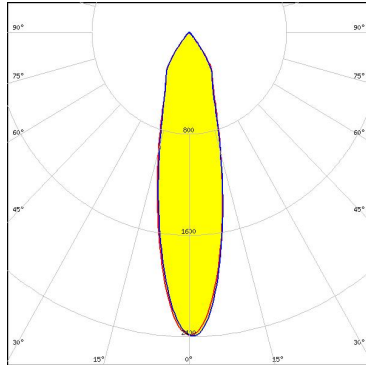
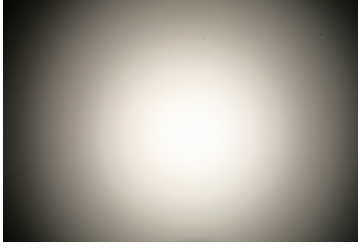
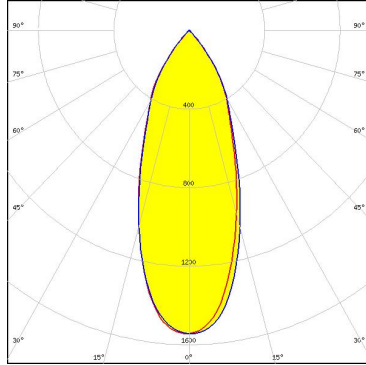
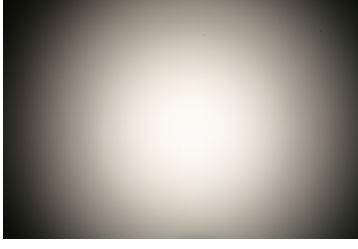
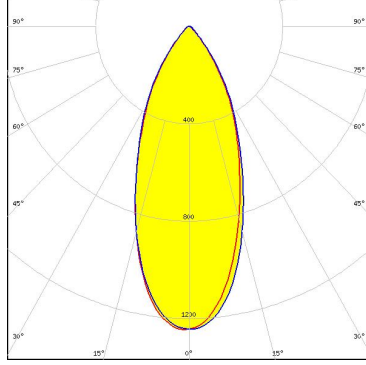
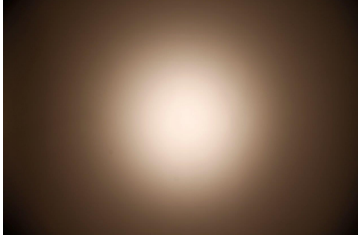
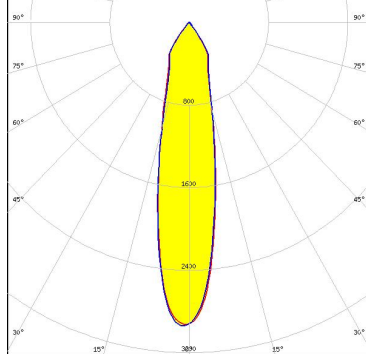
LED COB J-Type  
 FWHM 29.0°  
 Efficiency 93 %  
 Peak intensity 2.300 cd/lm  
 Required components:  
 C13868\_LENINA-STD-BASE-VERO13-18  
 Bender Wirth: 463 Typ L2



**PHOTOMETRIC DATA (MEASURED):**

<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)            FWHM 28.0°            Efficiency 87 %            Peak intensity 2.200 cd/lm            Required components:            C13868_LENINA-STD-BASE-VERO13-18            C12606_LENINA-DL            Bender Wirth: 438 Typ L1</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)            FWHM 29.0°            Efficiency 79 %            Peak intensity 1.800 cd/lm            Required components:            C11981_LENINA-STD-BASE-COB-L110            C12606_LENINA-DL</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)            FWHM 25.0°            Efficiency 91 %            Peak intensity 2.700 cd/lm            Required components:            C13868_LENINA-STD-BASE-VERO13-18            Bender Wirth: 438 Typ L1</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)            FWHM 27.0°            Efficiency 84 %            Peak intensity 2.200 cd/lm            Required components:            C11981_LENINA-STD-BASE-COB-L110</p>		

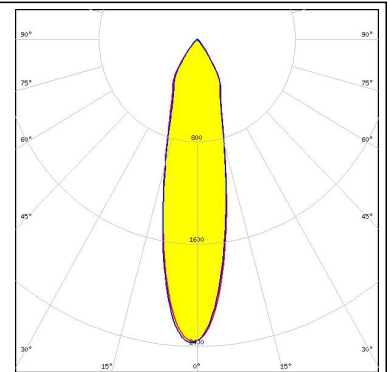
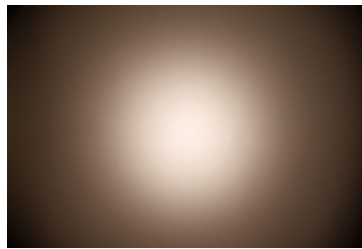
#### PHOTOMETRIC DATA (MEASURED):

<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 9)</p> <p>FWHM 26.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 2.400 cd/lm</p> <p>Required components:</p> <p>C13868_LENINA-STD-BASE-VERO13-18</p> <p>C12606_LENINA-DL</p> <p>Bender Wirth: 438 Typ L1</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq E30</p> <p>FWHM 39.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 1.550 cd/lm</p> <p>Required components:</p> <p>C13088_LENINA-STD-BASE-E30</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq E30</p> <p>FWHM 42.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 1.250 cd/lm</p> <p>Required components:</p> <p>C13088_LENINA-STD-BASE-E30</p> <p>C12606_LENINA-DL</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq P13</p> <p>FWHM 23.0°</p> <p>Efficiency 91 %</p> <p>Peak intensity 2.950 cd/lm</p> <p>Required components:</p> <p>IDEAL: 50-2101CR + 50-2100LN</p>		

#### PHOTOMETRIC DATA (MEASURED):

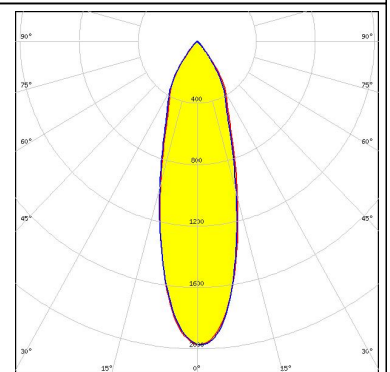
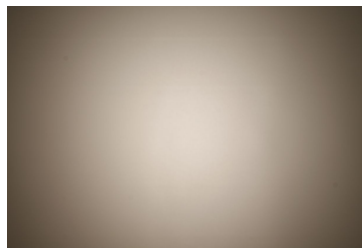
**OSRAM**  
Opto Semiconductors

LED Soleriq P13  
 FWHM 25.0°  
 Efficiency 87 %  
 Peak intensity 2.380 cd/lm  
 Required components:  
 C12606\_LENINA-DL  
 IDEAL: 50-2101CR + 50-2100LN



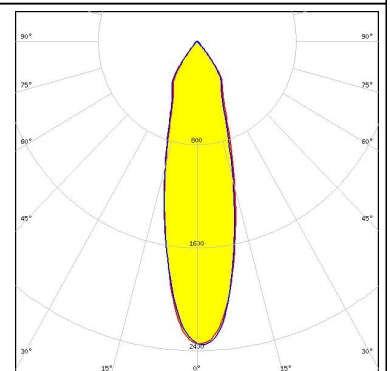
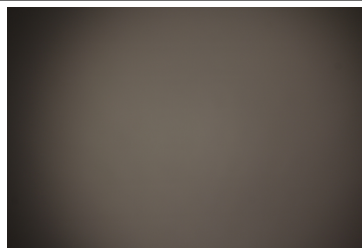
**OSRAM**  
Opto Semiconductors

LED Soleriq P13  
 FWHM 30.0°  
 Efficiency 89 %  
 Peak intensity 2.000 cd/lm  
 Required components:  
 C13868\_LENINA-STD-BASE-VERO13-18  
 C12606\_LENINA-DL  
 Bender Wirth: 437 Typ L1



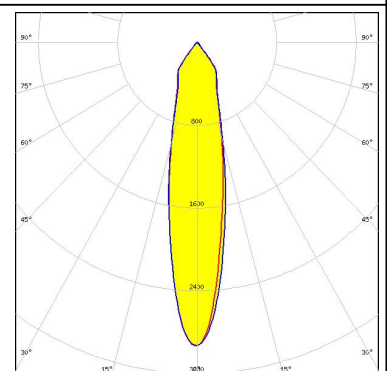
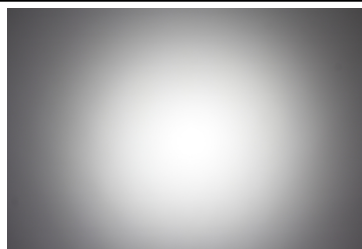
**OSRAM**  
Opto Semiconductors

LED Soleriq P13  
 FWHM 28.0°  
 Efficiency 94 %  
 Peak intensity 2.400 cd/lm  
 Required components:  
 C13868\_LENINA-STD-BASE-VERO13-18  
 Bender Wirth: 437 Typ L1

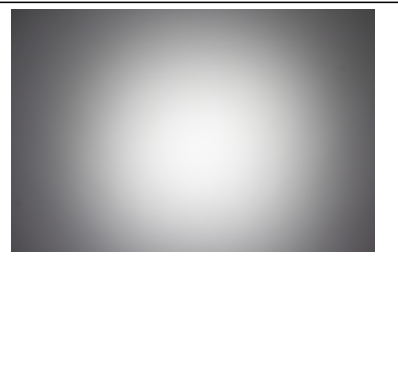
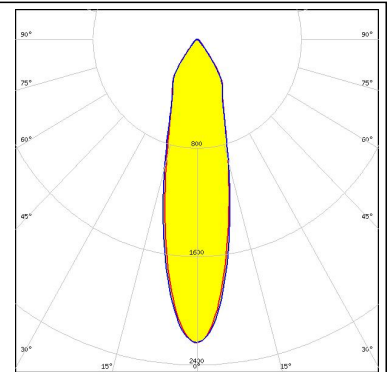

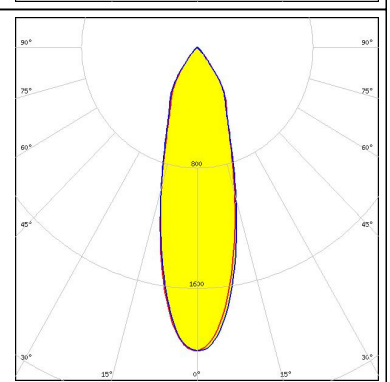

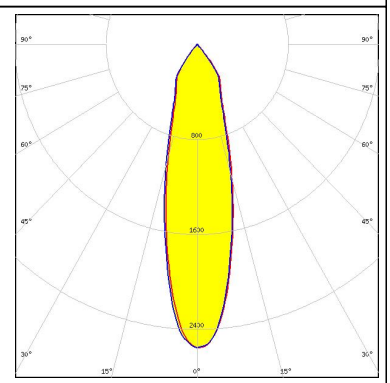

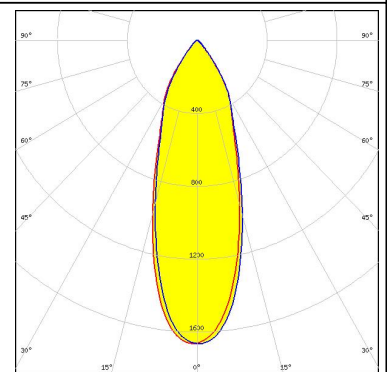


**OSRAM**  
Opto Semiconductors

LED Soleriq P9  
 FWHM 22.0°  
 Efficiency 94 %  
 Peak intensity 2.900 cd/lm  
 Required components:  
 C13868\_LENINA-STD-BASE-VERO13-18  
 Bender Wirth: 461 Typ L1



#### PHOTOMETRIC DATA (MEASURED):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq P9</p> <p>FWHM 26.0°</p> <p>Efficiency 91 %</p> <p>Peak intensity 2.200 cd/lm</p> <p>Required components: C13868_LENINA-STD-BASE-VERO13-18 C12606_LENINA-DL Bender Wirth: 461 Typ L1</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq S13</p> <p>FWHM 30.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 2.000 cd/lm</p> <p>Required components: C13868_LENINA-STD-BASE-VERO13-18 C12606_LENINA-DL Bender Wirth: 437 Typ L1</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq S13</p> <p>FWHM 27.0°</p> <p>Efficiency 91 %</p> <p>Peak intensity 2.600 cd/lm</p> <p>Required components: C13868_LENINA-STD-BASE-VERO13-18 Bender Wirth: 437 Typ L1</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq S19</p> <p>FWHM 34.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 1.700 cd/lm</p> <p>Required components: C13867_LENINA-STD-BASE-VERO29 C12606_LENINA-DL Bender Wirth: 462 Typ L3</p>		

**PHOTOMETRIC DATA (MEASURED):**

**OSRAM**  
Opto Semiconductors

LED Soleriq S19

FWHM 32.0°

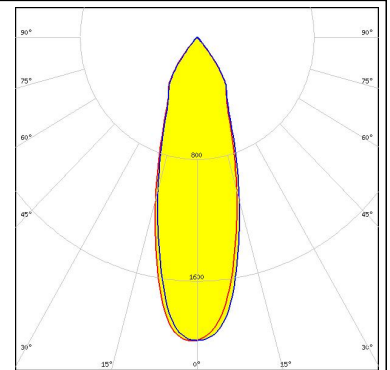
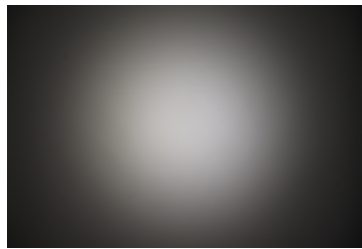
Efficiency 93 %

Peak intensity 2.000 cd/lm

Required components:

C13867\_LENINA-STD-BASE-VERO29

Bender Wirth: 462 Typ L3



**SAMSUNG**

LED COB D Series LES 14.5 mm

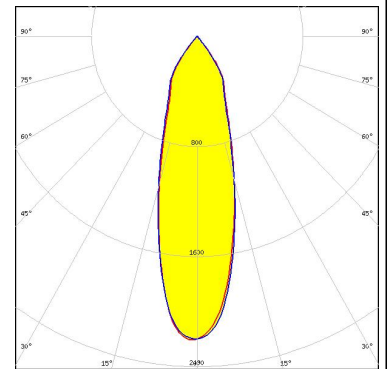
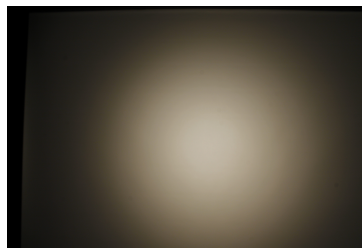
FWHM 30.0°

Efficiency 92 %

Peak intensity 2.200 cd/lm

Required components:

C12691\_LENINA-STD-BASE-CLL030



**SAMSUNG**

LED COB D Series LES 14.5 mm

FWHM 33.0°

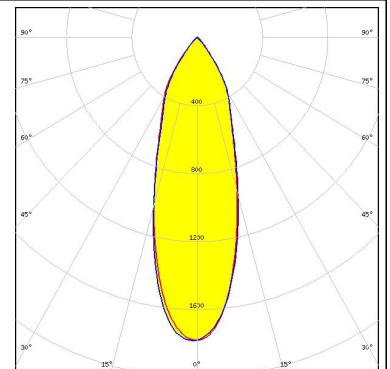
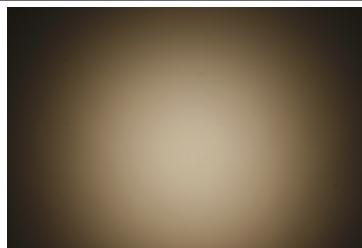
Efficiency 87 %

Peak intensity 1.800 cd/lm

Required components:

C12691\_LENINA-STD-BASE-CLL030

C12606\_LENINA-DL



**SAMSUNG**

LED COB D Series LES 22 mm

FWHM 41.0°

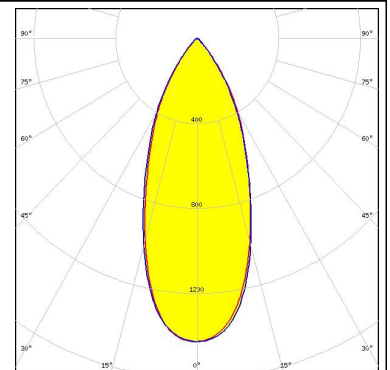
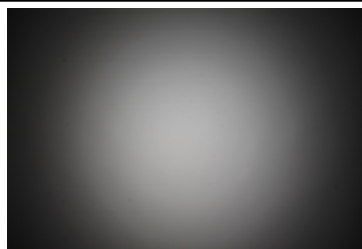
Efficiency 87 %

Peak intensity 1.400 cd/lm

Required components:

C12692\_LENINA-STD-BASE-CLL040

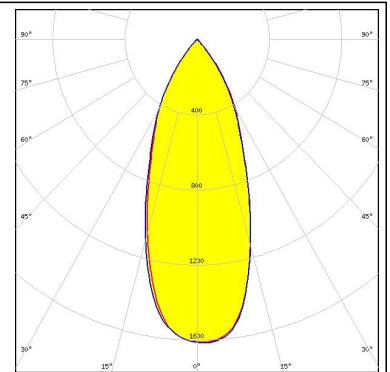
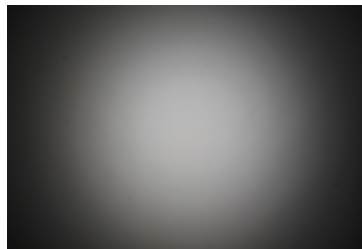
C12606\_LENINA-DL



#### PHOTOMETRIC DATA (MEASURED):

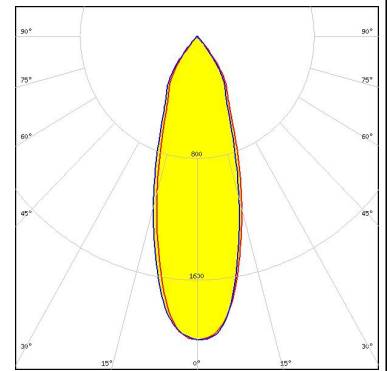
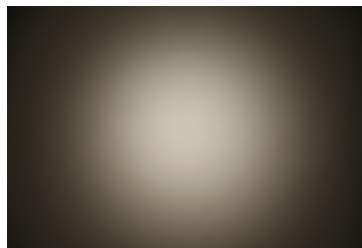
### SAMSUNG

LED COB D Series LES 22 mm  
 FWHM 40.0°  
 Efficiency 91 %  
 Peak intensity 1.600 cd/lm  
 Required components:  
 C12692\_LENINA-STD-BASE-CLL040



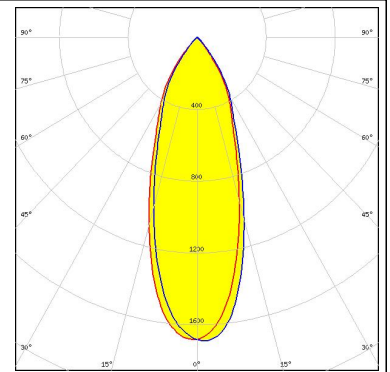
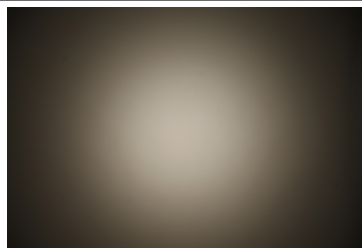
### SAMSUNG

LED LC026B / 033B / 040B  
 FWHM 33.0°  
 Efficiency 92 %  
 Peak intensity 2.000 cd/lm  
 Required components:  
 C13868\_LENINA-STD-BASE-VERO13-18  
 Bender Wirth: 450 Typ L2



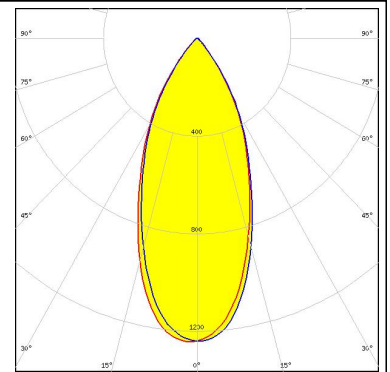
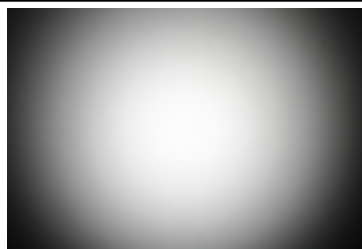
### SAMSUNG

LED LC026B / 033B / 040B  
 FWHM 35.0°  
 Efficiency 88 %  
 Peak intensity 1.700 cd/lm  
 Required components:  
 C13868\_LENINA-STD-BASE-VERO13-18  
 C12606\_LENINA-DL  
 Bender Wirth: 450 Typ L2



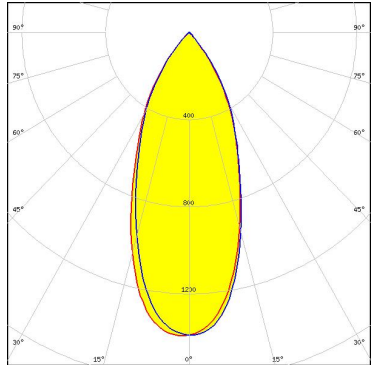


SEOUL SEMICONDUCTOR

LED ZC25/40/60  
 FWHM 44.0°  
 Efficiency 81 %  
 Peak intensity 1.200 cd/lm  
 Required components:  
 C12692\_LENINA-STD-BASE-CLL040  
 C12606\_LENINA-DL



### PHOTOMETRIC DATA (MEASURED):

 SEOUL SEMICONDUCTOR		
LED	ZC25/40/60	
FWHM	42.0°	
Efficiency	85 %	
Peak intensity	1.400 cd/lm	
Required components:		
	C12692_LENINA-STD-BASE-CLL040	

### SHARP

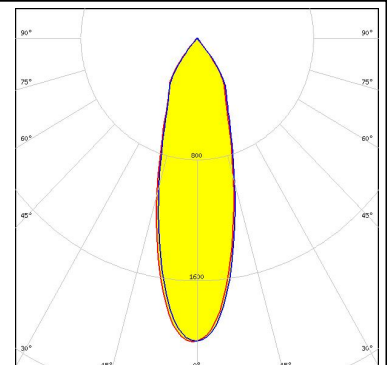
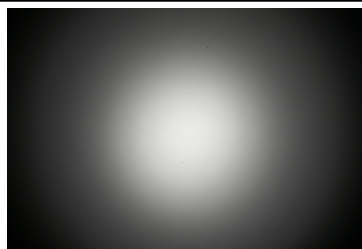
LED	Mega Zenigata (GW5DGC)
FWHM	21.0°
Efficiency	86 %
Peak intensity	cd/lm
Required components:	
	C12292_LENINA-STD-BASE-MEZ

### SHARP

LED	Mega Zenigata (GW5DGC)
FWHM	22.0°
Efficiency	78 %
Peak intensity	cd/lm
Required components:	
	C12292_LENINA-STD-BASE-MEZ
	C12606_LENINA-DL

### SHARP

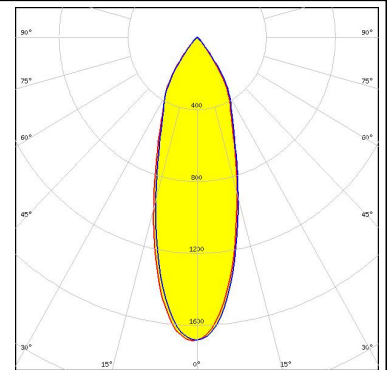
LED	Mega Zenigata (GW6DME)
FWHM	30.0°
Efficiency	87 %
Peak intensity	2.000 cd/lm
Required components:	
	C12292_LENINA-STD-BASE-MEZ



### PHOTOMETRIC DATA (MEASURED):

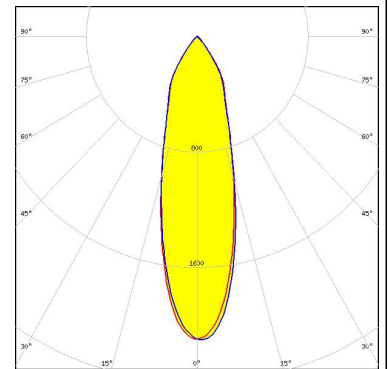
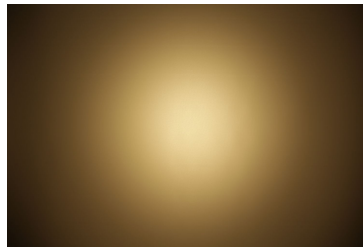
#### SHARP

LED Mega Zenigata (GW6DME)  
FWHM 32.0°  
Efficiency 82 %  
Peak intensity 1.690 cd/lm  
Required components:  
C12292\_LENINA-STD-BASE-MEZ  
C12606\_LENINA-DL



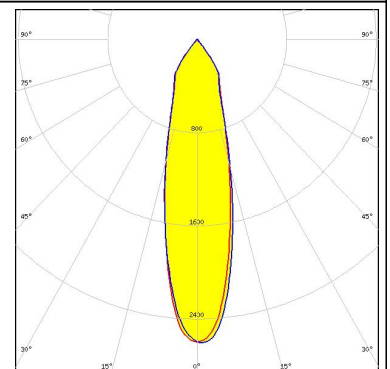
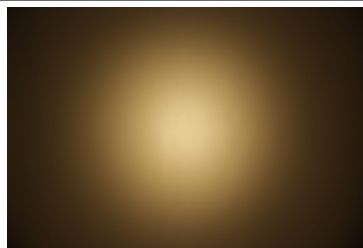
#### TRIDONIC

LED SLE G5 LES15  
FWHM 29.0°  
Efficiency 89 %  
Peak intensity 2.100 cd/lm  
Required components:  
C12691\_LENINA-STD-BASE-CLL030  
C12606\_LENINA-DL  
LEDiL: LEDiL

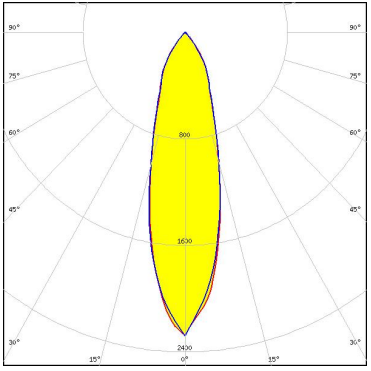
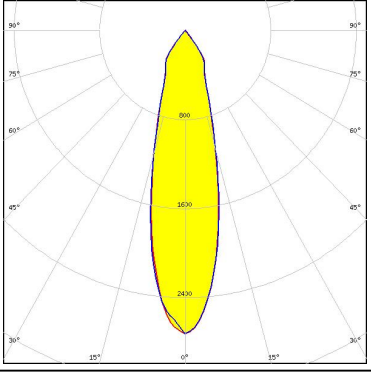
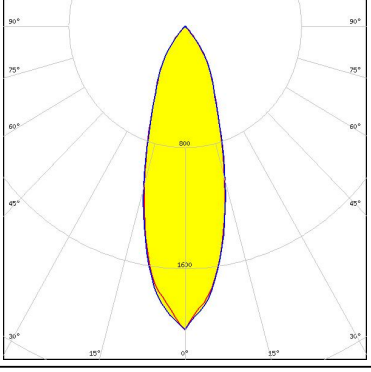
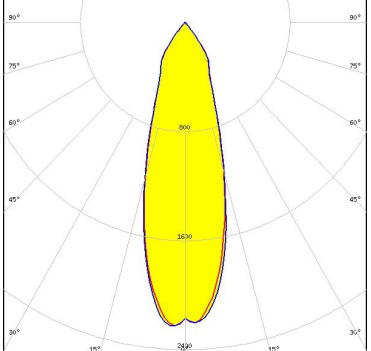


#### TRIDONIC

LED SLE G5 LES15  
FWHM 26.0°  
Efficiency 93 %  
Peak intensity 2.600 cd/lm  
Required components:  
C12691\_LENINA-STD-BASE-CLL030  
LEDiL: LEDiL



### PHOTOMETRIC DATA (SIMULATED):

<p>bridgelux.</p> <p>LED V10 Gen7</p> <p>FWHM 28.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 2.280 cd/lm</p> <p>Required components: C13868_LENINA-STD-BASE-VERO13-18 C12606_LENINA-DL Bender Wirth: 434 Typ L1</p>	
<p>bridgelux.</p> <p>LED V10 Gen7</p> <p>FWHM 26.0°</p> <p>Efficiency 91 %</p> <p>Peak intensity 2.730 cd/lm</p> <p>Required components: C13868_LENINA-STD-BASE-VERO13-18 Bender Wirth: 434 Typ L1</p>	
<p>bridgelux.</p> <p>LED V13 Gen7</p> <p>FWHM 32.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 2.000 cd/lm</p> <p>Required components: C13868_LENINA-STD-BASE-VERO13-18 C12606_LENINA-DL Bender Wirth: 477 Typ L1</p>	
<p>bridgelux.</p> <p>LED V13 Gen7</p> <p>FWHM 31.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 2.250 cd/lm</p> <p>Required components: C13868_LENINA-STD-BASE-VERO13-18 Bender Wirth: 477 Typ L1</p>	

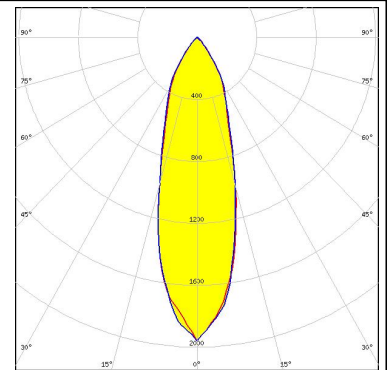
### PHOTOMETRIC DATA (SIMULATED):

<p>bridgelux.</p> <p>LED V13 Gen7 FWHM 26.0° Efficiency 90 % Peak intensity 2.647 cd/lm Required components: IDEAL: 50-2103CT + 50-2100AN</p>	
<p>bridgelux.</p> <p>LED V13 Gen7 FWHM 26.0° Efficiency 87 % Peak intensity 2.230 cd/lm Required components: C12606_LENINA-DL IDEAL: 50-2103CT + 50-2100AN</p>	
<p>bridgelux.</p> <p>LED V22 Gen7 FWHM 42.0° Efficiency 90 % Peak intensity 1.537 cd/lm Required components: C13867_LENINA-STD-BASE-VERO29 Bender Wirth: 431 Typ L3</p>	
<p>bridgelux.</p> <p>LED V22 Gen7 FWHM 42.0° Efficiency 87 % Peak intensity 1.450 cd/lm Required components: C13867_LENINA-STD-BASE-VERO29 C12606_LENINA-DL Bender Wirth: 431 Typ L3</p>	

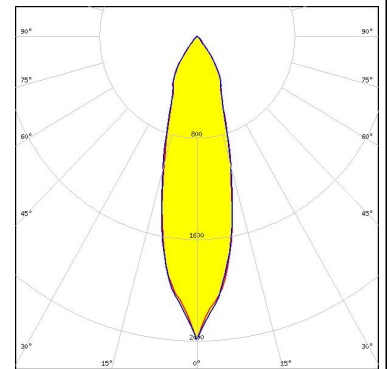
### PHOTOMETRIC DATA (SIMULATED):



LED CXA/B 30xx  
FWHM 30.0°  
Efficiency 84 %  
Peak intensity 2.000 cd/lm  
Required components:  
C12606\_LENINA-DL  
IDEAL: 50-2234C + 50-2100LN



LED CXA/B 30xx  
FWHM 28.0°  
Efficiency 89 %  
Peak intensity 2.400 cd/lm  
Required components:  
IDEAL: 50-2234C + 50-2100LN



LED CXM-14  
FWHM 29.0°  
Efficiency 91 %  
Peak intensity 2.300 cd/lm  
Required components:  
C13868\_LENINA-STD-BASE-VERO13-18  
Bender Wirth: 433 Typ L1



LED CXM-14  
FWHM 31.0°  
Efficiency 88 %  
Peak intensity 2.000 cd/lm  
Required components:  
C13868\_LENINA-STD-BASE-VERO13-18  
C12606\_LENINA-DL  
Bender Wirth: 433 Typ L1

### PHOTOMETRIC DATA (SIMULATED):



LED CXM-9  
FWHM 26.0°  
Efficiency 87 %  
Peak intensity 2.300 cd/lm

Required components:

C13868\_LENINA-STD-BASE-VERO13-18  
C12606\_LENINA-DL  
Bender Wirth: 434 Typ L1



LED CXM-9  
FWHM 23.0°  
Efficiency 91 %  
Peak intensity 3.000 cd/lm

Required components:

C13868\_LENINA-STD-BASE-VERO13-18  
Bender Wirth: 434 Typ L1

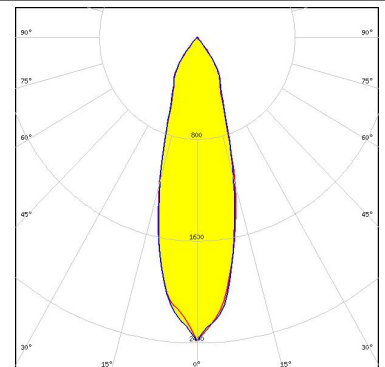


Opto Semiconductors

LED Soleriq S15  
FWHM 30.0°  
Efficiency 90 %  
Peak intensity 2.380 cd/lm

Required components:

C12691\_LENINA-STD-BASE-CLL030




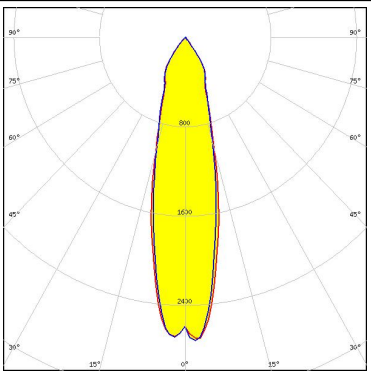


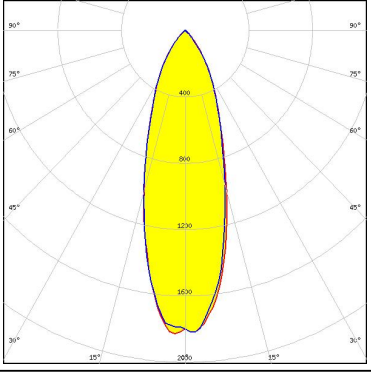

SEOUL SEMICONDUCTOR

LED ZC12/18  
FWHM 31.0°  
Efficiency 88 %  
Peak intensity 2.000 cd/lm


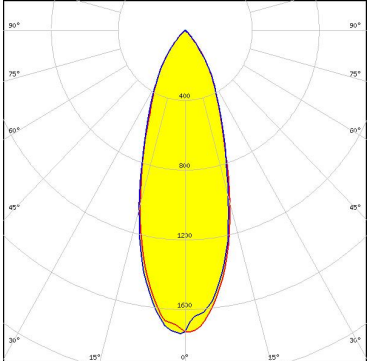
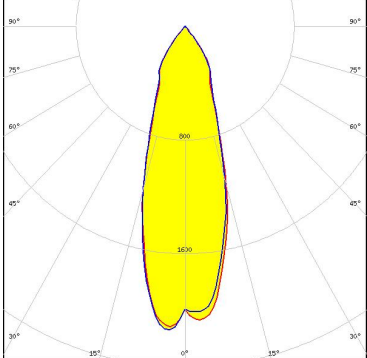
Required components:

C13868\_LENINA-STD-BASE-VERO13-18  
C12606\_LENINA-DL  
Bender Wirth: 433 Typ L1

#### PHOTOMETRIC DATA (SIMULATED):

<p> SEIOUL SEMICONDUCTOR</p> <p>LED ZC12/18            FWHM 26.0°            Efficiency 89 %            Peak intensity 2.700 cd/lm            Required components:            C12691_LENINA-STD-BASE-CLL030</p>	
<p> SEIOUL SEMICONDUCTOR</p> <p>LED ZC12/18            FWHM 29.0°            Efficiency 91 %            Peak intensity 2.300 cd/lm            Required components:            C13868_LENINA-STD-BASE-VERO13-18            Bender Wirth: 433 Typ L1</p>	
<p> SEIOUL SEMICONDUCTOR</p> <p>LED ZC12/18            FWHM 32.0°            Efficiency 84 %            Peak intensity 1.800 cd/lm            Required components:            C12691_LENINA-STD-BASE-CLL030            C12606_LENINA-DL</p>	
<p> SEIOUL SEMICONDUCTOR</p> <p>LED ZC4/6            FWHM 26.0°            Efficiency 87 %            Peak intensity 2.300 cd/lm            Required components:            C13868_LENINA-STD-BASE-VERO13-18            C12606_LENINA-DL            Bender Wirth: 434 Typ L1</p>	

### PHOTOMETRIC DATA (SIMULATED):

 SEOUL SEMICONDUCTOR	
LED	ZC4/6
FWHM	23.0°
Efficiency	91 %
Peak intensity	3.000 cd/lm
Required components: C13868_LENINA-STD-BASE-VERO13-18 Bender Wirth: 434 Typ L1	
<b>TRIDONIC</b>	
LED	STARK SLE PURE G3 LES17
FWHM	38.0°
Efficiency	%
Peak intensity	1.730 cd/lm
Required components: C12691_LENINA-STD-BASE-CLL030 C12606_LENINA-DL	
	
<b>TRIDONIC</b>	
LED	STARK SLE PURE G3 LES17
FWHM	32.0°
Efficiency	90 %
Peak intensity	2.000 cd/lm
Required components: C12691_LENINA-STD-BASE-CLL030	
	

### 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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