

## FLORENTINA-HLD-RS

~10° real spot beam

### SPECIFICATION:

Dimensions	285.6 x 19.5 mm
Height	9.5 mm
Fastening	clips
ROHS compliant	yes ⓘ

### MATERIALS:

Component	Type	Material	Colour	Finish
TINA2-RS	Single lens	PMMA	clear	
FLORENTINA-HLD	Holder	PC	black	


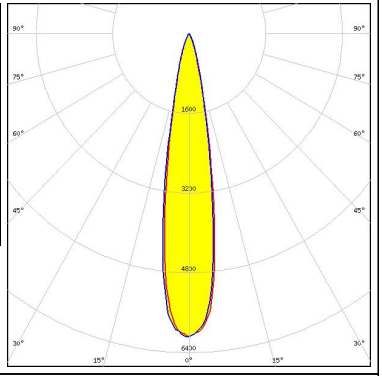

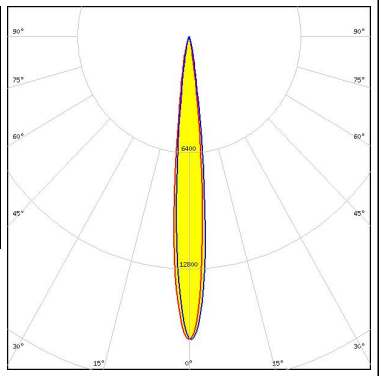

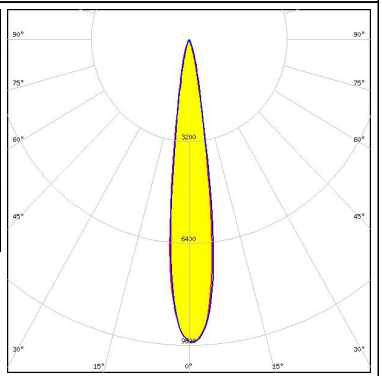

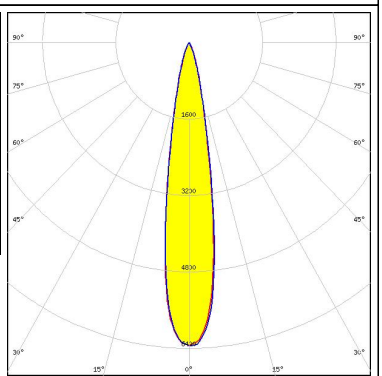
### ORDERING INFORMATION:

Component		Qty in box	MOQ	MPQ	Box weight (kg)
CP14866_FLORENTINA-HLD-RS	Single lens	160	32	16	5.2
» Box size: 398 x 298 x 140 mm					





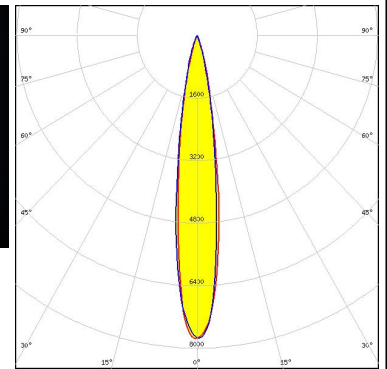
#### OPTICAL RESULTS (MEASURED):

<p><b>COMET ELECTRONICS</b></p> <p>LED QUICK FLUX LED FL-XG 1x12 xxx</p> <p>FWHM / FWTM 18.0° / 35.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 6.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C14446_FLORENTINA-SHD</p>		
<p><b>CREE LEDs</b></p> <p>LED XP-E2</p> <p>FWHM / FWTM 11.0° / 21.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 16.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C14446_FLORENTINA-SHD</p>		
<p><b>CREE LEDs</b></p> <p>LED XP-G2</p> <p>FWHM / FWTM 15.0° / 28.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 9.5 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C14446_FLORENTINA-SHD</p>		
<p><b>CREE LEDs</b></p> <p>LED XP-G3</p> <p>FWHM / FWTM 18.0° / 35.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 6.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C14446_FLORENTINA-SHD</p>		

#### OPTICAL RESULTS (MEASURED):

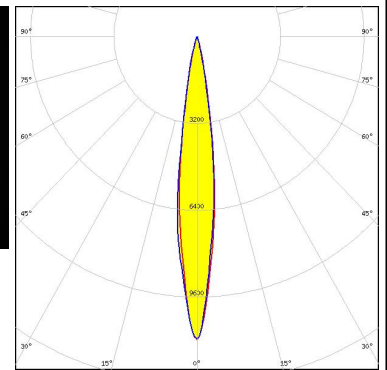
##### LUMILEDS

LED LUXEON Rebel ES  
 FWHM / FWTM 16.0° / 32.0°  
 Efficiency 82 %  
 Peak intensity 7.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14446\_FLORENTINA-SHD



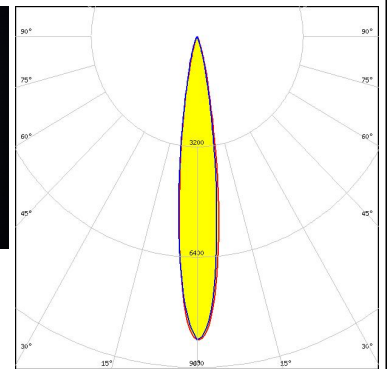
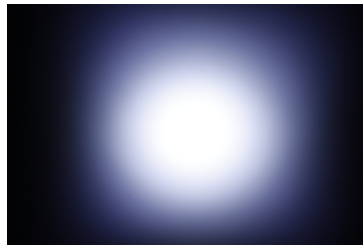
##### LUMILEDS

LED LUXEON Rebel Plus  
 FWHM / FWTM 14.0° / 26.0°  
 Efficiency 82 %  
 Peak intensity 11.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14446\_FLORENTINA-SHD



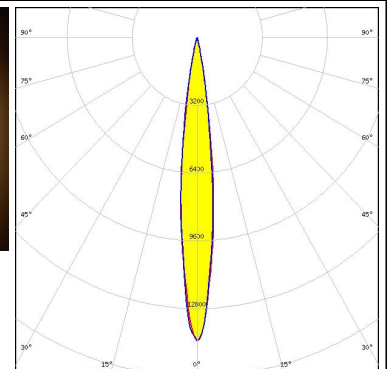
##### LUMILEDS

LED LUXEON TX  
 FWHM / FWTM 15.0° / 30.0°  
 Efficiency 83 %  
 Peak intensity 8.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14446\_FLORENTINA-SHD




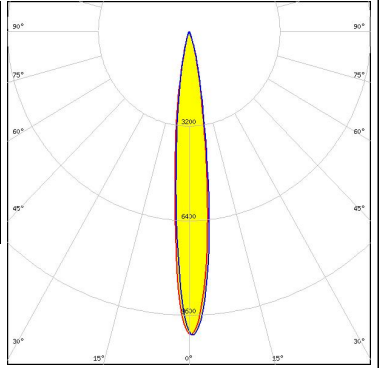

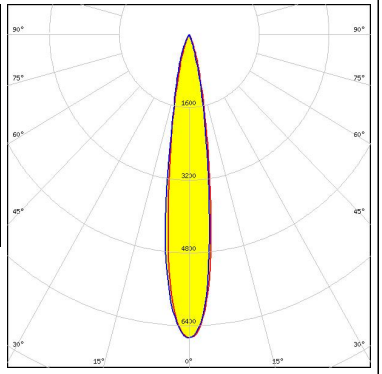
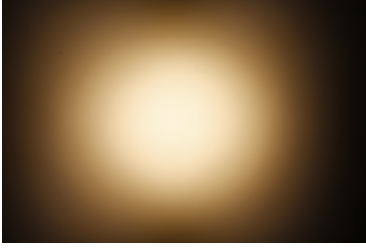
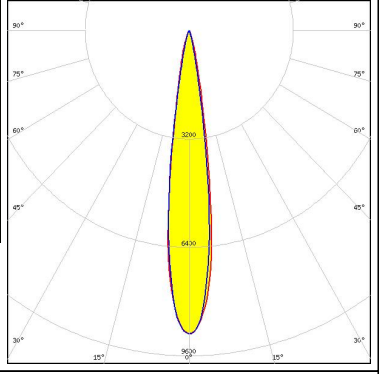
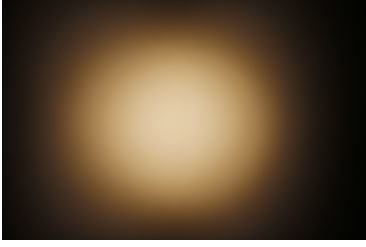
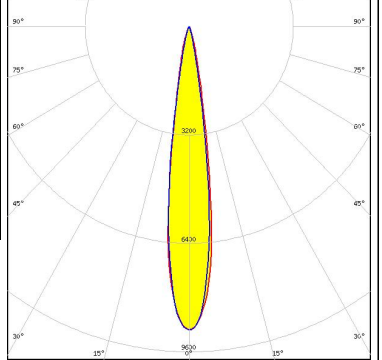
##### LUMILEDS

LED LUXEON Z ES  
 FWHM / FWTM 13.0° / 24.0°  
 Efficiency 84 %  
 Peak intensity 14.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14446\_FLORENTINA-SHD





#### OPTICAL RESULTS (MEASURED):

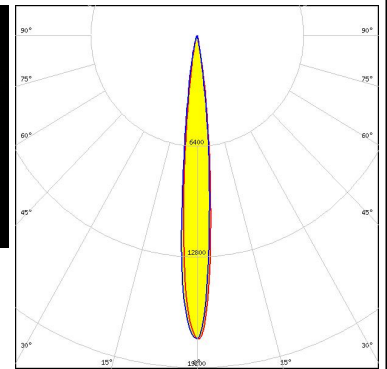
<p><b>NICHIA</b></p> <p>LED NCSxx19B            FWHM / FWTM 13.0° / 28.0°            Efficiency 80 %            Peak intensity 10.3 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C14446_FLORENTINA-SHD</p>		
<p><b>NICHIA</b></p> <p>LED NVSxx19B/NVSxx19C            FWHM / FWTM 16.0° / 34.0°            Efficiency 79 %            Peak intensity 6.7 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C14446_FLORENTINA-SHD</p>		
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED OSLON Square EC            FWHM / FWTM 15.0° / 28.0°            Efficiency 81 %            Peak intensity 9 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C14446_FLORENTINA-SHD</p>		
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED OSLON Square EC            FWHM / FWTM 15.0° / 28.0°            Efficiency 81 %            Peak intensity 9 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C14446_FLORENTINA-SHD</p>		

#### OPTICAL RESULTS (MEASURED):

##### OSRAM

Opto Semiconductors

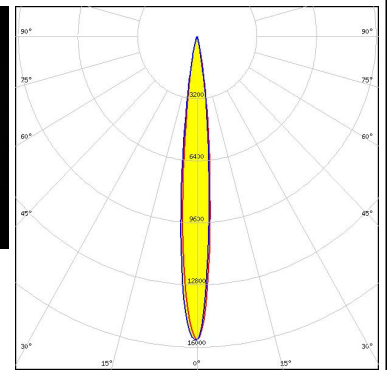
LED OSLOM SSL 150  
 FWHM / FWTM 11.0° / 21.0°  
 Efficiency 82 %  
 Peak intensity 17.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14446\_FLORENTINA-SHD



##### OSRAM

Opto Semiconductors

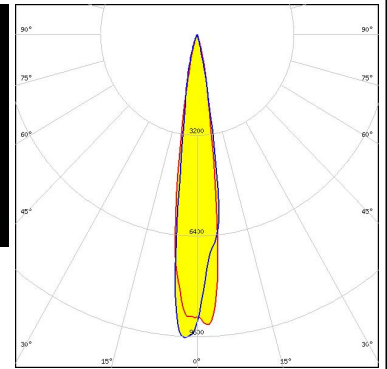
LED OSLOM SSL 150  
 FWHM / FWTM 11.0° / 22.0°  
 Efficiency 84 %  
 Peak intensity 15.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



##### OSRAM

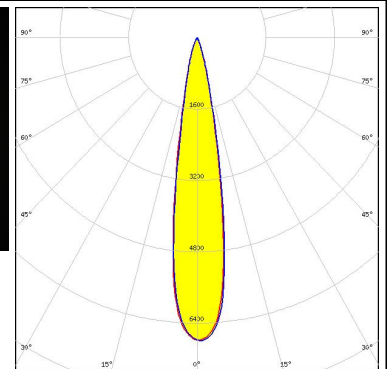
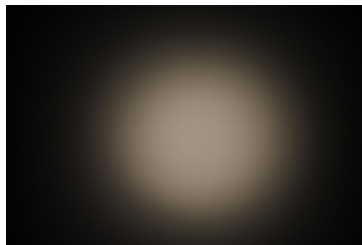
Opto Semiconductors

LED OSLOM SSL 80  
 FWHM / FWTM 15.0° / 28.0°  
 Efficiency 82 %  
 Peak intensity 9.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14446\_FLORENTINA-SHD



##### SAMSUNG

LED LH351B  
 FWHM / FWTM 18.0° / 33.0°  
 Efficiency 84 %  
 Peak intensity 6.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14446\_FLORENTINA-SHD

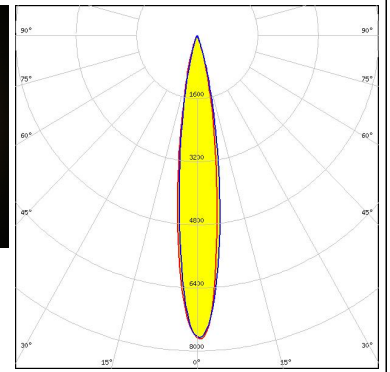
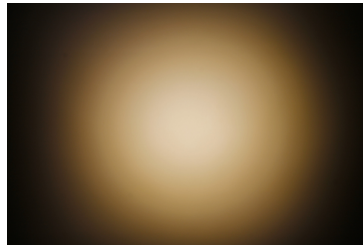


#### OPTICAL RESULTS (MEASURED):

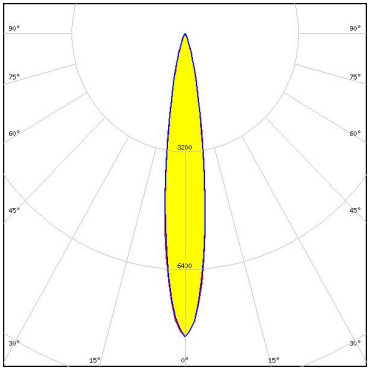
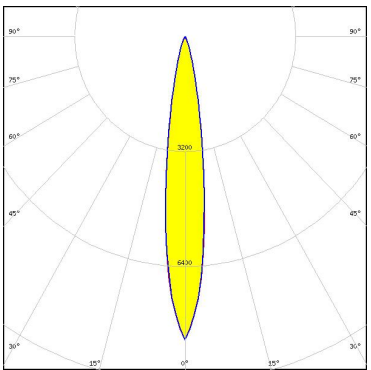
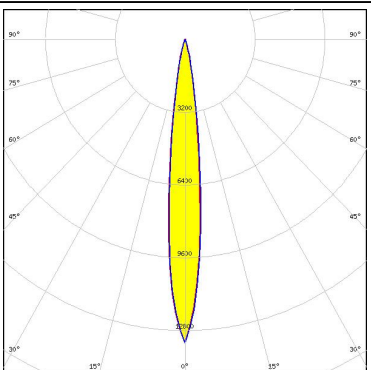
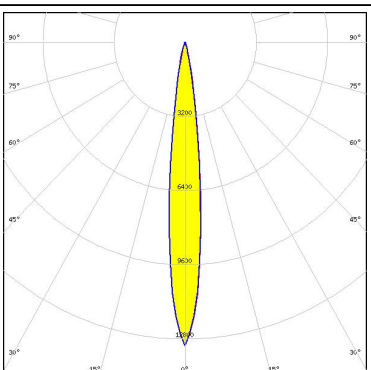
#### TOSHIBA

Leading Innovation >>>

LED	TL1L4
FWHM / FWTM	16.0° / 33.0°
Efficiency	82 %
Peak intensity	7.7 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
	C14446_FLORENTINA-SHD



#### OPTICAL RESULTS (SIMULATED):

<p><b>CREE</b> LEDs</p> <p>LED J Series 3030            FWHM / FWTM 16.0° / 32.0°            Efficiency 91 %            Peak intensity 8.2 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>CREE</b> LEDs</p> <p>LED J Series 3030            FWHM / FWTM 16.0° / 32.0°            Efficiency 88 %            Peak intensity 8.4 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C14446_FLORENTINA-SHD</p>	
<p><b>CREE</b> LEDs</p> <p>LED XB-D            FWHM / FWTM 12.0° / 26.0°            Efficiency 90 %            Peak intensity 13.3 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>CREE</b> LEDs</p> <p>LED XD16            FWHM / FWTM 12.0° / 24.0°            Efficiency 89 %            Peak intensity 13.1 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

<p><b>NICHIA</b></p> <p>LED: NCSxE17A            FWHM / FWTM: 11.0° / 22.0°            Efficiency: 88 %            Peak intensity: 22.4 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:            C14446_FLORENTINA-SHD</p>	
<p><b>NICHIA</b></p> <p>LED: NVSU119C            FWHM / FWTM: 16.0° / 30.0°            Efficiency: 92 %            LEDs/each optic: 1            Light colour: UV-A            Required components:</p>	
<p><b>NICHIA</b></p> <p>LED: NVSxE21A            FWHM / FWTM: 13.0° / 26.0°            Efficiency: 88 %            Peak intensity: 14.7 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:            C14446_FLORENTINA-SHD</p>	
<p><b>NICHIA</b></p> <p>LED: NWSx229A            FWHM / FWTM: 24.0° / 44.0°            Efficiency: 86 %            Peak intensity: 4 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:            C14446_FLORENTINA-SHD</p>	



#### OPTICAL RESULTS (SIMULATED):



#### GENERAL INFORMATION:

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

#### MATERIALS:

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.

LEDiL Oy assumes neither warranty, nor guarantee nor any other liability of any kind for the contents and correctness of the provided data. The provided data has been generated with highest diligence but the provided data may in reality not represent the complete possible variation range of all intrinsic parameters. Therefore, in certain cases a deviation from the provided data could occur.

LEDiL Oy reserves the right to undertake technical changes of its products without further notification which could lead to changes in the provided data. LEDiL Oy assumes no liability of any kind for the possible deviation from any provided data or any other damage resulting from the usage of the provided data.

The user agrees to this disclaimer and user agreement with the download or usage of the provided files.

#### LEDiL Oy

Joensuunkatu 13  
FI-24240 SALO  
Finland

#### LEDiL Inc.

228 West Page Street  
Suite D  
Sycamore IL 60178  
USA

#### Ledil Optics Technology (Shenzhen) Co., Ltd.

# 405 , Block B  
Casic Motor Building  
Shenzhen 518057  
P.R.CHINA

#### Local sales and technical support

[www.ledil.com/  
where\\_to\\_buy](http://www.ledil.com/where_to_buy)

#### Shipping locations

Salo, Finland  
Hong Kong, China

#### Distribution Partners

[www.ledil.com/  
where\\_to\\_buy](http://www.ledil.com/where_to_buy)