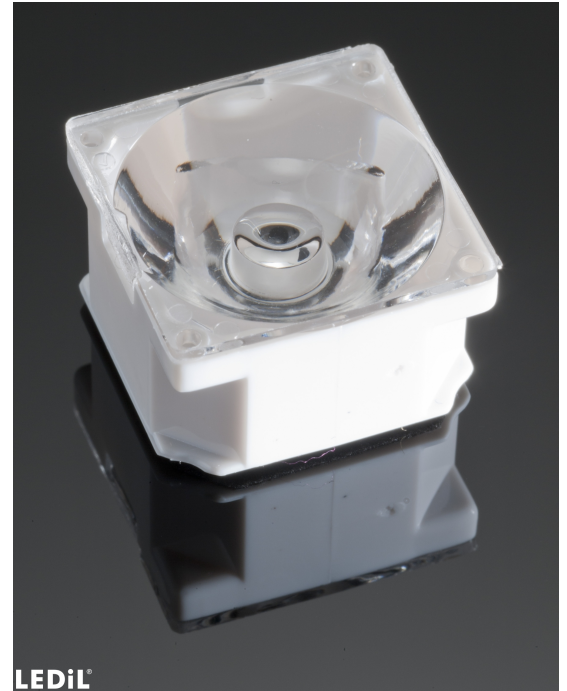


## LAURA-RS-PIN

~8° spot beam optimized for CREE XP-E.  
Assembly with white holder, installation tape and location pins.

### SPECIFICATION:

Dimensions	21.6 x 21.6 mm
Height	13.1 mm
Fastening	tape, pin
ROHS compliant	yes ⓘ



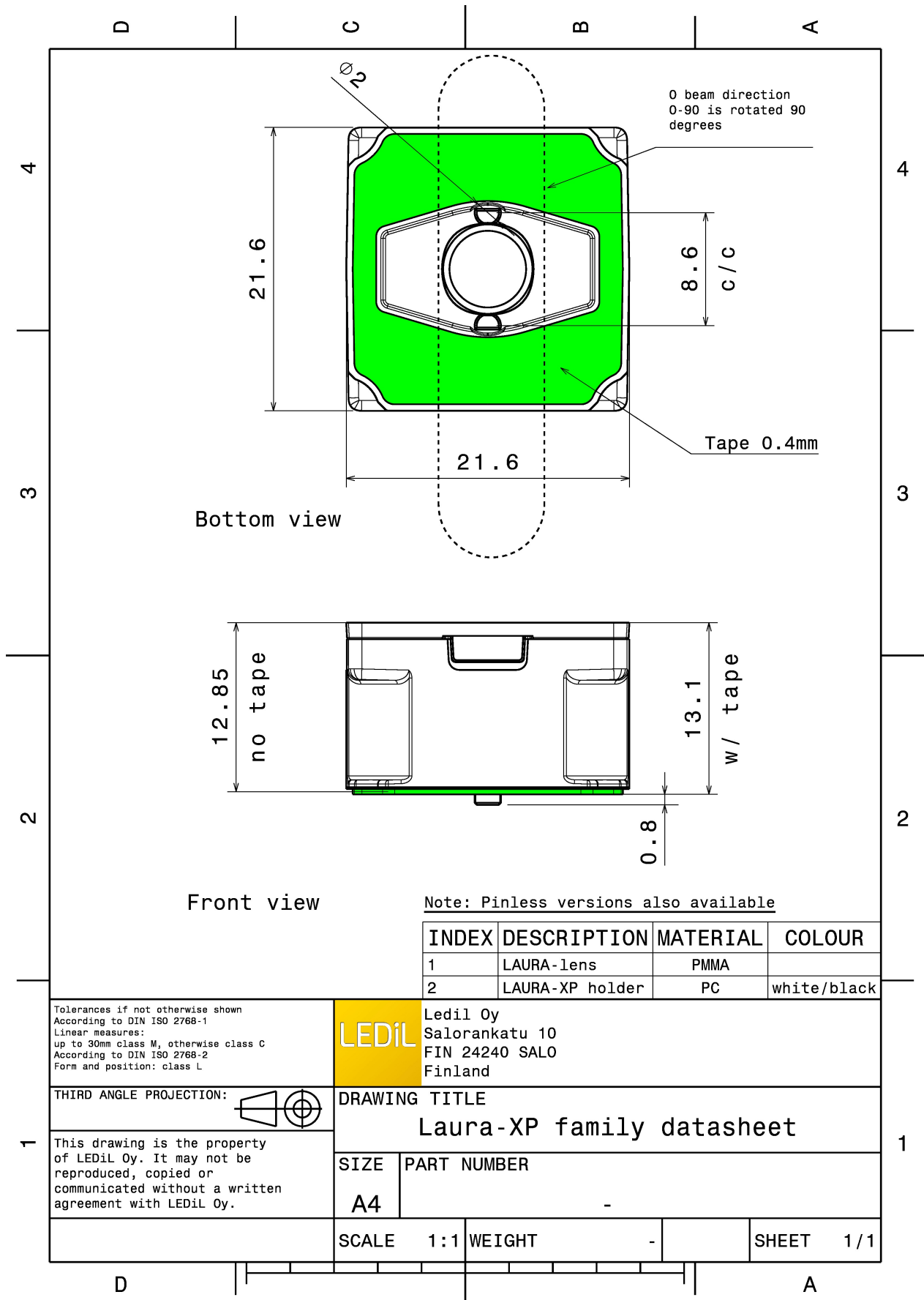
LEDiL

### MATERIALS:

Component	Type	Material	Colour	Finish
LAURA-RS	Single lens	PMMA	clear	
LAURA-PIN-XP-HLD-WHT	Holder	PC	white	
ROSE-TAPE	Tape	Acrylic foam	black	

### ORDERING INFORMATION:

Component	Type	Qty in box	MOQ	MPQ	Box weight (kg)
CA11959_LAURA-RS-PIN	Single lens	1440	360	180	7.6
» Box size:					



See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

#### OPTICAL RESULTS (MEASURED):



LED XP-E  
FWHM / FWTM 8.0° / 16.0°  
Efficiency 93 %  
Peak intensity 33.2 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



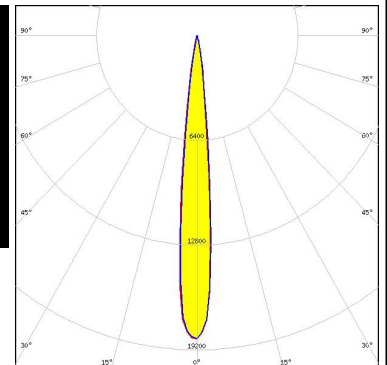
LED XP-G  
FWHM / FWTM 11.0°  
Efficiency 93 %  
LEDs/each optic 1  
Light colour White  
Required components:




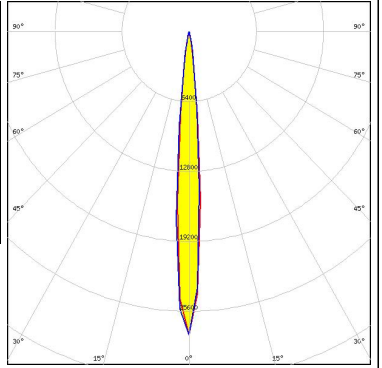

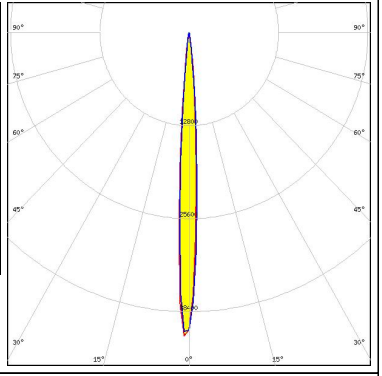
LED LUXEON Rebel  
FWHM / FWTM 7.0° / 16.0°  
Efficiency 93 %  
Peak intensity 34 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



LED LUXEON T  
FWHM / FWTM 11.0° / 21.0°  
Efficiency 92 %  
Peak intensity 18.5 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



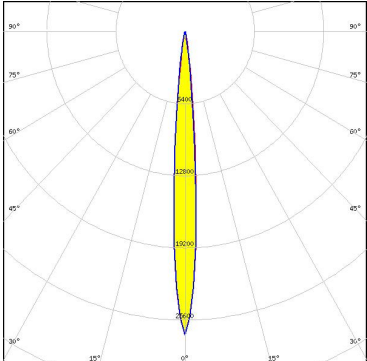
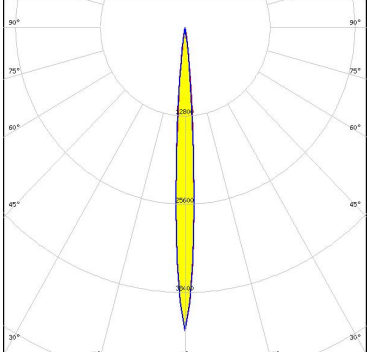
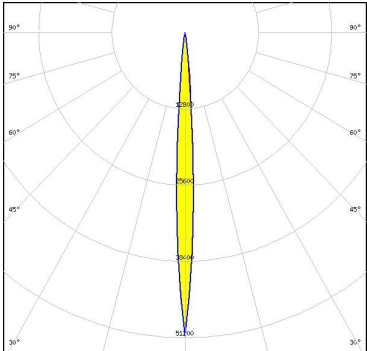
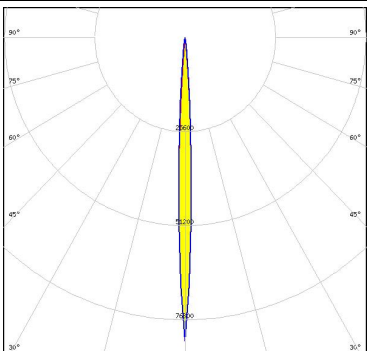
#### OPTICAL RESULTS (MEASURED):

<p><b>NICHIA</b></p> <p>LED                    NCSxx19B            FWHM / FWTM    10.0° / 19.0°            Efficiency         91 %            Peak intensity    27.8 cd/lm            LEDs/each optic 1            Light colour      White            Required components:</p>		
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED                    OSLON Square EC            FWHM / FWTM    9.0° / 18.0°            Efficiency         93 %            Peak intensity    20 cd/lm            LEDs/each optic 1            Light colour      White            Required components:</p>		
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED                    OSLON SSL 150            FWHM / FWTM    7.0° / 14.0°            Efficiency         92 %            Peak intensity    42 cd/lm            LEDs/each optic 1            Light colour      White            Required components:</p>		
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED                    SFH 4725S            FWHM / FWTM    10.0° / 21.0°            Efficiency         %            LEDs/each optic 1            Light colour      White            Required components:</p>		

## OPTICAL RESULTS (MEASURED):

	
SEOUL SEMICONDUCTOR	
LED	Z5
FWHM / FWTM	7.0°
Efficiency	%
LEDs/each optic	1
Light colour	White
Required components:	

#### OPTICAL RESULTS (SIMULATED):

<p><b>CREE</b> LEDs</p> <p>LED: XD16            FWHM / FWTM: 8.6° / 18.0°            Efficiency: 94 %            Peak intensity: 26.9 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> LEDs</p> <p>LED: XP-E2            FWHM / FWTM: 8.0° / 14.0°            Efficiency: 95 %            Peak intensity: 44 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> LEDs</p> <p>LED: XP-P            FWHM / FWTM: 6.0° / 14.0°            Efficiency: 96 %            Peak intensity: 50.9 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> LEDs</p> <p>LED: XQ-E HI            FWHM / FWTM: 6.0° / 10.0°            Efficiency: 93 %            Peak intensity: 82.6 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	

### OPTICAL RESULTS (SIMULATED):

#### LUMILEDS

LED LUXEON H50-2  
FWHM / FWTM 12.0° / 23.0°  
Efficiency 92 %  
Peak intensity 16.3 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:

#### LUMILEDS

LED LUXEON IR Domed 150 (L110-0xxx150000000)  
FWHM / FWTM 9.0° / 18.0°  
Efficiency 0 %  
LEDs/each optic 1  
Light colour White  
Required components:

#### LUMILEDS

LED LUXEON IR Domed 60 (L110-0xxx060000000)  
FWHM / FWTM 9.2° / 20.0°  
Efficiency 94 %  
LEDs/each optic 1  
Light colour White  
Required components:

#### LUMILEDS

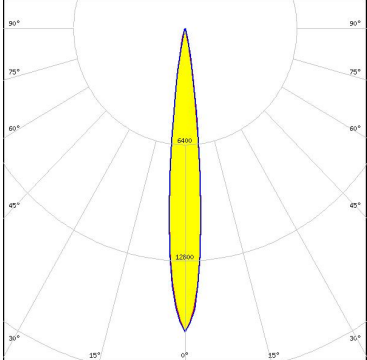
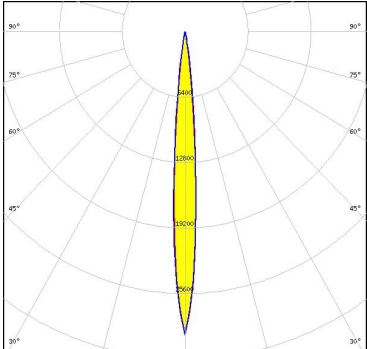
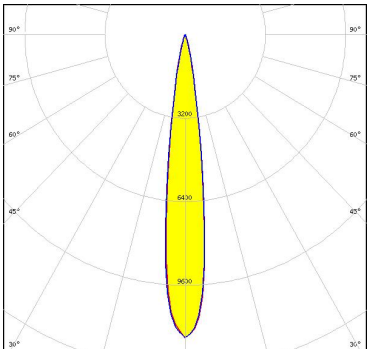
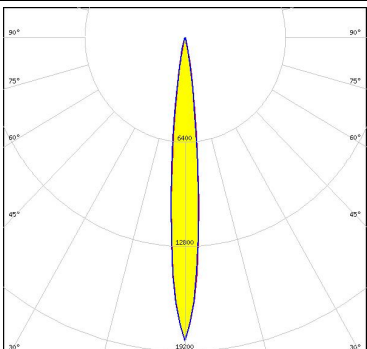
LED LUXEON IR Domed 90 (L110-0xxx090000000)  
FWHM / FWTM 9.0° / 18.0°  
Efficiency 94 %  
LEDs/each optic 1  
Light colour White  
Required components:

#### OPTICAL RESULTS (SIMULATED):

<p><b>LUMILEDS</b></p> <p>LED: LUXEON Z ES</p> <p>FWHM / FWTM: 8.0° / 15.0°</p> <p>Efficiency: 95 %</p> <p>Peak intensity: 39.9 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p><b>NICHIA</b></p> <p>LED: NV4WB35AM</p> <p>FWHM / FWTM: 16.0° / 30.0°</p> <p>Efficiency: 96 %</p> <p>Peak intensity: 9.1 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p><b>NICHIA</b></p> <p>LED: NVSW719AC</p> <p>FWHM / FWTM: 10.0° / 20.0°</p> <p>Efficiency: 96 %</p> <p>Peak intensity: 21.4 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p><b>NICHIA</b></p> <p>LED: NVSxE21A</p> <p>FWHM / FWTM: 10.0° / 21.0°</p> <p>Efficiency: 94 %</p> <p>Peak intensity: 21.4 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	



#### OPTICAL RESULTS (SIMULATED):

<p><b>NICHIA</b></p> <p>LED: NVSxx19B/NVSxx19C</p> <p>FWHM / FWTM: 12.0° / 22.0°</p> <p>Efficiency: 94 %</p> <p>Peak intensity: 16.7 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED: OSCONIQ C 2424</p> <p>FWHM / FWTM: 8.0° / 18.0°</p> <p>Efficiency: 96 %</p> <p>Peak intensity: 29.6 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED: OSCONIQ P 3737 (3W version)</p> <p>FWHM / FWTM: 14.0° / 27.0°</p> <p>Efficiency: 94 %</p> <p>Peak intensity: 11.6 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED: OSCONIQ P 3737 Flat</p> <p>FWHM / FWTM: 10.0° / 22.0°</p> <p>Efficiency: 96 %</p> <p>Peak intensity: 18.6 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

<b>OSRAM</b> <small>Opto Semiconductors</small>	LED OSLON Boost HX (KW CULPM1.TG)	
FWHM / FWTM	8.0° / 16.0°	
Efficiency	96 %	
Peak intensity	37.6 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		
<b>OSRAM</b> <small>Opto Semiconductors</small>	LED OSLON Signal	
FWHM / FWTM	8.0° / 16.0°	
Efficiency	95 %	
Peak intensity	40.5 cd/lm	
LEDs/each optic	1	
Light colour	Red	
Required components:		
<b>OSRAM</b> <small>Opto Semiconductors</small>	LED OSLON Square CSSRM2/CSSRM3	
FWHM / FWTM	9.5° / 19.0°	
Efficiency	94 %	
Peak intensity	24.8 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		
<b>OSRAM</b> <small>Opto Semiconductors</small>	LED SFH 4715AS	
FWHM / FWTM	10.0° / 19.0°	
Efficiency	94 %	
Peak intensity	23.8 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		

### OPTICAL RESULTS (SIMULATED):

#### OSRAM

Opto Semiconductors

LED SFH 4715S  
FWHM / FWTM 9.5°  
Efficiency %  
LEDs/each optic 1  
Light colour White  
Required components:

#### OSRAM

Opto Semiconductors

LED SFH 4770S  
FWHM / FWTM 10.0° / 23.0°  
Efficiency 94 %  
LEDs/each optic 1  
Light colour White  
Required components:

#### SAMSUNG

LED LM301B  
FWHM / FWTM 9.0° / 19.0°  
Efficiency 94 %  
Peak intensity 24.5 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:

### GENERAL INFORMATION:

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

### MATERIALS:

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)