

## TINA2-RS

~14° spot beam optimized for Nichia NCSxx19.  
Assembly with holder, installation tape and location pins.

### SPECIFICATION:

Dimensions	Ø 16.1 mm
Height	9.3 mm
Fastening	tape, pin
ROHS compliant	yes ⓘ

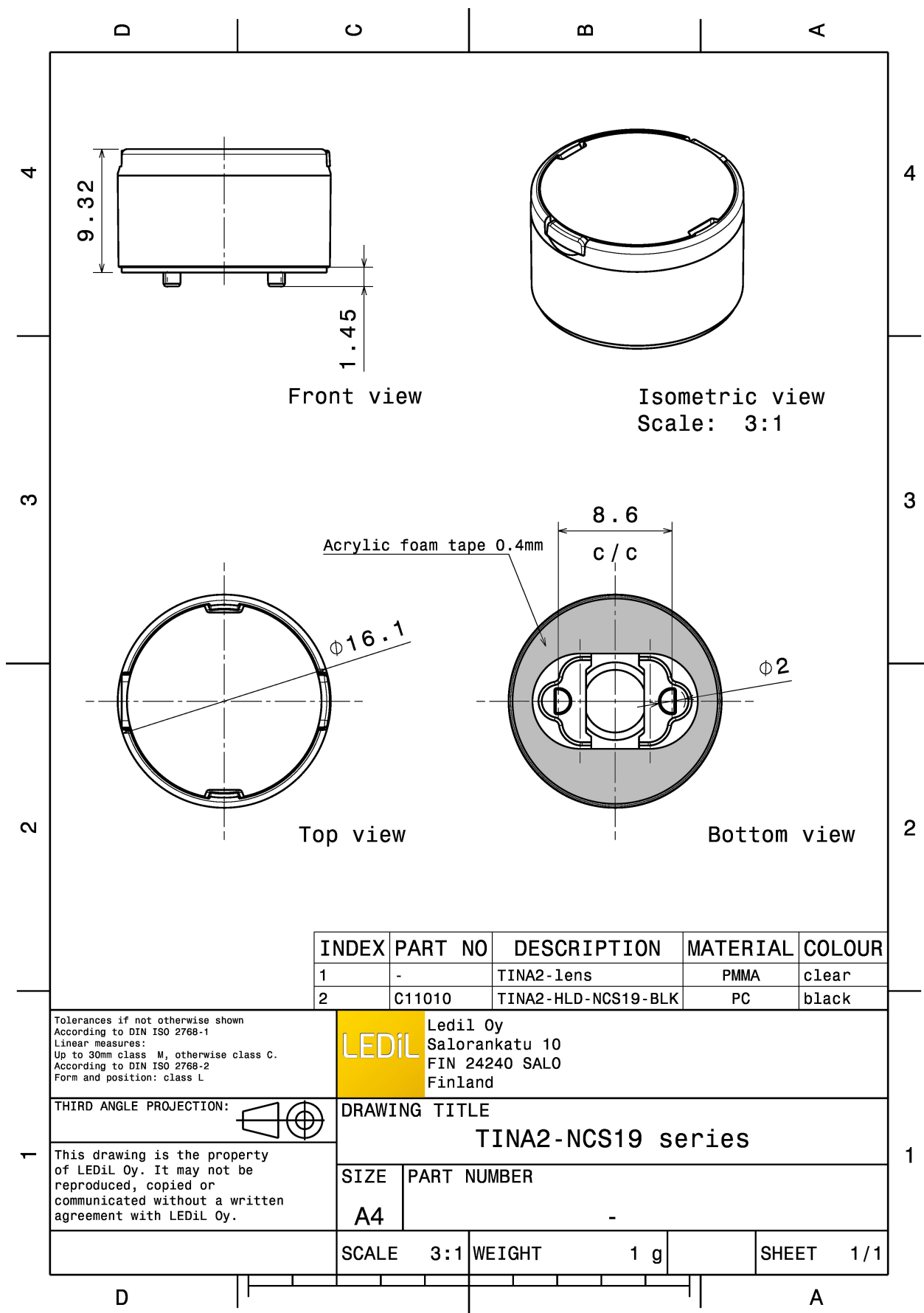


### MATERIALS:

Component	Type	Material	Colour	Finish	Length
TINA2-RS	Single lens	PMMA	clear		16.1
TINA2-HLD-NCS19-BLK	Holder	PC	black		16.1
TINA-TAPE3	Tape	Acrylic foam	black		16.0

### ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
CA11020_TINA2-RS » Box size: 451 x 241 x 298 mm	4140		230	0.0



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

### OPTICAL RESULTS (MEASURED):



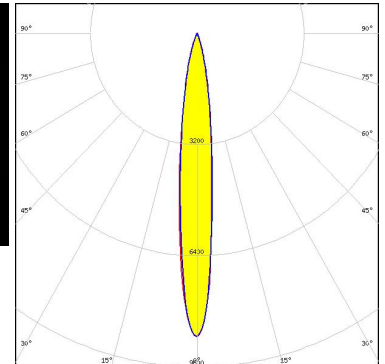
LED NCSxx19A  
FWHM / FWTM 13.0° / 26.0°  
Efficiency 93 %  
Peak intensity 10.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

### SAMSUNG

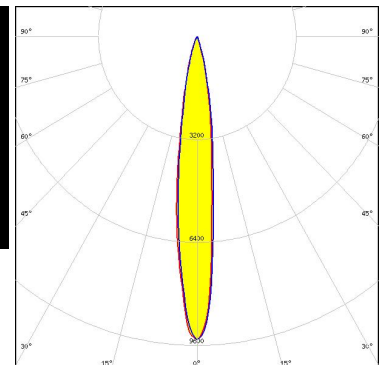
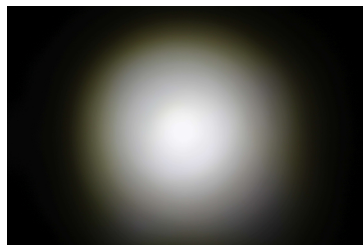
LED LH181A  
FWHM / FWTM 13.0° / 31.0°  
Efficiency 82 %  
Peak intensity 8.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

### SAMSUNG

LED LH181B  
FWHM / FWTM 14.0° / 31.0°  
Efficiency 89 %  
Peak intensity 9.4 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

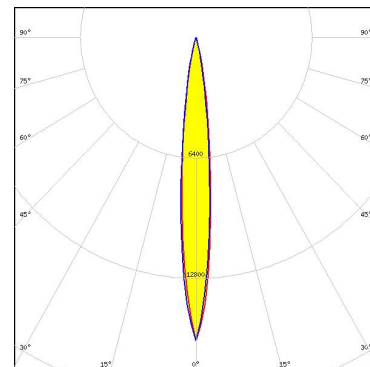


Light distribution files

#### OPTICAL RESULTS (SIMULATED):



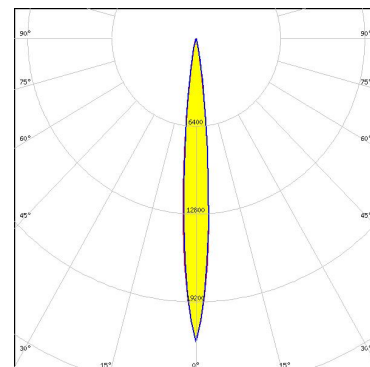
LED LUXEON CZ  
FWHM / FWTM 12.0° / 25.0°  
Efficiency 92 %  
Peak intensity 16.1 cd/lm  
LEDs/each optic 1  
Light colour/type Red  
Required components:



Light distribution files



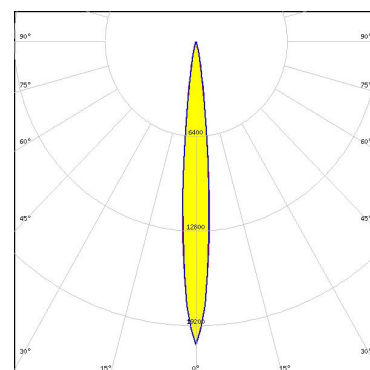
LED LUXEON HL1Z  
FWHM / FWTM 10.0° / 20.0°  
Efficiency 90 %  
Peak intensity 22.1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



LED NCSxE17A  
FWHM / FWTM 10.0° / 21.0°  
Efficiency 92 %  
Peak intensity 20.5 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

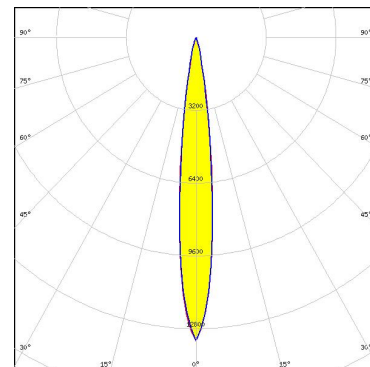


Light distribution files

#### OPTICAL RESULTS (SIMULATED):



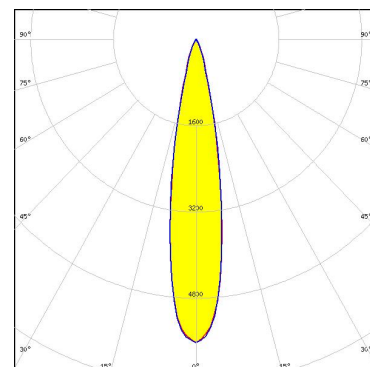
LED NVSxE21A  
 FWHM / FWTM 12.0° / 26.0°  
 Efficiency 90 %  
 Peak intensity 13.3 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED NVSxx19A  
 FWHM / FWTM 20.0° / 37.0°  
 Efficiency 88 %  
 Peak intensity 5.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

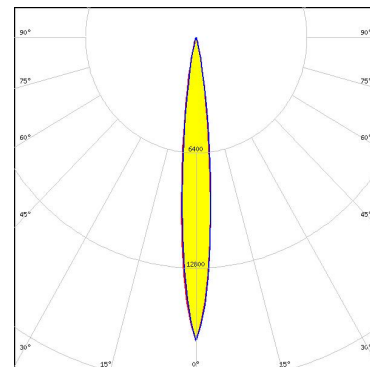


LED OSLON Square CSSRM2/CSSRM3  
 FWHM / FWTM 16.0° / 34.0°  
 Efficiency 90 %  
 Peak intensity 7.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

### OPTICAL RESULTS (SIMULATED):

**OSRAM**  
Opto Semiconductors

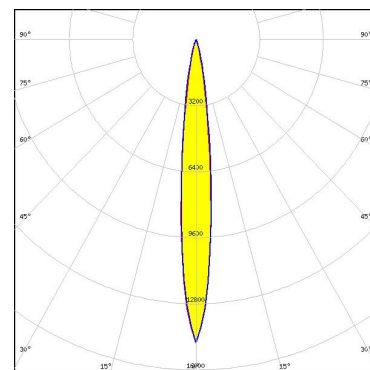
LED OSLON SSL 120  
FWHM / FWTM 11.0° / 23.0°  
Efficiency 92 %  
Peak intensity 16.8 cd/lm  
LEDs/each optic 1  
Light colour/type Hyper Red  
Required components:



Light distribution files

**OSRAM**  
Opto Semiconductors

LED OSRAM OSTAR Projection Compact (KW CSLPM1.TG)  
FWHM / FWTM 12.0° / 25.0°  
Efficiency 92 %  
Peak intensity 14.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

### GENERAL INFORMATION:

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

### MATERIALS:

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