

## TINA2-M

~30° medium 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 ⓘ

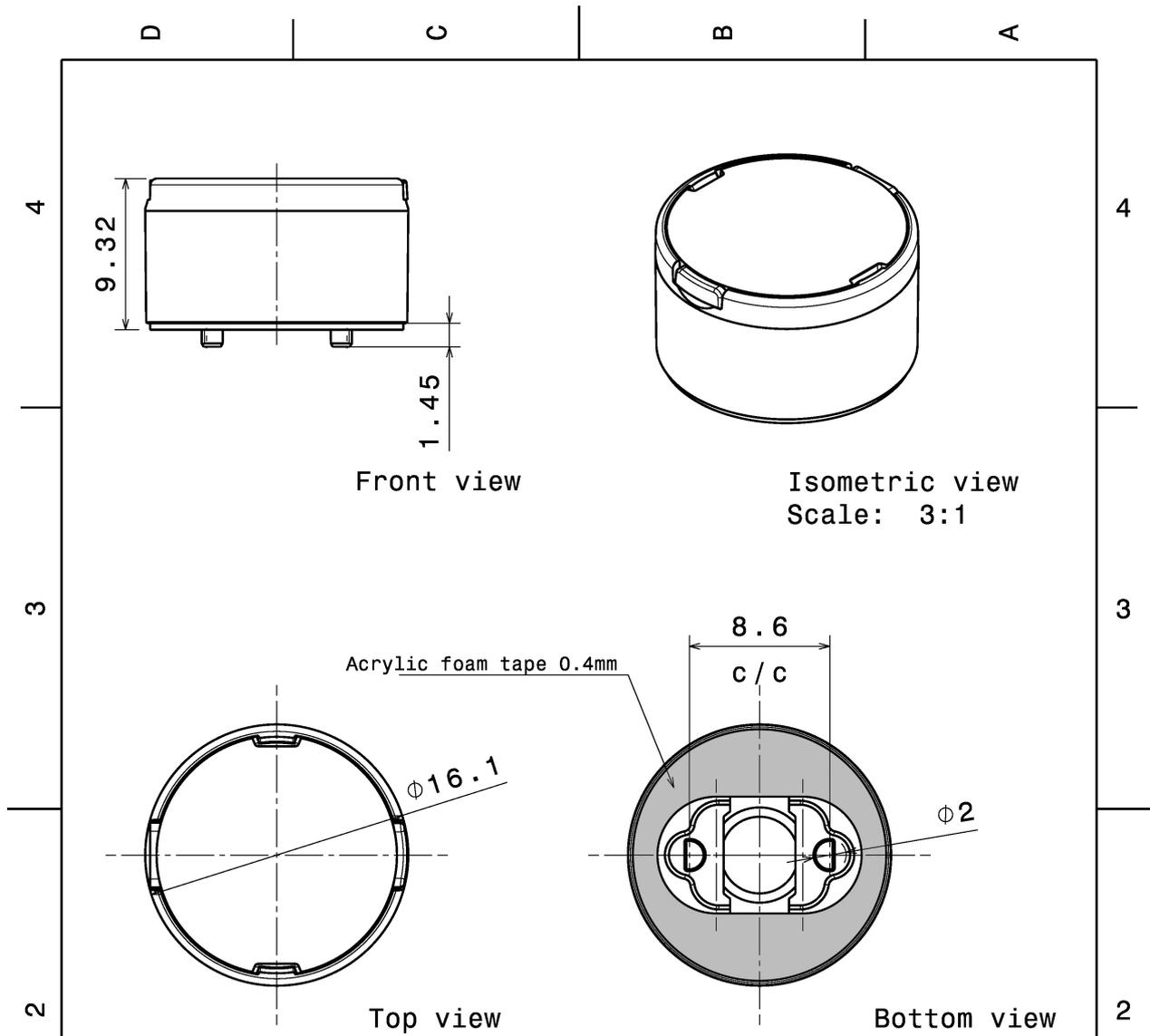


### MATERIALS:

Component	Type	Material	Colour	Finish	Length (mm)
TINA2-XP-M	Single lens	PMMA	clear		
TINA2-HLD-NCS19-BLK	Holder	PC	black		
TINA-TAPE3	Tape	Acrylic foam	black		

### ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
CA11021_TINA2-M » Box size: 451 x 241 x 298 mm	4140	0	230	0.0



INDEX	PART NO	DESCRIPTION	MATERIAL	COLOUR
1	-	TINA2-lens	PMMA	clear
2	C11010	TINA2-HLD-NCS19-BLK	PC	black

Tolerances if not otherwise shown  
According to DIN ISO 2768-1  
Linear measures:  
Up to 30mm class M, otherwise class C.  
According to DIN ISO 2768-2  
Form and position: class L

**LEDiL** Ledil Oy  
Salorankatu 10  
FIN 24240 SALO  
Finland

THIRD ANGLE PROJECTION:

DRAWING TITLE  
**TINA2-NCS19 series**

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SIZE	PART NUMBER
A4	-

SCALE	3:1	WEIGHT	1 g	SHEET	1/1
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See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

### OPTICAL RESULTS (MEASURED):



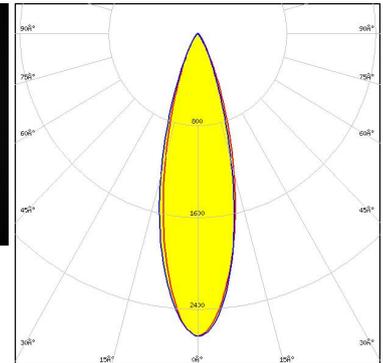
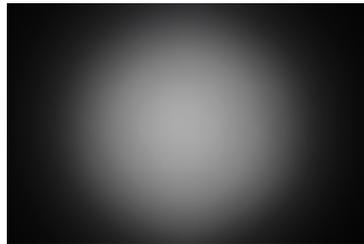
LED NCSxx19A  
FWHM / FWTM 25.0° / 51.0°  
Efficiency 89 %  
Peak intensity 2.8 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

### SAMSUNG

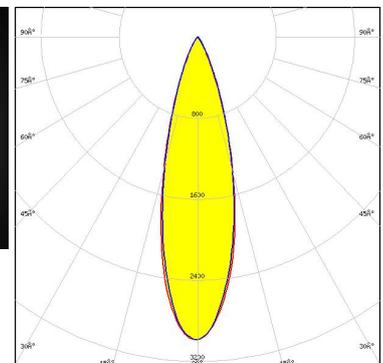
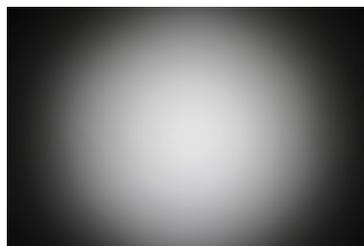
LED LH181A  
FWHM / FWTM 28.0° / 54.0°  
Efficiency 80 %  
Peak intensity 2.6 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

### SAMSUNG

LED LH181B  
FWHM / FWTM 28.0° / 52.0°  
Efficiency 86 %  
Peak intensity 3 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

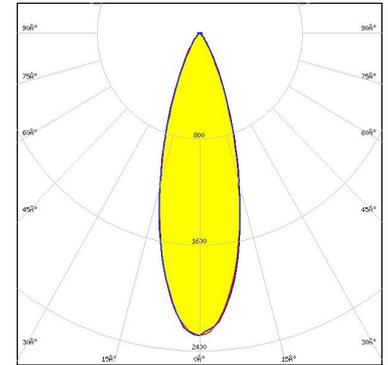


Light distribution files

### OPTICAL RESULTS (SIMULATED):



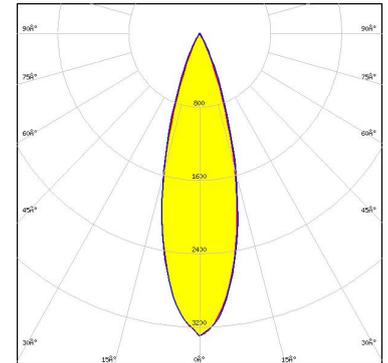
LED XP-G3  
FWHM / FWTM 32.0° / 59.0°  
Efficiency 84 %  
Peak intensity 2.3 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



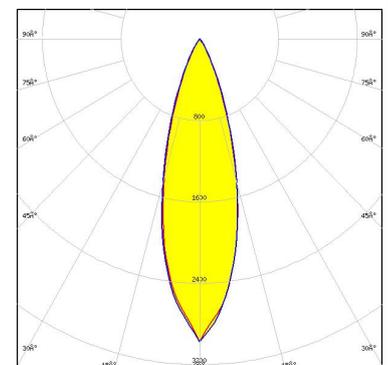
LED LUXEON HL1Z  
FWHM / FWTM 28.0 + 29.0° / 48.0 + 52.0°  
Efficiency 90 %  
Peak intensity 3.3 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



LED LUXEON SunPlus 20 Line (150 deg)  
FWHM / FWTM 30.0° / 54.0°  
Efficiency 88 %  
Peak intensity 3 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

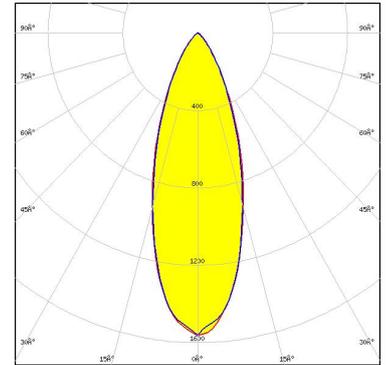


Light distribution files

### OPTICAL RESULTS (SIMULATED):



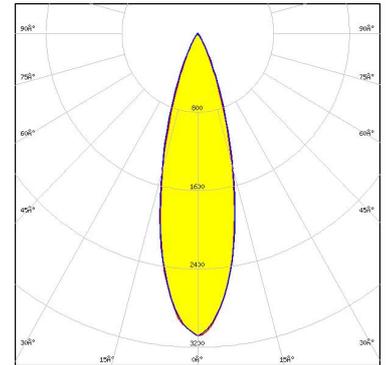
LED NCSxE17A  
FWHM / FWTM 35.0° / 70.0°  
Efficiency 79 %  
Peak intensity 1.6 cd/lm  
LEDs/each optic 4  
Light colour/type White  
Required components:



Light distribution files



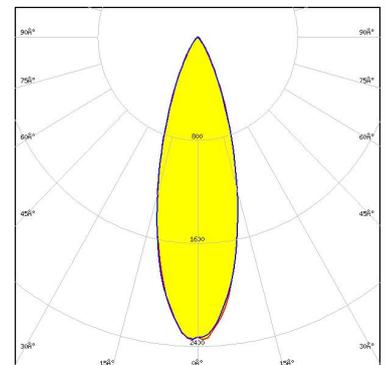
LED NVSxE21A  
FWHM / FWTM 28.0° / 53.0°  
Efficiency 88 %  
Peak intensity 3.1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



LED NVSxx19A  
FWHM / FWTM 32.0° / 59.0°  
Efficiency 84 %  
Peak intensity 2.4 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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