

## TINA2-W

~45° wide 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 ⓘ

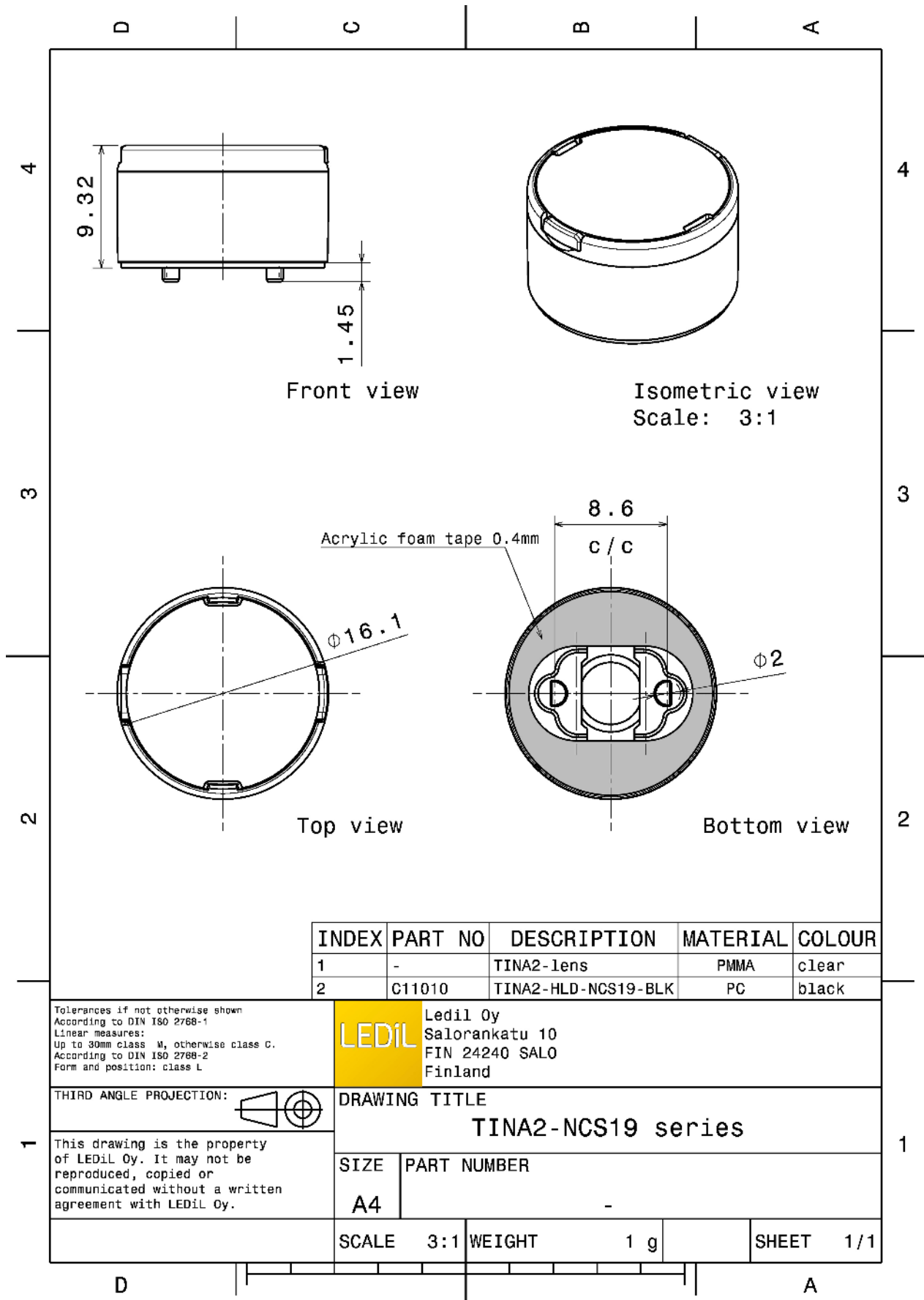
### MATERIALS:

Component	Type	Material	Colour	Finish
TINA2-W-XP	Single lens	PMMA	clear	
TINA2-HLD-NCS19-BLK	Holder	PC	black	
TINA-TAPE3	Tape	Acrylic foam	black	

### ORDERING INFORMATION:

Component	Type	Qty in box	MOQ	MPQ	Box weight (kg)
CA11022_TINA2-W » Box size: 451 x 241 x 298 mm	Single lens	4140		230	8.3





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  
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THIRD ANGLE PROJECTION:

DRAWING TITLE  
**TINA2-NCS19 series**

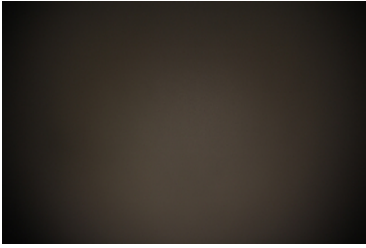
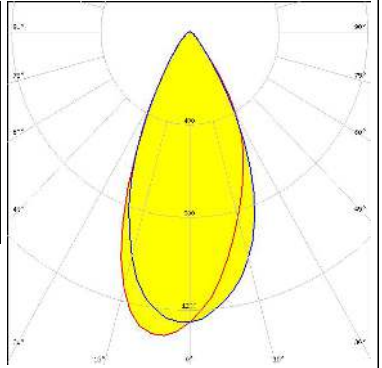
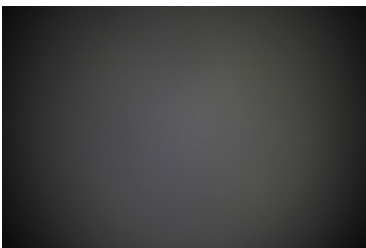
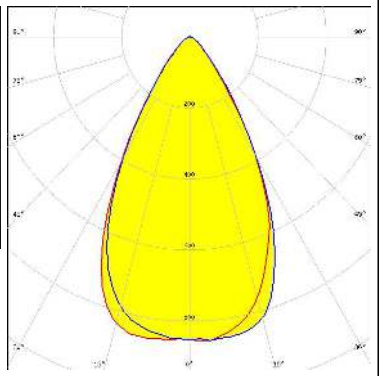

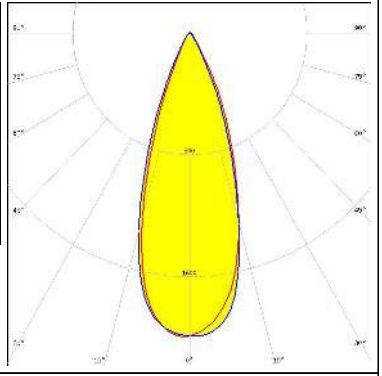
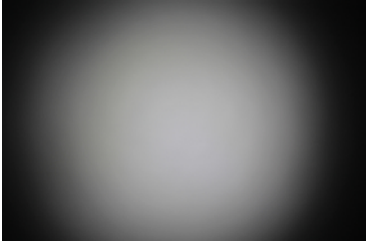
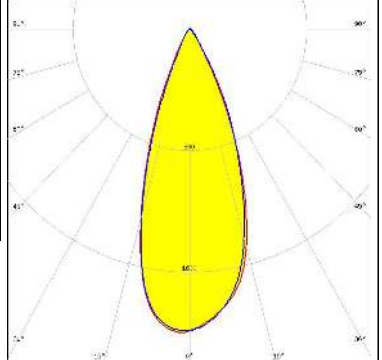
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SIZE	PART NUMBER
A4	-

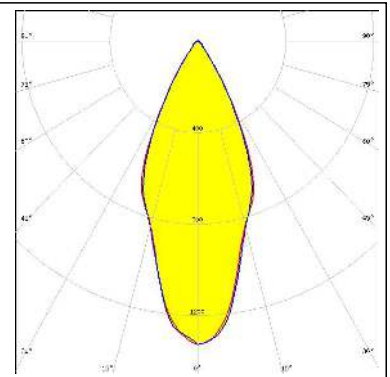
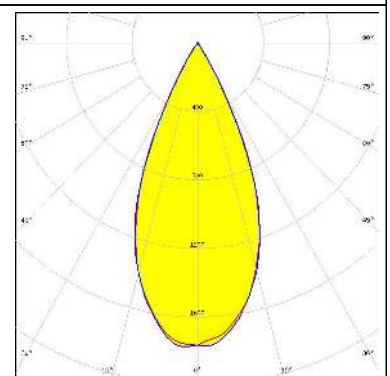
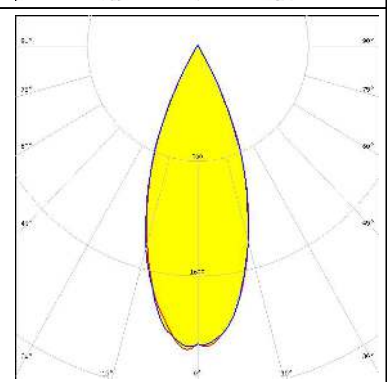
SCALE	3:1	WEIGHT	1 g	SHEET	1/1
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See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

#### OPTICAL RESULTS (MEASURED):

<p><b>NICHIA</b></p> <p>LED NCSxx19A            FWHM / FWTM 46.0° / 78.0°            Efficiency 88 %            Peak intensity 1.3 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>NICHIA</b></p> <p>LED NVSxx19A            FWHM / FWTM 58.0° / 88.0°            Efficiency 82 %            Peak intensity 0.9 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>SAMSUNG</b></p> <p>LED LH181A            FWHM / FWTM 36.0° / 58.0°            Efficiency 84 %            Peak intensity 2 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>SAMSUNG</b></p> <p>LED LH181B            FWHM / FWTM 38.0° / 59.0°            Efficiency 89 %            Peak intensity 2 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: 45.0° / 70.0°            Efficiency: 86 %            Peak intensity: 1.3 cd/lm            LEDs/each optic: 4            Light colour: White            Required components:</p>	
<p><b>NICHIA</b></p> <p>LED: NVSxE21A            FWHM / FWTM: 45.5° / 63.0°            Efficiency: 92 %            Peak intensity: 1.8 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>NICHIA</b></p> <p>LED: NVSxE21A            FWHM / FWTM: 40.0° / 60.0°            Efficiency: 90 %            Peak intensity: 2.1 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	

### 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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