

## TINA3-WW

~55° wide beam optimized for CREE XP-E.  
Assembly with holder, installation tape and location pins.

### SPECIFICATION:

Dimensions	Ø 16.1 mm
Height	7.1 mm
Fastening	tape, pin
ROHS compliant	yes ⓘ

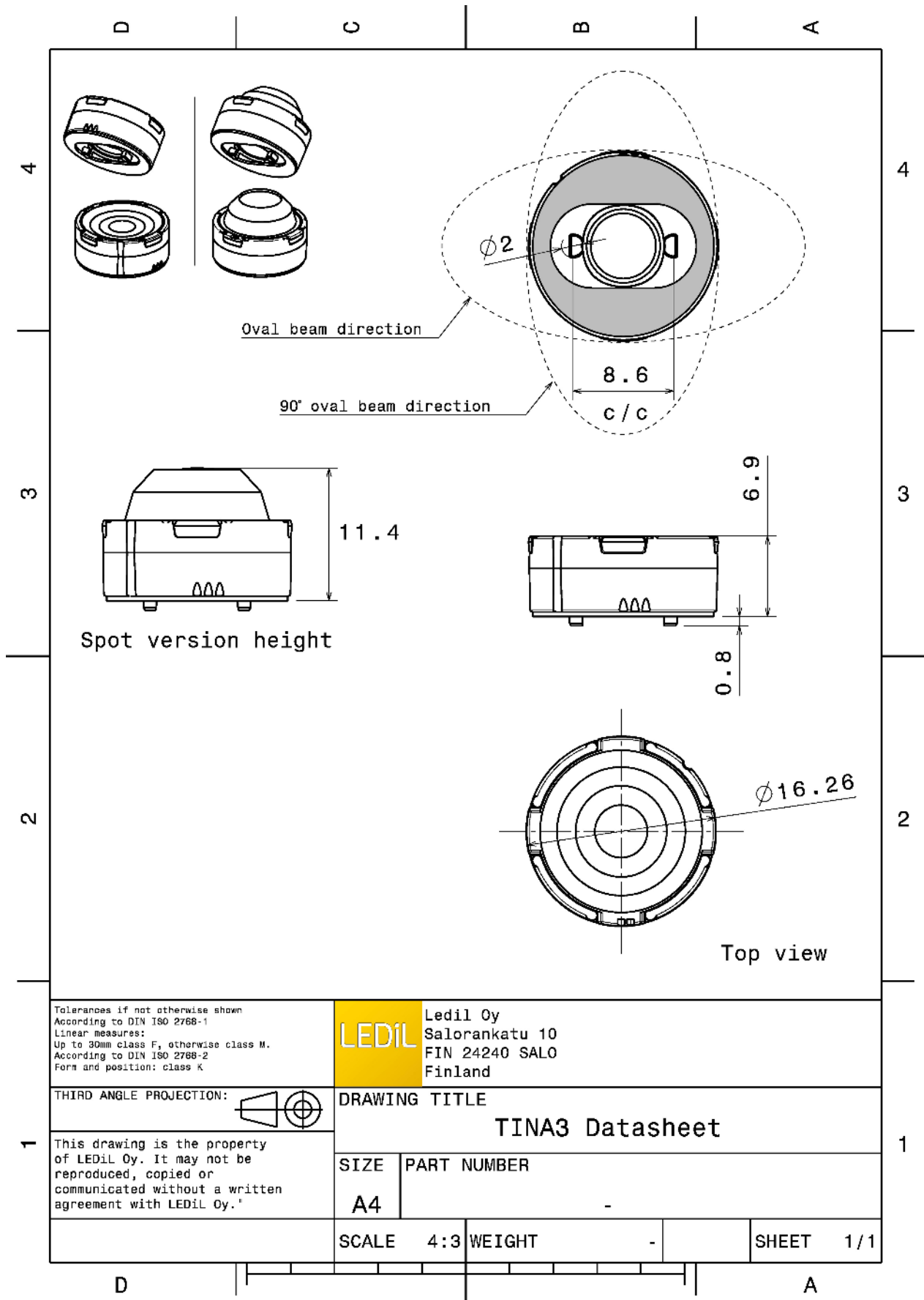


### MATERIALS:

Component	Type	Material	Colour	Finish
TINA3-WW	Single lens	PMMA	clear	
TINA3-HLD-PIN-TAPE-XP	Holder	PC	white	
TINA-TAPE3	Tape	Acrylic foam	black	

### ORDERING INFORMATION:

Component		Qty in box	MOQ	MPQ	Box weight (kg)
FA11903_TINA3-WW	Single lens	2016	288	288	3.2
» Box size: 470 x 240 x 105 mm					



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

**LEDiL** Ledil Oy  
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Finland

THIRD ANGLE PROJECTION:

DRAWING TITLE  
**TINA3 Datasheet**


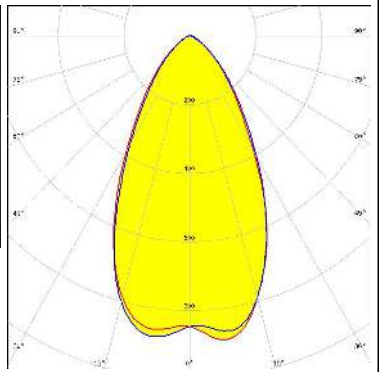


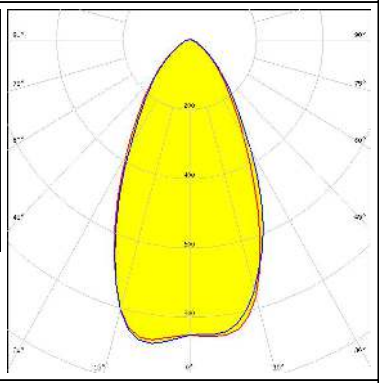
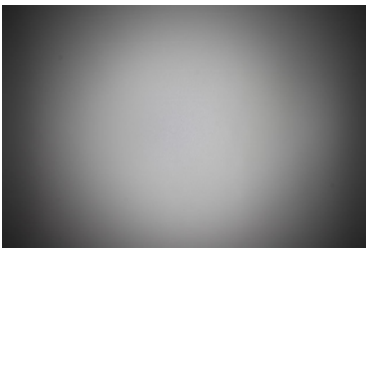
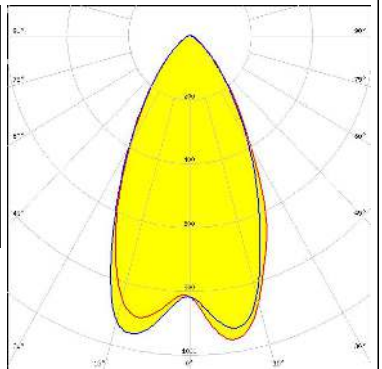
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SIZE	PART NUMBER
A4	-



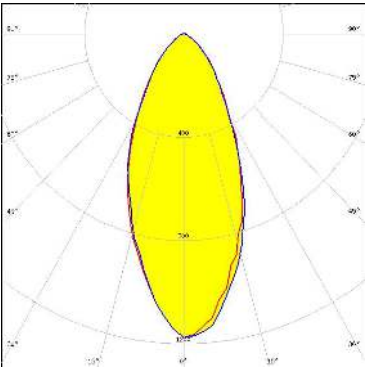

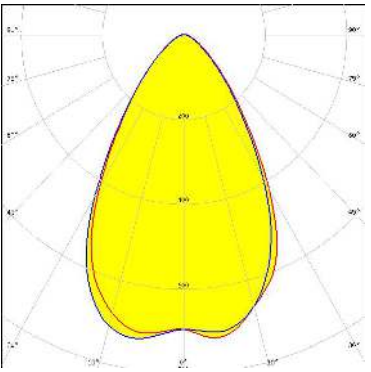
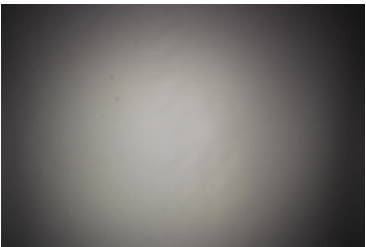
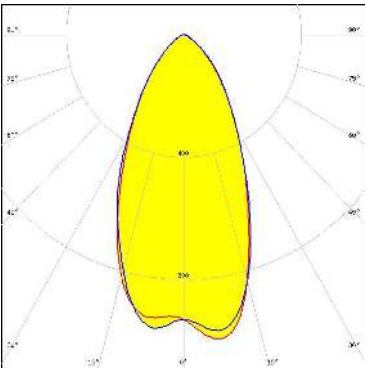
SCALE	4:3	WEIGHT	-	SHEET	1/1
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See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

#### OPTICAL RESULTS (MEASURED):

<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED XM-L            FWHM / FWTM 56.0° / 100.0°            Efficiency 91 %            Peak intensity 0.9 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED XM-L2            FWHM / FWTM 56.0° / 101.0°            Efficiency 89 %            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED XP-L HD            FWHM / FWTM 53.0° / 103.0°            Efficiency 91 %            Peak intensity 0.9 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED XP-L HI            FWHM / FWTM 54.0° / 94.0°            Efficiency 91 %            Peak intensity 1 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		

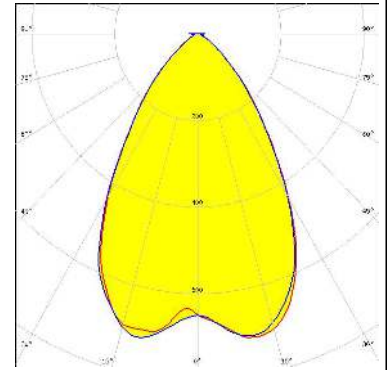
#### OPTICAL RESULTS (MEASURED):

<p><b>CREE</b>  LED</p> <p>LED XT-E            FWHM / FWTM 46.0° / 96.0°            Efficiency 92 %            Peak intensity 1.2 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>NICHIA</b></p> <p>LED NS9x383            FWHM / FWTM 65.0° / 108.0°            Efficiency 90 %            Peak intensity 0.7 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>NICHIA</b></p> <p>LED NVSW219F            FWHM / FWTM 51.0° / 98.0°            Efficiency 92 %            Peak intensity 1 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		

#### OPTICAL RESULTS (SIMULATED):

##### CREE ⇄ LED

LED: XD16  
 FWHM / FWTM: 61.0° / 101.0°  
 Efficiency: 91 %  
 Peak intensity: 0.8 cd/lm  
 LEDs/each optic: 4  
 Light colour: White  
 Required components:

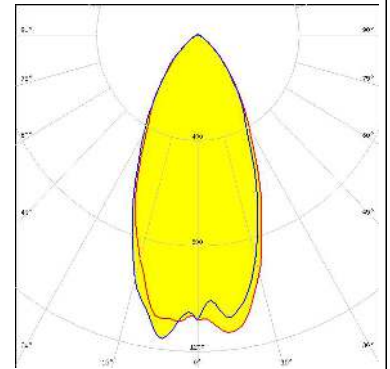


##### CREE ⇄ LED

LED: XM-L HVW  
 FWHM / FWTM: 62.0°  
 Efficiency: %  
 LEDs/each optic: 1  
 Light colour: White  
 Required components:

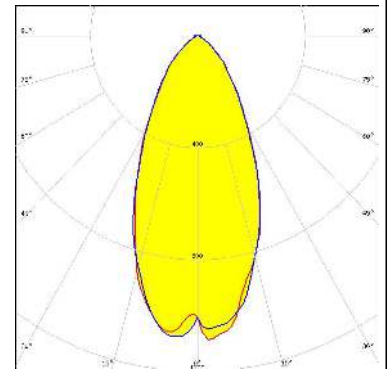
##### CREE ⇄ LED

LED: XP-G2  
 FWHM / FWTM: 49.0° / 95.0°  
 Efficiency: 95 %  
 Peak intensity: 1.2 cd/lm  
 LEDs/each optic: 1  
 Light colour: White  
 Required components:



##### CREE ⇄ LED

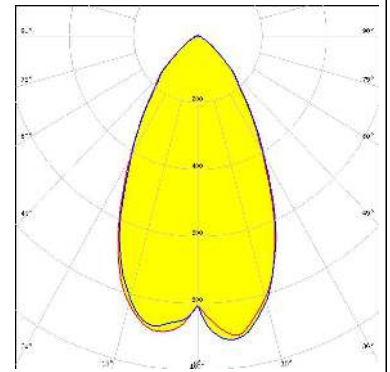
LED: XP-G3  
 FWHM / FWTM: 48.0° / 96.0°  
 Efficiency: 92 %  
 Peak intensity: 1.1 cd/lm  
 LEDs/each optic: 1  
 Light colour: White  
 Required components:



#### OPTICAL RESULTS (SIMULATED):

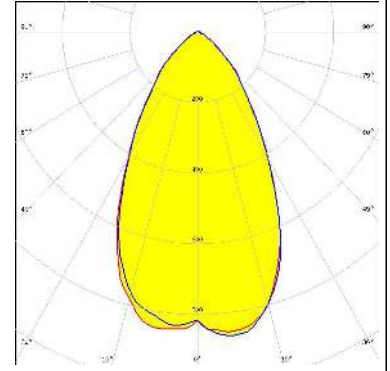
#### LUMILEDS

LED LUXEON HL2X  
FWHM / FWTM 57.0° / 102.0°  
Efficiency 94 %  
Peak intensity 0.9 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



#### SAMSUNG

LED LH351B  
FWHM / FWTM 59.0° / 102.0°  
Efficiency 94 %  
Peak intensity 0.9 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:

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