

# LEDiL



## RANGE & PRECISION – LEDiL's standard LED optics offer both

LEDiL is a Finnish manufacturer and supplier of top quality LED secondary optics. We are driven by an innovative 'can do, will do' attitude and willing to run that 'extra mile' to bring to our customers the finest solutions that add real value to their end products. Whether they need reflectors or lenses, asymmetric or symmetric.

Application support

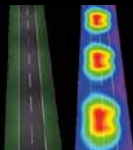
Custom solutions

Symmetric

Asymmetric

Reflectors

Arrays



## Dear Customer

We have updated our catalogue to answer better to your needs in our standard optics. Please note that you can find ordering codes for products together with the latest product information on our website at:

[www.ledil.com](http://www.ledil.com)

FWHM, efficiency and other values in this catalogue *are typical values* and subject to chosen LED/optic -combination. Actual values can be found on our website.

We have included saved search paths for your convenience. URL to the saved search can be found under each product family name. This address will take you directly to the family listing.

## LISA2

[www.ledil.com/lisa2](http://www.ledil.com/lisa2)



### LISA2-RS-PIN

PMMA / Black PC  
H: ≈6,6 mm  
D: 9,9 mm  
Beam type: Real spot

Code	Typ. FWHM	Typ. eff.	Typ. cd/lm
LISA2-M	22	89	2,8
LISA2-0	45 x 21	82	2,2
LISA2-0-90	19 x 48	82	2,2
LISA2-RS	19	89	3,1
LISA2-W	34	88	1,8
LISA2-WW	46	89	1,1
LISA2-WWW	80	83	0,4



### LISA2-R-PIN

Hyper Reflective white PC  
H: ≈6,6 mm  
D: 9,9 mm  
Beam type: Extra<sup>2</sup> wide

## TINA3

[www.ledil.com/tina3](http://www.ledil.com/tina3)

Code	Typ. FWHM	Typ. eff.	Typ. cd/lm
TINA3-00	59 x 39	90	1,20
TINA3-S	13	77	8,40
TINA3-W	39	90	1,70
TINA3-WW	53	90	1,00
TINA3-WWW	71	88	0,60



### TINA3-S

PMMA / White PC  
H: 11,5 mm  
D: 16,1 mm  
Beam type: Spot



### TINA3-W

PMMA / White PC  
H: ≈7 mm  
D: 16,1 mm  
Beam type: Wide

## IRINA

[www.ledil.com/irina](http://www.ledil.com/irina)



### IRINA-RS

PMMA / PC  
H: 11,7 mm  
D: 24,7 mm  
Beam type: Real spot



### STRADA-S

PMMA  
H: 6,9 mm  
D: 19,6 x 15,5 mm  
Beam type: Side emitter



### STRADA-S-14

PMMA  
H: 6,5 mm  
D: 19,6 x 13,8 mm  
Beam type: Side emitter

## HEIDI

[www.ledil.com/heidi](http://www.ledil.com/heidi)

**NEW!**



**HEIDI-WR**

PMMA, H: 11,7 mm, D: 21,6 mm  
Beam type: Oval-90

Code	Typ. FWHM	Typ. eff.	Typ. cd/lm
HEIDI-D	10	90	14,8
HEIDI-M	26	89	3,8
HEIDI-O	49 x 11	87	4,5
HEIDI-O-90	13 x 44	87	4,7
HEIDI-RS	8	92	21,8
HEIDI-SS	15	90	6,8
HEIDI-W	32	87	2,6
HEIDI-W2	45	80	1,1
HEIDI-WR	31	TBA	TBA



**HEIDI-W2**

PMMA  
H: 11,7 mm  
D: 21,6 mm  
Beam type: Wide



**HEIDI-O**

PMMA  
H: 11,7 mm  
D: 21,6 mm  
Beam type: Oval

## LAURA

[www.ledil.com/laura](http://www.ledil.com/laura)



**LAURA-RS**

PMMA / PC  
H: ≈13 mm  
D: 21,6 x 21,6 mm  
Beam type: Real spot



**LAURA-R-XW**

Hyper Reflective  
PC / PC  
H: ≈13 mm  
D: 21,6 x 21,6 mm  
Beam type:  
Extra<sup>2</sup> wide



**LAURA-O-WAS**

PMMA / PC  
H: ≈13 mm  
D: 21,6 x 21,6 mm  
Beam type: Wall  
washer

Code	Typ. FWHM	Typ. eff.	Typ. cd/lm
LAURA-D	15	88	6,2
LAURA-M	29	88	2,5
LAURA-O	40 x 12	88	4,3
LAURA-RS	8	93	30,5
LAURA-SS	11	91	14,5
LAURA-W	42	88	1,7
LAURA-WW	64	86	0,74
LAURA-XW	72	85	0,6
LAURA-R-W	70	77	0,52

**LAURA-SS-WAS →**

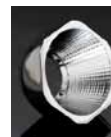
PMMA / PC  
H: ≈13 mm  
D: 21,6 x 21,6 mm  
Beam type: Wall  
washer



## BRIDGET / LILY / CINDY

[www.ledil.com/products](http://www.ledil.com/products)

Code	Typ. FWHM	Typ. eff.	Typ. cd/lm
-M	41	87	1,5
-S	31	89	1,5
-W	57	88	1,1



**-M**

Metallized PC  
H: 12,8 mm  
D: 22,6 mm  
Beam type: Medium

## FLARE

[www.ledil.com/flarefamily](http://www.ledil.com/flarefamily)**FLARE-MINI-A**

PMMA  
H: 8,6 mm  
D: 16 mm  
Beam type: Oval

**FLARE-C**

PMMA  
H: 14,6 mm  
D: 24,5 x 24,5 mm  
Beam type: Rectangular

**FLARE-MAXI-D**

PMMA  
H: 16,7 mm  
D: 33,9 x 33,9 mm  
Beam type: Rectangular

Code	Typ. FWHM	Typ. eff.	Typ. cd/lm
FLARE-B	102 x 11	93	1,6
FLARE-C	87 x 8	93	3,2
FLARE-C-D	95 x 21	93	1
FLARE-MAXI	99 x 13	94	2,3
FLARE-MAXI-D	108 x 15	94	1,8
FLARE-MINI-A	106 x 20	94	1,1
FLARE-MINI-AD	98 x 19	94	1,1
FLARE-MINI-AD-PIN	98 x 19	94	1,1
FLARE-MINI-A-PIN	106 x 20	94	1
LEDIL-FLARE	138 x 20	92	1,3

**FLARE-MAXI**

PMMA  
H: 16,7 mm  
D: 33,9 x 33,9 mm  
Beam type: Rectangular

**FLARE-MINI-AD**

PMMA  
H: 8,6 mm  
D: 16 mm  
Beam type: Oval

## MIRELLA

[www.ledil.com/mirellafamily](http://www.ledil.com/mirellafamily)

- Manufactured from impact-resistant, UL 94 V-2 rated, polycarbonate
- Available with an optional diffusing lens, molded from PMMA
- Optimized for use with larger single-die lighting class LEDs and COB array LEDs

Code	Typ. FWHM	Typ. Eff.	Typ. cd/lm	Fastening
MIRELLA-50-M	27	90	2,8	glue
MIRELLA-50-M-DL	34	84	1,9	glue
MIRELLA-50-M-PIN	23	86	3,2	pin
MIRELLA-50-M-PIN-DL	34	80	1,6	pin
MIRELLA-50-S	15	92	8,5	glue
MIRELLA-50-S-DL	20	85	4,9	glue
MIRELLA-50-S-PF	17	88	5,4	socket, screw
MIRELLA-50-S-PIN	11	87	12,3	pin
MIRELLA-50-S-PIN-DL	15,3	82	5,5	pin
MIRELLA-50-W	41	90	1,6	glue
MIRELLA-50-W-DL	47	83	1,2	glue
MIRELLA-50-W-PIN	33	86	1,6	pin
MIRELLA-50-W-PIN-DL	49	79	1	pin

**NEW!****MIRELLA-50-S-PF**

Metallized PC / PC  
H: 24,8 mm  
D: 49,9 mm  
Beam type: Spot

**MIRELLA-50-M-DL**

Metallized PC / PC  
H: 23,9 mm  
D: 49,9 mm  
Beam type: Medium

**MIRELLA-50-W**

Metallized PC  
H: 23,9 mm  
D: 49,9 mm  
Beam type: Wide

**MIRELLA-50-S**

Metallized PC  
H: 23,9 mm  
D: 49,9 mm  
Beam type: Spot

**MIRELLA-50-M**

Metallized PC  
H: 23,9 mm  
D: 49,9 mm  
Beam type: Medium

FWHM angles, efficiencies and cd/lm values contained herein are average values. Actual measured values depend of the specific LED/optic combination. Go to [www.ledil.com](http://www.ledil.com) for the LED specific values and optic datasheets.

One system,  
endless possibilities



## LENA

[www.ledil.com/lenafamily](http://www.ledil.com/lenafamily)

Code	Beam type	Diameter	Height	Typ. FWHM	Typ. Eff.	Typ. cd/lm
LENA-M	M	111	86	22	83	2,5
LENA-M-DL	M	111	87	22	77	3,4
LENA-S	S	111	86	11	85	7,6
LENA-S-DL	S	111	87	14	80	5,6
LENA-SS	SS	111	84,6	18	82	5
LENA-SS-DL	SS	111	87	16	74	5
LENA-W	W	111	85,4	46	82	1,3
LENA-WAS	WAS	111	39,1	Asym	82	1,1
LENA-WAS-DL	WAS	111	41,2	Asym	76	0,86
LENA-W-DL	W	111	87	45	75	1,3
LENA-X-WAS	WAS	111	39,6	Asym	87	
LENA-X-WAS-DL	WAS	111	42	Asym	80	

## LENINA

[www.ledil.com/leninafamily](http://www.ledil.com/leninafamily)

Code	Beam type	Diameter	Height	Typ. FWHM	Typ. Eff.	Typ. cd/lm
LENINA-M	M	74	46	31	87	2,1
LENINA-M-DL	M	74	48	35	80	1,6
LENINA-S	S	74	46	19	88	4,5
LENINA-S-DL	S	74	48	23	81	3,1
LENINA-W	W	74	46	53	87	1,1
LENINA-W-DL	W	74	48	54	80	1
LENINA-XW	XW	74	47	73	89	0,6
LENINA-XW-DL	WWW	74	48,6	68	82	0,6

## CUTE

[www.ledil.com/cute](http://www.ledil.com/cute)

Code	Beam type	LEDs	Diameter	Height	Typ. FWHM	Typ. eff.	Typ. cd/ lm
CUTE-3-M	M	3	35	15	24	88	3,8
CUTE-3-S	S	3	35	15	11		
CUTE-3-SS	SS	3	35	15	12	90	11,3
CUTE-3-W	W	3	35	15	39	83	1,6
CUTE-4-M	M	4	35	15	22	84	4,26
CUTE-4-SS	SS	4	35	15	11	88	13,2
CUTE-4-W	W	4	35	15	38		



## GT3

[www.ledil.com/gt3](http://www.ledil.com/gt3)

Name	Beam type	Diameter	Height	Typ. FWHM	Typ. eff.	Typ. cd/lm
GT3-M	M	35	9	30	89	2,2
GT3-S	S	35	9	18	90	4,5
GT3-W	W	35	9	40	88	1,6
GT3-WW	WW	35	9	47	90	1,1

**GT3-M**

3 LEDs  
PMMA  
H: 9 mm  
D: 35 mm  
Beam type: Medium

**GT3-WW**

3 LEDs  
PMMA  
H: 9 mm  
D: 35 mm  
Beam type: Extra W

## GT4

[www.ledil.com/gt4](http://www.ledil.com/gt4)

Name	Beam	Diameter	Height	Typ. FWHM	Typ. Eff	Typ. cd/lm
GT4-M	M	35	9	28	88	2,5
GT4-S	S	35	9	21	90	3,3
GT4-W	W	35	9	38	89	1,7
GT4-WW	WW	35	9	53	90	1,1



## TUIJA

[www.ledil.com/tuija](http://www.ledil.com/tuija)

Name	Beam type	LEDs	D	H	Typ. FWHM	Typ. Efficiency	Typ. cd/lm
TUIJA-3-M	M	3	50	14,5	16	84	5,6
TUIJA-3-M2	M	3	50	14,5	35	87	2
TUIJA-3-SS	SS	3	50	14,5	12	90	12,9
TUIJA-3-W	W	3	50	14,5	53	86	0,9

FWHM angles, efficiencies and cd/lm values contained herein are average values. Actual measured values depend of the specific LED/optic combination. Go to [www.ledil.com](http://www.ledil.com) for the LED specific values and optic datasheets.

## ANNA

[www.ledil.com/anna](http://www.ledil.com/anna)

One of LEDiL's largest and most popular product families. ANNA family is versatile with optics in two diameters, wide selection of beam angles and sources.

**ANNA-50-5-S**



Name	Beam type	LED sources	D	H	Typ. FWHM	Typ. efficiency	Typ. cd/lm					
ANNA-40-3-M	M	3	40	10,7	22	88	3,7					
ANNA-40-4-M		4										
ANNA-40-5-M		5										
ANNA-40-6-M		6										
ANNA-40-7-M		7										
ANNA-50-3-M		3						50	10,7	25	87	3,2
ANNA-50-4-M		4										
ANNA-50-5-M	5											
ANNA-50-6-M	6											
ANNA-50-7-M	7											
ANNA-40-3-S	S	3	40	10,7	15	91	8,5					
ANNA-40-4-S		4										
ANNA-40-5-S		5										
ANNA-40-6-S		6										
ANNA-40-7-S		7										
ANNA-50-3-S		3						50	10,7	32	86	1,9
ANNA-50-4-S		4										
ANNA-50-5-S	5											
ANNA-50-6-S	6											
ANNA-50-7-S	7											
ANNA-40-3-W	W	3	40	10,7	32	86	1,9					
ANNA-40-4-W		4										
ANNA-40-5-W		5										
ANNA-40-6-W		6										
ANNA-40-7-W		7										
ANNA-50-3-W		3						50	10,7	32	86	1,9
ANNA-50-4-W		4										
ANNA-50-5-W	5											
ANNA-50-6-W	6											
ANNA-50-7-W	7											



**ANNA-40-3-M**

D: 40 mm  
3 LEDs  
PMMA  
Beam type: Medium



**ANNA-40-4-S**

D: 40 mm  
4 LEDs  
PMMA  
Beam type: Spot



**ANNA-50-3-S**

D: 50 mm  
3 LEDs  
PMMA  
Beam type: Spot

## SANDRA

[www.ledil.com/sandra](http://www.ledil.com/sandra)

Name	Beam type	Typ. FWHM	Typ. eff.	Typ. cd/lm
SANDRA-12-M	M	28	88	2,4
SANDRA-12-W	W	31	88	2,4
SANDRA-12-S	S	14	91	13,2

SANDRA is largest diameter optical array family LEDiL has. It has many application for example in retrofits, retail lighting and track mounted lighting fixtures.

**NEW!**

**SANDRA-S**

D: 67 mm  
H: 11,1 mm  
12 LEDs  
PMMA  
Beam type: Spot



**SANDRA-M**

D: 67 mm  
H: 11,1 mm  
12 LEDs  
PMMA  
Beam type: Medium



**SANDRA-W**

D: 67 mm  
H: 11,1 mm  
12 LEDs  
PMMA  
Beam type: Wide



The information contained herein is the property of LEDiL Oy, Satorankatu 10, FI-24240 SALO, Finland and is subject to change without prior notice. Please visit [www.ledil.com](http://www.ledil.com) for additional information, such as the latest photometric files, 3D mechanical models, and application notes relating to handling, gluing and taping.

## STRADA

[www.ledil.com/strada](http://www.ledil.com/strada)

STRADA lenses, originally designed for street lighting applications, are suitable for many other applications as well. Like all LEDiL products STRADA lenses are optimized for specific LED types and have optimal light distribution and over 90% optical efficiency. Some STRADA lenses

can also be used with other LED types with a small sacrifice in light distribution and optical efficiency. STRADA lenses designated for roadway lighting have batwing light distribution for better performance. Symmetric STRADA lenses were the first lenses from

LEDiL designed especially for street lighting applications. On street lighting setups, symmetrical light distribution requires a mounting boom and tilt in the lamp head. This makes symmetrical STRADA lenses ideal for traditional street light replacement.

## Single optics



**STRADA-B**  
D: 19,6 x 15,5 mm  
H: 6 mm  
PMMA  
Typ. FWHM: 105° x 44°  
Typ. eff: 93%



**STRADA-C2**  
D: 19,6 x 15,6 mm  
H: 6,4 mm  
PMMA  
Typ. FWHM: 120°  
Typ. eff: 92%



**STRADA-DW**  
D: 19,6 x 15,7 mm  
H: 9,6 mm  
PMMA  
Typ. FWHM: 89° x 142°  
Typ. eff: 92%



**STRADA-K**  
D: 19,6 x 15,5 mm  
H: 8,7 mm  
PMMA  
Typ. eff: 96%



**STRADA-SQ-A-T**  
D: 25 x 25 mm  
H: 9,1 mm  
PMMA  
Typ. eff: 93%



**STRADA-A**  
D: 19,6 x 15,4 mm  
H: 10,8 mm  
PMMA  
Typ. FWHM: 80° x 146°  
Typ. eff: 92%



**STRADA-B2**  
D: 19,6 x 15,5 mm  
H: 5,3 mm  
PMMA  
Typ. FWHM: 111° x 47°  
Typ. eff: 92%



**STRADA-C2-CLIP**  
D: 19,6 x 15,6 mm  
H: 6,9 mm  
PMMA  
Typ. eff: 92%



**STRADA-A2**  
D: 19,6 x 15,4 mm  
H: 10,6 mm  
PMMA  
Typ. FWHM: 72° x 141°  
Typ. eff: 92%



**STRADA-C**  
D: 19,6 x 15,6 mm  
H: 5,3 mm  
PMMA  
Typ. FWHM: 125°  
Typ. eff: 92%



**STRADA-DN**  
D: 19,6 x 15,7 mm  
H: 5,9 mm  
PMMA  
Typ. FWHM: 107° x 58°  
Typ. eff: 92%

## STRADA 6X1 modules

Precision-engineered lens array.

Emitted light has an asymmetric tilt in the wide beam to efficiently direct light to the roadway surface and to minimize stray light outside of target areas.



**STRADA-6X1-DNW**  
D: 119,8 x 25,2 mm, H: 5,6 mm  
Typ. efficiency: 93%