

LENA-S

~11° spot beam

TECHNICAL SPECIFICATIONS:

Dimensions	Ø 111.0 mm
Height	80 mm
Fastening	socket
Colour	metal
Box size	400 x 280 x 380 mm
Box weight	3.8 kg
Quantity in Box	60 pcs
ROHS compliant	yes 🛈



PRODUCT DATASHEET C11979_LENA-S

MATERIAL SPECIFICATIONS:

Component LENA-S

Туре Reflector Material

PC

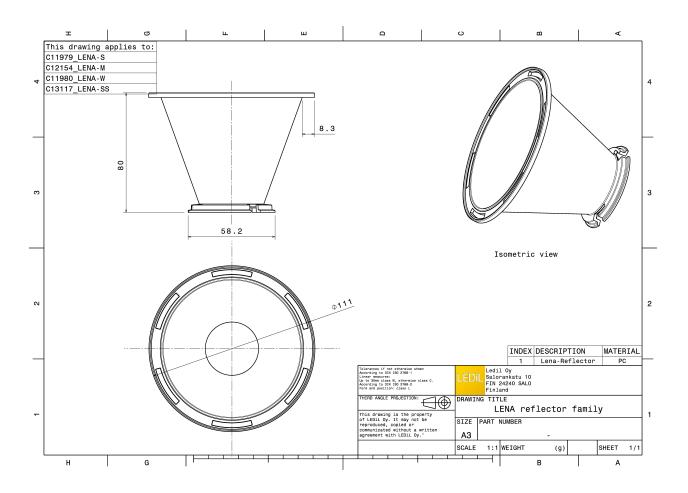
Colour

metal

Coating lacquer









PHOTOMETRIC DATA (MEASURED):

bridgelux.

 LED
 BXRA ES Rectangle

 FWHM
 11.0°

 Efficiency
 78 %

 Peak intensity
 cd/lm

 Required com>rents:

 C12153_LEN-STD-BASE-BXRA

 C11996_LEN-LENS

bridgelux. LED FWHM Efficiency Peak intensity Required comp C12229_LEN C11996_LEN	IA-STD-BASE-RS	20 20 20 20 20 20 20 20 20 20
bridgelux.		
LED	V10 Gen6	
FWHM	9.0°	
Efficiency Peak intensity	76 %	
Required comp		
	IA-STD-BASE-CXA15	
C11996_LEN		
bridgelux.		92* 92
LED	Vero SE 29	75
FWHM	27.0°	
Efficiency	87 %	60°-
Peak intensity		
Required comp		at dat
C15083_LEN	IA-STD-BASE-VERO29	200



bridgelux.		90* 90*
LED	VERO13	75-
FWHM	14.0°	100
Efficiency	83 %	60°
Peak intensity	6.250 cd/lm	
Required comp	onents:	gr gr
C13868_LEN	IA-STD-BASE-VERO13-18	400
C11996_LEN	IA-LENS	
		394 6635 38,* 15 ⁴ 0 ⁴ 15 ⁵
bridgelux.		90*
LED	VERO18	20
FWHM	17.0°	100
Efficiency	83 %	60° 60°
Peak intensity	5.500 cd/lm	
Required comp	onents:	gr
C13868_LEN	IA-STD-BASE-VERO13-18	
C11996_LEN	IA-LENS	430
		30° 4° 13° 4°
bridgelux.		50°
LED	VERO29	75.
FWHM	30.0°	
Efficiency	80 %	60 ⁵ 60 ⁵
Peak intensity	2.300 cd/lm	$\perp \times / \mid \rightarrow \times$
Required comp	onents:	0 ²
C13867_LEN	IA-STD-BASE-VERO29	
		36 ⁴ 2000 36 ⁴
CITIZE	N	90 [°]
LED	CL-L340	75
FWHM	14.0°	
Efficiency	79 %	60° (22)0
Peak intensity	8.000 cd/lm	
Required comp		¢*
	IA-STD-BASE-CL340	
C11996_LEN		X / X
		30* 30*
		15° 0° 15°



PHOTOMETRIC DATA (MEASURED):

CITIZEN

 LED
 CL-L340

 FWHM
 11.0°

 Efficiency
 84 %

 Peak intensity
 10.100 cd/lm

 Required components:
 C11995_LENA-STD-BASE-CL340

CITIZEN

LED	CLL02x/CLU02x (LES10)
FWHM	10.0°
Efficiency	80 %
Peak intensity	11.500 cd/lm
Required comp	onents:
C13868_LEN	A-STD-BASE-VERO13-18
C11996_LEN	A-LENS
Bender Wirth	: 434 Tvp L1

CITIZEN

LED	CLL02x/CLU02x (LES10)	
FWHM	8.0°	
Efficiency	85 %	
Peak intensity	26.500 cd/lm	
Required comp	onents:	
C13868_LEN	A-STD-BASE-VERO13-18	
Bender Wirth: 434 Typ L1		

CITIZEN

LED	CLL03x/CLU03x	
FWHM	11.0°	
Efficiency	85 %	
Peak intensity	13.000 cd/lm	
Required components:		
C12691_LENA-STD-BASE-CLL030		



Last update: 30/05/2018Subject to change without prior noticePublished: 30/05/2018LEDiL is a registered trademark of LEDiL Oy in the European Union, USA, and certain other countries.5/28



CITIZE	NT	
CITIZE LED FWHM Efficiency Peak intensity Required comp A.A.G. STUC	CLL03x/CLU03x 13.0° 78 % 6.400 cd/lm	5° 6° 6° 6° 100 100 100 100 100 100 100 10
CITIZE	N	90* 90
LED FWHM Efficiency Peak intensity Required comp	CLL03x/CLU03x 14.0° 80 % 6.700 cd/lm onents: IA-STD-BASE-VERO13-18 IA-LENS	27 27 20 27 400 400 400 400 400 400 400 40
CITIZE	N	90* 99
LED FWHM Efficiency Peak intensity Required comp	CLL03x/CLU03x 13.0° 80 % 7.600 cd/lm onents: IA-STD-BASE-CLL030	
	NT	153 00 153
CITIZE LED FWHM Efficiency Peak intensity Required comp A.A.G. STUC	CLL04x/CLU04x 17.0° 78 % 4.800 cd/lm	91 17 17 100 100 100 100 100 100 100 100
		30 ⁴ 15 ⁵ 0 ⁴ 15 ⁵



OTTIT	N T	
CITIZE LED FWHM Efficiency Peak intensity Required comp C12692_LEI C11996_LEI	CLL04x/CLU04x 16.0° 79 % 3.820 cd/lm ponents: NA-STD-BASE-CLL040	
CITIZE LED FWHM Efficiency Peak intensity Required com IDEAL: 50-2	CLL04x/CLU04x 16.0° 85 % 5.200 cd/lm	
	CLL04x/CLU04x 21.0° 80 % 3.400 cd/lm	
CITIZE LED FWHM Efficiency Peak intensity Required comp A.A.G. STUC	CLL04x/CLU04x 23.0° 73 % 2.500 cd/lm	



PHOTOMETRIC DATA (MEASURED):

CITIZEN

LED CLL04x/CLU04x FWHM 15.0° Efficiency 84 % Peak intensity 5.250 cd/lm Required components: C12692_LENA-STD-BASE-CLL040



CITIZEN

LED	CLL04x/CLU04x	
FWHM	19.0°	
Efficiency	81 %	
Peak intensity	3.600 cd/lm	
Required comp	onents:	
IDEAL: 50-2204CT + 50-2100LN		

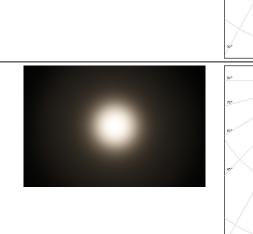


CITIZEN

LED	CLU700/701
FWHM	5.0°
Efficiency	87 %
Peak intensity	61.400 cd/lm
Required comp	onents:
C13868_LEN	IA-STD-BASE-VERO13-18
Bender Wirth	: 434 Typ L1

CITIZEN

LED CLU700/701 FWHM 8.0° Efficiency 80 % Peak intensity 17.500 cd/lm Required components: C13868_LENA-STD-BASE-VERO13-18 C11996_LENA-LENS Bender Wirth: 434 Typ L1





PHOTOMETRIC DATA (MEASURED):

N	50*	A 9
CLU710/711 9.0° 83 % 12.000 cd/lm ponents: NA-STD-BASE-CLL030	33 97 97 97 97 97	1000 44 Y
	55'	
7.0° 90 %	. 77 	
oonents:	30	10 ⁰⁰ 10 ⁰
N	59*	9
CLU720/721 11.0° 79 % 8.600 cd/lm ponents: NA-STD-BASE-CLL030	37 57 57	200 × 1
N		19 0, 19
CLU720/721 9.0° 85 % 18.700 cd/lm	50° 73° 60° 90°	
	CLU710/711 9.0° 83 % 12.000 cd/lm ponents: NA-STD-BASE-CLL030 NA-LENS N CLU710/711 7.0° 90 % 30.000 cd/lm ponents: NA-STD-BASE-CLL030 N CLU720/721 11.0° 79 % 8.600 cd/lm ponents: NA-STD-BASE-CLL030 N CLU720/721 11.0° 79 % 8.600 cd/lm ponents: NA-STD-BASE-CLL030 NA-LENS N CLU720/721 9.0° 85 % 18.700 cd/lm ponents:	CLU710/711 9.0° 83 % 12.000 cd/lm ponents: NA-STD-BASE-CLL030 VA-LENS ************************************

Last update: 30/05/2018Subject to change without prior noticePublished: 30/05/2018LEDiL is a registered trademark of LEDiL Oy in the European Union, USA, and certain other countries.9/28



CITIZE	NT	
CITIZE LED FWHM Efficiency Peak intensity Required comp C12692_LEN	CLU730/731 10.0° 82 % 12.400 cd/lm	
CREE ¢ LED FWHM Efficiency Peak intensity Required comp C14146_LEN	CMA1840 11.0° 88 % 12.000 cd/lm	
CREE ¢ LED FWHM Efficiency Peak intensity Required comp C13186_LEN	CXA/B 15xx 7.0° 87 % 30.120 cd/lm	50 ⁴ 50 ⁴ 5
CREE LED FWHM Efficiency Peak intensity Required comp C13868_LEN C11996_LEN Bender Wirth	CXA/B 15xx 8.0° 80 % 16.500 cd/lm onents: A-STD-BASE-VERO13-18 A-LENS	



CREE ÷		90*
LED	CXA/B 15xx	75
FWHM	8.0°	
Efficiency	81 %	ein eine eine eine eine eine eine eine
Peak intensity	15.500 cd/lm	
Required com	ponents:	5 ⁷ 300
C13186_LE	NA-STD-BASE-CXA15	
C11996_LE	NA-LENS	2304
		34 ⁻ 35
CREE -		90 ³
LED	CXA/B 15xx	
FWHM	7.0°	
Efficiency	86 %	69 ⁴
Peak intensity	31.300 cd/lm	
Required com	ponents:	97 <u>1970</u> 95
C13868_LE	NA-STD-BASE-VERO13-18	
Bender Wirt	h: 441 Typ L1	
		20" 2000 30 15 of 15"
CREE -		<u>50°</u>
LED	CXA/B 1816 & CXA/B 1820 & CXA 1850	75
FWHM	10.0°	
Efficiency	87 %	605 600
Peak intensity	17.600 cd/lm	
Required com	ponents:	gr a
C13868_LE	NA-STD-BASE-VERO13-18	11000
Bender Wirt		
	n. 457 Typ ET	
		34* 32° 32800 32° X
CREE		94" 2000 27" 3
		34 ¹ 25 ¹ 12 ¹⁰ 30 <u>94¹</u> 90 <u>75</u>
CREE (94 [*] 10 [*] 10 [*] 9
CREE -	CXA/B 1816 & CXA/B 1820 & CXA 1850	34 ² 10 ¹⁰ 10 ¹⁰ 20 10 ¹⁰ 10 ¹⁰ 10 ¹⁰ 20 10 ¹⁰ 10
CREE C	CXA/B 1816 & CXA/B 1820 & CXA 1850 12.0° 82 %	30 ⁴
CREE C	CXA/B 1816 & CXA/B 1820 & CXA 1850 12.0° 82 % 8.600 cd/lm	50° 50° 50° 50° 50° 50° 50° 50° 50° 50°
CREE C LED FWHM Efficiency Peak intensity Required com	CXA/B 1816 & CXA/B 1820 & CXA 1850 12.0° 82 % 8.600 cd/lm	
CREE C LED FWHM Efficiency Peak intensity Required com	CXA/B 1816 & CXA/B 1820 & CXA 1850 12.0° 82 % 8.600 cd/lm ponents: NA-STD-BASE-VERO13-18	
CREE C LED FWHM Efficiency Peak intensity Required com C13868_LE C11996_LE	CXA/B 1816 & CXA/B 1820 & CXA 1850 12.0° 82 % 8.600 cd/lm ponents: NA-STD-BASE-VERO13-18	



CREE ·	▲	90*
LED	CXA/B 1830	75*
FWHM	18.0°	
Efficiency	75 %	60° C C C C C C C C C C C C C C C C C C C
Peak intensity	/ 2.300 cd/lm	
Required corr	iponents:	er
C13868_LE	NA-STD-BASE-VERO13-18	
C12231_LE	NA-FRESNEL-LENS	
Bender Wir	th: 437 Typ L1	30 ⁴ 2890 3
CREE		50 ⁴
LED	CXA/B 1830	
FWHM	12.0°	
Efficiency	82 %	90°
Peak intensity	/ 10.300 cd/lm	
Required corr	ponents:	55× 6100
C13868_LE	NA-STD-BASE-VERO13-18	
C14169_LE	NA-CLEAR-LENS	
Bender Wir	th: 437 Typ L1	30° 25° 0° 25°
CREE		90 ⁴
LED	CXA/B 1830	75
FWHM	12.0°	
Efficiency	87 %	690
Peak intensity	/ 11.900 cd/lm	602
Required com	iponents:	
C13868_LE	NA-STD-BASE-VERO13-18	
Bender Wir	th: 437 Typ L1	
		30° 12° 13000 12° 1
CREE ·		90 ⁴
LED	CXA/B 25xx	75
FWHM	13.0°	
Efficiency	79 %	64× / / 1000
Peak intensity	v 5.900 cd/lm	$\square X / \square X $
,		99° X / X /
Required corr	iponents:	3230
Required com	iponents: NA-STD-BASE-CXA25	329
Required com	NA-STD-BASE-CXA25	
Required com C13324_LE	NA-STD-BASE-CXA25	



CREE C LED FWHM Efficiency Peak intensity Required com C13324_LE	CXA/B 25xx 13.0° 84 % 8.000 cd/lm	C	
CREE C LED FWHM Efficiency Peak intensity Required com C12105_LE C11996_LE	CXA2011 11.0° 80 % cd/lm ponents: NA-STD-BASE-CXA20		
LED FWHM Efficiency Peak intensity Required com C13867_LE			35° 0° 137
LED FWHM Efficiency Peak intensity Required com C13867_LE			



🥙 LUMIL	EDS	90* Å
LED	LUXEON CoB 1202/1203	75
FWHM	7.0°	
Efficiency	87 %	60°
Peak intensity	28.300 cd/lm	
Required comp		a ^r (37)
	IA-STD-BASE-VERO13-18	
Bender Wirth	: 438 Typ L1	
		30° 32° 0° 15'
UMIL	EDS	90* 90*
LED	LUXEON CoB 1204/1205	75
FWHM	12.0°	
Efficiency	77 %	60 ⁺ 60 ⁺
Peak intensity		
Required comp		657
	IA-STD-BASE-MEZ	
C11996_LEN	IA-LENS	love
		30° 35° 35°
UMIL	EDS	90*
LED	LUXEON CoB 1204/1205	75-
FWHM	10.0°	800
Efficiency	83 %	60* 60*
Peak intensity	13.100 cd/lm	
Required comp		or or
C12292_LEN	IA-STD-BASE-MEZ	
		30° 35° 0° 35°
UMIL	EDS	90* 90*
LED	LUXEON CoB 1205HD	75
FWHM	9.0°	
Efficiency	88 %	602
Peak intensity		
Required comp		45° 42°
C11981_LEN	IA-STD-BASE-COB-L110	
1		No.
		30° 30° 15° 0° 15°



PHOTOMETRIC DATA (MEASURED):

UMIL	EDS	90°
LED	LUXEON CoB 1208	75-
FWHM	14.0°	1000
Efficiency	78 %	50°
Peak intensity	6.000 cd/lm	320
Required comp	ponents:	51. (e)
	NA-STD-BASE-MEZ	
C11996_LEN	NA-LENS	
		30° 6630 35°
UMIL	EDS	90*
LED	LUXEON CoB 1208	78.
FWHM	12.0°	
Efficiency	84 %	600 V V V V V V V V V V V V V V V V V V
Peak intensity	9.900 cd/lm	
Required comp		45 ⁴ 600
C12292_LEN	NA-STD-BASE-MEZ	
		36* 15° 0° 15°
	EDS	30* 30'
LED	LUXEON CoB 1211	755
FWHM	17.0°	
Efficiency	80 %	60 ⁴ 2000 (60 ⁴
Peak intensity	5.000 cd/lm	
Required comp	oonents:	er (300)
C13867_LEN	NA-STD-BASE-VERO29	
Bender Wirth	n: 431 Typ L3	
		30* 25° 0° 15°
UMIL	EDS	50°
LED	LUXEON CoB 1211	75
FWHM	16.0°	1000
Efficiency	85 %	60 ⁵
Peak intensity	6.600 cd/lm	
Required comp		a. at
	NA-STD-BASE-VERO29	
Bender Wirth	n: 431 Typ L3	
		30 ⁴ 12 ⁵ 0 ⁴ 12 ⁵

Last update: 30/05/2018Subject to change without prior noticePublished: 30/05/2018LEDiL is a registered trademark of LEDiL Oy in the European Union, USA, and certain other countries.15/28



UMIL	EDS		80*
LED	LUXEON CoB 1216/1812		75- X
FWHM	23.0°		
Efficiency	74 %		60 ⁵ 60
Peak intensity	2.600 cd/lm		
Required comp	oonents:		5° - 1630 - 45
A.A.G. STUC	CCHI: 8102/G2 + S-8000/12		300
A			30 ⁺ 22 ⁺ 0 ⁺ 12 ⁺
	EDS		90*
LED	LUXEON CoB 1216/1812		75
FWHM	21.0°		
Efficiency	80 %		50 ⁻⁰
Peak intensity	3.600 cd/lm		
Required comp			42° 4
	NA-STD-BASE-CLL040		
C11996_LEN	NA-LENS		3200
			364 35 0h 35
UMIL	EDS		90 ⁴ 90
LED	LUXEON CoB 1216/1812	and the second	755
FWHM	18.0°		
Efficiency	79 %		60 ⁵ 1600 60
Peak intensity	4.540 cd/lm		$ \times / / \setminus \times$
Required comp	oonents:		47 ⁴
A.A.G. STUC	CCHI: 8102/G2 + S-8000/12		320
			30° 4000 30° 30° 30°
	INUS		50° X
LED	CDM-14 (Dim-To-Warm)		75
FWHM	13.0°		
Efficiency	82 %		60 ¹ 3000 6
Peak intensity	8.500 cd/lm		
Required comp	oonents:		
C13868_LEN	NA-STD-BASE-VERO13-18		600
C11996_LEN	NA-LENS		
Bender Wirth	n: 491 Typ L2		34
			15° 0° 15°



C LUM	INUS		904 90
LED	CDM-18 (Dim-To-Warm)	and a second	75
FWHM	16.0°		1500
Efficiency	82 %		50° - 60
Peak intensity	5.600 cd/lm		
Required com	ponents:		e
C13868_LE	NA-STD-BASE-VERO13-18		
C11996_LE			4530
Bender Wirt	h: 491 Typ L2		30° 0° 12° 30
	INUS		90* 90
LED	CDM-9 (Dim-To-Warm)		75-
FWHM	10.0°		
Efficiency	81 %		60* 60
Peak intensity	13.400 cd/lm		
Required com	ponents:		
	NA-STD-BASE-VERO13-18		
C11996_LE			
Bender Wirt	h: 490 Typ L1		30° 15° 0° 35°
() LUM	INUS		90 ⁺
LED	CTM-14 (Tunable White)		75
FWHM	10.0°		
Efficiency	86 %		601 602
Peak intensity	14.900 cd/lm		
Required com			45° 9000
	NA-STD-BASE-VERO29		
Bender Wirt	h: 442 Typ L3		
			30° 30 35° 100ko 35°
ELUM	INUS		90* 90
LED	CTM-14 (Tunable White)		75
FWHM	13.0°		
Efficiency	81 %		60 ³⁻ 3000 60
Peak intensity			$ \times / / \times \times$
Required com			95°
	NA-STD-BASE-VERO29		
C12606_LE			
Bender Wirt	h: 442 Typ L3		30* 30



PHOTOMETRIC DATA (MEASURED):

60		
LED FWHM Efficiency Peak intensity Required comp C13867_LEN C11996_LEN Bender Wirth	CTM-22 (Tunable White) 20.0° 81 % 3.950 cd/lm onents: IA-STD-BASE-VERO29 IA-LENS	34 32 4 22 3 34 20 0 37 200 97 200 90 200
	NUS	<u>80</u> *
LED FWHM Efficiency Peak intensity Required comp C12691_LEN C11996_LEN	onents: IA-STD-BASE-CLL030	27
	NUS	
LED FWHM Efficiency Peak intensity Required comp C12692_LEN C11996_LEN	onents: IA-STD-BASE-CLL040	
ØNICHI		90°
LED FWHM Efficiency Peak intensity Required comp C13868_LEN C11996_LEN Bender Wirth	onents: IA-STD-BASE-VERO13-18 IA-LENS	27 47 50 50 50 50 50 50 50 50 50 50

Last update: 30/05/2018Subject to change without prior noticePublished: 30/05/2018LEDiL is a registered trademark of LEDiL Oy in the European Union, USA, and certain other countries.18/28



ØNICHI		90° 90°
LED	СОВ Ј-Туре	75"
FWHM	12.0°	
Efficiency	87 %	60°
Peak intensity		
Required comp		er er
	IA-STD-BASE-VERO13-18	659
Bender Wirth	: 463 Typ L2	
		39° 30° 30°
Ø NICHI∧	L. C.	90* 95*
LED	COB L-Type (LES 11)	25.
FWHM	11.0°	
Efficiency	82 %	60* COX
Peak intensity	9.400 cd/lm	
Required comp	onents:	55 (CLD)
	IA-STD-BASE-VERO13-18	
C11996_LEN		\times / \setminus \times
Bender Wirth	: 438 Typ L1	36 ⁶ 36 ⁶ 36 ⁶
Ø NICHI∧	ι.	90* 90*
LED	COB L-Type (LES 11)	75*
FWHM	9.0°	
Efficiency	87 %	6400 60°
Peak intensity	18.800 cd/lm	
Required comp		et. 1390
	IA-STD-BASE-VERO13-18	
Bender Wirth	: 438 Typ L1	
		30° 25° 0° 15°
Ж NICHIЛ	i.	30° 20° 20°
	COB L-Type (LES 9)	90 ⁴ 15 ⁴ 0 ⁴ 15 ⁴ 9 ⁴
*		
LED	COB L-Type (LES 9)	
LED FWHM	COB L-Type (LES 9) 9.0° 83 %	
LED FWHM Efficiency Peak intensity Required comp	COB L-Type (LES 9) 9.0° 83 % 11.900 cd/lm onents:	
LED FWHM Efficiency Peak intensity Required comp C13868_LEN	COB L-Type (LES 9) 9.0° 83 % 11.900 cd/lm onents: IA-STD-BASE-VERO13-18	
LED FWHM Efficiency Peak intensity Required comp C13868_LEN C11996_LEN	COB L-Type (LES 9) 9.0° 83 % 11.900 cd/lm onents: IA-STD-BASE-VERO13-18 IA-LENS	
LED FWHM Efficiency Peak intensity Required comp C13868_LEN	COB L-Type (LES 9) 9.0° 83 % 11.900 cd/lm onents: IA-STD-BASE-VERO13-18 IA-LENS	



ØNICHI/	N Contraction of the second seco	90* 90
LED	COB L-Type (LES 9)	73
FWHM	7.0°	
Efficiency	89 %	69 ⁴ 2000 60 ⁴
Peak intensity	30.700 cd/lm	
Required com	ponents:	er 15000 - C
C13868_LE	NA-STD-BASE-VERO13-18	
Bender Wirt	h: 438 Typ L1	\times $/$ $/$ \times
		30° 2000 30 15° 0° 15°
OSRAM Opto Semiconductors		80°
LED	Soleriq S13	
FWHM	12.0°	
Efficiency	80 %	ees
Peak intensity	8.000 cd/lm	
Required com	ponents:	er (000)
C13868_LE	NA-STD-BASE-VERO13-18	610
C11996_LE	NA-LENS	
Bender Wirt	h: 437 Typ L1	30° 0° 15° 0
OSRAM Opto Semiconductors		50° 50'
LED	Soleriq S19	75
FWHM	15.0°	1000
Efficiency	80 %	60 × ×
Peak intensity	6.100 cd/lm	329
Required com	ponents:	97 S
C13867_LE	NA-STD-BASE-VERO29	4550
Bender Wirt	h: 462 Typ L3	
		30° 6450 30
SAMS	UNG	90 ⁴ 90
LED	COB D Series LES 14.5 mm	73
FWHM	14.0°	
Efficiency	80 %	60 ⁻
Peak intensity	6.900 cd/lm	\times / $+$ \times
Required com	ponents:	9 ⁻
C12691_LE	NA-STD-BASE-CLL030	
C11996_LE	NA-LENS	
		30 × ×
1		15° 0° 15°



	ING	90*
LED	COB D Series LES 14.5 mm	75
FWHM	12.0°	
Efficiency	85 %	
Peak intensity	11.000 cd/lm	
Required comp	onents:	
C12691_LEN	A-STD-BASE-CLL030	
		800
		36° 135° 0° 135'
SAMSU	ING	90*
LED	COB D Series LES 22 mm	75
FWHM	22.0°	
Efficiency	80 %	
Peak intensity	3.300 cd/lm	1520
Required comp	onents:	er i i i i i i i i i i i i i i i i i i i
C12692_LEN	A-STD-BASE-CLL040	3420
C11996_LEN	A-LENS	
		30° 15° 0° 15°
SECUL) SECUL SEMICONDUCTOR		50*
LED	ZC12/18	75-
FWHM	12.0°	
Efficiency	80 %	 501
Efficiency		
Peak intensity	8.000 cd/lm	
Peak intensity Required comp	onents:	
Peak intensity Required comp		er
Peak intensity Required comp	onents: IA-STD-BASE-CLL030	gr 600
Peak intensity Required comp C12691_LEN	onents: IA-STD-BASE-CLL030	500 er 100
Peak intensity Required comp C12691_LEN	onents: IA-STD-BASE-CLL030 IA-LENS	30° 0° 13°
Peak intensity Required comp C12691_LEN C11996_LEN	onents: IA-STD-BASE-CLL030 IA-LENS	30- 30- 603
Peak intensity Required comp C12691_LEN C11996_LEN	onents: IA-STD-BASE-CLL030 IA-LENS	20° 0° 12°
Peak intensity Required comp C12691_LEN C11996_LEN	onents: IA-STD-BASE-CLL030 IA-LENS RPP Mega Zenigata (GW5DGC)	30- 30- 603
Peak intensity Required comp C12691_LEN C11996_LEN SHA LED FWHM Efficiency Peak intensity	onents: IA-STD-BASE-CLL030 IA-LENS Mega Zenigata (GW5DGC) 14.0° 80 % cd/lm	20 ¹ 0 ² 10 ²
Peak intensity Required comp C12691_LEN C11996_LEN SHA LED FWHM Efficiency	onents: IA-STD-BASE-CLL030 IA-LENS Mega Zenigata (GW5DGC) 14.0° 80 % cd/lm	24- 25 ⁻ 0 ⁻ 15 ⁻
Peak intensity Required comp C12691_LEN C11996_LEN SHA LED FWHM Efficiency Peak intensity Required comp C12292_LEN	onents: IA-STD-BASE-CLL030 IA-LENS Mega Zenigata (GW5DGC) 14.0° 80 % cd/lm onents: IA-STD-BASE-MEZ	200 200 200 200 200 200 200 200 200 200
Peak intensity Required comp C12691_LEN C11996_LEN SHA LED FWHM Efficiency Peak intensity Required comp	onents: IA-STD-BASE-CLL030 IA-LENS Mega Zenigata (GW5DGC) 14.0° 80 % cd/lm onents: IA-STD-BASE-MEZ	20 ⁴



SHA	IRP	
LED	Mega Zenigata (GW5DGC)	
FWHM	13.5°	
Efficiency	85 %	
Peak intensity	v cd/lm	
Required com	ponents:	
C12292_LE	NA-STD-BASE-MEZ	
SHA	RP	50°
LED	Mega Zenigata (GW6DME)	
FWHM		75'
Efficiency	77 %	69. 60.
-	6.150 cd/lm	
Required com		er / / / er
-	NA-STD-BASE-MEZ	
 C11996_LE		
		30% 6630 30
SHA	RP	99 ⁴ 99 ⁴
LED	Mega Zenigata (GW6DME)	
FWHM	12.0°	75
Efficiency	83 %	egt 2000 60
-	/ 10.230 cd/lm	
Required com		ga 6400
	NA-STD-BASE-MEZ	
_		
		30 ⁴
		/ 12° 0° 12°



PHOTOMETRIC DATA (SIMULATED):

bridgelux.		50* 50*
LED	V10 Gen7	73'
FWHM	11.0°	2300
Efficiency	79 %	
Peak intensity	12.280 cd/lm	630
Required compon	ents:	
C13868_LENA-	STD-BASE-VERO13-18	3077
C11996_LENA-	LENS	\times / \setminus \times
Bender Wirth: 4	34 Typ L1	36° 12000 30° 30° 30°
bridgelux.		90 ⁴ 90 ⁴
LED	V10 Gen7	70-
FWHM	9.0°	
Efficiency	90 %	60°
Peak intensity	22.340 cd/lm	
Required compon	ents:	43-
C13868_LENA-STD-BASE-VERO13-18		
Bender Wirth: 4	34 Typ L1	koos
		30* 32*
bridgelux.		90 ⁴ 90 ²
bridgelux. LED	V13 Gen7	25° 26° 25°
	V13 Gen7 10.0°	25° 25° 25°
LED		64 64 50 50 50 50 50 50 50 50 50 50
LED FWHM	10.0°	27 27 29 29 29 29 29 29 29 29 29 29 29 29 29
LED FWHM Efficiency	10.0° 88 % 12.900 cd/lm	24. 915. 25. 926. 35. 326. 36. 35. 36. 35.
LED FWHM Efficiency Peak intensity Required compon	10.0° 88 % 12.900 cd/lm	5° 500 50° 50° 50° 50° 50° 50° 50° 50° 5
LED FWHM Efficiency Peak intensity Required compon	10.0° 88 % 12.900 cd/lm ents:	50° 50° 50° 50° 50° 50° 50° 50° 50° 50°
LED FWHM Efficiency Peak intensity Required compon	10.0° 88 % 12.900 cd/lm ents:	20- 20- 20- 20- 20- 20- 20- 20-
LED FWHM Efficiency Peak intensity Required compon	10.0° 88 % 12.900 cd/lm ents:	Byt Dial 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 13, 12, 14, 12, 15,
LED FWHM Efficiency Peak intensity Required compon IDEAL: 50-2103	10.0° 88 % 12.900 cd/lm ents:	32. 32. 33. 120. 33. 120. 33. 120. 33. 120. 33. 120. 33. 120. 33. 120. 120. 12. 120. 12. 120. 12. 121. 12. 122. 12.
LED FWHM Efficiency Peak intensity Required compon IDEAL: 50-2103	10.0° 88 % 12.900 cd/lm ents: 9CT + 50-2100LN	
LED FWHM Efficiency Peak intensity Required compon IDEAL: 50-2103	10.0° 88 % 12.900 cd/lm ents: 3CT + 50-2100LN V13 Gen7	
LED FWHM Efficiency Peak intensity Required compon IDEAL: 50-2103 bridgetux. LED FWHM Efficiency	10.0° 88 % 12.900 cd/lm ents: 3CT + 50-2100LN V13 Gen7 11.0° 85 %	
LED FWHM Efficiency Peak intensity Required compon IDEAL: 50-2103	10.0° 88 % 12.900 cd/lm ents: 9CT + 50-2100LN V13 Gen7 11.0° 85 % 9.900 cd/lm	
LED FWHM Efficiency Peak intensity Required compon IDEAL: 50-2103 bridgetux. LED FWHM Efficiency Peak intensity Required compon	10.0° 88 % 12.900 cd/lm ents: 9CT + 50-2100LN V13 Gen7 11.0° 85 % 9.900 cd/lm ents:	
LED FWHM Efficiency Peak intensity Required compon IDEAL: 50-2103 bridgetux. LED FWHM Efficiency Peak intensity Required compon	10.0° 88 % 12.900 cd/lm ents: 9CT + 50-2100LN V13 Gen7 11.0° 85 % 9.900 cd/lm	
LED FWHM Efficiency Peak intensity Required compon IDEAL: 50-2103 bridgetux. LED FWHM Efficiency Peak intensity Required compon	10.0° 88 % 12.900 cd/lm ents: 9CT + 50-2100LN V13 Gen7 11.0° 85 % 9.900 cd/lm ents:	



PHOTOMETRIC DATA (SIMULATED):

bridgelux.		90 ⁺
LED	V13 Gen7	75* 75*
FWHM	13.0°	
Efficiency	81 %	60*
Peak intensity	9.000 cd/lm	
Required compor	nents:	97
C13868_LENA	-STD-BASE-VERO13-18	600
C11996_LENA	-LENS	
Bender Wirth: 4	477 Typ L1	30 ⁶ 900 30 ⁶
bridgelux.		90° 90°
LED	V13 Gen7	75
FWHM	12.0°	
Efficiency	89 %	63* · · · · · · · · · · · · · · · · · · ·
Peak intensity	12.270 cd/lm	610
Required compor	nents:	9° (1
C13868_LENA	-STD-BASE-VERO13-18	800
Bender Wirth: 4	477 Typ L1	
		30° 12000 30°
bridgelux.		50 ⁴
LED	V22 Gen7	73
FWHM	18.0°	
Efficiency	90 %	69 ¹ 60 ²
Peak intensity	5.583 cd/lm	
Required compor	nents:	er
C13867_LENA-STD-BASE-VERO29		
Bender Wirth: 4	431 Typ L3	430
		30" 57 67 53" 36"
CREE ≑		90 ⁴
LED	CXA/B 30xx	70
FWHM	16.0°	
Efficiency	80 %	60° 60°
Peak intensity	5.700 cd/lm	
Required compor	nents:	
	4C + 50-2100LN	$\times/$
		400
		30*
		150 00 150



PHOTOMETRIC DATA (SIMULATED):

CREE ≑

 LED
 CXA/B 30xx

 FWHM
 14.0°

 Efficiency
 87 %

 Peak intensity
 7.500 cd/lm

 Required components:
 IDEAL: 50-2234C + 50-2100LN

 LED
 CXM-14

 FWHM
 14.0°

 Efficiency
 80 %

 Peak intensity
 6.700 cd/lm

 Required components:
 C13868_LENA-STD-BASE-VERO13-18

 C11996_LENA-LENS
 Bender Wirth: 433 Typ L1

LED CXM-14 FWHM 12.0° Efficiency 85 % Peak intensity 11.200 cd/lm Required components: C13868_LENA-STD-BASE-VERO13-18 Bender Wirth: 433 Typ L1

 LED
 CXM-9

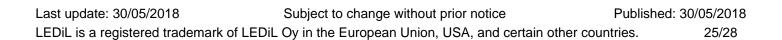
 FWHM
 10.0°

 Efficiency
 80 %

 Peak intensity
 11.500 cd/lm

 Required components:
 C13868_LENA-STD-BASE-VERO13-18

 C11996_LENA-LENS
 Bender Wirth: 434 Typ L1





PHOTOMETRIC DATA (SIMULATED):

	NUS	
LED	CXM-9	
FWHM	8.0°	
Efficiency	85 %	
Peak intensity	26.500 cd/lm	
Required compo		
	-STD-BASE-VERO13-18	
Bender Wirth:	434 Typ L1	
OSRAM Opto Semiconductors		50°
LED	Soleriq S15	32
FWHM	13.0°	
Efficiency	88 %	90°
Peak intensity	10.180 cd/lm	
Required compo	nents:	ar 600 at
C12691_LENA	-STD-BASE-CLL030	
		30° 30°
SEOUL SEMICONDUCTOR		
LED	ZC12/18	
FWHM	12.0°	
Efficiency	85 %	
Peak intensity	11.200 cd/lm	
Required compo	nents:	
C13868_LENA	-STD-BASE-VERO13-18	
Bender Wirth:	433 Typ L1	
SEOUL SEMICONDUCTOR		
LED	ZC12/18	
FWHM	14.0°	
Efficiency	80 %	
Peak intensity	6.700 cd/lm	
Required compo	nents:	
C13868_LENA	-STD-BASE-VERO13-18	
C11996_LENA	-LENS	
Bender Wirth:	433 Typ L1	



PHOTOMETRIC DATA (SIMULATED):

SEOUL SEMICONDUCTOR				
LED	ZC4/6			
FWHM	10.0°			
Efficiency	80 %			
Peak intensity	11.500 cd/lm			
Required compo	nents:			
C13868_LENA-STD-BASE-VERO13-18				
C11996_LENA	C11996_LENA-LENS			
Bender Wirth:	434 Typ L1			
SEOUL SEMICONDUCTOR				
LED	ZC4/6			
FWHM	8.0°			
Efficiency	85 %			
Peak intensity	26.500 cd/lm			
Required compo	Required components:			
C13868_LENA	C13868_LENA-STD-BASE-VERO13-18			
Bender Wirth: 434 Typ L1				



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.

Due to use of high power COB's with this product, special attention to proper thermal design is highly recommended. LEDiL has no liability for direct, indirect or consecutive damages arising from the LEDiL products being used outside of the recommended temperature range.

MATERIALS:

As part of our continuous research and improvement processes, and to ensure the best possible quality and availability of our products, LEDiL reserves the right to change material grades without notice.

PRODUCT DATA USER AGREEMENT AND DISCLAIMER:

The measured data in the provided downloadable LEDiL Product Datasheets and Mechanical 2D-Drawings is rounded and provided as reference for planning. LEDiL Oy's optical specifications have been verified by conducting performance testing of the products in accordance with the company's quality system. The reported data are averaged results of multiple measurements with typical variation. LEDiL Oy reserves the right to without prior notification make changes and improvements to its products.

LEDiL Oy assumes neither warranty, nor guarantee nor any other liability of any kind for the contents and correctness of the provided data. The provided data has been generated with highest diligence but the provided data may in reality not represent the complete possible variation range of all intrinsic parameters. Therefore, in certain cases a deviation from the provided data could occur.

LEDiL Oy reserves the right to undertake technical changes of its products without further notification which could lead to changes in the provided data. LEDiL Oy assumes no liability of any kind for the possible deviation from any provided data or any other damage resulting from the usage of the provided data.

The user agrees to this disclaimer and user agreement with the download or usage of the provided files.

LEDiL Oy

Joensuunkatu 13 FI-24240 SALO Finland

LEDiL Inc.

228 West Page Street Suite D Sycamore IL 60178 USA

Local sales and technical support www.ledil.com/ where_to_buy

Shipping locations Salo, Finland Hong Kong, China

Distribution Partners www.ledil.com/

where_to_buy