

**Ordering number C13236_SANDRA-12-S**

Family	Sandra	FWHM	(simulated) 16
Type	Lens array	Efficiency	(simulated) 90 %
LED	LUXEON Rebel ES	cd/lm	-
Color	Clear	Gerber File	Available
Diameter	67 mm		
Height	11.1 mm		
Style	Round		
Optic Material	PMMA		
Holder Material	-		
Fastening	Pin, glue		
Status	Ready		

Ordering number C11814_SANDRA-12-M

Family	Sandra	FWHM	26 degrees
Type	Lens array	Efficiency	(simulated) 0 %
LED	LUXEON Rebel ES	cd/lm	2.100
Color	Clear	Gerber File	Available
Diameter	67 mm		
Height	11.1 mm		
Style	Round		
Optic Material	PMMA		
Holder Material	-		
Fastening	Pin, glue		
Status	Ready		

Ordering number C11700_SANDRA-12-W

Family	Sandra	FWHM	30 degrees
Type	Lens array	Efficiency	90 %
LED	LUXEON Rebel ES	cd/lm	2.000
Color	Clear	Gerber File	Available
Diameter	67 mm		
Height	11.1 mm		
Style	Round		
Optic Material	PMMA		
Holder Material	-		
Fastening	Pin, glue		
Status	Ready		

NOTE: The typical divergence will be changed by different color, chip size and chip position tolerance. The typical total divergence is the full angle measured where the luminous intensity is half of the peak value.



PRODUCT DATASHEET

Sandra series

last update 28/3/2013

PHILIPS
LUMILEDS

GENERAL INFORMATION

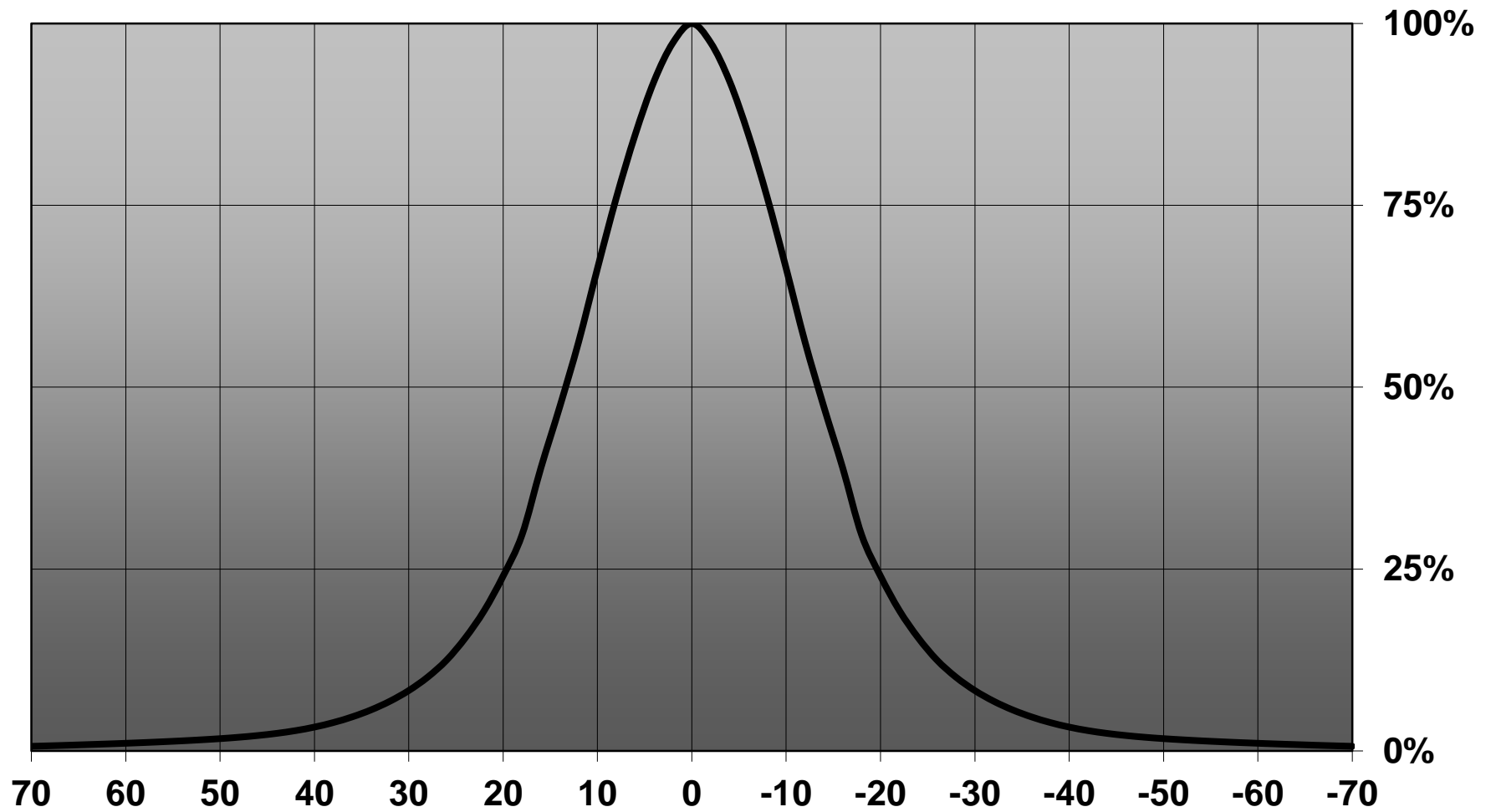
- Product series especially designed & optimized for LUXEON Rebel ES series of LEDs.
- Special care taken to make light distribution as uniform as possible.
- Lens material optical grade PMMA with high UV and temperature resistance. Allows use of high current and temperature conditions.

Please find more information about used material from below:

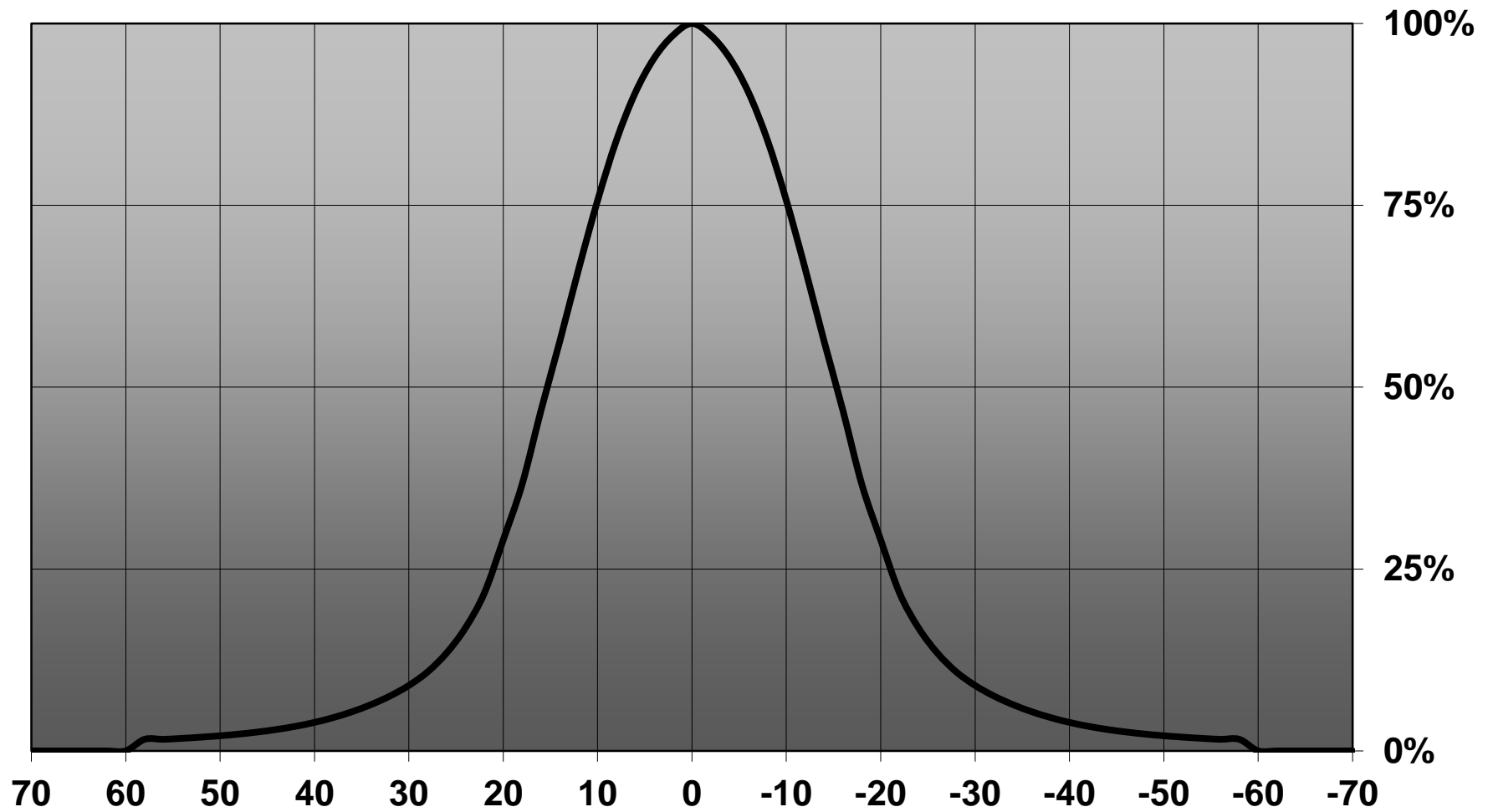
http://ledil.fi/sites/default/files/Documents/Technical/Material/PMMA%20N%20UL94_Yellow%20Card.pdf

<http://ledil.fi/sites/default/files/Documents/Technical/Material/PMMA%20N%20PLEXIGLAS-Datasheet.pdf>

Relative intensity of C11814_SANDRA-12-M-RE-ES



Relative intensity of C11700_SANDRA-12-W-RE-ES

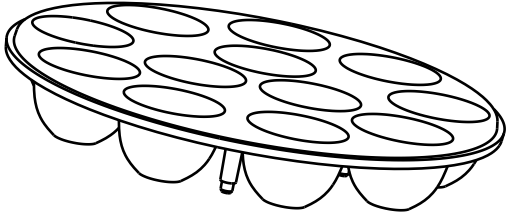


D

C

B

A



Isometric view
Scale: 1:1

4

4

3

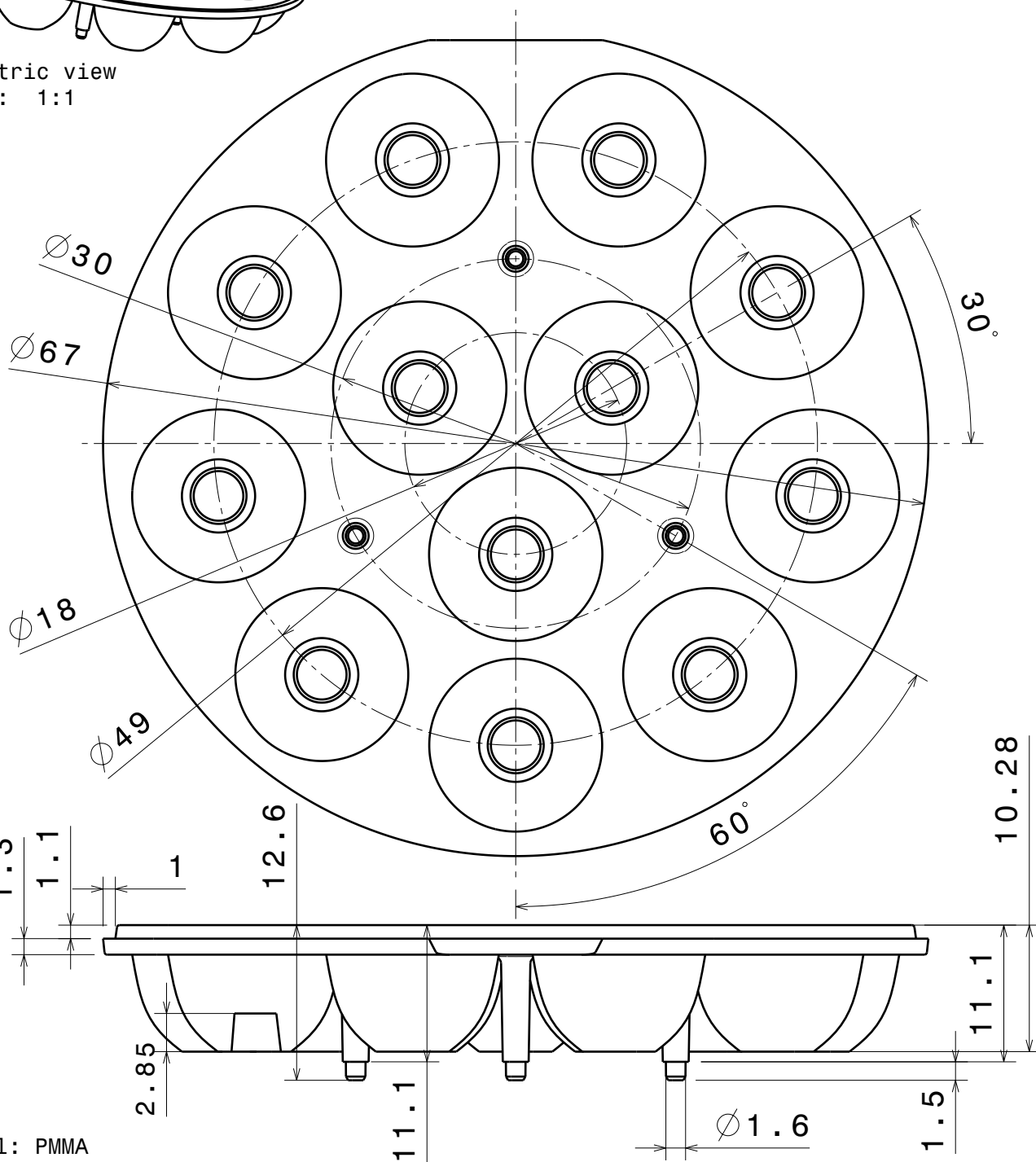
3

2

2

1

1



Material: PMMA

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Ledil Oy
Salorankatu 10
FIN-24100 SALO
Finland

DRAWING TITLE
Datasheet Sandra-12 series lens

DRAWN BY
ah
DATE
31.12.2012

CHECKED BY
DATE
SIZE
A4

DRAWING NUMBER
-
REV
1

DESIGNED BY
hh
DATE
27.08.2010

SCALE
2:1
WEIGHT (g)
SHEET
1/1

D

A