



<b>Ordering number</b>	<b>CA11357</b>		
<b>Description</b>	<b>CA11357-Laura-M-NVS19-tape</b>		
Family	Laura	FWHM	0 degrees
Type	Lens	Efficiency	-
LED	NVS19	cd/lm	-
Color	White	Gerber File	Available
Diameter	21.6 mm		
Height	13.1 mm		
Style	Square		
Optic Material	PMMA		
Holder Material	PC		
Fastening	Tape		
Status	Ready		



<b>Ordering number</b>	<b>CA11427</b>		
<b>Description</b>	<b>CA11427_Laura-Refl-W-NVS19-tape</b>		
Family	Laura	FWHM	0 degrees
Type	Reflector	Efficiency	-
LED	NVS19	cd/lm	-
Color	Black	Gerber File	Available
Diameter	21.6 mm		
Height	13.1 mm		
Style	Square		
Optic Material	PC		
Holder Material	PC		
Fastening	Tape		
Status	Ready		



<b>Ordering number</b>	<b>CA11756</b>		
<b>Description</b>	<b>CA11756-Laura-D-NVS19-tape</b>		
Family	Laura	FWHM	degrees
Type	Lens	Efficiency	-
LED	NVS19	cd/lm	-
Color	White	Gerber File	Available
Diameter	21.6 mm		
Height	13.1 mm		
Style	Square		
Optic Material	PMMA		
Holder Material	PC		
Fastening	Tape		
Status	Ready		



<b>Ordering number</b>	<b>CA11697</b>		
<b>Description</b>	<b>CA11697-Laura-RS-NVS19-tape</b>		
Family	Laura	FWHM	8 degrees
Type	Lens	Efficiency	-
LED	NVS19	cd/lm	-
Color	White	Gerber File	Available
Diameter	21.6 mm		
Height	13.1 mm		
Style	Square		
Optic Material	PMMA		
Holder Material	PC		
Fastening	-		
Status	Ready		



<b>Ordering number</b>	<b>CA11646</b>		
<b>Description</b>	<b>CA11646_Laura-SS-NVS19-tape</b>		
Family	Laura	FWHM	12 degrees
Type	Lens	Efficiency	-
LED	NVS19	cd/lm	-
Color	White	Gerber File	Available
Diameter	21.6 mm		
Height	13.1 mm		
Style	Square		
Optic Material	PMMA		
Holder Material	PC		
Fastening	-		
Status	Ready		



<b>Ordering number</b>	<b>CA11367</b>		
<b>Description</b>	<b>CA11367-Laura-O-NVS19-tape</b>		
Family	Laura	FWHM	42+14 degrees
Type	Lens	Efficiency	-
LED	NVS19	cd/lm	-
Color	White	Gerber File	Available
Diameter	21.6 mm		
Height	13.1 mm		
Style	Square		
Optic Material	PMMA		
Holder Material	PC		
Fastening	Tape		
Status	Ready		

<b>Ordering number</b>	<b>CA11769</b>		
<b>Description</b>	<b>CA11769_Laura-WW-NVS19-tape</b>		
Family	Laura	FWHM	0 degrees
Type	Lens	Efficiency	-
LED	NVS19	cd/lm	-
Color	White	Gerber File	Available
Diameter	21.6 mm		
Height	13.1 mm		
Style	Square		
Optic Material	PMMA		
Holder Material	PC		
Fastening	Tape		
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 Laura-N19 series



### GENERAL INFORMATION

- Product series especially designed & optimized for NVS19 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 (105 degrees of Celcius / 220 degrees of Fahrenheit). 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%20UL94_Yellow%20Card.pdf)

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

- Lens material optical grade PC with high UV and temperature resistance (120 degrees of Celcius / 248 degrees of Fahrenheit). Allows use of high current and temperature conditions.

Please find more information about used materials from below:

[http://ledil.fi/sites/default/files/Documents/Technical/Material/PC%20Makrolon%202400\\_2407\\_2456\\_2458-UL.pdf](http://ledil.fi/sites/default/files/Documents/Technical/Material/PC%20Makrolon%202400_2407_2456_2458-UL.pdf)

- Reflector is made of aluminium coated PC (120 degrees of Celcius / 248 degrees of Fahrenheit) with protective lacquer (110 degrees of Celcius / 230 degrees of Fahrenheit).

- Optic holder molded by high quality PC material (120 degees of Celcius / 248 degrees of Fahrenheit).

- Fastening to heat sink with a PU foam adhesive tape of automotive grade. Please find fastening details by clicking link: [http://www.ledil.com/datasheets/DataSheet\\_TAPE.pdf](http://www.ledil.com/datasheets/DataSheet_TAPE.pdf)

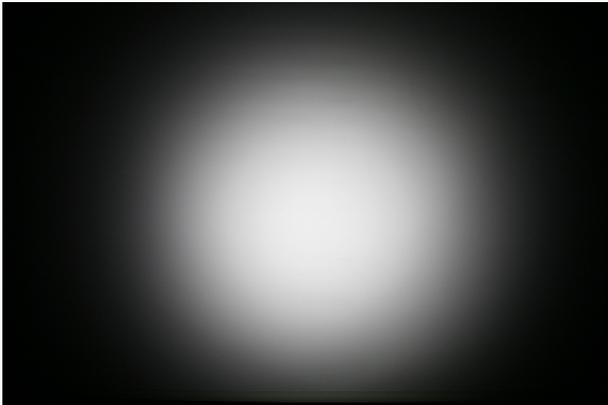
**NOTE 1: We advise customer to ensure the suitability and sufficiency of the bond in the end product. For example, mechanical stress, vibration and holes on the surface of the circuit board weaken the strength of the tape.**

**NOTE 2: Assembly to the surface must be made straight, so the tape bonds constant and balanced with fastening surface. Slanted assembly might cause unbalanced bond to the surface. All surfaces where tape is applied must be clean, dry and free from grease and dirt.**

**If cleaning of PCB surfaces is needed, please follow strictly the cleaning instructions of your LED manufacturer - this is important as cleaning shall under no circumstances damage LEDs or other electronics components on the PCB.**

**Further note that optical components shall not be cleaned with any chemicals - only micro fiber cloth may be used to remove fingerprints or other traces from handling.**

**CA11357**



**CA11367**



**CA11427**



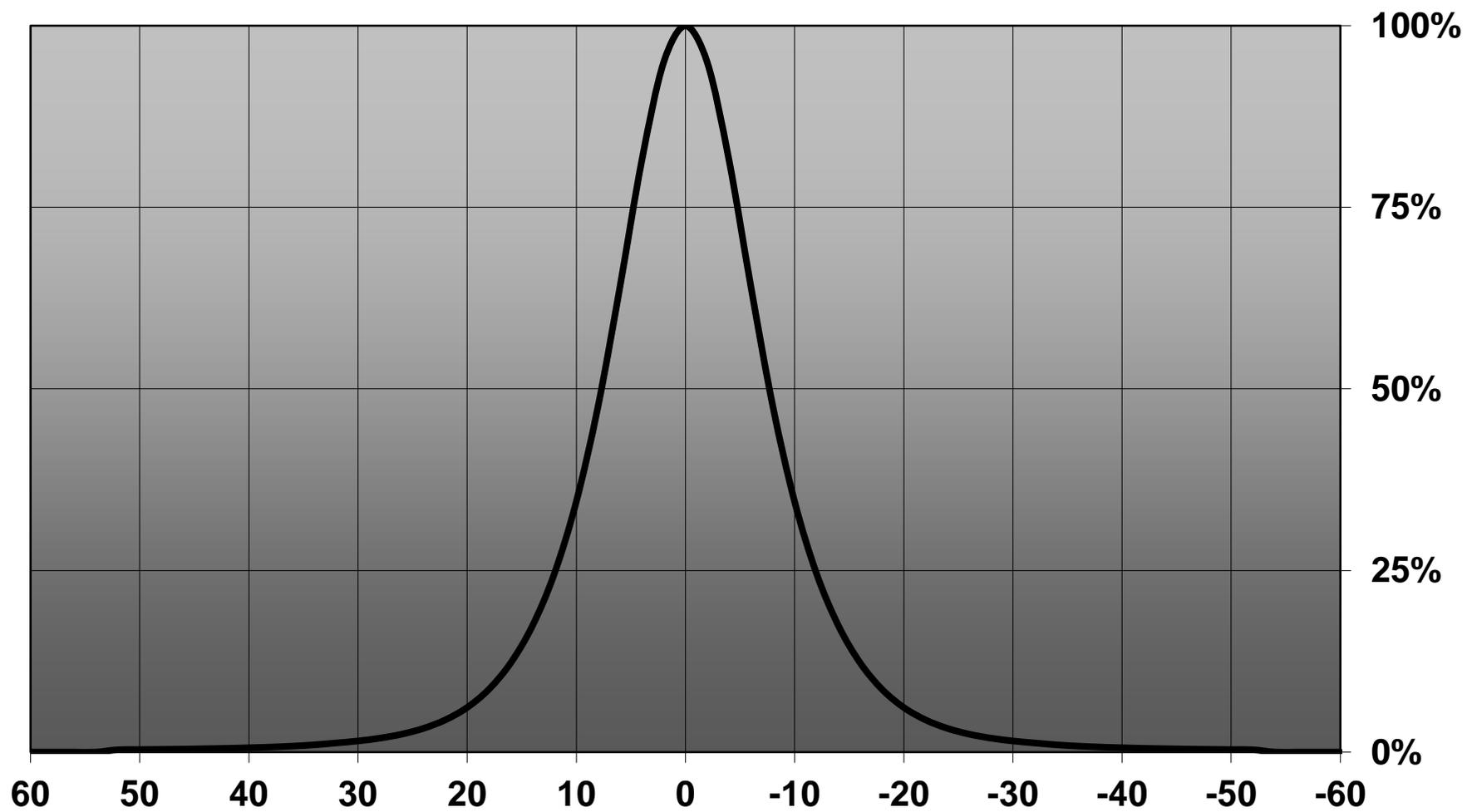
**CA11646**



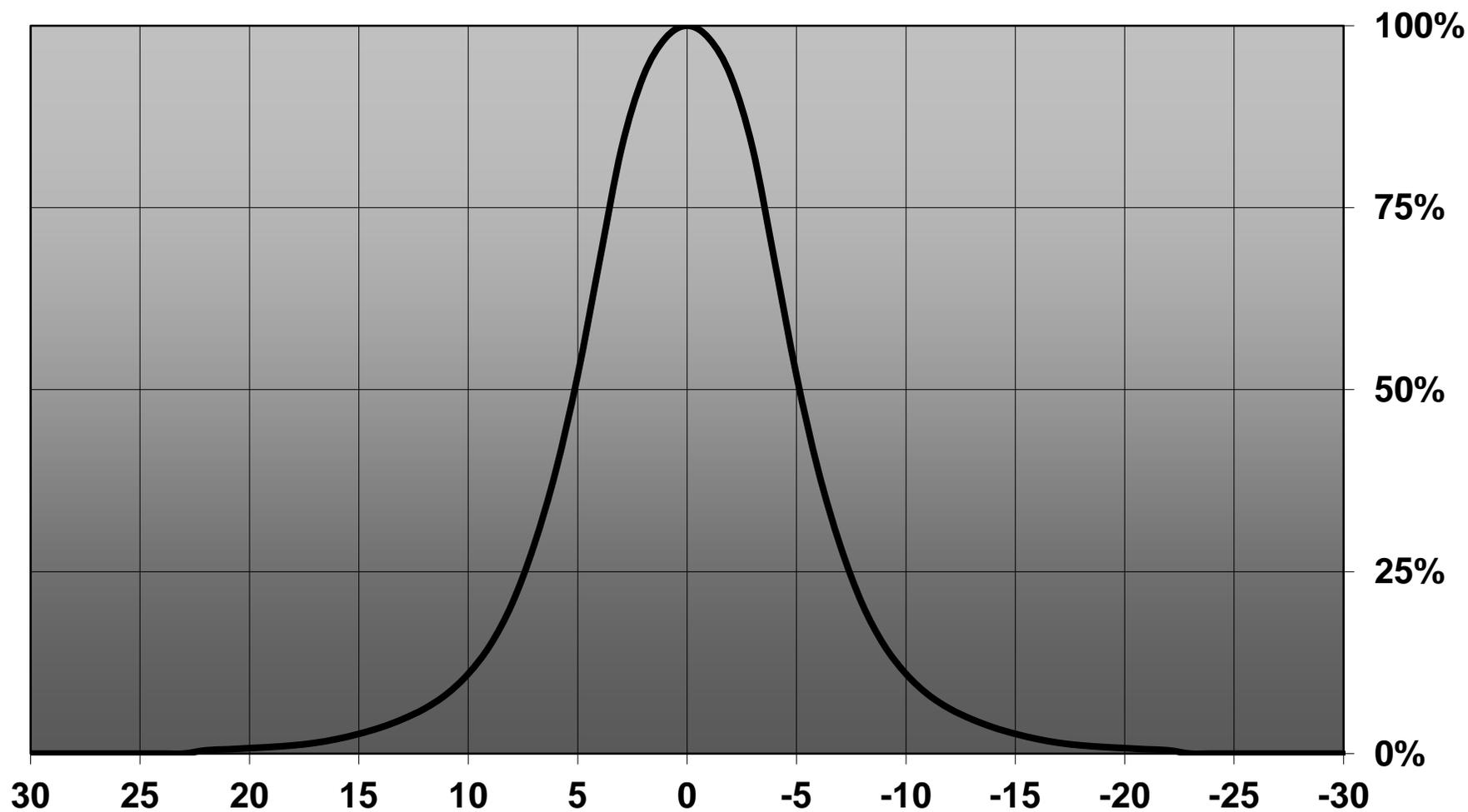
**CA11697**



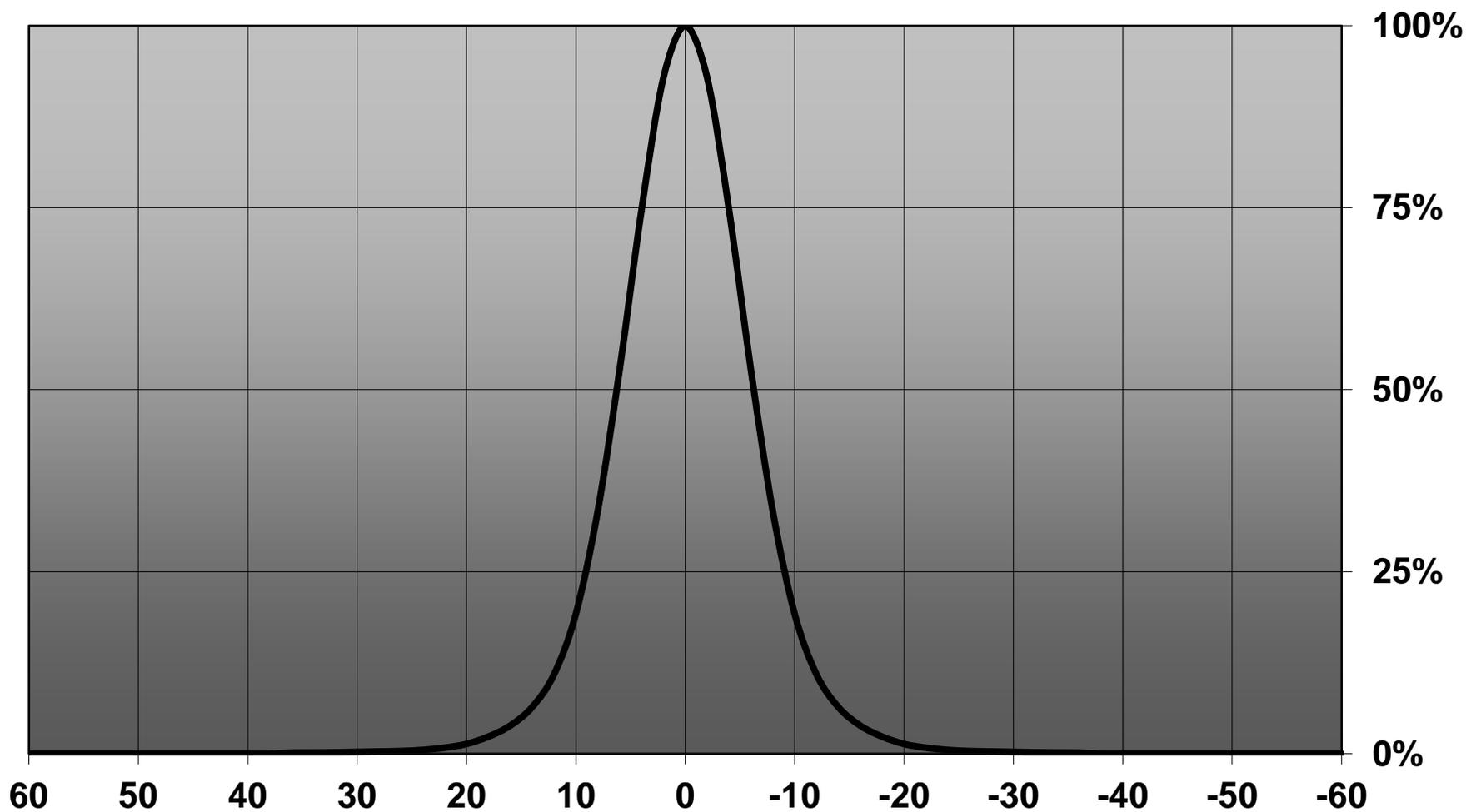
Relative intensity of CA11756\_Laura-D-NVS19-tape



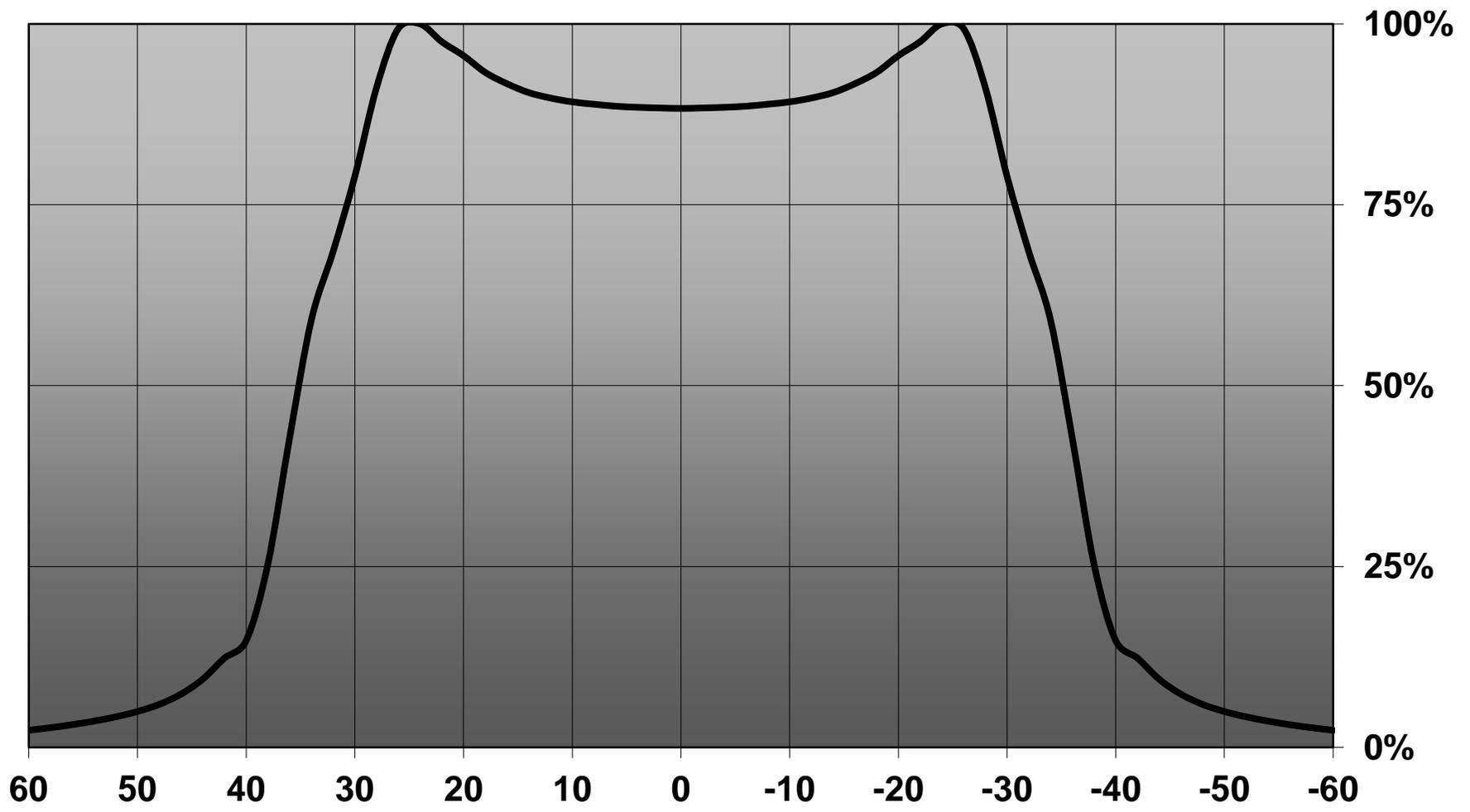
**Relative intensity of CA11697\_Laura-RS-NVS19-tape**



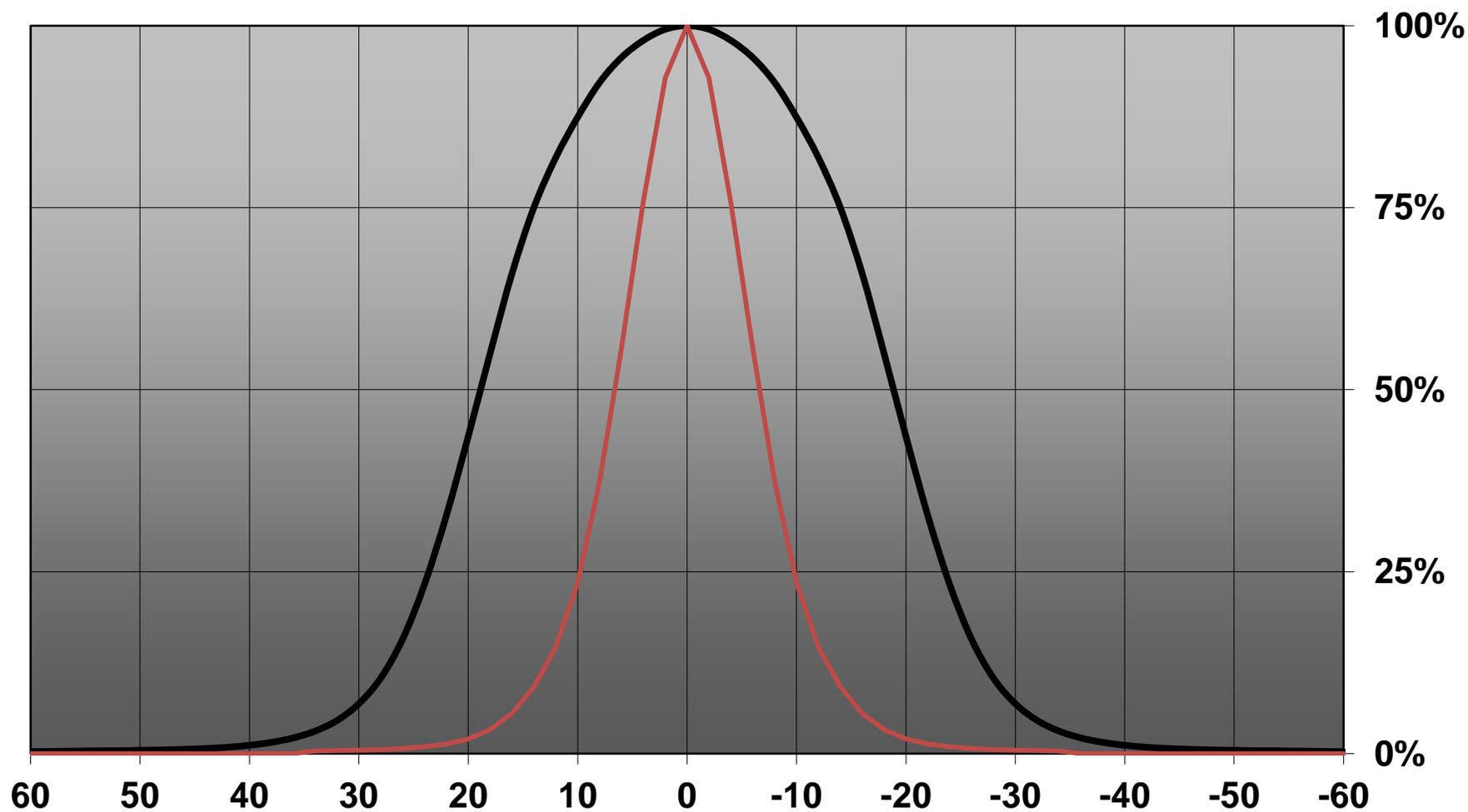
**Relative intensity of CA11646\_Laura-SS-NVS19**



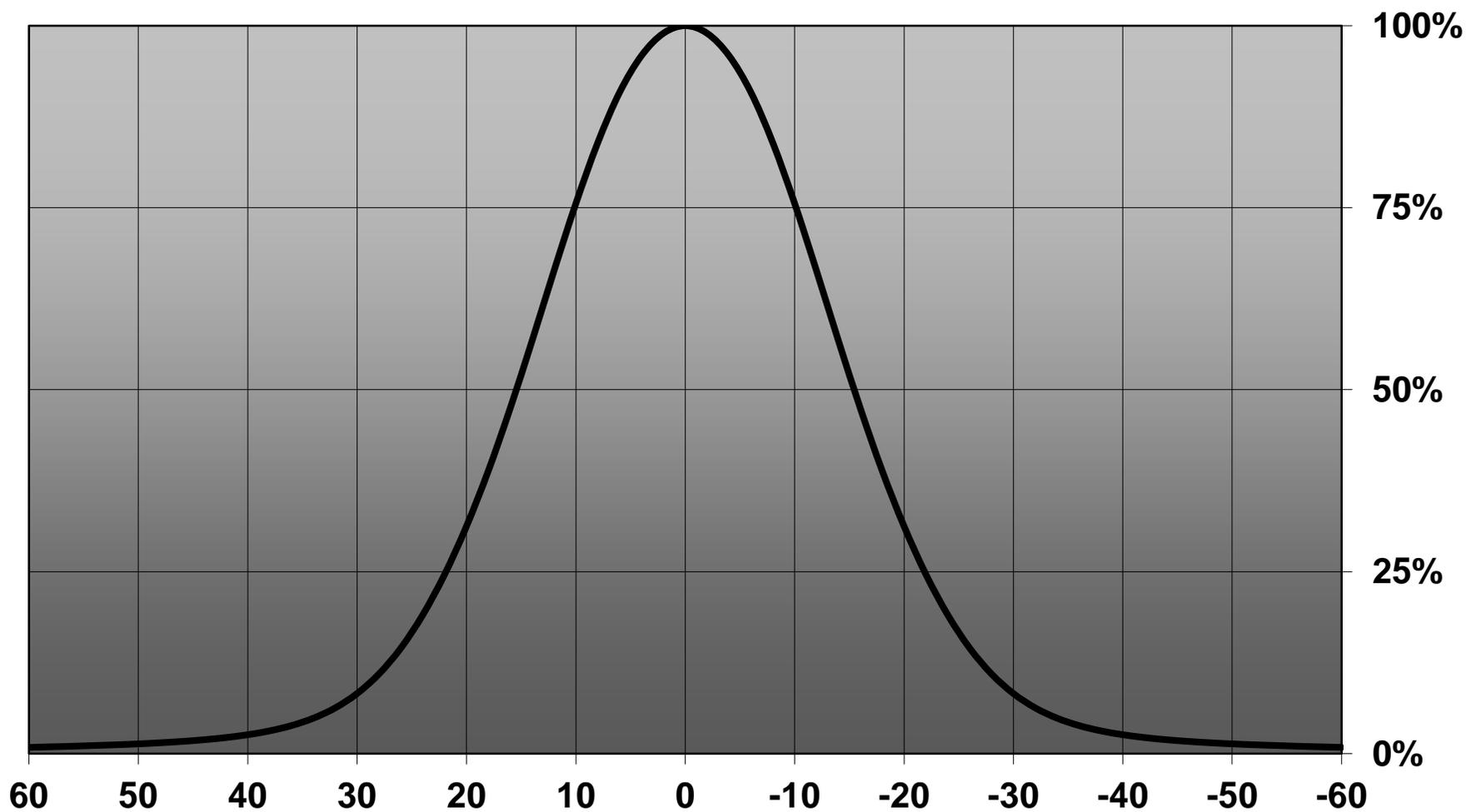
Relative intensity of CA11427\_Laura-Refl-W-NVS19-tape



Relative intensity of CA11367\_Laura-O-NVS19-tape



Relative intensity of CA11357\_Laura-M-NVS19-tape



D

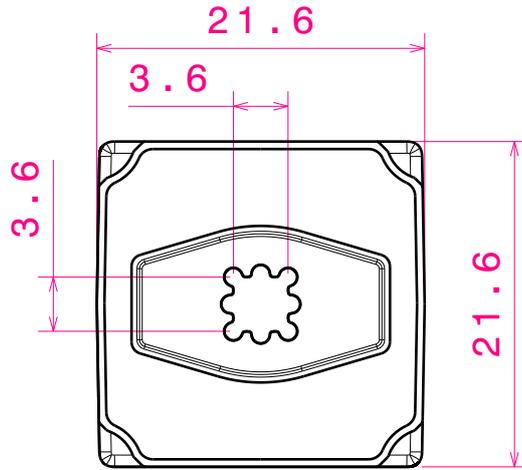
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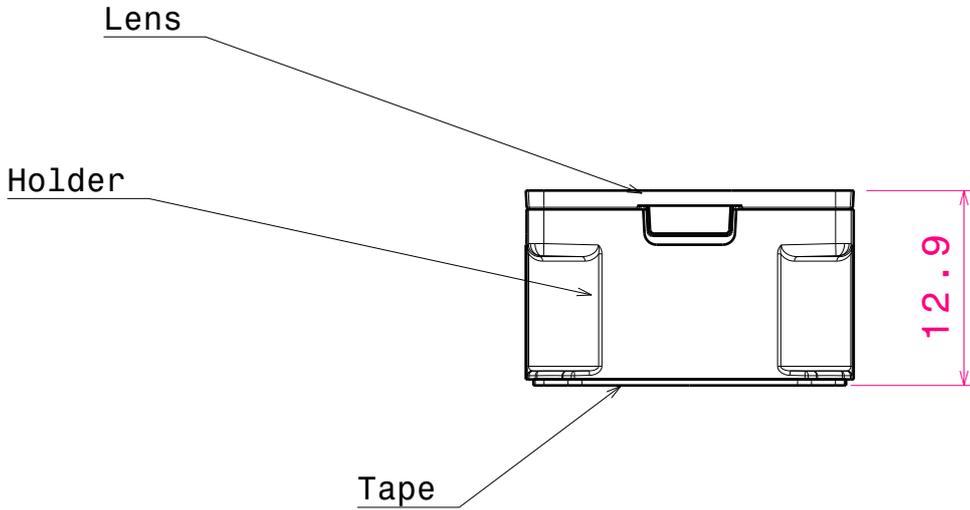
4



Bottom view

3

3



Front view

2

2

Materials  
 lens: PMMA  
 holder: PC, black  
 Tape: PU Foam

1

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 or communicated without  
 our written agreement.



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DRAWING TITLE

Datasheet Assy Laura-N19-tape

DRAWN BY

DATE

p

12.08.2010

CHECKED BY

DATE

t

k

04.06.2010

DESIGNED BY

DATE

hh

15.04.2010

SIZE

A4

DRAWING NUMBER

-

REV

1

SCALE

2:1

WEIGHT (g)

SHEET

1/1

D

A