

HB-2X2-WW

~65° wide beam

SPECIFICATION:

Dimensions	50.0 x 50.0 mm
Height	8.5 mm
Fastening	glue, pin, screw
ROHS compliant	yes 🛈



MATERIALS:

Component HB-2X2-WW **Type** Multi-lens

Material	Colour	Finish
PMMA	clear	

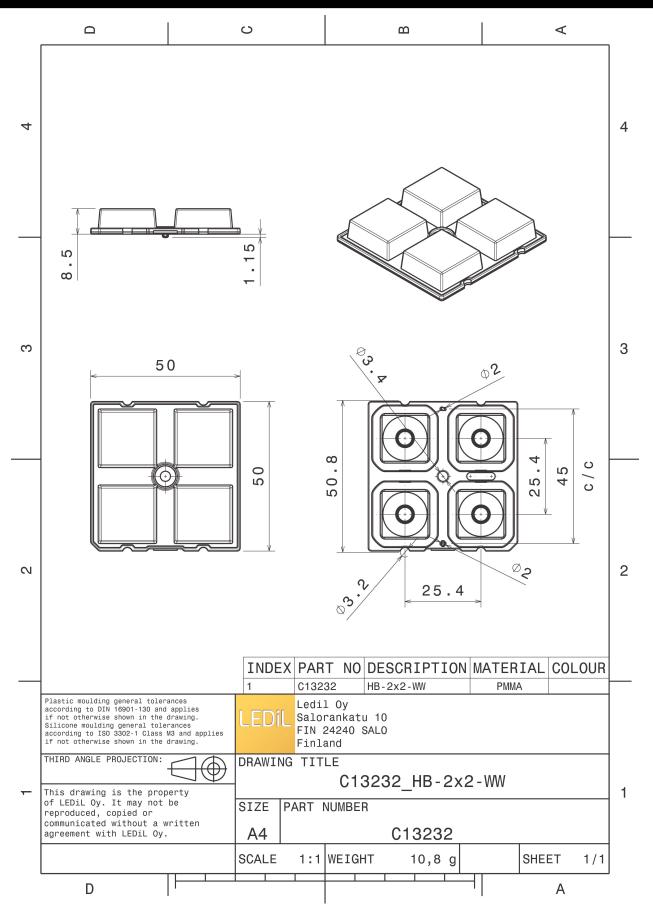
ORDERING INFORMATION:

Component C13232_HB-2X2-WW » Box size: 480 x 280 x 300 mm

Qty in box	MOQ	MPQ	Box weight (kg)
800	160	160	9.5



PRODUCT DATASHEET C13232_HB-2X2-WW



See also our general installation guide: www.ledil.com/installation_guide



		90°	90*
LED FWHM / FWTM Efficiency	XP-G 69.0° / 92.0° 91 %	32	300
Peak intensity	0.8 cd/lm	· · · · · · · · · · · · · · · · · · ·	
LEDs/each optic	1		400
Light colour Required component	White	5°*	
	ιις.	240	500 - 500 - 500
		90	90*
LED	XP-G2	70	
FWHM / FWTM	69.0° / 92.0°		
Efficiency	91 %	50*	200
Peak intensity	0.7 cd/lm		
LEDs/each optic	1		400
Light colour	White		
Required compone	ns.		JAK
			600
		ar and a second s	3.
			90*
LED	XT-E		
FWHM / FWTM	65.0° / 89.0°	23-	200
Efficiency	91 %	60.5	60°
Peak intensity	0.9 cd/lm		
LEDs/each optic	1		
Light colour	White	45°	e.
Required component	115:		00 00
	EDS	954	5') 00' 135'
LED		30°	
LED FWHM / FWTM	LUXEON Q 67.0° / 92.0°	78	
Efficiency	91 %		
Peak intensity	0.8 cd/lm	60e-	
LEDs/each optic	1		400
Light colour	White	e.	45
Required component	nts:		



		HEADER HEADER (Lowers 2 DS)
🤭 LUMIL	.EDS	90* 90*
LED	LUXEON Z ES	
FWHM / FWTM	59.0° / 87.0°	
Efficiency	90 %	
Peak intensity	1 cd/lm	
LEDs/each optic	1	
Light colour	White	er de la companya de
Required compone	ints:	
		840
		34
		257 of 157
Ø NICHI∕		90 [*]
LED	NVSxE21A	
FWHM / FWTM	54.0° / 89.0°	
Efficiency	94 %	
Peak intensity	1.1 cd/lm	
LEDs/each optic	1	
Light colour	White	er de la companya de
Required compone	ints:	
		30' 30'
		157 07 157
OSDAN		
OSRAM		90 ⁴
LED	PrevaLED Brick HP 2x8	35 36 36
LED FWHM / FWTM	PrevaLED Brick HP 2x8 67.0° / 92.0°	92°
LED FWHM / FWTM Efficiency	PrevaLED Brick HP 2x8 67.0° / 92.0° 92 %	95° 95° 95° 95° 95° 95° 96° 200 96°
LED FWHM / FWTM Efficiency Peak intensity	PrevaLED Brick HP 2x8 67.0° / 92.0° 92 % 0.8 cd/lm	95 ⁴ 95 96 96 90 90 90 90
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	PrevaLED Brick HP 2x8 67.0° / 92.0° 92 % 0.8 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	PrevaLED Brick HP 2x8 67.0° / 92.0° 92 % 0.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	PrevaLED Brick HP 2x8 67.0° / 92.0° 92 % 0.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	PrevaLED Brick HP 2x8 67.0° / 92.0° 92 % 0.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	PrevaLED Brick HP 2x8 67.0° / 92.0° 92 % 0.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	PrevaLED Brick HP 2x8 67.0° / 92.0° 92 % 0.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	PrevaLED Brick HP 2x8 67.0° / 92.0° 92 % 0.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	PrevaLED Brick HP 2x8 67.0° / 92.0° 92 % 0.8 cd/lm 1 White Ints:	90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	PrevaLED Brick HP 2x8 67.0° / 92.0° 92 % 0.8 cd/lm 1 White Ints: OSLON Square CSSRM2/CSSRM3	359 0 159
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSRAM Opto Semiconductors LED FWHM / FWTM	PrevaLED Brick HP 2x8 67.0° / 92.0° 92 % 0.8 cd/lm 1 White Ints: OSLON Square CSSRM2/CSSRM3 67.0° / 92.0°	90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency	PrevaLED Brick HP 2x8 67.0° / 92.0° 92 % 0.8 cd/lm 1 White ints: OSLON Square CSSRM2/CSSRM3 67.0° / 92.0° 92 %	90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Optio Semiconductors LED FWHM / FWTM Efficiency Peak intensity	PrevaLED Brick HP 2x8 67.0° / 92.0° 92 % 0.8 cd/lm 1 White Ints: OSLON Square CSSRM2/CSSRM3 67.0° / 92.0°	90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSRAM Optic Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	PrevaLED Brick HP 2x8 67.0° / 92.0° 92 % 0.8 cd/lm 1 White ints: OSLON Square CSSRM2/CSSRM3 67.0° / 92.0° 92 % 0.8 cd/lm 1	90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	PrevaLED Brick HP 2x8 67.0° / 92.0° 92 % 0.8 cd/lm 1 White ints: OSLON Square CSSRM2/CSSRM3 67.0° / 92.0° 92 % 0.8 cd/lm 1 White	90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSRAM Optic Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	PrevaLED Brick HP 2x8 67.0° / 92.0° 92 % 0.8 cd/lm 1 White ints: OSLON Square CSSRM2/CSSRM3 67.0° / 92.0° 92 % 0.8 cd/lm 1 White	90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	PrevaLED Brick HP 2x8 67.0° / 92.0° 92 % 0.8 cd/lm 1 White ints: OSLON Square CSSRM2/CSSRM3 67.0° / 92.0° 92 % 0.8 cd/lm 1 White	90* 90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	PrevaLED Brick HP 2x8 67.0° / 92.0° 92 % 0.8 cd/lm 1 White ints: OSLON Square CSSRM2/CSSRM3 67.0° / 92.0° 92 % 0.8 cd/lm 1 White	90°



OSRAM		
Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	OSLON Square CSSRM2/CSSRM3 71.0° / 94.0° 94 % 0.7 cd/lm 1 White ents:	
OSRAM Opto Semiconductors		50 ⁴
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	OSLON Square PC 63.0° / 90.0° 91 % 0.9 cd/lm 1 White ents:	
OSRAM Opto Semiconductors		91 ⁴ 97 ⁴
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	OSLON SSL 80 54.0° / 80.0° 92 % 1.1 cd/lm 1 White ents:	
SAMS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LH351A 68.0° / 91.0° 92 % 0.8 cd/lm 1 White	



S ΛΜS	JNG		90*	90'
LED	LH351B			
FWHM / FWTM	65.0° / 92.0°		75'	75'
Efficiency	89 %		200	
Peak intensity	0.8 cd/lm		50°	60
LEDs/each optic	1		400	
Light colour	White		45*	45
Required compone				X
i toquiloù oompono				
			30° 500 500	15°
S ΛΜS	ING		90°	90'
LED	LH351Z			
FWHM / FWTM	63.0° / 89.0°		78'	75
Efficiency	89 %			
Peak intensity	0.9 cd/lm		60 ¹	60'
LEDs/each optic	1		400	
Light colour	White		45*	
Required compone				X
Required compone	1113.			

			36°	12°, 30,
SEOUL			90*	90'
LED	Z8Y15			
FWHM / FWTM	56.0° / 92.0°		75°	778
	85 %		- 200	
Efficiency	85 % 0.9 cd/lm		200	60'
Efficiency Peak intensity	0.9 cd/lm		60 ¹	60
Efficiency Peak intensity LEDs/each optic	0.9 cd/lm 1		200 Ext T	
Efficiency Peak intensity LEDs/each optic Light colour	0.9 cd/lm 1 White		er er eo	65
Efficiency Peak intensity LEDs/each optic	0.9 cd/lm 1 White		20 20 40 27	67
Efficiency Peak intensity LEDs/each optic Light colour	0.9 cd/lm 1 White		20 6 7 7 60 80	60
Efficiency Peak intensity LEDs/each optic Light colour	0.9 cd/lm 1 White		200 200 400 200 400 000	e
Efficiency Peak intensity LEDs/each optic Light colour Required compone	0.9 cd/lm 1 White			15°
Efficiency Peak intensity LEDs/each optic Light colour Required compone	0.9 cd/lm 1 White			60 67 57 99
Efficiency Peak intensity LEDs/each optic Light colour Required compone	0.9 cd/lm 1 White nts:			5° 55
Efficiency Peak intensity LEDs/each optic Light colour Required compone	0.9 cd/lm 1 White nts: Z8Y19			13°
Efficiency Peak intensity LEDs/each optic Light colour Required compone	0.9 cd/lm 1 White nts: Z8Y19 56.0° / 92.0°			12, 23 12, 20 12, 20 12
Efficiency Peak intensity LEDs/each optic Light colour Required compone scoul staticonductor LED FWHM / FWTM Efficiency	0.9 cd/lm 1 White nts: Z8Y19 56.0° / 92.0° 85 %			12, 12, 12, 12, 12, 12, 12, 12, 12, 12,
Efficiency Peak intensity LEDs/each optic Light colour Required compone soul stanconductor LED FWHM / FWTM Efficiency Peak intensity	0.9 cd/lm 1 White nts: Z8Y19 56.0° / 92.0°			57°
Efficiency Peak intensity LEDs/each optic Light colour Required compone stous semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	0.9 cd/lm 1 White nts: Z8Y19 56.0° / 92.0° 85 % 0.9 cd/lm 1			-75
Efficiency Peak intensity LEDs/each optic Light colour Required compone stour semconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	0.9 cd/lm 1 White nts: Z8Y19 56.0° / 92.0° 85 % 0.9 cd/lm 1 White			
Efficiency Peak intensity LEDs/each optic Light colour Required compone sources sources sources teD FWHM / FWTM Efficiency Peak intensity LEDs/each optic	0.9 cd/lm 1 White nts: Z8Y19 56.0° / 92.0° 85 % 0.9 cd/lm 1 White			-75
Efficiency Peak intensity LEDs/each optic Light colour Required compone sources sources ted FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	0.9 cd/lm 1 White nts: Z8Y19 56.0° / 92.0° 85 % 0.9 cd/lm 1 White			5° 5° 5° 5° 5° 5° 5°
Efficiency Peak intensity LEDs/each optic Light colour Required compone SEQUESTIC COMPOSE SEQUESTIC SEQUES	0.9 cd/lm 1 White nts: Z8Y19 56.0° / 92.0° 85 % 0.9 cd/lm 1 White			



seoul semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	Z8Y22 55.0° / 94.0° 94 % 1 cd/lm 1 White nts:	200 201 200 201 200 201 201 201
SEOUL		
stour stemiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	Z8Y22P 65.0° / 95.0° 94 % 0.9 cd/lm 1 White nts:	200 200 200 200 200 200 200 200
TOSHIBA		50* 90*
Leading Innovation >>> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	TL1L4 60.0° / 87.0° 84 % 0.9 cd/lm 1 White nts:	
TRIDON		90° 90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	RLE G1 49x121mm 2000lm xxx EXC OTD 67.0° / 93.0° 94 % 0.9 cd/lm 1 White	xx xx yx xx



LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	RLE G1 49x133mm 2000lm xxx EXC OTD 67.0° / 93.0° 94 % 0.9 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	RLE G1 49x223mm 4000lm xxx EXC OTD 67.0° / 93.0° 94 % 0.9 cd/lm 1 White	
TRIDON LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	RLE G1 49x245mm 4000lm xxx EXC OTD 67.0° / 93.0° 94 % 0.9 cd/lm 1 White	



OPTICAL RESULTS (SIMULATED):

CREE ≑		90° 90°
LEDS	XD16	
FWHM / FWTM	69.0° / 90.0°	25.
Efficiency	95 %	200
Peak intensity	0.8 cd/lm	60° 60°
LEDs/each optic	1	
Light colour	White	400
Required components:	white	
		30° 30° 30° 30°
		90* 90*
LED	XP-G2	
FWHM / FWTM	72.0° / 94.0°	75'
Efficiency	92 %	200
Peak intensity	0.7 cd/lm	665-
LEDs/each optic	1	
Light colour	White	400 - 400 - 47 ⁴
Required components:		
Protective plate	e, glass	
		15° - 35° - 15°
MUMILED	DS	90* 90*
		90°
	LUXEON 3030 2D (Round LES) 64.0° / 82.0°	19°
LED	LUXEON 3030 2D (Round LES)	97 77 79 70 70 70 70 70
LED FWHM / FWTM	LUXEON 3030 2D (Round LES) 64.0° / 82.0°	90* 90* 75* 75* 00* 00*
LED FWHM / FWTM Efficiency	LUXEON 3030 2D (Round LES) 64.0° / 82.0° 94 %	90* 90* 75: 75: 90* 60*
LED FWHM / FWTM Efficiency Peak intensity	LUXEON 3030 2D (Round LES) 64.0° / 82.0° 94 % 1 cd/lm	50° 50° 50° 50° 50° 50° 50° 50° 50° 50°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON 3030 2D (Round LES) 64.0° / 82.0° 94 % 1 cd/lm 1	90* 90* 90* 90* 90* 90* 90* 90* 90* 90*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON 3030 2D (Round LES) 64.0° / 82.0° 94 % 1 cd/lm 1	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON 3030 2D (Round LES) 64.0° / 82.0° 94 % 1 cd/lm 1	94° 95° 96° 90° 90° 90° 90° 90° 90° 90° 90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON 3030 2D (Round LES) 64.0° / 82.0° 94 % 1 cd/lm 1	34. 34. 35. 36. 36. 37. 37. 37. 37. 37. 37. 37. 37
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) 64.0° / 82.0° 94 % 1 cd/lm 1 White	22° 00 00 00 00 00 00 00 00 00 0
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) 64.0° / 82.0° 94 % 1 cd/lm 1 White	30* 30* 30* 30* 30* 30*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) 64.0° / 82.0° 94 % 1 cd/lm 1 White S LUXEON C	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) 64.0° / 82.0° 94 % 1 cd/lm 1 White S LUXEON C 65.0° / 88.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) 64.0° / 82.0° 94 % 1 cd/lm 1 White S LUXEON C 65.0° / 88.0° 94 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) 64.0° / 82.0° 94 % 1 cd/lm 1 White S LUXEON C 65.0° / 88.0° 94 % 0.8 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) 64.0° / 82.0° 94 % 1 cd/lm 1 White S LUXEON C 65.0° / 88.0° 94 % 0.8 cd/lm 1	200 60* 60*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) 64.0° / 82.0° 94 % 1 cd/lm 1 White S LUXEON C 65.0° / 88.0° 94 % 0.8 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) 64.0° / 82.0° 94 % 1 cd/lm 1 White S LUXEON C 65.0° / 88.0° 94 % 0.8 cd/lm 1	200 60* 60*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) 64.0° / 82.0° 94 % 1 cd/lm 1 White S LUXEON C 65.0° / 88.0° 94 % 0.8 cd/lm 1	200 60* 60*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) 64.0° / 82.0° 94 % 1 cd/lm 1 White S LUXEON C 65.0° / 88.0° 94 % 0.8 cd/lm 1	500 600 600
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) 64.0° / 82.0° 94 % 1 cd/lm 1 White S LUXEON C 65.0° / 88.0° 94 % 0.8 cd/lm 1	200 60* 60*



OPTICAL RESULTS (SIMULATED):

OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	OSCONIQ C 2424 68.0° / 82.0° 97 % 0.9 cd/lm 1 White	200 200 200 200 200 200 200 200 200 200
OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	OSLON Square CSSRM2/CSSRM3 70.0° / 94.0° 88 % 0.7 cd/lm 1 White	200 200 200 200 200 200 200 200
seoul senconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Z8Y22T 63.0° / 86.0° 94 % 1 cd/lm 1 White	20 ¹⁴ 00 20 ¹⁴ 00 00 00 00 00 00 00 00 00 00



PRODUCT DATASHEET C13232_HB-2X2-WW

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:

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.

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LEDiL Oy

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