

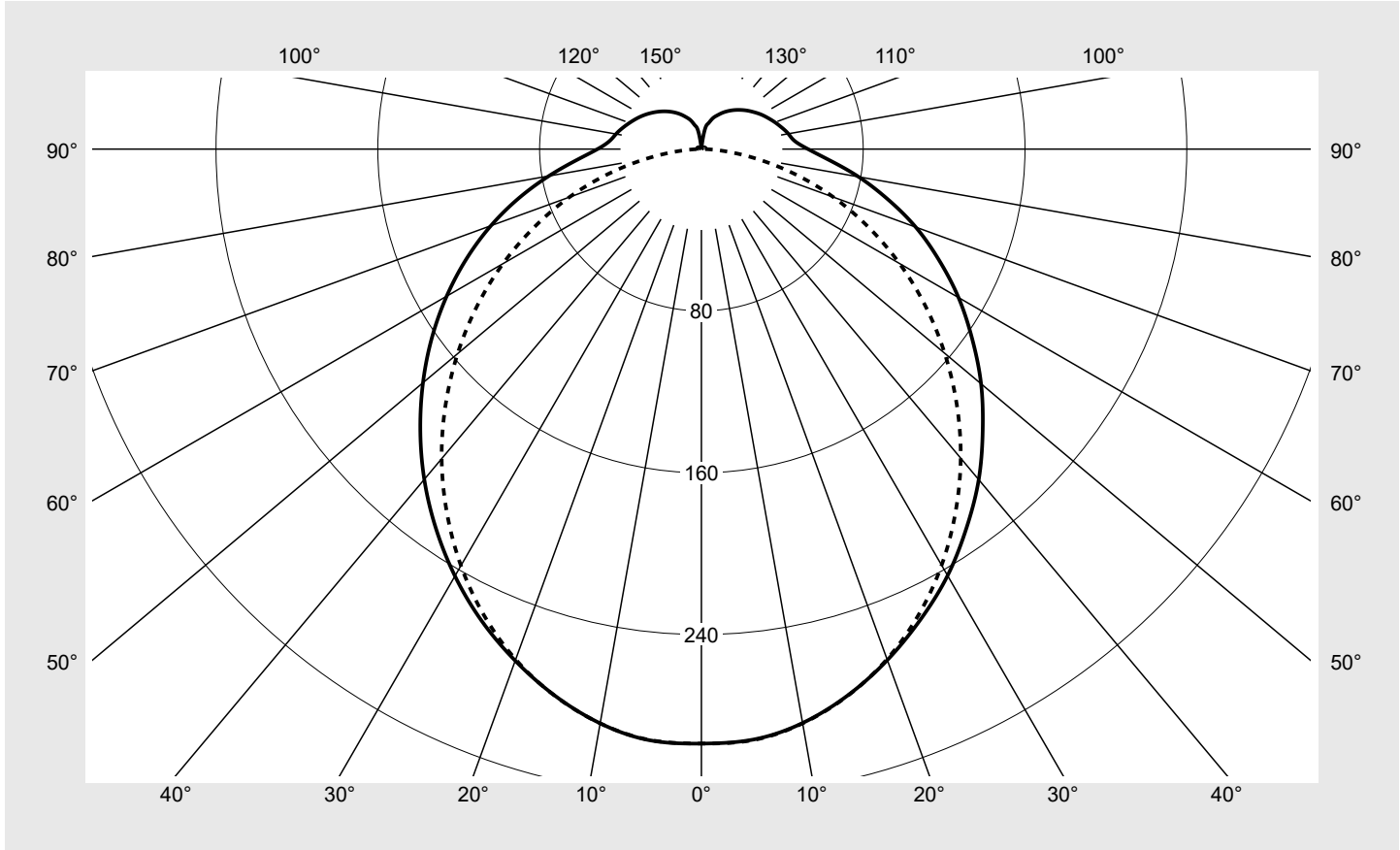
# Photometric test report

<b>Family</b> <b>Licross® 21 Opal</b>	<b>Order number: 52TL1DDV4L2M</b> <b>EAN: 4069025021762</b>	<b>LP number</b> <b>59520_45</b>
	<b>Version</b> cover, opal, direct-/ indirect distribution <b>Lamps</b> LED 4000 K   CRI ≥ 80 <b>Controlgear</b> ECG-DALI <b>Rated values</b> Net luminous flux = 22050 lm Power consumption = 125.6 W Luminous efficacy = 175.6 lm/W	<b>serial documentation</b> <b>06.02.2024</b>





**Luminous intensity in cd/klm** C180-0 C270-90 **Imax: 294 cd/klm**



Classifications	
DIN 5040	B 3 1
CIE	N1=44 N2=73 N3=91 N4=87 N5=100

Luminaire light output ratios	
$\eta_{LB}$	100.0%
$\phi_u$	87.4%
$\phi_o$	12.6%

Measurement conditions
DIN EN 13032 and DIN 5032

## Photometric test report

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**siteco**

<b>Table of values for luminous intensities</b>	<b>Maximum luminous intensity</b>
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C-planes	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°	165°	180°
$\gamma$	Luminous intensity in cd/klm												
0°	293.9	293.9	293.9	293.9	293.9	293.9	293.9	293.9	293.9	293.9	293.9	293.9	293.9
5°	293.1	292.7	289.9	291.0	293.1	293.0	293.3	293.1	293.1	292.5	291.2	291.6	293.4
10°	288.1	287.8	285.0	286.0	288.1	287.9	288.3	288.0	288.0	287.5	286.2	286.7	288.3
15°	279.6	279.4	276.6	277.6	279.6	279.4	279.8	279.5	279.5	279.0	277.7	278.4	279.8
20°	268.8	268.4	265.5	266.2	268.1	267.8	268.3	268.1	268.0	267.5	266.6	267.8	269.2
25°	256.5	256.4	252.9	252.4	253.9	253.4	254.1	253.8	253.8	253.6	254.0	255.9	257.2
30°	243.5	242.9	239.1	237.4	237.4	236.9	237.6	237.4	237.5	238.5	240.0	242.5	243.7
35°	228.6	228.2	223.9	221.1	219.2	218.5	219.1	218.9	219.7	221.9	224.6	227.5	228.9
40°	213.3	212.5	208.1	204.0	200.4	198.8	199.5	199.5	201.1	204.3	208.6	211.7	213.2
45°	196.7	195.9	191.2	185.9	180.8	177.8	178.6	178.3	181.6	186.0	191.4	194.8	196.6
50°	180.5	179.0	174.4	167.8	161.5	156.5	157.0	156.9	161.7	167.6	173.9	177.7	179.7
55°	163.4	162.0	157.2	149.2	141.7	135.1	135.2	135.5	141.8	149.1	156.1	160.5	162.7
60°	146.8	144.8	139.8	131.0	122.1	114.1	113.1	114.2	121.9	130.6	138.3	143.3	145.4
65°	129.6	127.7	122.3	112.9	103.0	93.4	91.0	93.7	102.6	112.1	120.5	126.2	128.1
70°	112.8	110.6	104.4	95.0	83.9	73.2	69.4	73.2	83.4	93.6	102.3	109.1	110.8
75°	95.2	93.5	86.3	76.8	64.8	53.0	48.0	53.1	64.1	74.9	84.3	91.4	93.3
80°	78.9	76.8	69.4	59.0	47.0	34.5	28.0	34.2	45.8	57.3	67.7	74.1	76.6
85°	63.7	61.7	54.7	44.0	31.4	18.8	11.3	18.6	30.6	42.7	52.6	59.2	61.9
90°	52.7	50.3	47.2	33.6	21.8	9.7	1.7	9.7	21.3	32.8	42.6	49.1	51.4
95°	46.3	44.0	38.4	29.9	19.4	8.9	1.8	8.9	19.3	29.6	38.3	43.8	45.6
100°	43.6	41.6	36.5	28.4	19.0	9.0	2.1	8.7	18.6	27.9	35.8	41.3	42.9
105°	41.1	39.4	34.3	27.0	18.2	9.1	2.1	8.8	17.9	26.7	33.7	38.6	40.4
110°	38.7	36.7	32.3	25.7	17.6	9.2	2.0	8.7	17.0	25.1	31.7	36.0	37.9
115°	36.4	34.4	30.4	24.3	17.0	9.3	1.9	8.8	16.4	23.6	29.8	33.7	35.5
120°	34.1	32.2	28.7	23.1	16.5	9.4	1.8	8.8	15.7	22.3	27.9	31.4	33.2
125°	31.8	30.1	26.8	21.8	15.8	9.4	1.6	8.8	15.0	21.0	26.0	29.2	30.9
130°	29.6	27.9	25.1	20.7	15.3	9.5	1.4	8.7	14.3	19.7	24.1	27.1	28.6
135°	27.4	25.8	23.3	19.5	14.6	8.1	1.3	7.6	13.7	18.5	22.3	24.9	26.4
140°	25.2	23.7	21.6	18.3	13.6	7.0	1.3	6.4	12.7	17.1	20.5	22.8	24.2
145°	23.0	21.6	19.8	16.6	12.1	6.4	1.2	5.9	11.1	15.6	18.8	20.7	21.9
150°	20.7	19.6	18.1	14.3	11.0	6.2	1.3	6.0	9.5	13.3	16.9	18.6	19.6
155°	18.4	17.4	15.6	12.5	8.2	5.5	1.3	5.2	7.5	11.1	14.5	16.4	17.3
160°	16.1	15.3	12.6	10.0	7.9	5.1	1.4	4.6	6.8	7.9	11.7	14.3	14.9
165°	13.1	12.1	8.6	7.8	8.1	5.4	1.4	4.8	6.9	7.0	6.9	11.2	12.1
170°	9.8	7.7	7.3	8.0	6.5	2.9	1.4	2.2	5.4	6.7	6.3	6.6	8.9
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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<b>Family</b> <b>Licross® 21 Opal</b>	<b>Order number: 52TL1DDV4L2M</b> <b>EAN: 4069025021762</b>	<b>LP number</b> <b>59520_45</b>
<b>Table of values for luminous intensities</b>		<b>Maximum luminous intensity</b>
		<b>siteco</b>

C-planes	195°	210°	225°	240°	255°	270°	285°	300°	315°	330°	345°	Phi-zone	Total Phi-zone
$\gamma$	Luminous intensity in cd/klm											Luminous flux in lm/klm	
0°	293.9	293.9	293.9	293.9	293.9	293.9	293.9	293.9	293.9	293.9	293.9	1.8	1.8
5°	292.9	289.8	290.9	292.8	292.8	293.2	292.8	292.9	292.3	291.2	292.0	14.0	15.7
10°	288.0	285.0	285.8	287.9	287.8	288.3	287.9	288.0	287.3	286.3	287.0	27.3	43.1
15°	279.5	276.7	277.5	279.4	279.4	279.9	279.5	279.5	278.9	277.9	279.0	39.6	82.6
20°	268.9	265.7	266.2	268.0	267.9	268.5	268.2	268.1	267.5	266.6	267.7	50.2	132.8
25°	256.9	253.4	252.5	253.8	253.6	254.3	254.0	254.0	253.5	253.8	256.1	58.9	191.7
30°	243.4	239.6	237.7	237.4	237.1	237.8	237.6	237.8	238.3	239.7	242.3	65.6	257.3
35°	228.5	224.4	221.4	219.4	218.7	219.4	219.3	219.8	221.8	224.6	228.0	70.0	327.3
40°	212.7	208.2	204.2	200.7	198.9	199.8	199.8	201.1	204.3	208.6	211.9	72.3	399.6
45°	195.8	191.1	185.9	181.0	177.8	178.9	178.7	181.7	186.2	191.6	195.6	72.3	472.0
50°	178.6	174.0	167.6	161.4	156.5	157.3	157.3	162.0	168.0	174.3	178.3	70.5	542.5
55°	161.2	156.5	148.8	141.5	135.3	135.5	135.8	142.2	149.7	156.9	161.8	66.9	609.4
60°	143.7	138.7	130.1	121.6	114.2	113.3	114.6	122.5	131.3	139.3	144.4	61.7	671.1
65°	126.5	121.0	111.8	102.3	93.3	91.1	94.0	103.2	113.1	121.8	128.0	55.2	726.3
70°	109.1	102.8	93.5	83.0	72.9	69.4	73.6	84.1	94.6	103.5	110.4	47.6	773.9
75°	91.6	84.7	75.4	63.7	52.5	47.9	53.5	65.0	76.2	85.9	93.4	39.0	812.9
80°	74.9	67.7	57.5	45.8	33.9	27.9	34.5	46.6	58.5	69.1	75.6	30.2	843.1
85°	59.9	53.1	42.6	30.4	18.3	11.1	18.9	31.3	43.7	53.8	61.1	22.2	865.3
90°	49.1	42.6	32.8	21.3	9.6	1.7	9.7	21.6	33.2	43.3	50.0	16.9	882.1
95°	43.4	38.0	29.6	19.2	8.8	1.8	8.9	19.4	29.7	38.6	44.5	14.9	897.1
100°	41.0	35.9	27.9	18.7	8.8	2.1	8.9	18.7	28.1	36.1	41.8	14.0	911.1
105°	38.7	33.7	26.5	17.8	8.7	2.1	9.0	18.1	27.0	34.2	39.3	13.1	924.2
110°	35.9	31.6	25.0	17.1	8.8	2.0	9.1	17.4	25.5	32.1	36.6	12.0	936.2
115°	33.6	29.7	23.6	16.4	8.7	1.9	9.3	16.9	24.2	30.4	34.4	11.0	947.2
120°	31.4	27.9	22.4	15.7	8.8	1.8	9.3	16.2	22.9	28.6	32.2	9.9	957.1
125°	29.2	26.0	21.1	15.0	8.7	1.6	9.4	15.7	21.7	26.8	30.1	8.9	966.0
130°	27.0	24.2	19.8	14.4	8.7	1.4	9.4	15.1	20.5	24.9	27.8	7.8	973.7
135°	24.9	22.4	18.6	13.7	7.3	1.3	8.2	14.6	19.3	23.2	25.8	6.7	980.4
140°	22.7	20.6	17.3	12.7	6.4	1.3	7.0	13.5	18.0	21.5	23.6	5.6	986.0
145°	20.6	18.9	15.7	11.3	5.8	1.2	6.5	12.0	15.8	19.8	21.6	4.5	990.5
150°	18.5	17.0	13.4	10.2	6.1	1.3	6.3	10.3	14.2	17.9	19.5	3.5	994.0
155°	16.4	14.6	11.8	7.5	4.9	1.3	5.8	8.1	12.0	15.5	17.4	2.6	996.6
160°	14.2	11.8	9.1	7.1	4.6	1.4	5.2	7.3	8.7	12.7	15.3	1.8	998.3
165°	11.1	8.0	7.1	7.6	4.8	1.4	5.5	7.3	7.6	7.6	12.0	1.1	999.4
170°	6.9	7.3	7.0	5.8	2.1	1.4	3.1	6.1	7.5	6.2	7.2	0.6	1000.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0

## Photometric test report

Family <b>Licross® 21 Opal</b>	Order number: <b>52TL1DDV4L2M</b> EAN: <b>4069025021762</b>	LP number <b>59520_45</b>
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UGR-Table		Standard room									
Reflection factor of ceiling	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3	
Reflection factor of walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3	
Reflection factor of floor	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Room dimensions		View crosswise (C0)					View endwise (C90)				
x	y										
2H	2H	23.1	24.7	23.6	25.1	25.6	22.8	24.3	23.2	24.8	25.3
	3H	25.1	26.5	25.5	26.9	27.5	24.4	25.8	24.8	26.3	26.8
	4H	25.8	27.2	26.4	27.7	28.2	24.9	26.2	25.4	26.7	27.3
	6H	26.6	27.8	27.2	28.4	29.0	25.2	26.5	25.8	27.0	27.6
	8H	27.0	28.1	27.6	28.7	29.3	25.4	26.6	25.9	27.1	27.7
	12H	27.3	28.4	27.9	28.9	29.6	25.4	26.5	26.0	27.1	27.7
4H	2H	23.8	25.1	24.3	25.6	26.2	23.5	24.8	24.0	25.3	25.9
	3H	25.8	27.0	26.4	27.5	28.1	25.2	26.3	25.7	26.8	27.5
	4H	26.9	27.9	27.4	28.4	29.1	25.9	26.9	26.5	27.5	28.1
	6H	27.8	28.7	28.4	29.3	30.0	26.4	27.3	27.0	27.9	28.5
	8H	28.3	29.1	28.9	29.7	30.4	26.6	27.4	27.2	28.0	28.7
	12H	28.7	29.4	29.3	30.0	30.7	26.6	27.4	27.3	28.0	28.7
8H	4H	27.2	28.0	27.8	28.6	29.3	26.3	27.1	26.9	27.7	28.4
	6H	28.3	29.0	28.9	29.6	30.4	27.0	27.7	27.6	28.3	29.0
	8H	28.9	29.5	29.5	30.2	30.9	27.2	27.8	27.9	28.5	29.2
	12H	29.4	30.0	30.1	30.6	31.4	27.4	27.9	28.0	28.6	29.3
12H	4H	27.1	27.9	27.8	28.5	29.2	26.3	27.0	27.0	27.7	28.4
	6H	28.3	28.9	29.0	29.6	30.4	27.1	27.7	27.7	28.3	29.1
	8H	29.0	29.5	29.7	30.2	31.0	27.4	27.9	28.1	28.6	29.4

Luminance table		Max. for $\gamma \geq 65^\circ$										Photometric dimensions in mm:		L = 2250	H(C0) = 25	H(C180) = 25
												B = 76	H(C90) = 25	H(C270) = 25		
C-planes	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°	330°				
$\gamma$	Luminance in cd/m <sup>2</sup>															
45°	26994.3	27021.5	28088.1	32206.6	28201.4	27044.4	26972.1	27010.1	28113.3	32265.0	28214.0	27078.7				
50°	26014.7	25984.1	26827.2	31087.8	26867.8	25911.6	25898.0	25923.7	26813.8	31151.9	26908.1	25972.0				
55°	24996.4	24976.9	25514.1	29925.7	25528.7	24809.5	24884.9	24861.0	25484.9	29979.5	25601.6	24938.2				
60°	24119.7	23980.9	24193.7	28618.9	24161.6	23730.6	23893.5	23800.1	24097.4	28659.9	24274.0	23897.4				
65°	23178.5	22987.2	22878.7	27115.7	22788.7	22651.9	22917.4	22758.5	22716.7	27139.9	22932.7	22895.8				
70°	22335.1	21882.8	21406.9	25403.1	21262.3	21441.0	21934.1	21559.9	21159.0	25403.1	21448.3	21713.0				
75°	21291.7	20629.7	19582.1	22957.3	19354.7	20164.7	20875.1	20242.2	19246.8	22922.4	19623.7	20532.9				
80°	20450.3	19478.4	17562.1	19532.4	17129.0	19001.2	19841.3	18978.5	17111.1	19458.4	17422.7	19387.5				
85°	19787.0	18720.7	15527.8	14795.0	15142.8	18013.0	19230.6	18174.0	15018.6	14625.7	15487.7	18440.1				

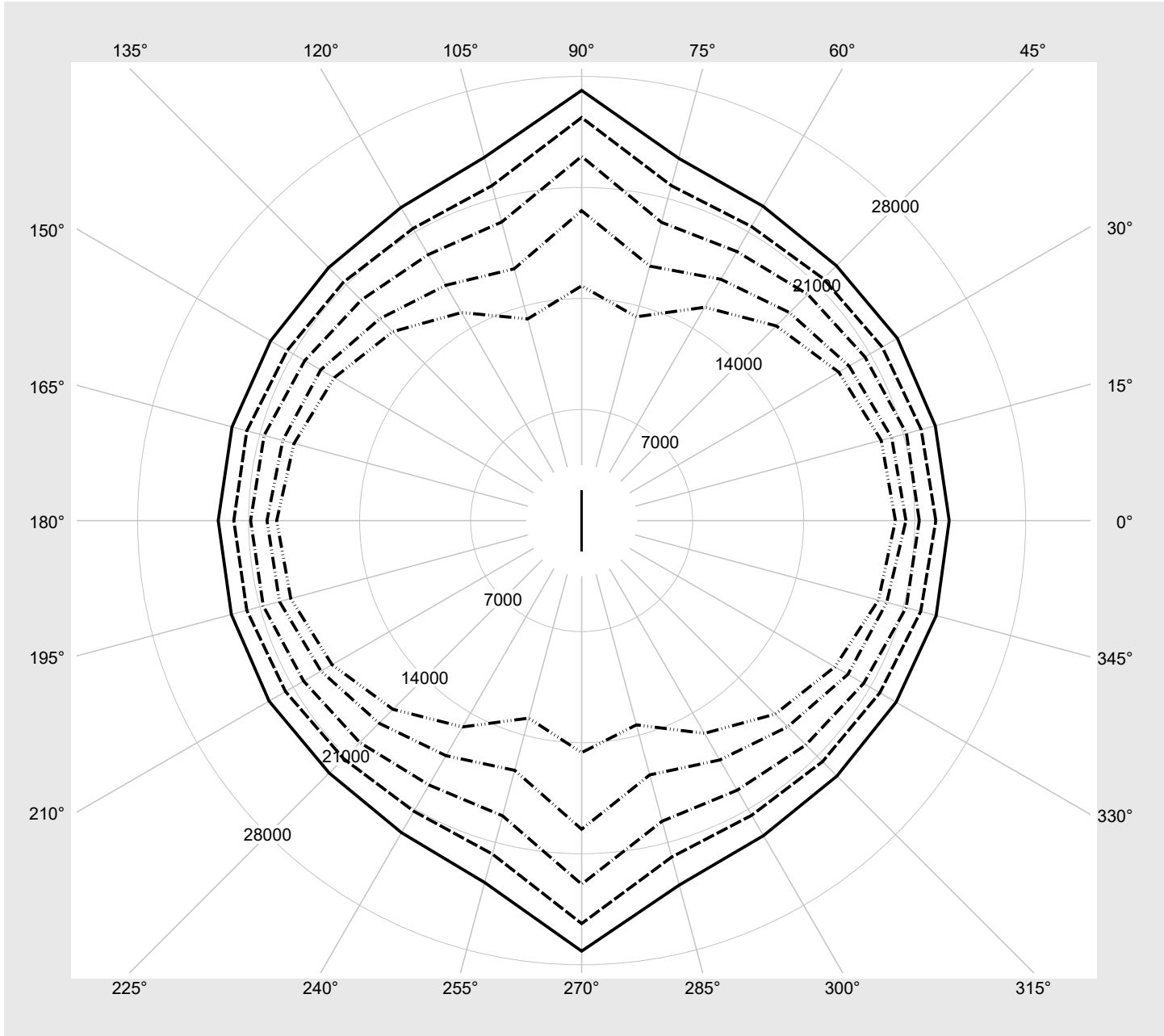
**Photometric test report**

<b>Family</b> <b>Licross® 21 Opal</b>	<b>Order number: 52TL1DDV4L2M</b> <b>EAN: 4069025021762</b>	<b>LP number</b> <b>59520_45</b>
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**Luminance values in cd/m<sup>2</sup>**

$\gamma$  65°   
   $\gamma$  70°   
   $\gamma$  75°   
   $\gamma$  80°   
   $\gamma$  85°

**siteco**



## Photometric test report

<b>Family</b> Licross® 21 Opal	<b>Order number: 52TL1DDV4L2M</b> <b>EAN: 4069025021762</b>	<b>LP number</b> <b>59520_45</b>
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<b>Dimming levels table</b>	environmental temperature: 25°C	<b>sITeco</b>
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Luminous flux %	Dimming level linear	Dimming level logarithmic	Luminous flux [lm]	Power consumption [W]
100	254	254	22050	125.6
95	240	252	20943	118.9
90	226	250	19827	112.2
85	213	248	18773	106.0
80	199	245	17629	99.1
75	186	243	16550	92.8
70	173	240	15460	86.4
65	160	237	14358	80.1
60	147	234	13246	73.8
55	134	231	12125	67.4
50	121	227	10986	61.2
45	109	223	9931	55.4
40	96	218	8778	49.1
35	84	213	7698	43.3
30	72	208	6615	37.6
25	60	201	5525	31.8
20	48	193	4423	26.0
15	36	182	3317	20.2
10	24	168	2205	14.0
5	12	142	1080	7.6
1	4	102	330	2.8