

Photometric test report

Family
Licross® 21 Opal

Order number: 52TL1DDN4E5M
EAN: 4058352049952

LP number
59520_3



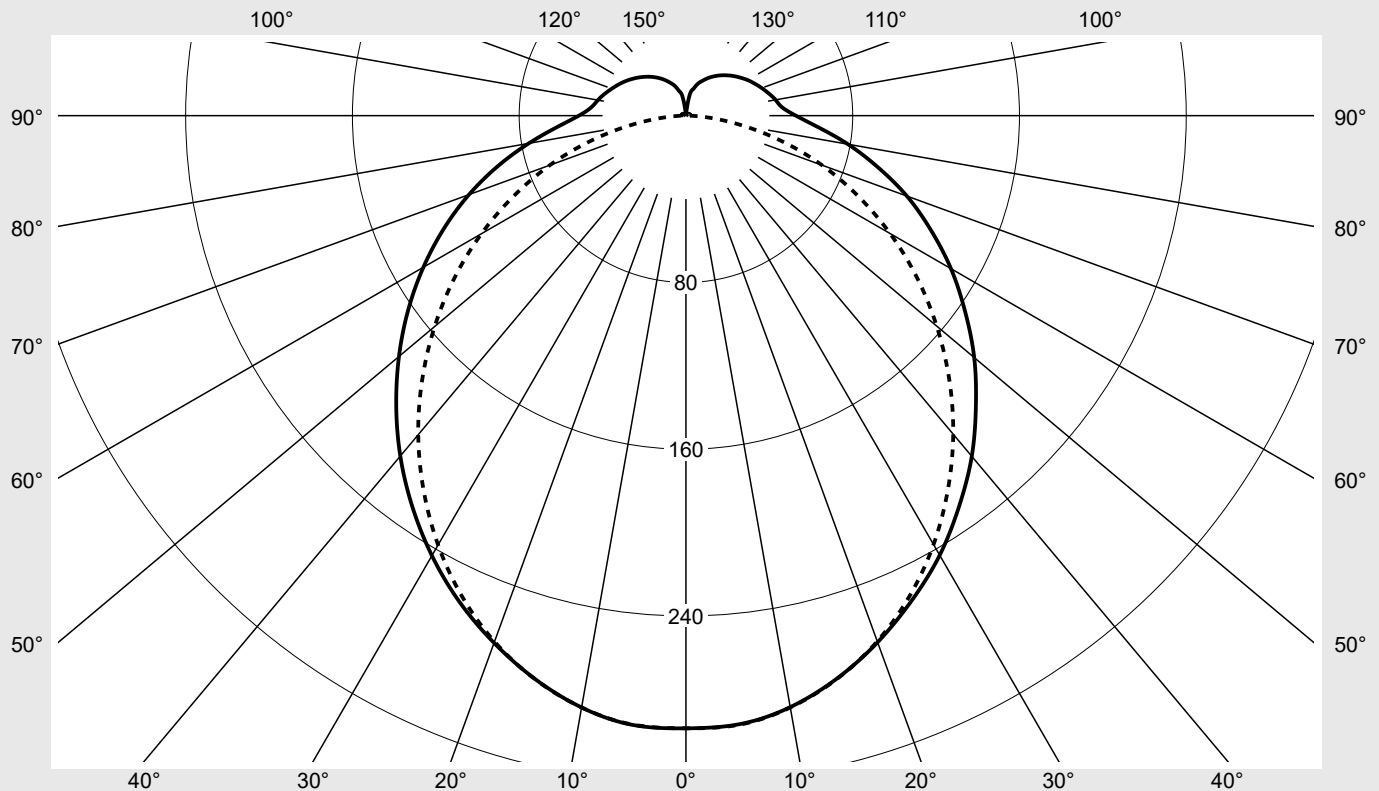
Version cover, opal, direct-/ indirect distribution, diffuse
Lamps LED 4000 K | CRI ≥ 80
Controlgear ECG-DALI
Rated values Net luminous flux = 14560 lm
 Power consumption = 84.6 W
 Luminous efficacy = 172.1 lm/W

serial
documentation
26.01.2024

sitEco

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

η_{LB} 100.0%
 ϕ_u 87.4%
 ϕ_o 12.6%

Measurement conditions

DIN EN 13032 and DIN 5032

Photometric test report

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Table of values for luminous intensities	Maximum luminous intensity	siteco
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C-planes	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°	165°	180°
γ	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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Family Licross® 21 Opal	Order number: 52TL1DDN4E5M EAN: 4058352049952	LP number 59520_3
Table of values for luminous intensities		Maximum luminous intensity
		sITeCO

C-planes	195°	210°	225°	240°	255°	270°	285°	300°	315°	330°	345°	Phi-zone	Total Phi-zone
γ	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

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Family Licross® 21 Opal	Order number: 52TL1DDN4E5M EAN: 4058352049952	LP number 59520_3
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UGR-Table	Standard room	siteco
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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	24.6	23.5	25.1	25.6	22.7	24.3	23.2	24.7	25.2
	3H	25.0	26.4	25.5	26.9	27.4	24.3	25.7	24.8	26.2	26.7
	4H	25.8	27.1	26.3	27.6	28.2	24.8	26.1	25.3	26.6	27.2
	6H	26.6	27.8	27.1	28.3	28.9	25.2	26.4	25.7	26.9	27.5
	8H	27.0	28.1	27.5	28.7	29.3	25.3	26.5	25.9	27.0	27.6
	12H	27.3	28.3	27.9	28.9	29.6	25.3	26.4	25.9	27.0	27.6
4H	2H	23.7	25.1	24.3	25.6	26.1	23.4	24.7	24.0	25.2	25.8
	3H	25.8	26.9	26.3	27.5	28.1	25.1	26.2	25.7	26.8	27.4
	4H	26.8	27.8	27.4	28.4	29.0	25.8	26.8	26.4	27.4	28.0
	6H	27.7	28.6	28.3	29.2	29.9	26.3	27.2	26.9	27.8	28.5
	8H	28.2	29.0	28.8	29.6	30.3	26.5	27.3	27.1	27.9	28.6
	12H	28.6	29.3	29.3	30.0	30.7	26.5	27.3	27.2	27.9	28.6
8H	4H	27.1	27.9	27.7	28.6	29.2	26.2	27.0	26.8	27.6	28.3
	6H	28.3	29.0	28.9	29.6	30.3	26.9	27.6	27.5	28.2	28.9
	8H	28.8	29.5	29.5	30.1	30.8	27.2	27.8	27.8	28.4	29.2
	12H	29.4	29.9	30.1	30.6	31.4	27.3	27.8	28.0	28.5	29.3
12H	4H	27.1	27.8	27.7	28.5	29.2	26.3	27.0	26.9	27.6	28.3
	6H	28.3	28.9	29.0	29.6	30.3	27.0	27.6	27.7	28.3	29.0
	8H	28.9	29.5	29.6	30.1	30.9	27.3	27.8	28.0	28.5	29.3

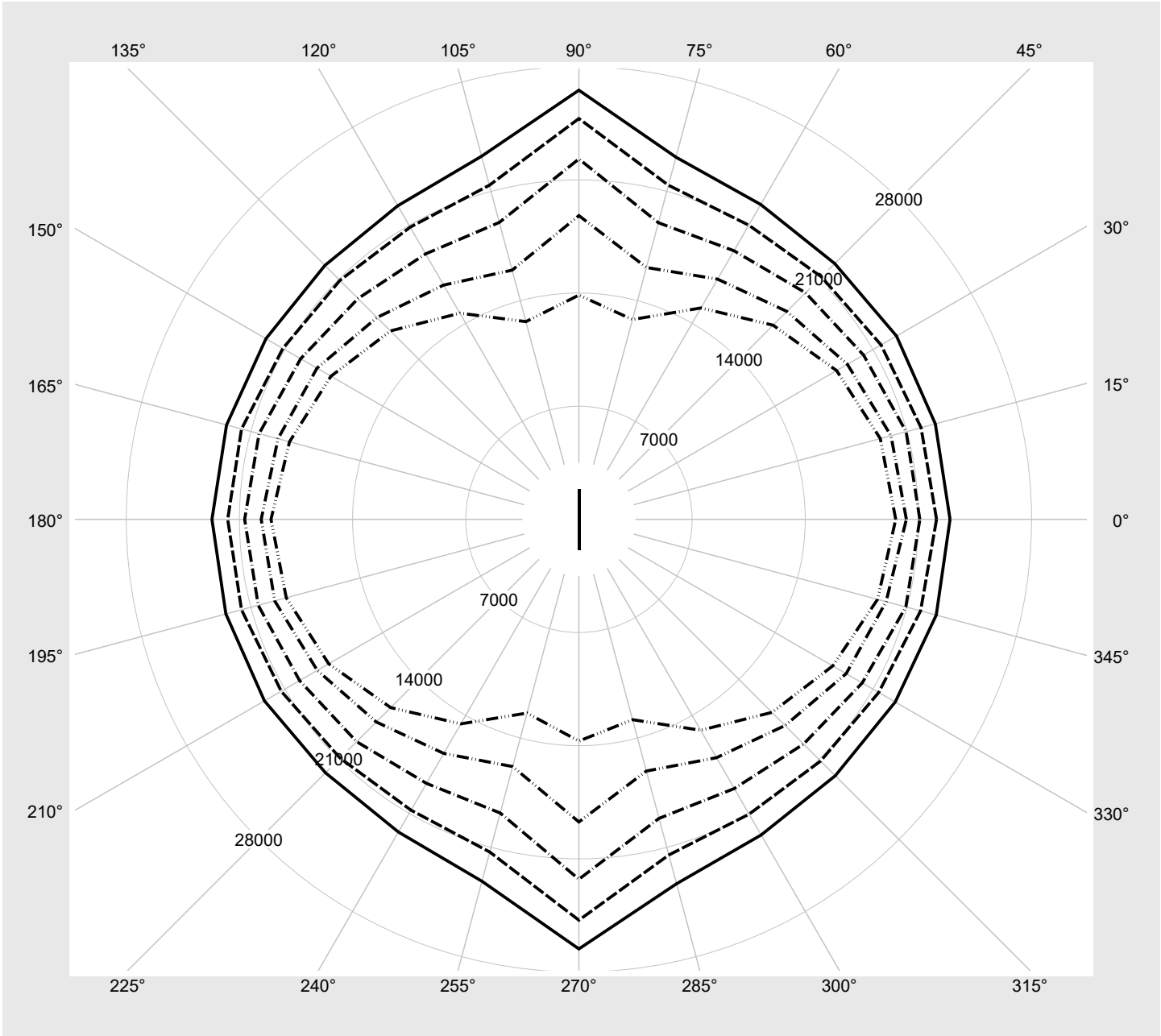
Luminance table	Max. for $\gamma \geq 65^\circ$	Photometric dimensions in mm:	L = 1500	H(C0) = 25	H(C180) = 25
			B = 76	H(C90) = 25	H(C270) = 25

C-planes	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°	330°
γ	Luminance in cd/m²											
45°	26737.2	26706.7	27707.1	31725.5	27818.8	26729.3	26715.2	26695.4	27731.9	31783.1	27831.2	26763.2
50°	25766.9	25673.4	26446.1	30591.8	26486.1	25601.9	25651.3	25613.8	26432.9	30654.9	26525.9	25661.5
55°	24758.4	24669.8	25132.8	29411.0	25147.2	24504.5	24647.9	24555.4	25104.1	29463.8	25219.0	24631.7
60°	23890.0	23676.8	23810.9	28081.3	23779.3	23429.6	23666.0	23498.2	23716.1	28121.5	23889.9	23594.3
65°	22957.7	22685.0	22491.8	26548.6	22403.4	22354.1	22699.2	22459.3	22332.6	26572.2	22544.9	22594.8
70°	22122.4	21582.8	21015.2	24793.9	20873.2	21147.0	21725.2	21264.3	20771.8	24793.9	21055.7	21415.3
75°	21089.0	20332.1	19186.7	22294.8	18963.9	19873.8	20676.3	19950.1	18858.3	22260.9	19227.6	20236.7
80°	20255.5	19178.7	17159.2	18789.5	16736.1	18708.9	19652.3	18686.5	16718.5	18718.2	17023.0	19089.2
85°	19598.5	18407.1	15102.1	13872.5	14727.7	17711.3	19047.5	17869.6	14606.9	13713.7	15063.1	18131.3

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Luminance values in cd/m² γ 65° γ 70° γ 75° γ 80° γ 85° **siteco**



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Family Licross® 21 Opal	Order number: 52TL1DDN4E5M EAN: 4058352049952	LP number 59520_3
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Dimming levels table	environmental temperature: 25°C	sITeco
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Luminous flux %	Dimming level linear	Dimming level logarithmic	Luminous flux [lm]	Power consumption [W]
100	254	254	14560	84.6
95	240	252	13829	80.0
90	226	250	13088	75.2
85	213	248	12395	71.0
80	199	245	11638	66.3
75	186	243	10923	62.0
70	173	240	10204	57.8
65	160	237	9475	53.6
60	147	234	8742	49.3
55	134	231	8001	45.1
50	122	227	7307	41.2
45	109	223	6553	37.1
40	97	219	5851	33.2
35	84	213	5079	29.1
30	72	208	4365	25.4
25	60	201	3645	21.6
20	48	193	2918	17.8
15	36	182	2188	14.0
10	24	168	1454	10.2
5	12	142	712	6.5
1	4	102	217	4.1