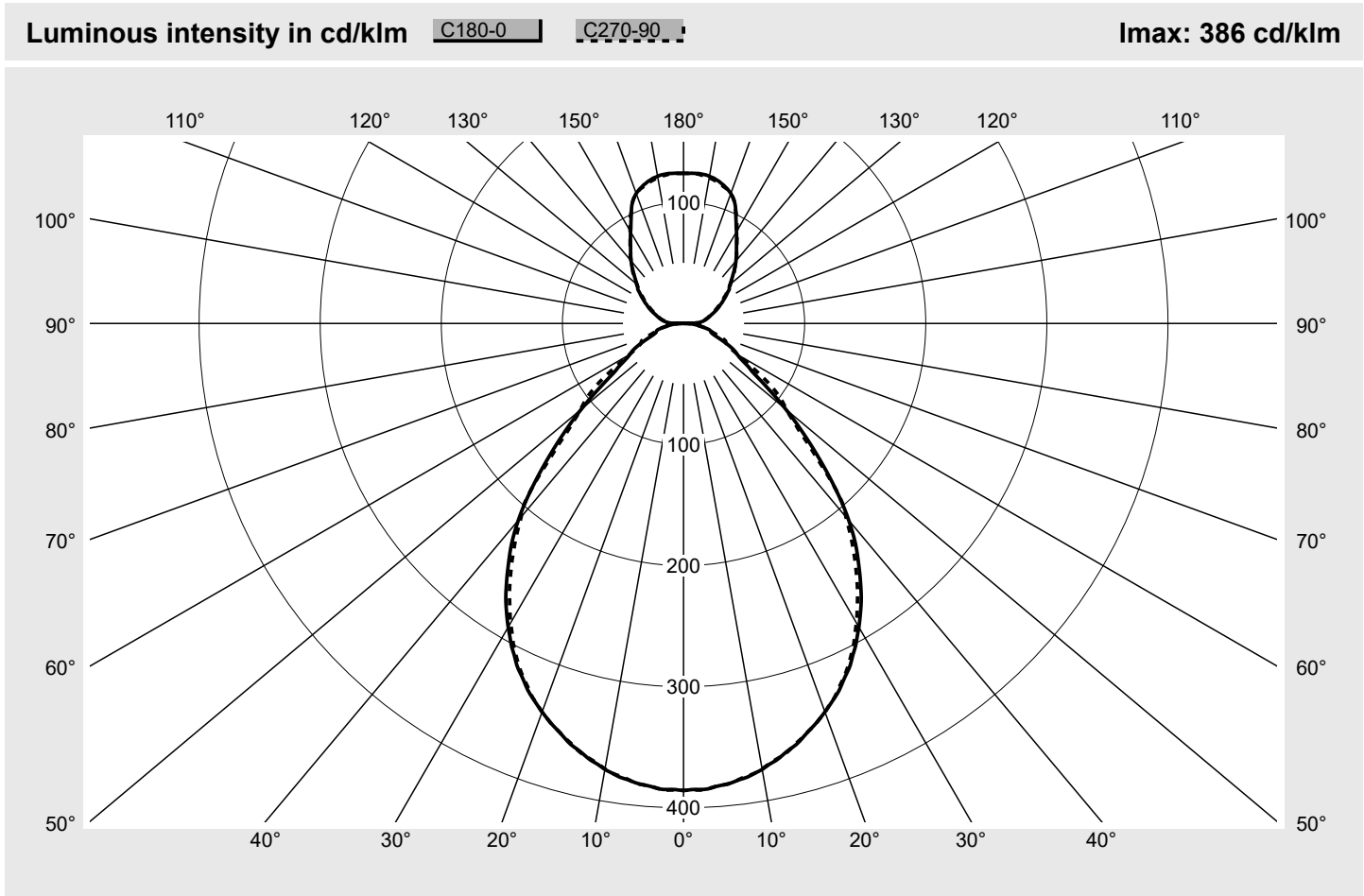


Photometric test report

Family Round 21 L	Order number: 51MR38ND0421B EAN: 4058352830031	LP number 59654_17
	Version	Suspended luminaire, micro prismatic cover, PMMA, wide distribution, direct-/ indirect distribution, aluminium housing, black, UGR≤19 (L65≤3000cd/m²)
	Lamps	LED 4000 K CRI ≥ 80
	Controlgear	ECG-DALI
	Rated values	Net luminous flux = 12230 lm Power consumption = 88.2 W Luminous efficacy = 138.7 lm/W
		serial documentation 31.07.2024
		siteco



Classifications		Luminaire light output ratios	
DIN 5040	B 5 3	η_{LB}	100.0%
CIE	N1=66 N2=90 N3=98	ϕ_u	70.6%
	N4=71 N5=100	ϕ_o	29.4%

Measurement conditions
DIN EN 13032 and DIN 5032

Photometric test report

Family Round 21 L	Order number: 51MR38ND0421B EAN: 4058352830031	LP number 59654_17
Table of values for luminous intensities		Maximum luminous intensity
		siteco

C- planes	0° 180°	15° 165° 195° 345°	30° 150° 210° 330°	45° 135° 225° 315°	60° 120° 240° 300°	75° 105° 255° 285°	90° 270°	Phi-zone	Total Phi-zone
γ	Luminous intensity in cd/klm							Luminous flux in lm/klm	
0°	385.7	385.7	385.7	385.7	385.7	385.7	385.7	0.1	0.1
1°	385.0	385.3	384.9	385.7	385.2	385.8	385.3	0.7	0.8
2°	385.1	385.3	384.7	384.8	385.1	385.3	385.6	1.5	2.3
3°	384.9	384.4	384.2	384.6	384.4	384.5	384.8	2.2	4.5
4°	383.3	383.8	383.7	384.1	383.1	383.9	383.2	2.9	7.4
5°	382.4	382.7	382.8	382.6	382.2	382.5	382.5	3.7	11.1
6°	381.3	381.9	381.4	381.6	380.9	381.5	381.5	4.4	15.5
7°	379.5	380.2	379.8	379.8	379.7	379.9	379.2	5.1	20.5
8°	378.3	378.8	378.4	378.5	378.1	378.8	377.4	5.8	26.3
9°	376.0	376.7	376.0	376.5	375.3	376.7	376.1	6.5	32.8
10°	374.0	374.7	374.1	374.6	373.4	374.4	373.5	7.1	39.9
11°	370.9	372.5	371.7	371.8	370.7	372.2	370.5	7.8	47.7
12°	368.8	369.8	369.0	369.7	368.0	369.4	368.0	8.4	56.1
13°	365.5	367.3	366.0	367.1	365.3	366.8	365.9	9.0	65.1
14°	362.4	364.6	363.2	364.3	362.6	363.9	362.8	9.6	74.8
15°	359.9	361.6	359.9	361.1	359.0	361.0	359.0	10.2	85.0
16°	356.2	358.0	357.0	358.2	356.0	357.8	355.9	10.8	95.8
17°	352.3	355.1	353.8	354.9	352.3	354.3	352.2	11.3	107.1
18°	349.0	351.4	350.0	351.4	348.4	351.0	349.2	11.9	119.0
19°	345.3	348.0	346.4	347.3	344.6	347.0	345.3	12.4	131.4
20°	341.4	343.9	342.3	343.5	340.9	343.5	341.6	12.8	144.2
21°	337.3	340.1	338.4	339.6	336.3	339.0	336.9	13.3	157.5
22°	333.2	335.4	334.1	335.3	332.0	334.2	333.0	13.7	171.2
23°	329.0	331.3	329.5	330.6	327.6	329.9	327.5	14.1	185.4
24°	323.7	326.6	324.4	325.8	322.7	325.1	322.7	14.5	199.8
25°	318.8	321.6	318.9	320.4	317.7	320.1	317.5	14.8	214.7
26°	314.0	316.3	313.5	315.2	312.3	314.2	311.8	15.1	229.8
27°	307.7	310.6	307.6	309.1	306.4	309.0	305.7	15.3	245.1
28°	302.3	304.3	301.4	303.5	300.7	302.6	299.5	15.6	260.7
29°	295.7	298.2	294.8	297.4	294.6	296.4	292.2	15.7	276.4
30°	289.6	291.6	288.0	291.0	288.0	290.1	285.5	15.9	292.3
31°	283.0	285.0	280.5	284.0	282.5	282.8	278.3	16.0	308.2
32°	276.4	277.8	273.8	277.0	275.9	276.1	271.0	16.0	324.2
33°	269.5	270.8	266.2	269.7	269.4	268.6	263.9	16.0	340.3
34°	261.7	263.3	258.9	262.4	262.3	261.6	256.1	16.0	356.3
35°	254.0	256.0	251.6	254.8	255.0	253.9	248.4	16.0	372.3
36°	246.1	248.3	243.8	246.8	247.4	245.8	240.7	15.9	388.1
37°	238.4	240.3	235.8	238.8	239.8	237.6	232.6	15.7	403.8
38°	230.5	231.7	227.8	230.2	232.0	229.0	224.9	15.5	419.3
39°	221.7	222.5	219.5	221.2	223.7	219.6	216.5	15.2	434.6
40°	212.3	213.0	210.1	211.6	215.3	209.7	208.6	14.9	449.5
41°	202.4	202.4	199.7	201.7	206.4	199.2	202.2	14.5	464.0
42°	191.8	191.6	189.6	191.5	196.4	188.5	192.6	14.1	478.1
43°	180.9	180.6	181.0	181.0	186.6	177.8	180.0	13.6	491.6
44°	170.1	169.6	168.4	170.7	176.2	167.8	166.2	13.0	504.6

Photometric test report

Family Round 21 L	Order number: 51MR38ND0421B EAN: 4058352830031	LP number 59654_17
Table of values for luminous intensities		Maximum luminous intensity



C- planes	0° 180°	15° 165° 195° 345°	30° 150° 210° 330°	45° 135° 225° 315°	60° 120° 240° 300°	75° 105° 255° 285°	90° 270°	Phi-zone	Total Phi-zone
γ	Luminous intensity in cd/klm							Luminous flux in lm/klm	
45°	159.3	159.0	156.5	160.3	165.7	157.7	153.3	12.3	516.9
46°	149.0	148.8	145.8	149.4	158.7	147.8	142.7	11.8	528.7
47°	138.9	139.0	133.8	139.0	148.2	138.5	131.6	11.1	539.9
48°	129.2	130.0	125.0	129.2	138.7	129.5	124.1	10.6	550.5
49°	119.9	121.5	117.7	119.6	127.6	121.1	116.8	10.0	560.5
50°	110.2	113.4	111.2	111.0	117.5	113.1	111.4	9.5	569.9
51°	101.0	105.5	106.0	103.0	107.2	105.3	106.9	9.0	578.9
52°	91.7	97.9	100.6	95.4	97.0	97.9	102.7	8.4	587.3
53°	83.1	90.7	95.5	88.4	87.5	90.7	97.6	7.9	595.3
54°	75.5	83.7	90.1	81.4	78.7	83.6	91.8	7.4	602.7
55°	69.0	77.3	84.2	75.2	71.0	77.2	85.3	6.9	609.6
56°	65.5	71.4	77.9	69.2	64.6	71.3	77.7	6.5	616.1
57°	61.0	65.7	71.6	64.1	59.3	65.8	70.3	6.0	622.1
58°	56.6	60.6	65.3	59.7	55.1	60.9	63.3	5.6	627.7
59°	53.4	55.8	59.2	55.9	52.0	56.5	57.2	5.2	632.9
60°	51.3	51.4	53.7	52.3	49.7	52.2	52.0	4.9	637.8
61°	49.4	47.8	49.0	49.2	48.0	48.7	47.9	4.7	642.5
62°	47.4	44.7	45.1	46.5	46.4	45.8	44.5	4.4	646.9
63°	44.8	42.2	42.4	43.9	44.6	43.2	42.0	4.2	651.2
64°	41.9	39.9	40.4	41.1	42.1	40.4	40.1	4.0	655.2
65°	38.6	37.9	39.2	38.3	39.2	37.6	38.7	3.8	659.0
66°	35.6	35.8	38.2	35.5	36.0	34.8	38.2	3.6	662.6
67°	32.6	33.8	37.2	32.9	33.2	32.4	37.8	3.4	666.1
68°	29.9	31.9	35.5	30.6	30.7	30.2	36.7	3.3	669.3
69°	27.6	30.0	33.5	28.7	28.6	28.6	34.5	3.1	672.4
70°	25.9	28.4	31.1	27.6	26.9	27.4	31.9	2.9	675.3
71°	24.7	26.9	28.8	26.9	25.4	26.4	29.3	2.8	678.1
72°	23.9	25.4	26.8	26.0	24.1	25.5	27.0	2.7	680.8
73°	23.6	24.0	25.2	24.7	23.2	24.3	25.2	2.5	683.3
74°	23.3	22.8	24.1	23.1	22.7	23.0	23.8	2.4	685.8
75°	22.8	21.7	23.0	21.5	22.4	21.5	22.7	2.3	688.1
76°	22.2	20.4	21.8	20.1	21.8	20.1	21.7	2.2	690.4
77°	20.7	19.2	20.5	18.8	20.5	18.7	20.4	2.1	692.5
78°	18.8	17.9	18.9	17.5	18.8	17.4	19.0	2.0	694.4
79°	16.7	16.4	17.2	16.1	16.9	16.0	17.4	1.8	696.2
80°	14.7	14.9	15.4	14.5	15.2	14.7	15.7	1.6	697.8
81°	13.5	13.4	13.8	13.1	13.7	13.1	13.9	1.5	699.3
82°	12.3	11.8	12.3	11.8	12.4	11.7	12.2	1.3	700.6
83°	11.3	10.5	10.9	10.4	11.1	10.4	10.6	1.2	701.8
84°	10.0	9.2	9.5	9.1	9.7	9.1	9.3	1.0	702.8
85°	8.7	7.8	8.3	7.7	8.3	7.7	8.0	0.9	703.7
86°	7.4	6.2	6.9	6.3	7.0	6.2	6.6	0.7	704.4
87°	6.2	4.8	5.5	4.8	5.5	4.7	5.3	0.6	705.0
88°	4.2	3.4	4.0	3.5	4.0	3.5	3.9	0.4	705.4
89°	2.6	2.5	2.6	2.7	2.5	2.7	2.5	0.3	705.7

Photometric test report

Family Round 21 L	Order number: 51MR38ND0421B EAN: 4058352830031	LP number 59654_17
Table of values for luminous intensities		Maximum luminous intensity
		siteco

C- planes	0° 180°	15° 165° 195° 345°	30° 150° 210° 330°	45° 135° 225° 315°	60° 120° 240° 300°	75° 105° 255° 285°	90° 270°	Phi-zone	Total Phi-zone
γ	Luminous intensity in cd/klm							Luminous flux in lm/klm	
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	705.7
91°	9.7	8.6	9.0	8.2	8.4	8.0	8.2	0.9	706.6
92°	11.4	10.0	10.8	9.6	10.3	9.2	10.0	1.1	707.7
93°	12.4	11.5	11.9	11.1	11.5	11.0	11.2	1.3	709.0
94°	13.6	12.8	12.8	12.5	12.8	12.3	12.4	1.4	710.3
95°	14.4	13.7	14.1	13.3	13.9	13.4	13.5	1.5	711.8
96°	15.6	15.1	15.2	14.4	15.2	14.6	14.3	1.6	713.5
97°	16.5	16.1	16.2	15.7	16.1	15.7	15.2	1.7	715.2
98°	17.1	16.8	16.8	16.6	17.0	16.6	16.1	1.8	717.0
99°	18.1	17.8	17.9	17.6	17.7	17.3	17.2	1.9	718.9
100°	18.6	18.7	18.5	18.2	18.5	18.3	18.1	2.0	720.9
101°	19.5	19.2	19.5	19.1	19.2	19.3	19.1	2.1	723.0
102°	20.2	20.0	20.1	19.6	20.1	20.1	19.6	2.1	725.1
103°	20.9	20.8	20.8	20.4	20.9	20.8	20.5	2.2	727.4
104°	21.5	21.5	21.7	21.3	21.6	21.6	20.9	2.3	729.6
105°	22.4	22.3	22.3	22.1	22.4	22.2	21.8	2.4	732.0
106°	23.1	22.7	23.0	23.0	23.1	22.9	22.5	2.4	734.4
107°	23.8	23.6	23.8	23.7	23.9	23.8	23.4	2.5	736.9
108°	24.8	24.5	24.7	24.6	24.7	24.8	24.0	2.6	739.5
109°	25.8	25.4	25.4	25.3	25.8	25.6	24.8	2.6	742.1
110°	26.9	26.4	26.4	26.2	26.6	26.7	26.1	2.7	744.8
111°	27.9	27.2	27.6	27.1	27.6	27.6	26.8	2.8	747.6
112°	29.1	28.5	28.5	28.0	28.4	28.5	27.8	2.9	750.5
113°	30.1	29.5	29.5	28.9	29.4	29.3	28.8	3.0	753.5
114°	31.3	30.4	30.4	29.9	30.5	30.4	29.8	3.0	756.5
115°	32.2	31.4	31.5	31.2	31.6	31.4	30.8	3.1	759.6
116°	33.2	32.2	32.5	32.2	32.7	32.6	31.8	3.2	762.8
117°	34.1	33.3	33.6	33.4	33.7	33.6	33.2	3.3	766.1
118°	35.6	34.5	34.9	34.4	34.9	34.8	34.3	3.4	769.5
119°	36.7	35.6	36.1	35.8	36.2	35.8	35.4	3.4	772.9
120°	37.8	36.8	37.1	36.8	37.1	37.1	36.7	3.5	776.5
121°	39.1	38.0	38.4	38.2	38.4	38.2	38.0	3.6	780.0
122°	40.4	39.2	39.7	39.3	39.8	39.3	39.1	3.7	783.7
123°	41.7	40.6	41.0	40.6	41.0	40.4	40.3	3.7	787.5
124°	43.0	41.9	42.2	41.8	42.6	41.8	42.2	3.8	791.3
125°	44.2	43.2	43.5	43.2	44.1	43.2	43.1	3.9	795.2
126°	46.0	44.6	44.9	44.6	45.6	44.4	44.5	4.0	799.2
127°	47.3	45.9	46.3	45.9	47.1	45.9	46.0	4.1	803.2
128°	47.9	47.5	47.5	47.6	48.8	47.4	47.7	4.1	807.4
129°	48.8	49.0	49.0	48.9	50.2	48.9	49.2	4.2	811.6
130°	50.0	50.4	50.2	50.7	51.6	50.4	50.7	4.3	815.8
131°	51.7	52.2	51.6	52.1	52.9	52.1	52.0	4.3	820.1
132°	53.2	53.8	53.2	53.9	54.2	53.7	53.6	4.4	824.5
133°	54.7	55.5	55.1	55.7	55.7	55.4	55.1	4.4	828.9
134°	56.4	57.2	56.6	57.2	57.3	57.0	56.7	4.5	833.4

Photometric test report

Family Round 21 L	Order number: 51MR38ND0421B EAN: 4058352830031	LP number 59654_17
Table of values for luminous intensities		Maximum luminous intensity
		siteco

C- planes	0° 180°	15° 165° 195° 345°	30° 150° 210° 330°	45° 135° 225° 315°	60° 120° 240° 300°	75° 105° 255° 285°	90° 270°	Phi-zone	Total Phi-zone
γ	Luminous intensity in cd/klm							Luminous flux in lm/klm	
135°	58.1	59.0	58.1	59.0	58.8	58.8	58.9	4.6	838.0
136°	60.0	60.6	59.8	60.8	60.2	60.5	60.5	4.6	842.6
137°	61.7	62.4	61.5	62.5	61.7	62.2	62.0	4.6	847.2
138°	63.9	64.1	63.4	64.4	63.3	64.1	63.7	4.7	851.9
139°	65.6	66.0	65.1	66.2	65.2	65.9	65.6	4.7	856.6
140°	67.4	67.8	66.9	68.2	67.2	67.8	67.5	4.8	861.4
141°	69.0	69.7	68.8	69.8	69.0	69.8	69.4	4.8	866.2
142°	70.9	71.8	70.6	71.9	70.7	71.7	71.4	4.8	871.0
143°	72.5	73.6	72.5	74.0	72.7	73.7	72.9	4.8	875.8
144°	74.4	75.7	74.5	76.0	74.5	75.8	74.8	4.8	880.7
145°	76.2	77.6	76.3	78.2	76.8	78.0	76.8	4.9	885.5
146°	78.3	79.7	78.5	80.1	78.9	80.2	78.8	4.9	890.4
147°	80.4	82.0	80.5	82.5	81.1	82.5	80.9	4.9	895.3
148°	82.7	84.2	82.8	84.8	83.6	84.8	83.3	4.9	900.2
149°	85.1	86.7	85.2	87.2	85.7	87.3	85.6	4.9	905.0
150°	87.5	89.2	87.7	89.8	88.1	89.7	88.1	4.9	909.9
151°	89.8	91.9	90.6	92.6	91.1	92.5	91.0	4.9	914.8
152°	92.6	94.4	93.3	95.4	93.9	95.3	93.8	4.9	919.6
153°	95.5	97.4	96.2	98.4	96.9	98.1	96.9	4.8	924.4
154°	98.6	100.4	99.2	101.1	99.6	101.0	99.6	4.8	929.3
155°	101.9	103.2	102.4	104.0	102.8	103.6	102.1	4.8	934.0
156°	105.4	105.7	105.2	106.2	105.4	106.3	105.0	4.7	938.7
157°	108.2	108.5	107.6	108.7	108.1	108.7	108.1	4.6	943.4
158°	110.5	110.6	110.1	111.0	110.3	110.6	110.5	4.5	947.9
159°	112.4	112.7	112.1	112.7	112.1	112.4	112.4	4.4	952.3
160°	114.2	114.4	113.8	114.0	113.9	113.9	114.1	4.3	956.6
161°	115.6	116.0	115.6	115.8	115.3	115.4	115.3	4.1	960.7
162°	116.8	117.3	116.7	117.1	116.4	116.6	116.5	4.0	964.7
163°	117.9	118.3	118.0	117.8	117.7	117.6	117.2	3.8	968.5
164°	119.0	119.2	118.9	119.0	118.6	118.4	118.0	3.6	972.1
165°	119.9	120.2	120.0	120.0	119.3	119.5	119.0	3.4	975.5
166°	120.9	121.1	120.7	120.8	120.3	120.2	119.8	3.2	978.7
167°	121.6	121.7	121.5	121.4	121.2	120.8	120.4	3.0	981.7
168°	122.4	122.3	122.1	122.1	121.7	121.4	121.0	2.8	984.4
169°	122.9	123.0	122.6	122.6	122.3	122.0	121.7	2.6	987.0
170°	123.4	123.3	122.9	123.1	122.8	122.4	122.1	2.3	989.3
171°	123.9	123.7	123.4	123.5	123.2	122.8	122.5	2.1	991.5
172°	124.1	124.1	123.5	123.9	123.4	123.1	123.1	1.9	993.3
173°	124.2	124.2	123.8	123.9	123.7	123.1	123.3	1.7	995.0
174°	124.4	124.2	123.9	124.3	124.0	123.3	123.8	1.4	996.4
175°	124.3	124.3	124.2	124.2	124.2	123.4	124.0	1.2	997.6
176°	124.2	124.3	124.1	124.1	124.2	123.4	124.0	0.9	998.5
177°	124.2	124.1	124.1	123.8	124.2	123.3	124.1	0.7	999.3
178°	123.9	123.9	124.2	123.9	124.0	123.4	124.1	0.5	999.7
179°	123.9	123.9	124.0	124.1	124.0	123.3	124.0	0.2	1000.0
180°	124.0	124.0	124.0	124.0	124.0	124.0	124.0	0.0	1000.0

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UGR-Table			Standard room							siteco	
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	13.7	14.8	14.4	15.5	16.4	13.7	14.8	14.4	15.5	16.4
	3H	14.1	15.1	14.9	15.8	16.8	14.2	15.1	14.9	15.9	16.8
	4H	14.5	15.4	15.3	16.2	17.1	14.6	15.5	15.4	16.2	17.2
	6H	15.0	15.8	15.7	16.5	17.5	15.0	15.8	15.8	16.6	17.5
	8H	15.0	15.8	15.8	16.6	17.5	15.1	15.8	15.9	16.6	17.6
	12H	15.2	15.9	16.0	16.7	17.7	15.2	15.9	16.0	16.7	17.7
4H	2H	13.8	14.7	14.6	15.5	16.4	13.8	14.7	14.6	15.5	16.4
	3H	14.6	15.3	15.4	16.1	17.1	14.6	15.3	15.4	16.1	17.1
	4H	15.1	15.7	15.9	16.5	17.5	15.1	15.7	15.9	16.5	17.5
	6H	15.6	16.2	16.5	17.0	18.0	15.6	16.2	16.4	17.0	18.0
	8H	15.7	16.2	16.6	17.1	18.1	15.7	16.2	16.5	17.1	18.1
	12H	16.0	16.5	16.9	17.3	18.3	16.0	16.4	16.8	17.3	18.3
8H	4H	15.2	15.7	16.0	16.5	17.6	15.2	15.7	16.0	16.5	17.6
	6H	15.8	16.2	16.6	17.1	18.1	15.8	16.2	16.6	17.0	18.1
	8H	16.1	16.5	17.0	17.3	18.4	16.1	16.5	17.0	17.3	18.4
	12H	16.5	16.8	17.4	17.7	18.7	16.5	16.8	17.3	17.6	18.7
12H	4H	15.3	15.7	16.1	16.6	17.6	15.3	15.7	16.1	16.6	17.6
	6H	16.0	16.3	16.8	17.2	18.2	16.0	16.3	16.8	17.2	18.2
	8H	16.3	16.6	17.2	17.5	18.6	16.3	16.6	17.2	17.5	18.5

Luminance table		Max. for $\gamma \geq 65^\circ$		Photometric dimensions in mm:		D = 840	
C-planes	0° 180°	15° 165° 195° 345°	30° 150° 210° 330°	45° 135° 225° 315°	60° 120° 240° 300°	75° 105° 255° 285°	90° 270°
γ	Luminance in cd/m²						
45°	4973.1	4962.1	4883.1	5004.0	5171.0	4921.5	4786.0
50°	3782.6	3893.6	3819.4	3810.1	4033.4	3883.3	3824.2
55°	2656.4	2974.7	3239.6	2893.5	2730.3	2970.9	3280.1
60°	2263.8	2270.4	2370.2	2309.8	2194.0	2305.3	2292.9
65°	2017.9	1976.6	2045.1	2002.2	2044.5	1962.5	2019.5
70°	1671.5	1831.0	2008.5	1783.9	1732.9	1766.4	2056.3
75°	1946.9	1850.6	1958.8	1836.1	1912.8	1836.9	1933.3
80°	1870.6	1893.5	1960.9	1847.7	1938.0	1864.3	1992.6
85°	2209.3	1963.6	2090.3	1958.6	2102.9	1938.3	2019.4

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

