


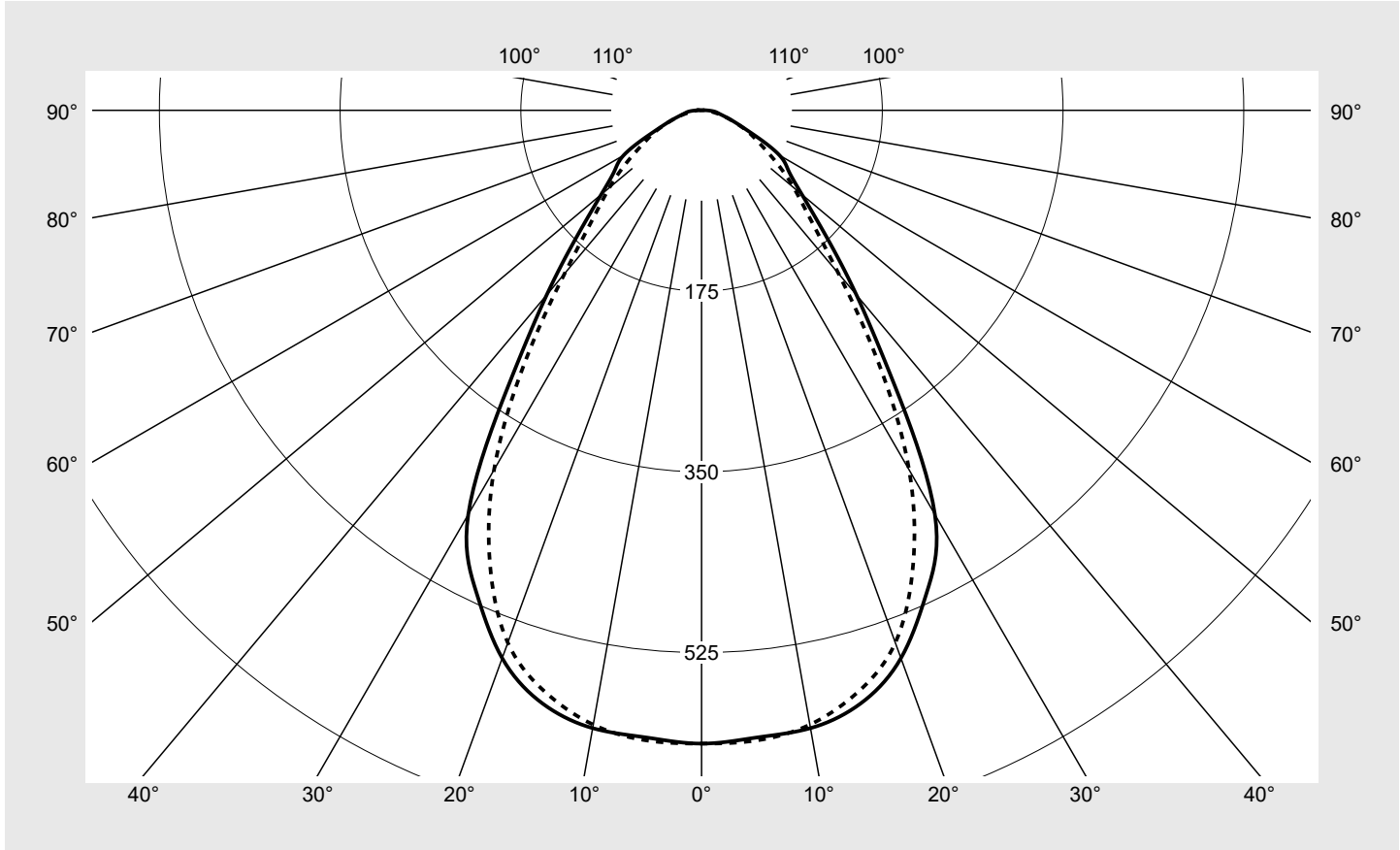


Photometric test report

Family Highbay 11	Order number: 51HLA2D14FCAD + 59HL91004 EAN: 4058352341629 + 4058352341674	LP number 58927_7
	Version wide distribution, UGR≤25, prismatic cover, polycarbonate, LLD	serial documentation 13.06.2019
	Lamps LED 4000 K CRI ≥ 80 Controlgear ECG-DALI Rated values Net luminous flux = 13110 lm Power consumption = 81.2 W Luminous efficacy = 161.5 lm/W	
		

Luminous intensity in cd/klm C180-0 C270-90 **Imax: 613 cd/klm**



Classifications	
DIN 5040	A 5 1
CIE	N1=71 N2=92 N3=98 N4=99 N5=100

Luminaire light output ratios	
η_{LB}	100.0%
ϕ_u	99.2%
ϕ_o	0.8%

Measurement conditions
 DIN EN 13032 and DIN 5032

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Table of values for luminous intensities		Maximum luminous intensity
		siteco

C-planes γ	0° 180°	15°	30°	45°	60°	75°	90° 270°	Phi-zone	Total Phi-zone
		165° 195° 345°	150° 210° 330°	135° 225° 315°	120° 240° 300°	105° 255° 285°			
Luminous intensity in cd/klm							Luminous flux in lm/klm		
0°	613.1	613.1	613.1	613.1	613.1	613.1	613.1	3.7	3.7
5°	609.6	611.1	612.7	613.1	612.4	613.5	612.4	29.3	32.9
10°	607.4	608.6	610.2	610.3	606.5	606.0	604.0	57.9	90.8
15°	594.6	597.6	602.3	599.6	593.1	586.2	583.4	84.4	175.1
20°	564.4	569.0	575.3	578.9	566.2	554.6	548.6	106.3	281.4
25°	515.6	519.2	532.1	539.9	522.8	495.8	484.8	120.1	401.5
30°	451.9	458.6	489.1	475.0	449.8	415.9	401.9	124.0	525.5
35°	327.1	344.0	384.2	395.7	355.4	317.3	299.0	110.5	636.0
40°	233.3	244.0	283.0	307.1	269.8	223.2	206.3	90.8	726.9
45°	168.2	173.3	198.5	225.5	193.2	156.5	149.2	71.4	798.3
50°	126.9	129.4	133.3	144.3	131.1	119.6	116.5	54.5	852.8
55°	103.2	99.6	94.5	87.8	94.2	91.0	89.0	42.1	895.0
60°	87.2	78.0	70.2	56.0	68.9	67.5	66.1	33.0	928.0
65°	55.4	55.0	48.9	35.9	50.1	50.3	50.2	24.3	952.2
70°	35.3	34.3	31.3	21.7	32.3	34.6	34.5	16.2	968.5
75°	23.4	22.4	19.9	14.1	19.6	21.8	22.9	10.7	979.2
80°	16.6	15.4	13.9	10.7	12.1	12.4	12.8	7.1	986.3
85°	12.0	10.4	9.7	7.3	6.9	6.7	7.4	4.6	990.9
90°	4.7	4.3	4.8	4.8	4.6	4.2	4.5	2.5	993.4
95°	2.6	2.7	3.5	3.9	3.7	3.3	3.9	1.8	995.3
100°	1.7	1.8	2.2	2.7	2.5	2.3	2.8	1.2	996.5
105°	1.5	1.3	1.3	1.5	1.7	1.9	2.3	0.8	997.3
110°	1.2	1.1	0.9	0.8	1.2	1.2	2.0	0.6	997.9
115°	1.1	1.0	0.8	0.7	1.1	1.0	1.8	0.5	998.4
120°	0.9	0.8	0.7	0.6	0.9	1.0	1.5	0.4	998.8
125°	0.8	0.7	0.6	0.6	0.8	1.0	1.3	0.3	999.2
130°	0.9	0.8	0.8	0.8	0.8	1.0	1.2	0.4	999.6
135°	1.1	1.1	1.1	1.1	1.1	1.1	1.2	0.4	1000.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
175°	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	1000.0

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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	22.1	23.6	22.5	23.9	24.2	21.6	23.0	21.9	23.3	23.6
	3H	22.7	24.0	23.1	24.4	24.7	22.2	23.5	22.6	23.8	24.2
	4H	22.9	24.1	23.3	24.5	24.8	22.4	23.6	22.8	24.0	24.4
	6H	23.1	24.2	23.5	24.6	25.0	22.6	23.7	23.0	24.0	24.4
	8H	23.3	24.3	23.7	24.6	25.0	22.7	23.7	23.1	24.0	24.5
	12H	23.4	24.3	23.8	24.7	25.1	22.7	23.6	23.2	24.0	24.4
4H	2H	22.3	23.5	22.7	23.8	24.2	21.8	23.0	22.2	23.3	23.7
	3H	23.0	24.0	23.4	24.4	24.8	22.5	23.5	23.0	23.9	24.3
	4H	23.2	24.1	23.7	24.5	25.0	22.8	23.7	23.3	24.1	24.6
	6H	23.5	24.3	24.0	24.7	25.2	23.0	23.8	23.5	24.2	24.7
	8H	23.7	24.4	24.1	24.8	25.3	23.1	23.8	23.6	24.3	24.7
	12H	23.9	24.5	24.4	24.9	25.4	23.2	23.8	23.7	24.3	24.8
8H	4H	23.3	24.0	23.7	24.4	24.9	22.9	23.6	23.3	24.0	24.5
	6H	23.6	24.2	24.1	24.6	25.2	23.1	23.7	23.6	24.2	24.7
	8H	23.8	24.3	24.3	24.8	25.3	23.2	23.7	23.7	24.2	24.7
	12H	24.1	24.5	24.6	25.0	25.5	23.4	23.8	23.9	24.3	24.8
12H	4H	23.3	23.9	23.8	24.3	24.8	22.9	23.5	23.4	23.9	24.4
	6H	23.6	24.1	24.1	24.6	25.1	23.2	23.6	23.7	24.1	24.6
	8H	23.8	24.3	24.4	24.8	25.3	23.3	23.7	23.8	24.2	24.7

Luminance table		Max. for $\gamma \geq 65^\circ$		Photometric dimensions in mm:		L = 306	H(C0) = 21	H(C180) = 21
						B = 330	H(C90) = 21	H(C270) = 21
C-planes	γ	0°	15°	30°	45°	60°	75°	90°
		180°	165°	150°	135°	120°	105°	270°
		195°	210°	225°	240°	255°		
		345°	330°	315°	300°	285°		
		Luminance in cd/m ²						
45°		29031.6	29483.0	33452.3	37859.0	32514.0	26542.9	25634.8
50°		23822.5	23874.5	24322.2	26231.2	23889.0	21986.8	21751.1
55°		21415.7	20243.7	18958.1	17536.9	18855.2	18414.0	18338.7
60°		20398.5	17818.3	15782.7	12508.7	15446.6	15334.4	15330.5
65°		14971.6	14433.4	12598.6	9190.4	12880.3	13110.8	13432.0
70°		11418.0	10687.4	9550.9	6550.5	9795.5	10706.0	11023.8
75°		9478.7	8659.6	7497.9	5247.7	7343.4	8371.6	9139.2
80°		9099.3	7945.7	6904.3	5240.0	5950.6	6290.1	6886.1
85°		10368.1	8153.1	7120.5	5286.0	5057.9	5134.2	6161.6

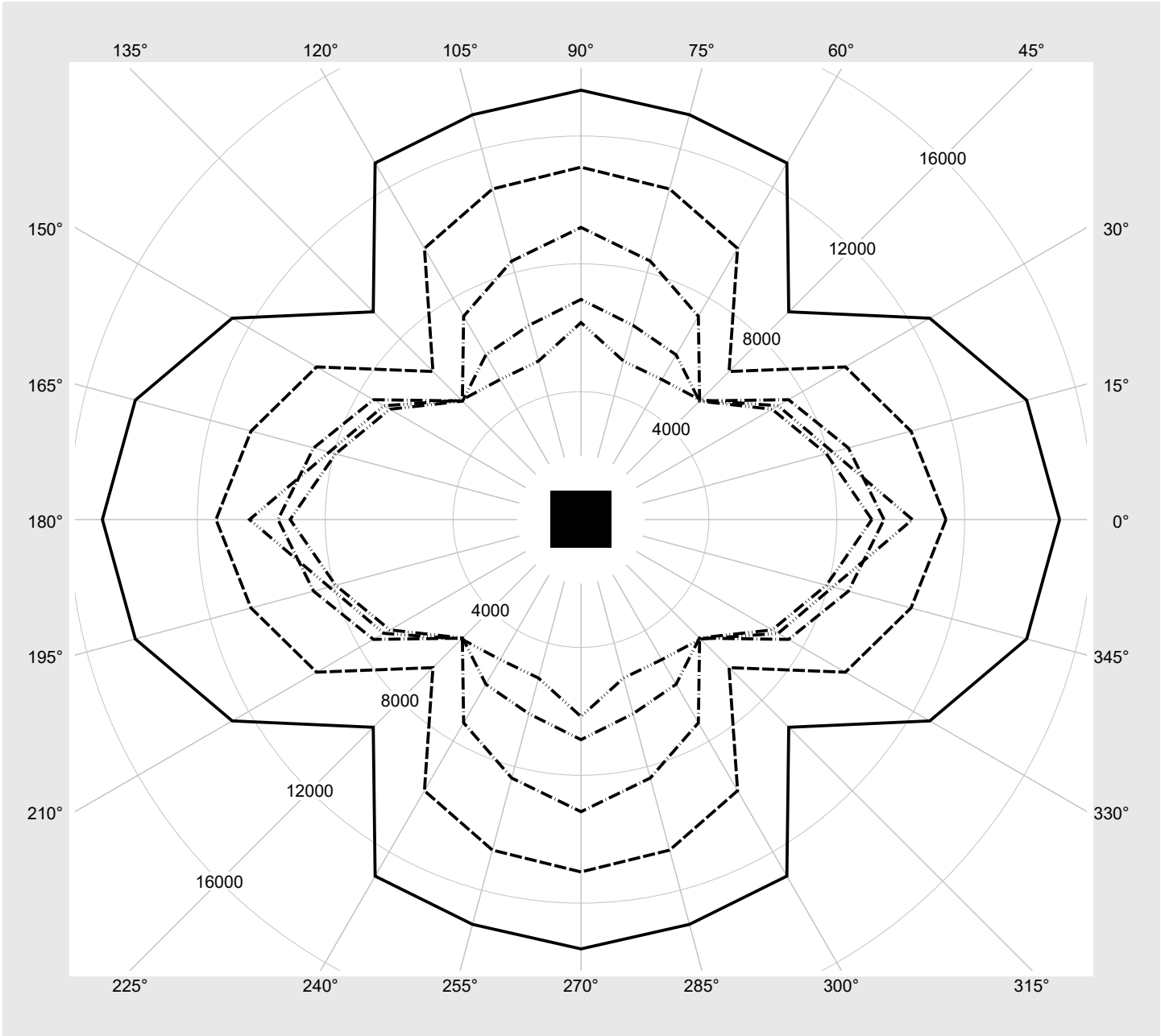
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Luminance values in cd/m²

γ 65°
 γ 70°
 γ 75°
 γ 80°
 γ 85°



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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	13110	81.2
95	241	252	12455	76.8
90	227	250	11799	72.5
85	214	248	11144	68.4
80	201	245	10488	64.2
75	188	243	9833	60.0
70	175	240	9177	56.0
65	162	237	8522	51.9
60	149	234	7866	48.0
55	136	231	7211	44.1
50	124	228	6555	40.2
45	111	224	5900	36.3
40	99	219	5244	32.5
35	86	215	4589	28.8
30	74	209	3933	25.1
25	62	203	3278	21.3
20	50	195	2622	17.6
15	38	185	1967	14.0
10	26	170	1310	10.4