


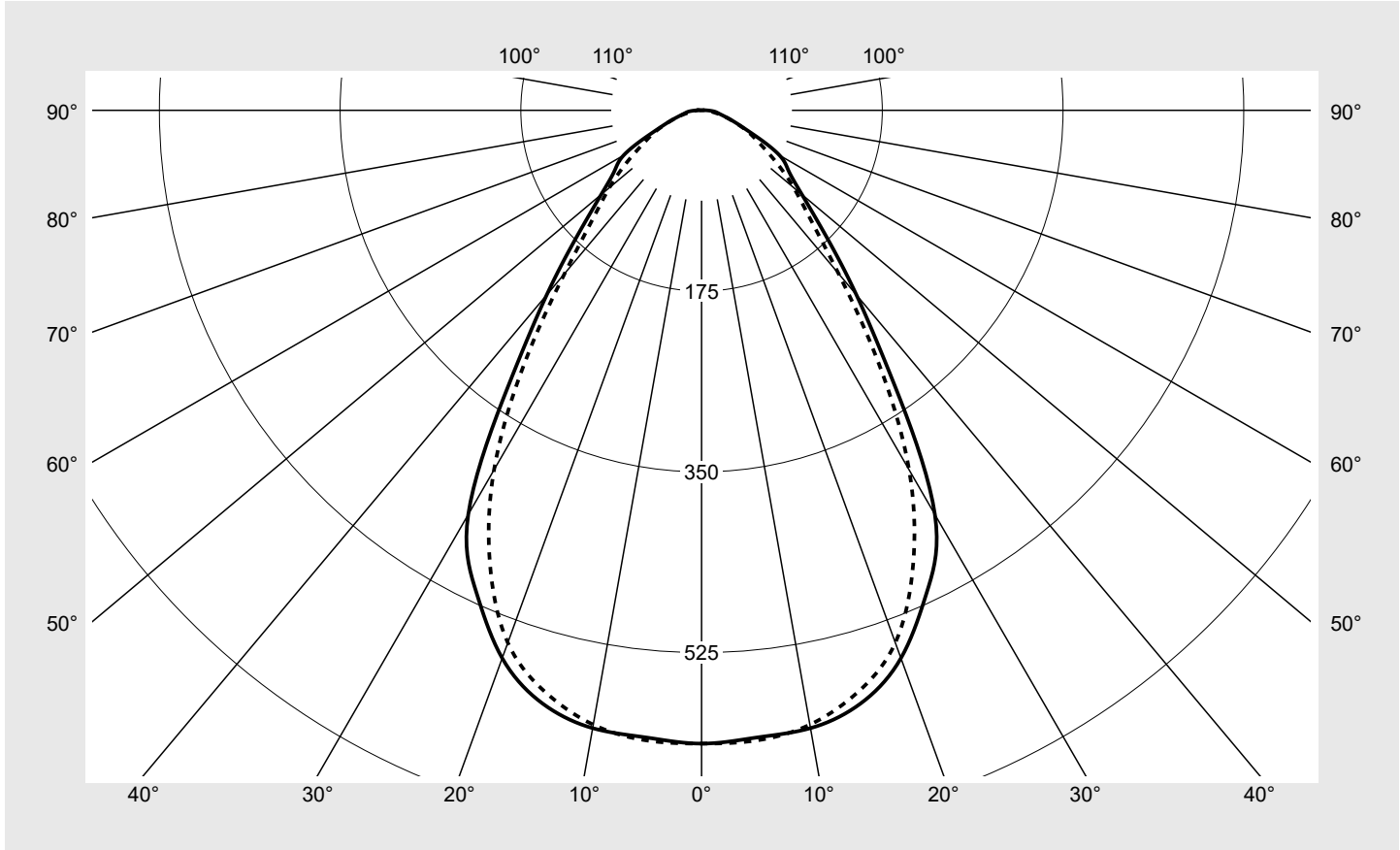


Photometric test report

Family Highbay 11	Order number: 51HLA2D24NCA + 59HL91004 EAN: 4058352322987 + 4058352341674	LP number 58927_4
	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 = 30180 lm Power consumption = 189.6 W Luminous efficacy = 159.2 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	22.7	24.1	23.0	24.4	24.8	22.2	23.6	22.5	23.9	24.3
	3H	23.3	24.5	23.7	24.9	25.2	22.9	24.1	23.2	24.5	24.8
	4H	23.5	24.7	23.9	25.0	25.4	23.1	24.3	23.5	24.6	25.0
	6H	23.7	24.7	24.1	25.1	25.5	23.2	24.3	23.7	24.7	25.1
	8H	23.8	24.8	24.2	25.2	25.6	23.4	24.3	23.8	24.7	25.1
	12H	23.9	24.8	24.4	25.2	25.6	23.4	24.3	23.8	24.7	25.1
4H	2H	22.8	24.0	23.2	24.4	24.7	22.4	23.6	22.8	23.9	24.3
	3H	23.5	24.5	23.9	24.9	25.3	23.2	24.2	23.6	24.6	25.0
	4H	23.8	24.7	24.2	25.1	25.5	23.5	24.4	23.9	24.8	25.2
	6H	24.1	24.8	24.5	25.3	25.7	23.7	24.5	24.2	24.9	25.4
	8H	24.2	24.9	24.7	25.4	25.8	23.8	24.5	24.3	25.0	25.4
	12H	24.4	25.0	24.9	25.5	26.0	23.9	24.5	24.4	25.0	25.5
8H	4H	23.8	24.5	24.3	25.0	25.4	23.5	24.2	24.0	24.7	25.1
	6H	24.2	24.7	24.7	25.2	25.7	23.8	24.4	24.3	24.9	25.4
	8H	24.4	24.9	24.9	25.4	25.9	23.9	24.4	24.4	24.9	25.5
	12H	24.6	25.1	25.2	25.6	26.1	24.1	24.5	24.6	25.0	25.5
12H	4H	23.8	24.4	24.3	24.9	25.4	23.6	24.1	24.0	24.6	25.1
	6H	24.2	24.7	24.7	25.1	25.7	23.9	24.3	24.4	24.8	25.3
	8H	24.4	24.8	24.9	25.3	25.9	24.0	24.4	24.5	24.9	25.4

Luminance table		Max. for $\gamma \geq 65^\circ$		Photometric dimensions in mm:		L = 612	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°	285°	
		345°	330°	315°	300°			
Luminance in cd/m ²								
45°		33416.3	34217.4	39120.7	44565.7	38472.2	31516.4	30485.4
50°		27420.4	27748.6	28522.7	30999.3	28404.2	26251.3	26019.7
55°		24650.1	23569.6	22305.9	20822.0	22549.6	22131.9	22094.5
60°		23479.3	20790.6	18646.2	14938.2	18606.4	18583.4	18635.8
65°		17232.8	16888.2	14963.3	11057.7	15660.2	16060.4	16520.3
70°		13142.5	12553.1	11425.8	7962.1	12062.3	13310.4	13781.9
75°		10910.2	10229.1	9065.5	6474.8	9214.8	10641.7	11713.7
80°		10473.6	9475.0	8495.5	6627.2	7705.0	8302.2	9217.2
85°		11934.0	9912.5	9076.1	7026.1	6982.8	7338.2	9090.1

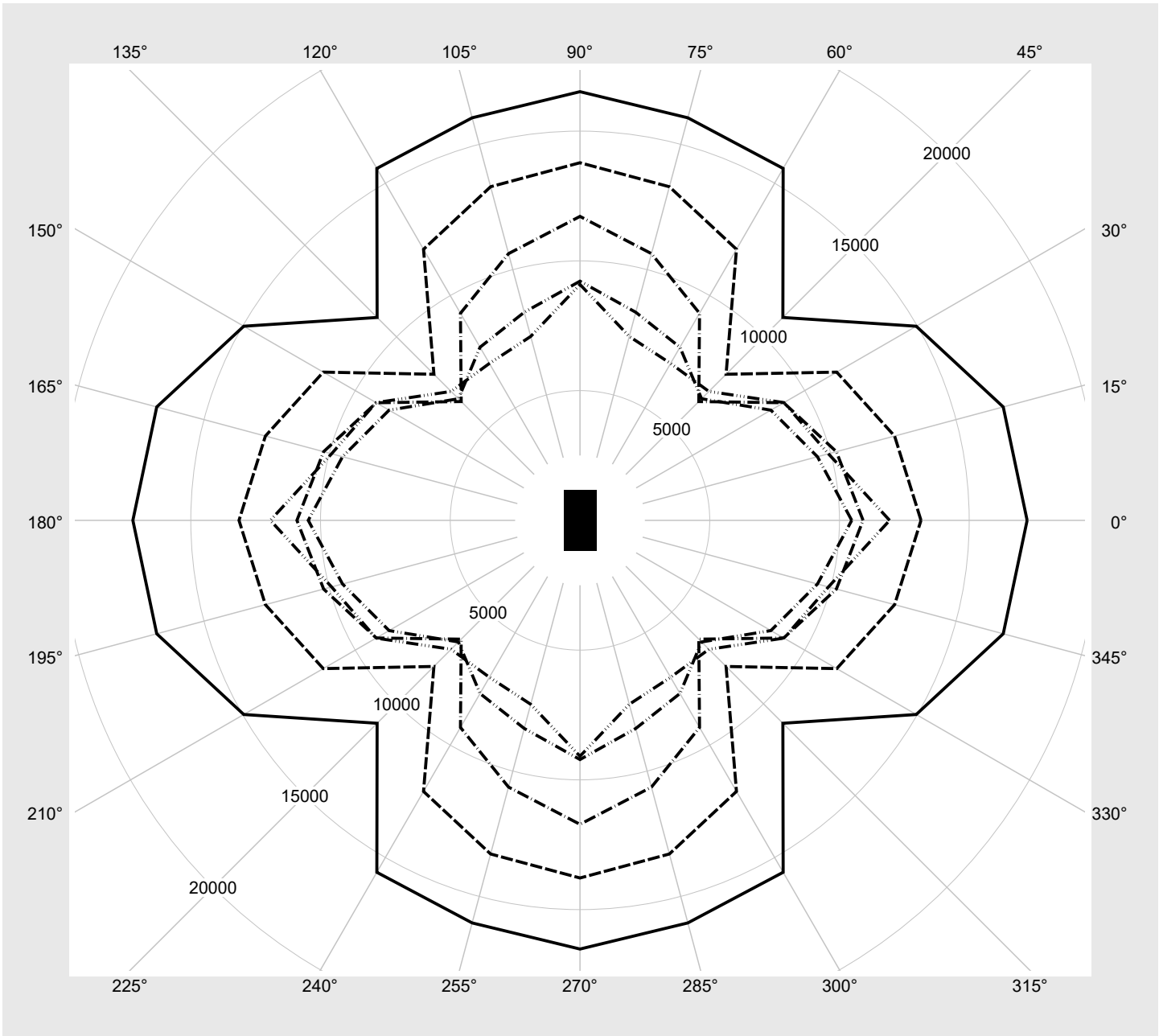
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Luminance values in cd/m²

γ 65°
 γ 70°
 γ 75°
 γ 80°
 γ 85°

siteco



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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	30180	189.6
95	240	252	28671	179.4
90	227	250	27162	169.2
85	213	248	25653	158.9
80	200	245	24144	148.9
75	187	243	22635	139.4
70	174	240	21126	129.5
65	161	237	19617	120.1
60	148	234	18108	110.8
55	135	231	16599	101.4
50	123	227	15090	92.3
45	110	224	13581	83.2
40	98	219	12072	74.4
35	85	214	10563	65.5
30	73	209	9054	56.9
25	61	202	7545	48.4
20	49	194	6036	39.9
15	37	184	4527	31.4
10	25	170	3017	23.0