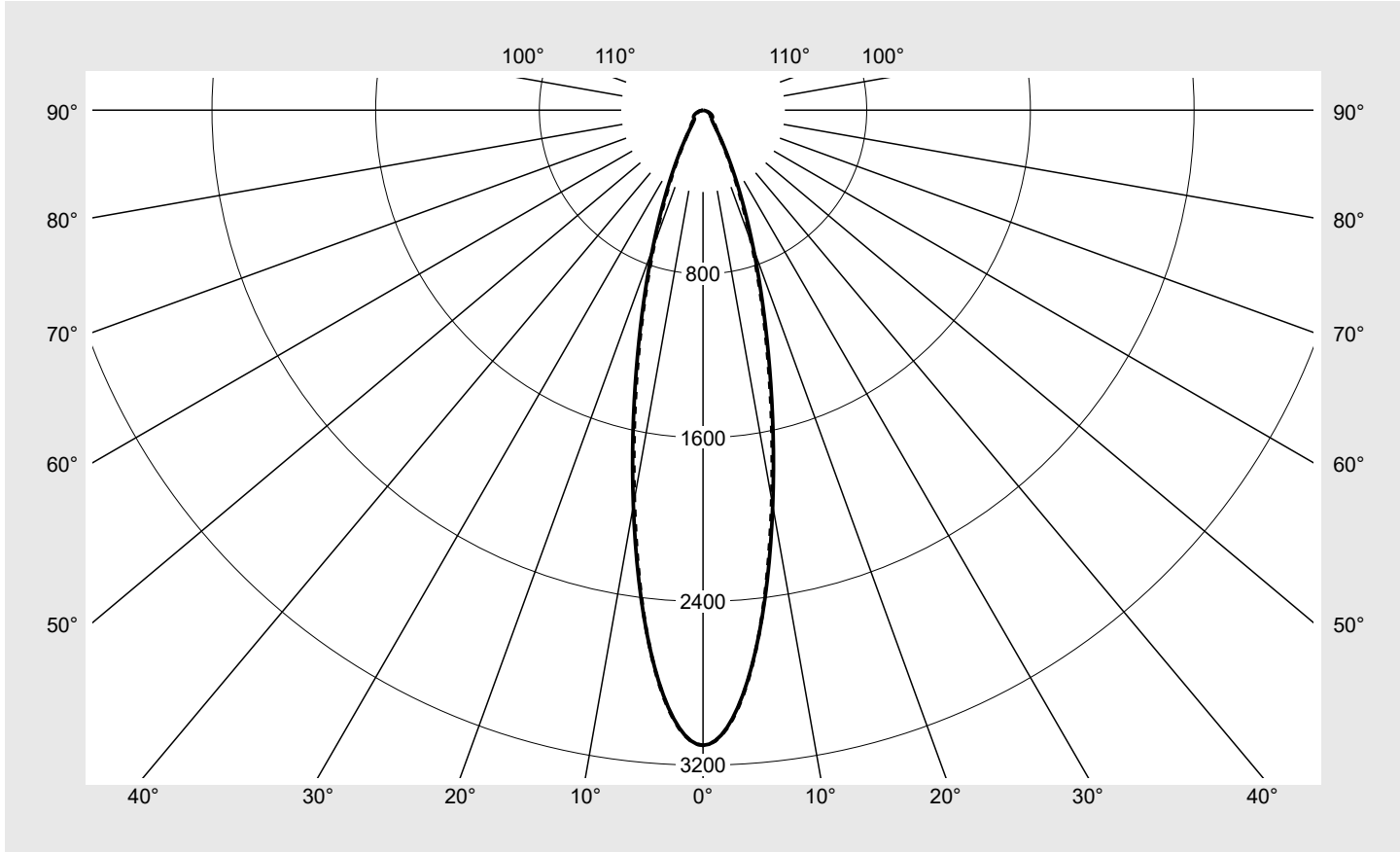


Photometric test report

Family Highbay 11	Order number: 51HLA1D24NCA + 59HL91001 EAN: 4058352322932 + 4058352323519	LP number 58920_4
Version	narrow distribution, UGR≤22, toughened safety glass	serial documentation 13.06.2019
Lamps	LED 4000 K CRI ≥ 80	
Controlgear	ECG-DALI	
Rated values	Net luminous flux = 31240 lm Power consumption = 189.6 W Luminous efficacy = 164.8 lm/W	



Luminous intensity in cd/klm C180-0 C270-90 **Imax: 3103 cd/klm**



Classifications	
DIN 5040	A 7 0
CIE	N1=85 N2=94 N3=99 N4=100 N5=100

Luminaire light output ratios	
η_{LB}	100.0%
ϕ_u	100.0%
ϕ_o	0.0%

Measurement conditions
DIN EN 13032 and DIN 5032

Photometric test report

Family Highbay 11	Order number: 51HLA1D24NCA + 59HL91001 EAN: 4058352322932 + 4058352323519	LP number 58920_4
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Table of values for luminous intensities Maximum luminous intensity

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°	3103.3	3103.3	3103.3	3103.3	3103.3	3103.3	3103.3	18.6	18.6
5°	2728.1	2725.7	2734.5	2735.8	2731.2	2739.6	2732.7	130.6	149.1
10°	1961.3	1955.1	1962.7	1959.8	1944.6	1940.4	1933.3	185.8	334.9
15°	1234.5	1231.5	1237.4	1233.6	1223.5	1217.2	1209.8	174.2	509.0
20°	720.2	721.2	730.7	731.8	720.5	706.3	696.1	134.9	644.0
25°	391.5	395.5	407.7	412.0	396.6	377.5	368.6	91.5	735.4
30°	203.6	206.8	216.0	219.0	212.4	200.7	194.3	57.3	792.7
35°	109.3	109.5	113.4	118.8	120.5	117.6	115.6	36.3	829.0
40°	71.8	72.6	76.4	83.5	87.0	87.1	87.3	28.5	857.5
45°	59.8	60.1	64.9	71.1	68.6	64.2	62.9	25.2	882.8
50°	58.8	60.0	64.4	66.4	57.1	49.4	48.5	24.6	907.3
55°	56.5	57.6	60.7	58.9	51.3	43.9	43.6	24.1	931.5
60°	50.4	50.7	52.1	52.2	45.2	38.5	38.0	22.4	953.8
65°	40.7	40.4	41.4	42.5	37.1	32.0	31.7	19.0	972.8
70°	28.4	28.2	29.2	30.2	27.5	24.4	24.3	14.2	987.1
75°	15.1	15.6	16.5	18.0	16.8	16.4	16.8	8.8	995.8
80°	5.3	5.6	6.2	6.9	7.4	7.5	9.1	3.7	999.5
85°	0.5	0.5	0.6	0.8	1.1	1.3	1.8	0.5	1000.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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

Photometric test report

Family Highbay 11	Order number: 51HLA1D24NCA + 59HL91001 EAN: 4058352322932 + 4058352323519	LP number 58920_4
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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	19.0	20.2	19.4	20.5	20.8	18.0	19.1	18.3	19.5	19.8
	3H	20.5	21.5	20.9	21.8	22.2	19.4	20.4	19.7	20.7	21.1
	4H	20.8	21.8	21.2	22.1	22.5	19.9	20.8	20.3	21.2	21.6
	6H	20.9	21.8	21.4	22.2	22.6	20.2	21.1	20.6	21.4	21.8
	8H	21.0	21.7	21.4	22.1	22.5	20.4	21.1	20.8	21.5	21.9
	12H	21.0	21.6	21.4	22.0	22.4	20.4	21.0	20.8	21.4	21.8
4H	2H	19.7	20.7	20.1	21.0	21.4	19.0	19.9	19.4	20.3	20.7
	3H	21.3	22.1	21.7	22.5	22.9	20.5	21.2	20.9	21.6	22.0
	4H	21.7	22.4	22.1	22.8	23.3	21.0	21.7	21.5	22.1	22.6
	6H	21.8	22.4	22.3	22.9	23.3	21.3	21.9	21.8	22.4	22.9
	8H	21.8	22.3	22.3	22.8	23.3	21.4	22.0	21.9	22.4	22.9
	12H	21.8	22.2	22.3	22.7	23.2	21.4	21.9	21.9	22.3	22.8
8H	4H	21.9	22.4	22.3	22.8	23.3	21.3	21.8	21.7	22.2	22.7
	6H	22.0	22.4	22.5	22.9	23.4	21.6	22.1	22.1	22.5	23.1
	8H	22.0	22.4	22.5	22.9	23.4	21.7	22.1	22.2	22.6	23.1
	12H	21.9	22.3	22.5	22.8	23.3	21.7	22.0	22.2	22.5	23.1
12H	4H	21.9	22.3	22.4	22.8	23.3	21.2	21.7	21.7	22.2	22.7
	6H	22.0	22.4	22.5	22.8	23.4	21.6	22.0	22.1	22.5	23.0
	8H	22.0	22.3	22.5	22.8	23.3	21.7	22.0	22.2	22.5	23.0

Luminance table	Max. for $\gamma \geq 65^\circ$	Photometric dimensions in mm:	L = 590
			B = 312

C-planes	γ	Luminance in cd/m ²							
		0° 180°	15° 165° 195° 345°	30° 150° 210° 330°	45° 135° 225° 315°	60° 120° 240° 300°	75° 105° 255° 285°	90° 270°	
45°		14352.0	14435.3	15572.9	17060.7	16461.2	15417.7	15088.8	
50°		15518.0	15835.9	16992.1	17536.2	15085.1	13055.0	12800.7	
55°		16713.9	17029.9	17969.3	17435.2	15164.4	12990.5	12908.0	
60°		17089.7	17222.4	17697.2	17707.4	15348.5	13062.8	12894.1	
65°		16326.0	16237.3	16641.3	17065.7	14891.2	12843.7	12719.6	
70°		14111.8	14002.6	14472.5	14983.1	13620.6	12121.1	12080.9	
75°		9882.8	10200.1	10844.7	11804.0	11036.8	10756.8	11036.8	
80°		5223.7	5441.7	6050.6	6712.2	7239.9	7303.5	8850.6	
85°		895.7	899.6	1102.1	1514.9	2169.2	2617.0	3557.5	

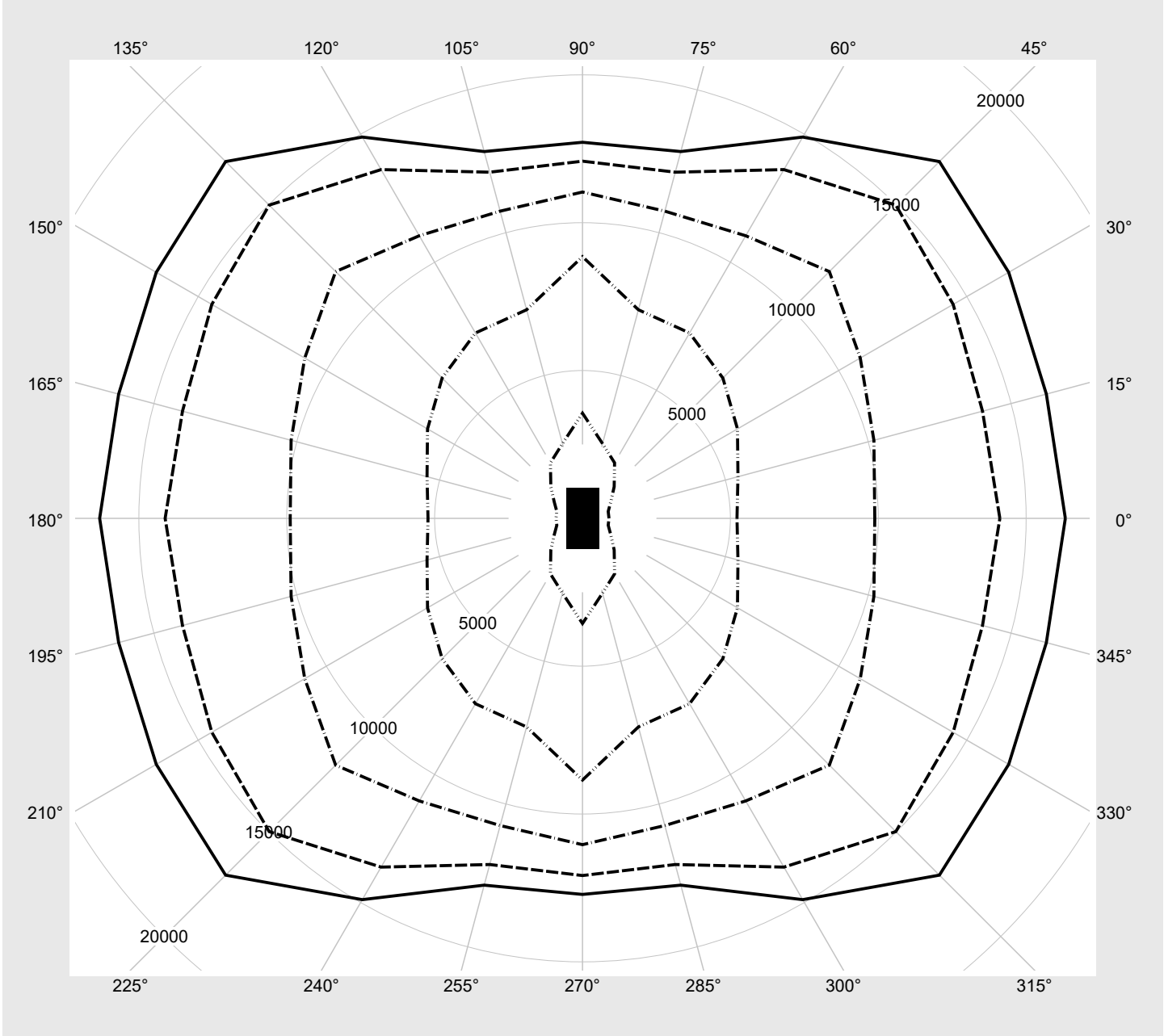
Photometric test report

Family Highbay 11	Order number: 51HLA1D24NCA + 59HL91001 EAN: 4058352322932 + 4058352323519	LP number 58920_4
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Luminance values in cd/m²

γ 65°
 γ 70°
 γ 75°
 γ 80°
 γ 85°



Photometric test report

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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	31240	189.6
95	240	252	29678	179.4
90	227	250	28116	169.2
85	213	248	26554	158.9
80	200	245	24992	148.9
75	187	243	23430	139.4
70	174	240	21868	129.6
65	161	237	20306	120.1
60	148	234	18744	110.8
55	135	231	17182	101.4
50	123	228	15620	92.3
45	110	224	14058	83.2
40	98	220	12496	74.4
35	85	215	10934	65.5
30	73	210	9372	56.9
25	61	204	7810	48.4
20	49	197	6248	39.9
15	37	188	4686	31.4
10	25	177	3123	23.0