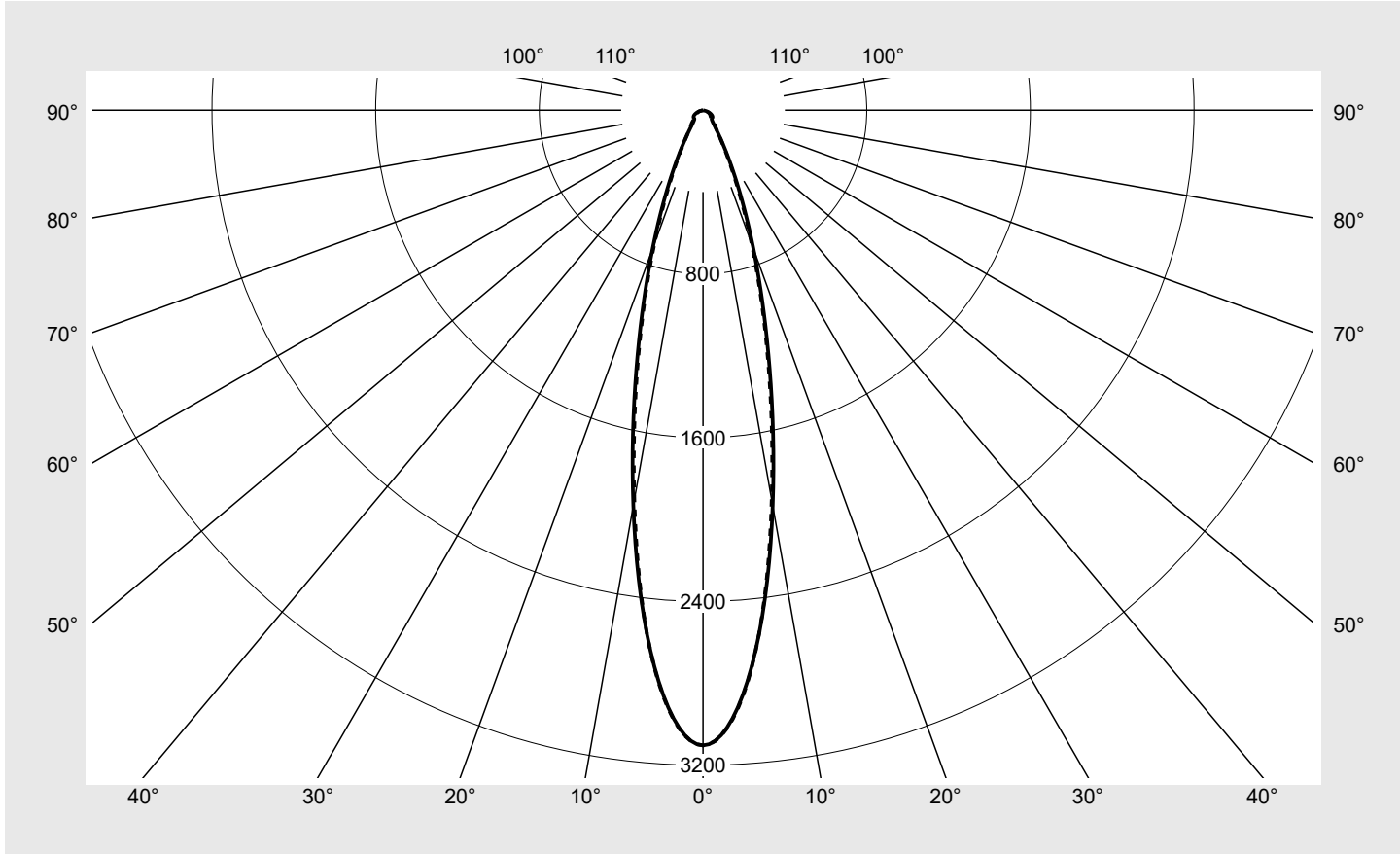


Photometric test report

Family Highbay 11	Order number: 51HLA1D24NLA + 59HL91002 EAN: 4058352361443 + 4058352341650	LP number 58920_23
Version	narrow distribution, UGR≤22, cover panel, PC	serial documentation 31.03.2020
Lamps	LED 4000 K CRI ≥ 80	
Controlgear	ECG-DALI	
Rated values	Net luminous flux = 29470 lm Power consumption = 189.7 W Luminous efficacy = 155.4 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: 51HLA1D24NLA + 59HL91002 EAN: 4058352361443 + 4058352341650	LP number 58920_23
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: 51HLA1D24NLA + 59HL91002 EAN: 4058352361443 + 4058352341650	LP number 58920_23
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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	18.8	20.0	19.2	20.3	20.6	17.8	18.9	18.1	19.2	19.6
	3H	20.3	21.3	20.7	21.6	22.0	19.1	20.2	19.5	20.5	20.9
	4H	20.6	21.6	21.0	21.9	22.3	19.7	20.6	20.1	21.0	21.4
	6H	20.7	21.6	21.2	22.0	22.3	20.0	20.9	20.4	21.2	21.6
	8H	20.8	21.5	21.2	21.9	22.3	20.2	20.9	20.6	21.3	21.7
	12H	20.8	21.4	21.2	21.8	22.2	20.2	20.8	20.6	21.2	21.6
4H	2H	19.5	20.5	19.9	20.8	21.2	18.8	19.7	19.2	20.1	20.5
	3H	21.1	21.9	21.5	22.3	22.7	20.2	21.0	20.7	21.4	21.8
	4H	21.5	22.2	21.9	22.6	23.1	20.8	21.5	21.3	21.9	22.4
	6H	21.6	22.2	22.1	22.7	23.1	21.1	21.7	21.6	22.2	22.7
	8H	21.6	22.1	22.1	22.6	23.1	21.2	21.8	21.7	22.2	22.7
	12H	21.6	22.0	22.1	22.5	23.0	21.2	21.7	21.7	22.1	22.6
8H	4H	21.7	22.2	22.1	22.6	23.1	21.1	21.6	21.5	22.0	22.5
	6H	21.8	22.2	22.3	22.7	23.2	21.4	21.9	21.9	22.3	22.8
	8H	21.8	22.2	22.3	22.7	23.2	21.5	21.9	22.0	22.4	22.9
	12H	21.7	22.1	22.3	22.6	23.1	21.5	21.8	22.0	22.3	22.9
12H	4H	21.7	22.1	22.1	22.6	23.1	21.0	21.5	21.5	21.9	22.4
	6H	21.8	22.2	22.3	22.6	23.2	21.4	21.8	21.9	22.3	22.8
	8H	21.8	22.1	22.3	22.6	23.1	21.5	21.8	22.0	22.3	22.8

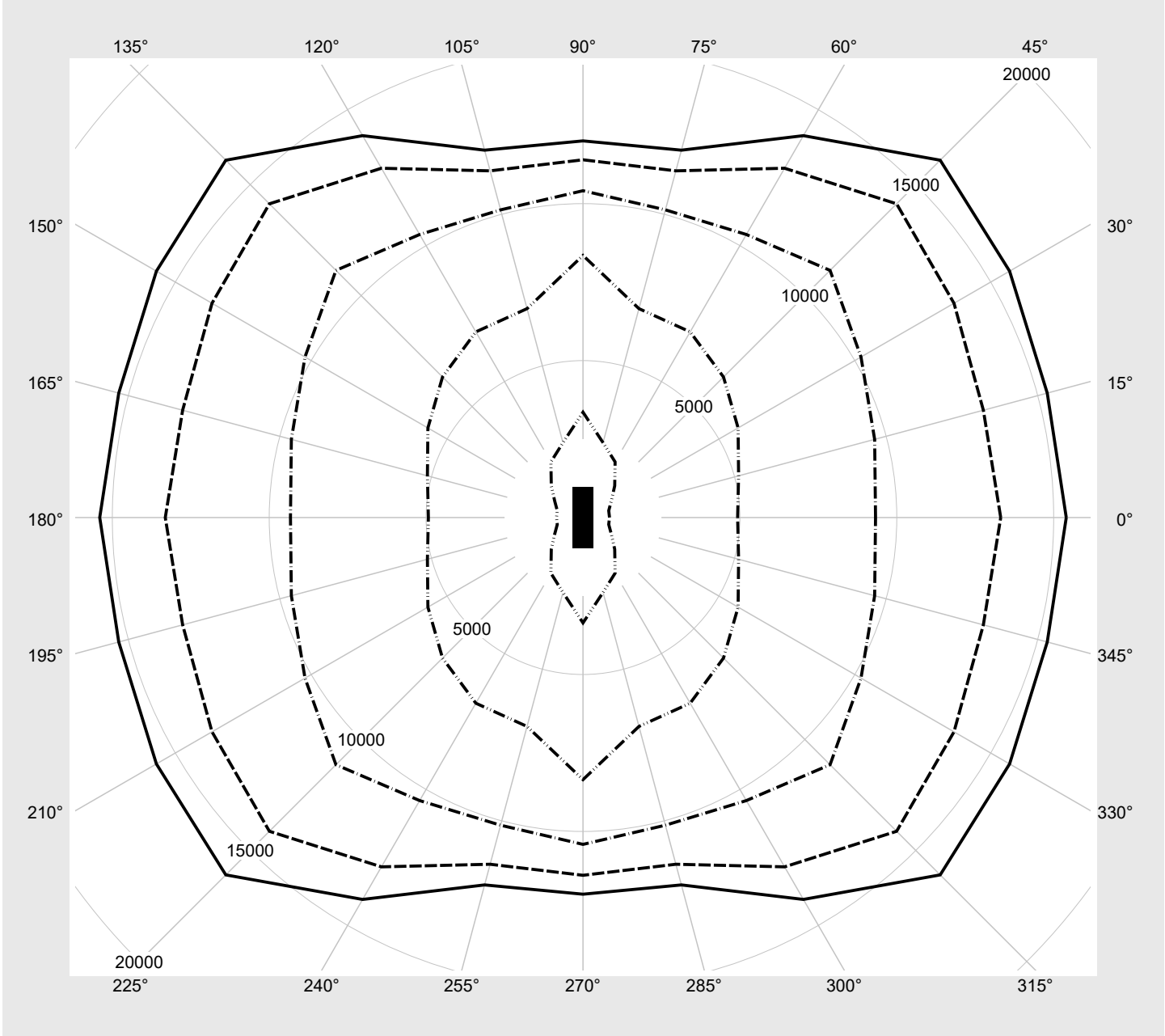
Luminance table		Max. for $\gamma \geq 65^\circ$		Photometric dimensions in mm:		L = 590 B = 312		
C-planes	γ	0°	15°	30°	45°	60°	75°	90°
		180°	165°	150°	135°	120°	105°	90°
		195°	195°	210°	225°	240°	255°	270°
		345°	345°	330°	315°	300°	285°	
Luminance in cd/m ²								
45°		13538.9	13617.4	14690.6	16094.1	15528.5	14544.1	14233.9
50°		14638.8	14938.7	16029.3	16542.6	14230.4	12315.3	12075.5
55°		15766.9	16065.0	16951.2	16447.4	14305.2	12254.5	12176.6
60°		16121.4	16246.6	16694.5	16704.1	14478.9	12322.7	12163.6
65°		15401.0	15317.3	15698.4	16098.8	14047.5	12116.0	11998.9
70°		13312.2	13209.3	13652.5	14134.2	12848.8	11434.3	11396.4
75°		9322.8	9622.2	10230.3	11135.2	10411.5	10147.4	10411.5
80°		4927.8	5133.4	5707.7	6331.9	6829.7	6889.7	8349.1
85°		845.0	848.6	1039.7	1429.1	2046.3	2468.7	3356.0

Photometric test report

Family Highbay 11	Order number: 51HLA1D24NLA + 59HL91002 EAN: 4058352361443 + 4058352341650	LP number 58920_23
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Luminance values in cd/m² γ 65° γ 70° γ 75° γ 80° γ 85°



Photometric test report

Family Highbay 11	Order number: 51HLA1D24NLA + 59HL91002 EAN: 4058352361443 + 4058352341650	LP number 58920_23
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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	29470	189.7
95	240	252	27959	179.0
90	227	250	26538	169.2
85	213	247	24998	158.4
80	200	245	23553	148.6
75	187	243	22094	139.1
70	174	240	20626	129.4
65	161	237	19143	119.9
60	148	234	17651	110.4
55	136	231	16252	101.5
50	123	228	14734	92.1
45	110	224	13203	82.8
40	98	220	11779	74.2
35	86	215	10343	65.6
30	74	210	8894	57.1
25	61	204	7315	48.1
20	49	197	5848	39.6
15	37	188	4369	31.2
10	26	177	2997	23.3
5	14	161	1497	14.9