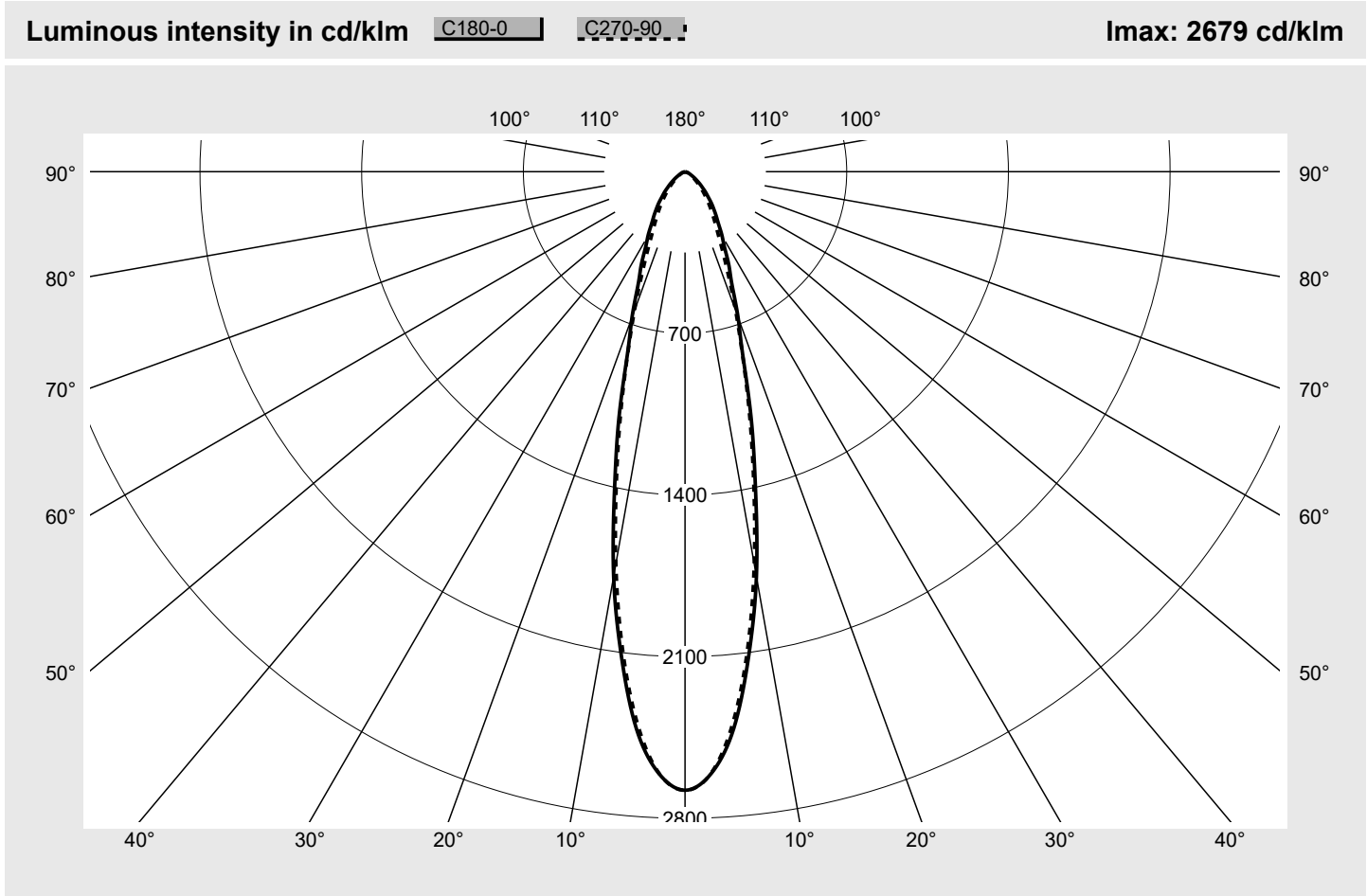


Photometric test report

Family Highbay 11	Order number: 51HN11DA4FMA EAN: 4069025348586	LP number 59711_3
	Version	primary light control with lens, PMMA, housing, white, for Modario® rail, narrow distribution
	Lamps	LED 4000 K CRI ≥ 80
	Controlgear	ECG-DALI
	Rated values	Net luminous flux = 15000 lm Power consumption = 73.2 W Luminous efficacy = 204.9 lm/W
		serial documentation 29.01.2025
		



Classifications		Luminaire light output ratios	
DIN 5040	A 7 0	η_{LB}	100.0%
CIE	N1=85 N2=97 N3=100	ϕ_u	100.0%
	N4=100 N5=100	ϕ_o	0.0%

Measurement conditions
DIN EN 13032 and DIN 5032

Photometric test report

Family Highbay 11	Order number: 51HN11DA4FMA EAN: 4069025348586	LP number 59711_3
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	
0,0°	2678.6	2678.6	2678.6	2678.6	2678.6	2678.6	2678.6	4.0	4.0
2,5°	2608.0	2619.4	2619.4	2616.5	2617.6	2616.2	2606.1	31.3	35.3
5,0°	2420.1	2415.7	2414.1	2408.4	2406.6	2402.3	2391.7	57.6	92.8
7,5°	2113.4	2116.1	2112.3	2103.0	2097.6	2090.5	2079.6	75.2	168.1
10,0°	1780.1	1768.7	1762.7	1751.6	1743.6	1735.2	1724.7	83.4	251.5
12,5°	1410.1	1409.3	1404.7	1395.9	1388.1	1380.5	1373.1	82.8	334.3
15,0°	1106.5	1097.8	1095.0	1089.4	1083.1	1078.4	1073.9	77.3	411.5
17,5°	830.1	840.2	835.5	831.1	826.6	824.9	824.1	68.5	480.0
20,0°	671.1	661.9	651.8	643.2	639.9	639.4	641.0	60.8	540.8
22,5°	531.9	530.5	514.2	498.9	497.0	496.6	496.8	53.4	594.2
25,0°	450.6	441.3	420.6	401.3	399.0	395.8	392.4	47.9	642.1
27,5°	370.8	368.7	351.4	331.7	326.8	321.1	316.0	43.1	685.2
30,0°	320.4	312.1	300.8	284.1	278.0	270.2	264.7	39.7	724.9
32,5°	271.0	266.8	259.0	245.6	238.0	229.0	224.7	36.5	761.4
35,0°	235.8	228.9	222.7	210.5	201.6	193.0	191.7	33.3	794.7
37,5°	204.4	197.8	191.5	181.1	172.0	164.3	162.4	30.3	825.0
40,0°	176.7	170.7	163.1	154.3	146.1	138.3	135.6	27.3	852.2
42,5°	147.6	145.5	138.6	130.6	123.2	115.8	113.3	24.2	876.4
45,0°	126.0	121.8	116.3	109.0	102.0	95.3	93.2	21.1	897.6
47,5°	103.2	101.5	97.1	90.9	84.6	78.4	76.7	18.3	915.9
50,0°	85.9	82.9	79.4	74.6	69.1	63.7	61.9	15.5	931.4
52,5°	69.0	67.2	64.5	61.0	56.2	51.6	49.7	13.0	944.4
55,0°	55.6	54.1	52.2	49.5	45.7	41.7	40.0	10.9	955.3
57,5°	43.6	43.1	41.8	39.8	37.0	33.6	32.2	9.0	964.3
60,0°	33.2	33.3	33.9	32.4	30.5	27.5	26.1	7.4	971.7
62,5°	25.9	26.0	27.0	26.2	25.1	22.4	21.3	6.1	977.8
65,0°	21.6	21.2	21.7	21.3	20.9	18.8	17.7	5.1	982.9
67,5°	17.0	17.1	17.8	17.0	17.3	15.6	14.8	4.3	987.2
70,0°	13.5	13.4	14.4	13.6	14.1	13.0	12.4	3.5	990.7
72,5°	11.0	10.8	10.9	10.9	11.0	10.7	10.6	2.8	993.5
75,0°	9.0	8.4	8.4	8.3	8.6	9.0	8.9	2.3	995.8
77,5°	6.6	6.4	6.2	6.2	6.6	7.3	7.4	1.8	997.5
80,0°	4.4	4.2	4.1	4.2	4.7	5.7	5.8	1.3	998.8
82,5°	2.0	2.1	2.2	2.4	3.0	3.9	4.1	0.8	999.6
85,0°	0.8	0.8	0.8	1.0	1.5	2.2	2.4	0.4	999.9
87,5°	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.1	1000.0
90,0°	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: 51HN11DA4FMA EAN: 4069025348586							LP number 59711_3	
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	18.9	20.1	19.3	20.4	20.7	17.7	18.9	18.1	19.2
	3H	19.1	20.2	19.5	20.5	20.9	18.0	19.0	18.4	19.4
	4H	19.2	20.1	19.6	20.5	20.9	18.1	19.1	18.5	19.4
	6H	19.3	20.1	19.7	20.5	20.9	18.3	19.1	18.7	19.5
	8H	19.3	20.0	19.7	20.4	20.8	18.4	19.1	18.8	19.5
	12H	19.3	19.9	19.7	20.3	20.7	18.4	19.1	18.8	19.5
4H	2H	19.0	19.9	19.4	20.3	20.6	17.9	18.8	18.3	19.2
	3H	19.3	20.1	19.7	20.4	20.9	18.3	19.1	18.7	19.5
	4H	19.4	20.1	19.8	20.5	20.9	18.5	19.2	18.9	19.6
	6H	19.5	20.0	19.9	20.5	20.9	18.7	19.3	19.2	19.7
	8H	19.5	20.0	19.9	20.4	20.9	18.8	19.3	19.2	19.7
	12H	19.4	19.9	19.9	20.3	20.8	18.8	19.3	19.3	19.7
8H	4H	19.4	19.9	19.9	20.3	20.8	18.5	19.0	19.0	19.5
	6H	19.5	19.9	20.0	20.4	20.9	18.8	19.2	19.3	19.6
	8H	19.4	19.8	19.9	20.3	20.8	18.8	19.2	19.4	19.7
	12H	19.4	19.7	19.9	20.2	20.8	18.9	19.2	19.4	19.7
12H	4H	19.4	19.8	19.9	20.3	20.8	18.5	18.9	19.0	19.4
	6H	19.4	19.8	20.0	20.3	20.8	18.7	19.1	19.3	19.6
	8H	19.4	19.7	19.9	20.2	20.8	18.8	19.1	19.4	19.6

Luminance table		Max. for $\gamma \geq 65^\circ$		Photometric dimensions in mm:		L = 426 B = 264	
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						
45,0°	23764.1	22970.8	21936.0	20564.0	19239.8	17981.2	17578.6
50,0°	17815.2	17195.0	16466.7	15489.0	14327.6	13208.8	12834.9
55,0°	12926.8	12576.8	12141.1	11510.4	10623.8	9697.1	9307.4
60,0°	8869.2	8878.8	9044.0	8640.6	8126.9	7332.2	6966.2
65,0°	6809.6	6694.7	6846.5	6735.7	6593.4	5925.3	5600.9
70,0°	5275.8	5212.3	5599.5	5287.9	5487.6	5052.0	4828.2
75,0°	4625.0	4340.6	4350.4	4291.6	4427.7	4616.8	4608.6
80,0°	3374.2	3249.0	3143.0	3199.8	3575.4	4342.0	4430.3
85,0°	1248.7	1233.4	1290.1	1458.4	2238.9	3296.3	3735.5

Photometric test report

Family
Highbay 11

Order number: 51HN11DA4FMA
EAN: 4069025348586

LP number
59711_3

Luminance values in cd/m²

γ 65°

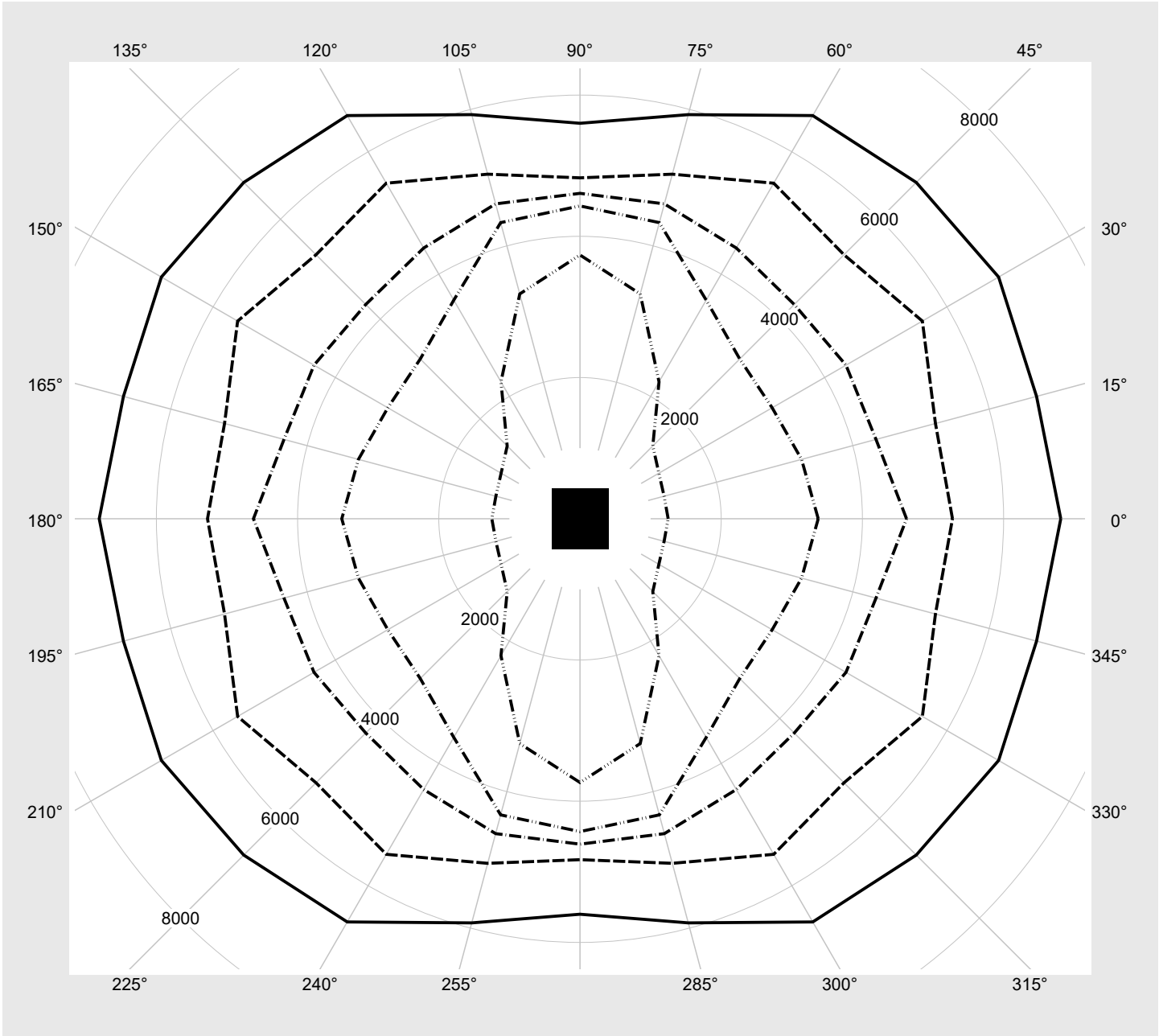
γ 70°

γ 75°

γ 80°

γ 85°

siteco



Photometric test report

Family Highbay 11	Order number: 51HN11DA4FMA EAN: 4069025348586	LP number 59711_3
Dimming levels table		environmental temperature: 25°C



Luminous flux %	Dimming level linear	Dimming level logarithmic	Luminous flux [lm]	Power consumption [W]
100	----	----	----	----
95	241	252	14266	69.4
90	227	250	13473	65.3
85	214	248	12736	61.5
80	201	245	11990	57.8
75	188	243	11246	53.9
70	175	240	10495	50.2
65	162	238	9737	46.4
60	149	234	8979	42.7
55	137	231	8274	39.3
50	124	228	7504	35.6
45	111	224	6733	31.9
40	99	219	6018	28.6
35	86	214	5233	24.9
30	74	209	4509	21.7
25	62	202	3779	18.3
20	49	194	2979	14.8
15	37	183	2239	11.6
10	25	169	1496	8.2
5	13	145	743	4.7
2	5	110	241	2.5