

Photometric test report

Family
Highbay 11

Order number
51HN12DB4RMA

LP number
59710_342



Version primary light control with lens, PMMA, housing, white, for Modario® rail, wide distribution

Lamps LED 4000 K | CRI ≥ 80

Controlgear ECG-DALI

Rated values Net luminous flux = 42500 lm
Power consumption = 213.7 W
Luminous efficacy = 198.9 lm/W

serial
documentation
18.03.2025

siteco

Luminous intensity in cd/klm

C180-0

C270-90

Imax: 772 cd/klm



Classifications

DIN 5040 A 6 0
CIE N1=88 N2=98 N3=100
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

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Table of values for luminous intensities		Maximum luminous intensity
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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°	643.6	643.6	643.6	643.6	643.6	643.6	643.6	1.0	1.0
2,5°	644.5	645.1	645.0	644.3	644.2	643.7	641.7	7.7	8.7
5,0°	651.5	652.3	650.7	647.5	645.3	643.2	640.4	15.5	24.1
7,5°	669.6	669.1	664.2	657.2	651.2	645.8	641.3	23.5	47.6
10,0°	693.4	691.0	681.5	670.0	659.9	651.2	645.8	31.9	79.6
12,5°	711.8	709.4	700.3	685.9	671.9	660.7	654.0	40.7	120.2
15,0°	721.3	721.7	717.1	704.9	689.4	675.9	667.7	49.7	169.9
17,5°	743.8	740.8	737.9	726.5	708.9	693.0	684.2	59.4	229.3
20,0°	761.9	761.9	759.6	745.2	724.0	705.6	696.8	69.2	298.5
22,5°	772.0	771.2	770.0	754.7	731.1	710.8	702.6	78.2	376.7
25,0°	758.1	756.6	756.3	743.6	722.7	703.3	695.6	85.1	461.8
27,5°	706.7	709.5	709.5	700.0	685.7	672.3	667.0	87.8	549.7
30,0°	640.4	635.6	633.7	626.6	621.7	614.1	609.9	85.8	635.5
32,5°	530.6	537.6	535.6	526.2	530.2	524.1	520.8	78.1	713.6
35,0°	428.2	426.4	425.9	411.9	420.8	414.2	411.4	66.0	779.6
37,5°	322.5	323.4	327.0	311.0	319.4	310.8	308.2	53.0	832.6
40,0°	236.1	234.0	241.6	230.8	230.9	219.8	218.4	40.7	873.3
42,5°	162.3	165.3	172.9	171.1	161.7	151.3	150.8	30.2	903.5
45,0°	117.3	114.9	119.4	122.5	109.3	102.6	102.3	21.9	925.4
47,5°	80.5	81.4	82.8	85.5	75.2	71.4	70.8	15.9	941.3
50,0°	59.4	58.0	58.0	59.0	52.9	50.5	49.6	11.7	953.0
52,5°	43.3	42.8	42.8	43.0	39.3	37.2	36.6	8.9	961.8
55,0°	33.3	32.4	32.9	33.7	30.5	28.7	28.3	7.1	968.9
57,5°	25.9	25.4	25.9	26.8	24.5	22.9	22.9	5.8	974.7
60,0°	20.9	20.2	21.2	21.8	20.4	18.9	19.2	4.9	979.5
62,5°	16.9	16.2	17.4	18.0	17.2	15.9	16.4	4.1	983.6
65,0°	14.9	13.6	14.4	15.1	14.8	13.6	14.4	3.6	987.2
67,5°	12.3	11.4	12.5	12.4	13.0	11.7	12.6	3.1	990.3
70,0°	10.4	9.5	10.5	10.1	11.1	10.1	11.0	2.7	993.0
72,5°	8.2	7.7	7.9	8.2	8.7	8.6	9.5	2.2	995.2
75,0°	6.5	6.0	6.0	6.4	6.6	7.1	7.9	1.7	996.9
77,5°	4.5	4.3	4.4	4.7	5.1	5.6	6.3	1.3	998.2
80,0°	2.9	2.7	2.9	3.1	3.5	4.1	4.7	0.9	999.1
82,5°	1.3	1.4	1.6	1.8	2.2	2.7	3.3	0.5	999.7
85,0°	0.6	0.6	0.6	0.7	1.0	1.4	1.8	0.3	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

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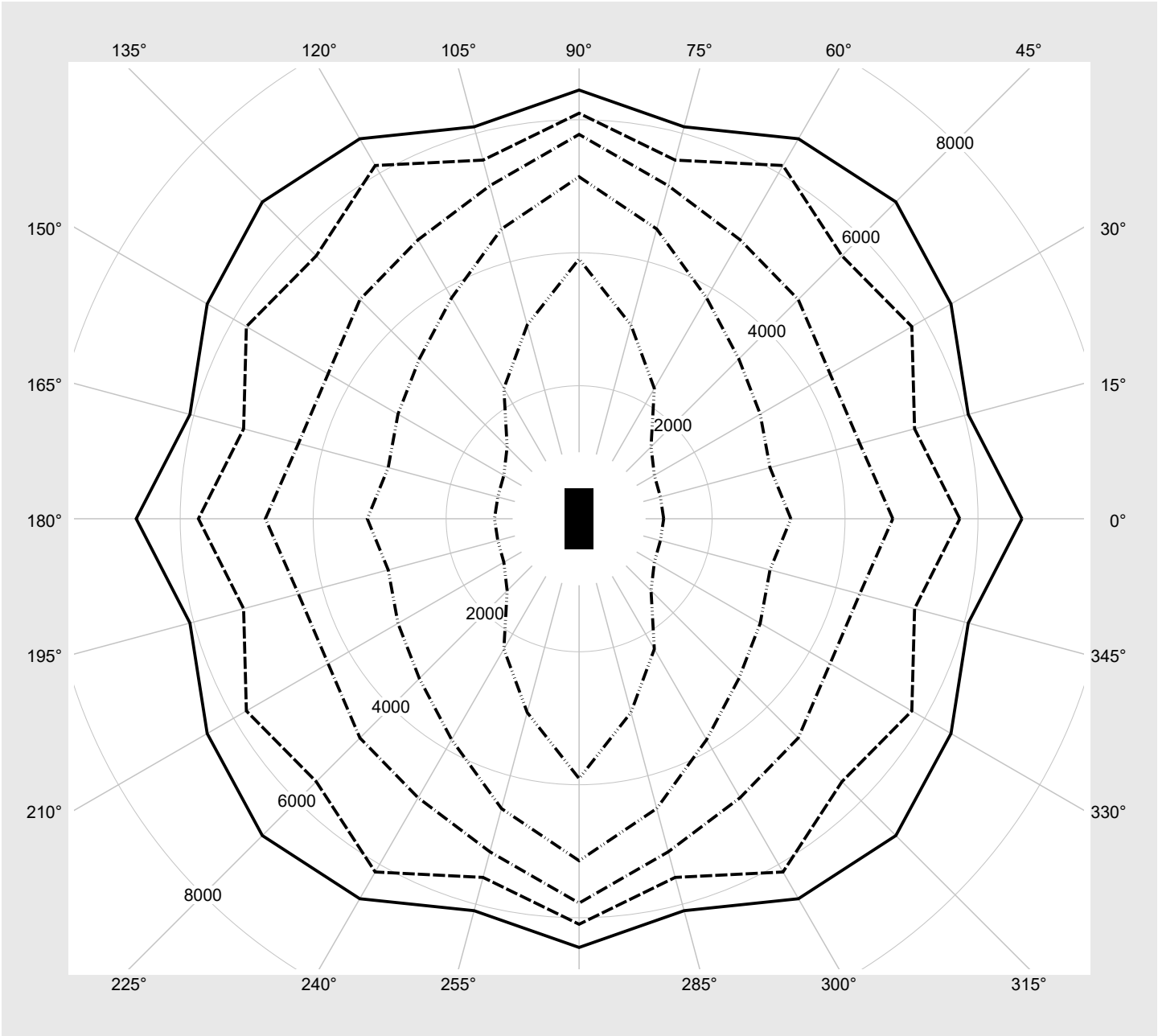
Family Highbay 11			Order number 51HN12DB4RMA						LP number 59710_342		
UGR-Table			Standard room						siteco		
Reflection factor of ceiling	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3	
Reflection factor of walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3	
Reflection factor of floor	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Room dimensions		View crosswise (C0)					View endwise (C90)				
x	y										
2H	2H	21.1	22.4	21.5	22.7	23.1	20.8	22.1	21.2	22.4	22.8
	3H	21.1	22.3	21.5	22.6	23.0	20.9	22.0	21.2	22.3	22.7
	4H	21.1	22.2	21.5	22.5	22.9	20.9	21.9	21.3	22.3	22.6
	6H	21.1	22.0	21.5	22.4	22.8	20.9	21.8	21.3	22.2	22.6
	8H	21.2	22.0	21.6	22.4	22.8	21.0	21.8	21.4	22.2	22.6
	12H	21.1	21.9	21.6	22.3	22.7	21.0	21.7	21.4	22.1	22.5
4H	2H	21.0	22.1	21.4	22.4	22.8	20.7	21.8	21.1	22.1	22.5
	3H	21.1	21.9	21.5	22.3	22.7	20.8	21.7	21.2	22.1	22.5
	4H	21.1	21.8	21.5	22.2	22.7	20.9	21.6	21.3	22.0	22.5
	6H	21.0	21.7	21.5	22.1	22.6	20.9	21.5	21.4	22.0	22.5
	8H	21.0	21.6	21.5	22.0	22.5	20.9	21.5	21.4	21.9	22.4
	12H	21.0	21.5	21.5	22.0	22.5	21.0	21.4	21.4	21.9	22.4
8H	4H	21.0	21.6	21.5	22.0	22.5	20.8	21.4	21.3	21.8	22.3
	6H	21.0	21.4	21.5	21.9	22.4	20.9	21.3	21.3	21.8	22.3
	8H	20.9	21.4	21.4	21.8	22.4	20.9	21.3	21.4	21.8	22.3
	12H	20.9	21.2	21.5	21.8	22.3	20.9	21.2	21.4	21.7	22.3
12H	4H	21.0	21.5	21.5	21.9	22.4	20.8	21.3	21.3	21.7	22.2
	6H	21.0	21.3	21.5	21.8	22.4	20.9	21.2	21.4	21.7	22.2
	8H	20.9	21.3	21.5	21.8	22.3	20.9	21.2	21.4	21.7	22.2

Luminance table		Max. for $\gamma \geq 65^\circ$		Photometric dimensions in mm:		L = 852 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°	31351.0	30698.2	31910.2	32728.2	29198.0	27414.1	27333.4
50,0°	17467.6	17054.6	17036.6	17340.9	15560.7	14836.7	14582.1
55,0°	10977.4	10683.9	10836.4	11085.1	10055.6	9452.5	9338.8
60,0°	7895.4	7621.8	8008.4	8248.8	7723.1	7152.1	7243.2
65,0°	6662.1	6060.3	6459.6	6738.1	6598.2	6101.9	6446.6
70,0°	5726.2	5224.5	5779.2	5591.4	6133.9	5583.6	6098.0
75,0°	4719.0	4370.8	4359.1	4662.1	4843.8	5184.8	5779.8
80,0°	3186.0	2972.7	3145.7	3398.2	3835.6	4511.3	5142.4
85,0°	1272.6	1266.1	1307.3	1530.6	2263.3	3015.6	3906.6

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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
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Luminous flux %	Dimming level linear	Dimming level logarithmic	Luminous flux [lm]	Power consumption [W]
100	254	254	42500	213.7
95	240	252	40311	201.5
90	227	250	38258	190.0
85	214	248	36193	178.8
80	200	245	33955	166.7
75	187	243	31858	155.5
70	174	240	29749	144.4
65	161	237	27625	133.3
60	148	234	25488	122.5
55	135	231	23337	111.6
50	122	227	21171	100.8
45	110	223	19157	90.8
40	97	219	16955	80.1
35	85	214	14901	70.3
30	73	208	12834	60.7
25	60	201	10579	50.1
20	48	193	8469	40.5
15	36	182	6345	31.1
10	24	168	4202	21.7
5	12	142	2034	12.0
1	4	102	581	5.4