

Photometric test report

Family
Highbay 11

Order number: 51HN12DB4XMA
EAN: 4069025419743

LP number
59710_345

serial
documentation
18.03.2025



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 = 70000 lm
Power consumption = 372.9 W
Luminous efficacy = 187.7 lm/W

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
		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°	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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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
Reflection factor of walls		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3
Reflection factor of floor		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	22.9	24.2	23.2	24.5	24.8	22.6	23.9	22.9	24.2
	3H	22.9	24.0	23.3	24.3	24.7	22.6	23.7	23.0	24.1
	4H	22.9	23.9	23.3	24.3	24.6	22.6	23.7	23.0	24.0
	6H	22.8	23.8	23.2	24.1	24.5	22.6	23.6	23.0	23.9
	8H	22.9	23.7	23.3	24.1	24.5	22.7	23.5	23.2	23.9
	12H	22.9	23.6	23.3	24.0	24.4	22.7	23.5	23.2	23.8
4H	2H	22.8	23.8	23.2	24.2	24.5	22.5	23.5	22.9	23.9
	3H	22.8	23.7	23.2	24.0	24.5	22.5	23.4	23.0	23.8
	4H	22.8	23.6	23.2	24.0	24.4	22.6	23.4	23.0	23.8
	6H	22.8	23.4	23.2	23.9	24.3	22.6	23.3	23.1	23.7
	8H	22.7	23.3	23.2	23.8	24.3	22.6	23.2	23.1	23.7
	12H	22.8	23.2	23.3	23.7	24.2	22.7	23.2	23.2	23.6
8H	4H	22.7	23.3	23.2	23.8	24.2	22.5	23.1	23.0	23.6
	6H	22.7	23.2	23.2	23.7	24.2	22.6	23.1	23.1	23.5
	8H	22.7	23.1	23.2	23.6	24.1	22.6	23.0	23.1	23.5
	12H	22.7	23.0	23.2	23.5	24.0	22.6	22.9	23.2	23.5
12H	4H	22.7	23.2	23.2	23.7	24.2	22.5	23.0	23.0	23.5
	6H	22.7	23.1	23.2	23.6	24.1	22.6	23.0	23.1	23.4
	8H	22.7	23.0	23.2	23.5	24.0	22.6	22.9	23.1	23.4

Luminance table		Max. for $\gamma \geq 65^\circ$		Photometric dimensions in mm:		L = 852 B = 264	
C-planes	γ	0° 180°	15° 165° 195° 345°	30° 150° 210° 330°	45° 135° 225° 315°	60° 120° 240° 300°	75° 105° 255° 285°
			Luminance in cd/m²				
45,0° 50,0° 55,0° 60,0°	γ	51636.9	50561.7	52558.1	53905.3	48090.9	45152.6
		28770.1	28089.9	28060.3	28561.4	25629.4	24436.9
		18080.4	17596.9	17848.1	18257.8	16562.2	15568.8
		13004.3	12553.6	13190.4	13586.2	12720.4	11779.9
65,0° 70,0° 75,0° 80,0° 85,0°	γ	10972.9	9981.7	10639.3	11098.1	10867.6	10050.2
		9431.3	8605.1	9518.7	9209.3	10102.8	9196.6
		7772.5	7198.9	7179.7	7678.7	7978.1	8539.6
		5247.5	4896.3	5181.2	5597.0	6317.5	7430.4
85,0°	γ	2096.0	2085.3	2153.2	2520.9	3727.9	4966.9

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Luminance values in cd/m²

γ 65°

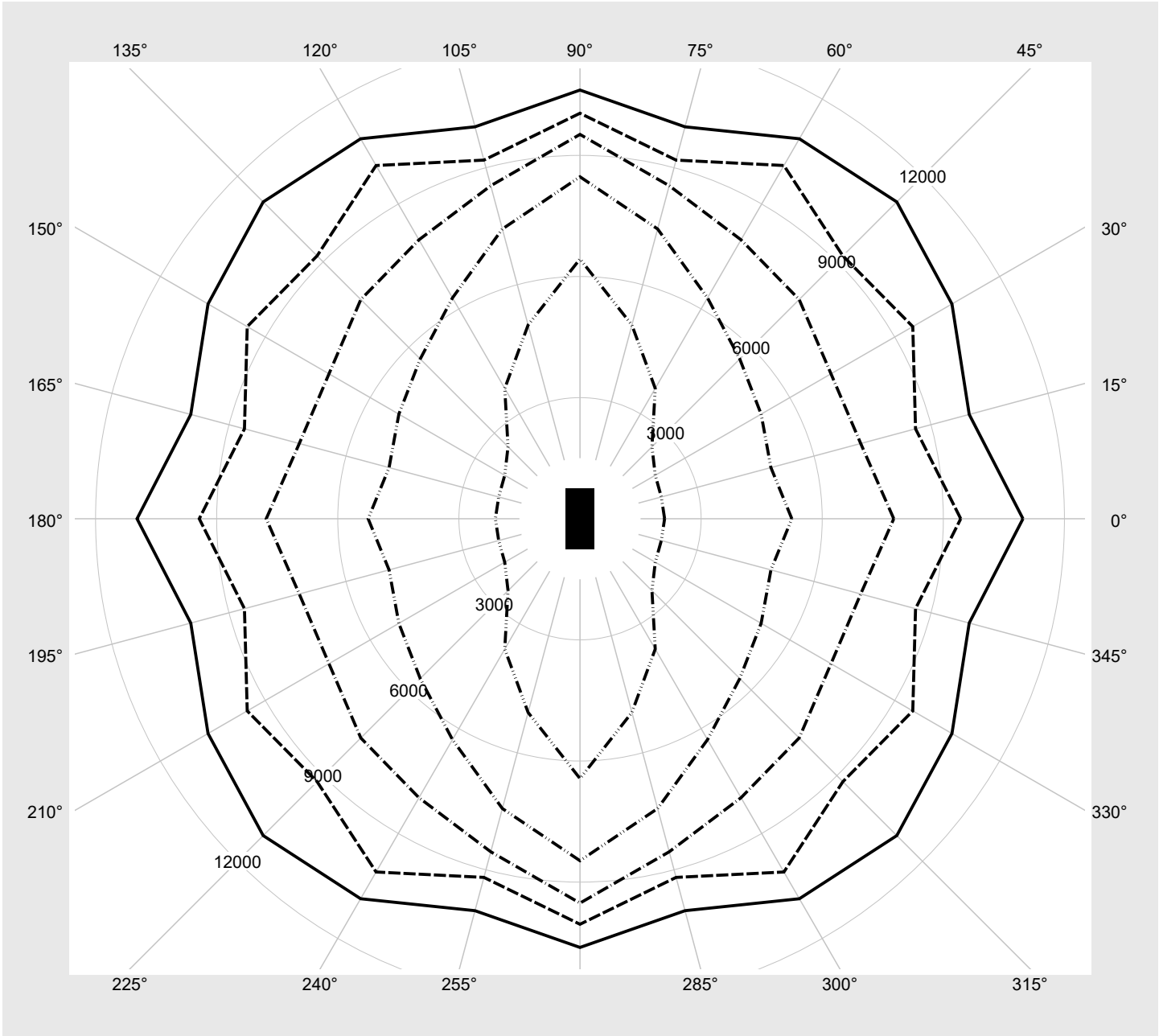
γ 70°

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	70000	372.9
95	240	252	66566	351.4
90	226	250	63015	330.0
85	212	247	59449	308.4
80	199	245	56081	288.9
75	185	242	52405	267.7
70	172	240	48969	248.2
65	159	237	45495	228.9
60	146	234	41989	209.6
55	133	230	38453	190.8
50	120	227	34878	172.0
45	108	223	31574	154.8
40	95	218	27928	136.2
35	83	213	24535	119.3
30	71	207	21097	102.2
25	59	201	17633	85.6
20	47	192	14117	69.3
15	35	181	10546	52.9
10	23	166	6925	36.8
5	12	142	3575	21.4
2	5	110	1412	11.4