

Photometric test report

Family
Highbay 21

Order number: 52HN12DB4WMA
EAN: 4069025394897

LP number
59723_136

serial
documentation
27.02.2025



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 = 64000 lm
Power consumption = 345.0 W
Luminous efficacy = 185.5 lm/W

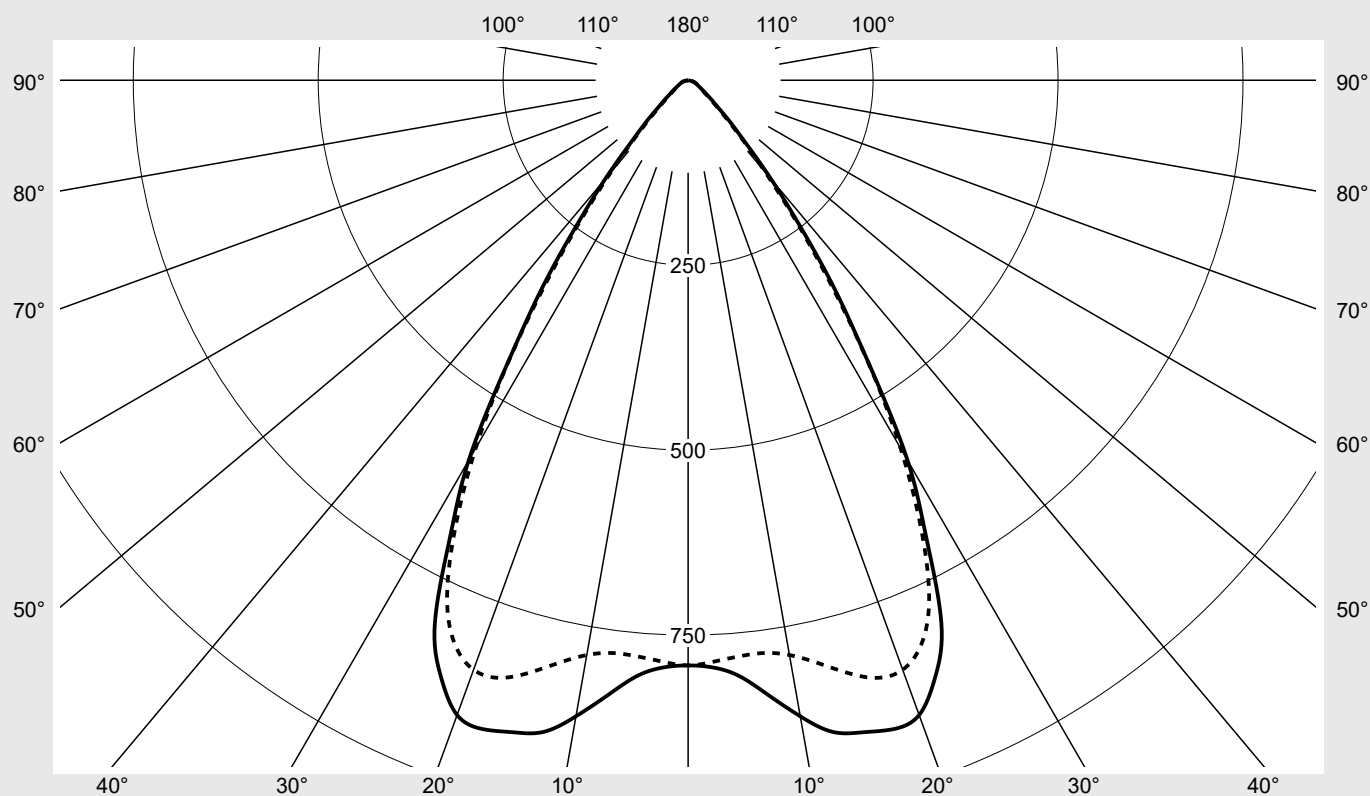
siteco

Luminous intensity in cd/klm

C180-0

C270-90

Imax: 920 cd/klm



Classifications

DIN 5040 A 7 0
CIE N1=90 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

Photometric test report

Family Highbay 21	Order number: 52HN12DB4WMA EAN: 4069025394897	LP number 59723_136
Table of values for luminous intensities		Maximum luminous intensity

siteco

C- planes	0,0° 180,0°	7,5° 172,5° 187,5° 352,5°	15,0° 165,0° 195,0° 345,0°	22,5° 157,5° 202,5° 337,5°	30,0° 150,0° 210,0° 330,0°	37,5° 142,5° 217,5° 322,5°	45,0° 135,0° 225,0° 315,0°
γ	Luminous intensity in cd/klm						
0,0°	791.0	791.0	791.0	791.0	791.0	791.0	791.0
2,5°	794.7	794.4	795.0	795.0	794.2	792.8	792.0
5,0°	809.1	811.4	809.6	807.9	804.8	800.8	797.1
7,5°	839.0	837.9	835.9	831.3	824.9	817.3	810.1
10,0°	873.0	873.9	866.7	857.6	846.5	834.6	825.0
12,5°	902.2	899.8	892.6	881.8	868.2	853.9	842.5
15,0°	912.4	911.0	905.2	895.6	883.1	869.5	858.7
17,5°	919.8	918.2	913.1	904.4	892.7	879.7	870.3
20,0°	913.1	910.4	906.8	900.7	891.6	880.0	870.9
22,5°	873.0	875.7	872.3	868.8	863.2	854.7	847.2
25,0°	810.1	803.4	805.6	804.0	800.6	794.9	789.9
27,5°	697.5	704.9	702.5	701.8	699.9	697.0	693.3
30,0°	593.2	587.4	585.8	584.9	582.5	580.2	578.9
32,5°	456.1	464.3	462.1	462.0	458.3	454.5	453.6
35,0°	347.7	343.4	342.9	343.5	340.5	335.4	333.2
37,5°	248.6	249.1	246.7	247.3	245.8	241.7	237.9
40,0°	174.7	169.8	171.0	172.0	172.0	169.5	166.1
42,5°	115.9	118.7	117.3	118.1	118.9	118.2	116.5
45,0°	82.2	79.8	80.4	81.1	81.3	81.6	80.9
47,5°	56.5	57.6	57.2	57.7	57.6	57.9	57.5
50,0°	42.4	41.3	41.7	42.1	42.1	42.1	42.0
52,5°	32.0	31.8	31.7	32.2	32.5	32.7	32.7
55,0°	25.6	24.9	25.0	25.6	26.1	26.6	26.9
57,5°	20.6	20.3	20.3	20.8	21.4	22.1	22.4
60,0°	17.2	16.8	16.6	17.2	18.2	18.6	18.9
62,5°	14.5	14.3	13.9	14.3	15.3	15.8	16.0
65,0°	13.1	12.5	12.0	12.2	13.0	13.5	13.7
67,5°	11.1	10.9	10.3	10.4	11.4	11.4	11.5
70,0°	9.4	9.0	8.7	8.7	9.6	9.3	9.5
72,5°	7.6	7.5	7.3	7.2	7.3	7.4	7.8
75,0°	5.9	5.7	5.6	5.7	5.6	5.7	6.1
77,5°	4.1	4.1	4.1	4.2	4.1	4.2	4.5
80,0°	2.6	2.5	2.5	2.7	2.7	2.8	2.9
82,5°	1.1	1.2	1.2	1.3	1.5	1.5	1.7
85,0°	0.5	0.5	0.5	0.5	0.5	0.5	0.6
87,5°	0.2	0.3	0.3	0.3	0.3	0.3	0.3

Photometric test report

Family Highbay 21	Order number: 52HN12DB4WMA EAN: 4069025394897	LP number 59723_136
Table of values for luminous intensities		Maximum luminous intensity
		siteco

C- planes	52,5° 127,5° 232,5° 307,5°	60,0° 120,0° 240,0° 300,0°	67,5° 112,5° 247,5° 292,5°	75,0° 105,0° 255,0° 285,0°	82,5° 97,5° 262,5° 277,5°	90,0° 270,0°	Phi-zone	Total Phi-zone
γ	Luminous intensity in cd/klm						Luminous flux in lm/klm	
0,0°	791.0	791.0	791.0	791.0	791.0	791.0	1.2	1.2
2,5°	791.3	790.7	790.0	789.4	788.0	786.7	9.5	10.7
5,0°	794.2	790.9	788.1	786.0	783.2	781.9	19.1	29.7
7,5°	803.7	797.3	791.2	786.8	782.5	780.9	29.0	58.7
10,0°	816.7	808.7	801.4	796.1	791.2	788.9	39.5	98.2
12,5°	833.0	825.3	818.6	813.6	808.7	806.6	50.4	148.6
15,0°	850.7	844.9	836.9	832.9	831.6	829.0	61.4	210.0
17,5°	864.2	859.8	856.6	853.6	849.6	847.0	72.4	282.5
20,0°	864.8	860.1	856.9	853.9	850.4	848.0	82.3	364.7
22,5°	841.4	836.7	833.2	829.7	826.8	824.5	89.2	453.9
25,0°	786.0	782.5	779.1	775.6	772.9	771.0	91.6	545.4
27,5°	691.2	689.6	687.4	684.8	682.7	681.4	87.8	633.3
30,0°	578.6	579.1	578.3	576.4	575.3	574.3	79.6	712.9
32,5°	454.5	456.7	457.0	455.4	454.6	454.3	67.4	780.2
35,0°	335.0	337.7	338.0	336.6	336.0	336.2	53.3	833.5
37,5°	239.3	241.4	241.0	239.6	239.1	239.2	40.5	874.0
40,0°	166.2	166.4	164.7	163.3	162.9	163.0	29.6	903.6
42,5°	115.3	113.5	111.1	110.0	109.8	109.7	21.3	924.9
45,0°	79.0	76.9	75.1	74.3	74.0	73.9	15.2	940.1
47,5°	56.0	54.4	53.1	52.3	51.9	51.7	11.2	951.3
50,0°	40.9	39.8	38.8	38.0	37.5	37.4	8.5	959.8
52,5°	31.8	30.8	29.9	29.1	28.8	28.7	6.8	966.6
55,0°	25.9	25.0	24.2	23.4	23.2	23.3	5.6	972.3
57,5°	21.7	20.8	20.1	19.5	19.4	19.6	4.8	977.0
60,0°	18.6	18.0	17.1	16.6	16.8	17.1	4.2	981.2
62,5°	16.0	15.6	14.7	14.4	14.7	15.1	3.6	984.8
65,0°	14.0	13.6	12.8	12.7	13.1	13.5	3.2	988.1
67,5°	12.0	12.1	11.2	11.1	11.6	12.1	2.9	991.0
70,0°	9.8	10.4	9.7	9.7	10.2	10.6	2.5	993.4
72,5°	7.8	8.3	8.3	8.3	8.8	9.1	2.1	995.5
75,0°	6.2	6.3	6.8	6.9	7.3	7.6	1.6	997.1
77,5°	4.6	4.9	5.3	5.5	5.8	6.0	1.3	998.4
80,0°	3.1	3.4	3.7	4.0	4.2	4.4	0.9	999.2
82,5°	1.8	2.1	2.4	2.6	2.8	2.9	0.5	999.7
85,0°	0.7	1.0	1.2	1.3	1.6	1.6	0.2	1000.0
87,5°	0.3	0.3	0.3	0.3	0.4	0.4	0.1	1000.0

Photometric test report

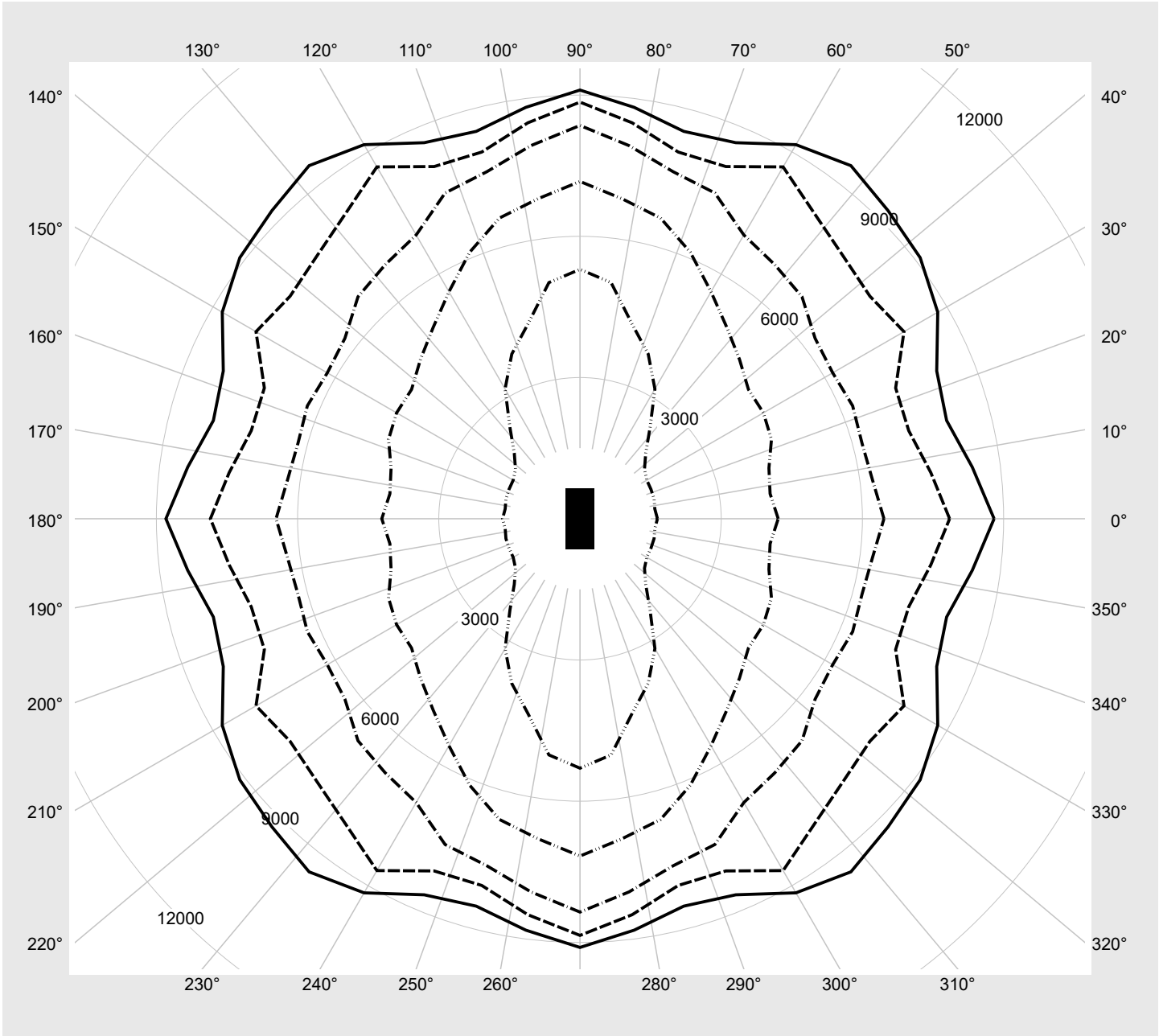
Family Highbay 21	Order number: 52HN12DB4WMA EAN: 4069025394897	LP number 59723_136
----------------------	--	------------------------

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	21.0	22.2	21.3	22.5	22.9	20.8	22.0	21.2	22.3	22.7
	3H	21.0	22.1	21.4	22.4	22.8	20.9	22.0	21.3	22.3	22.7
	4H	21.0	22.0	21.4	22.4	22.8	20.9	21.9	21.3	22.3	22.7
	6H	21.0	21.9	21.4	22.3	22.7	21.0	21.9	21.4	22.2	22.6
	8H	21.1	21.8	21.5	22.2	22.6	21.1	21.8	21.5	22.2	22.6
	12H	21.1	21.7	21.5	22.1	22.6	21.1	21.8	21.5	22.2	22.6
4H	2H	20.9	21.9	21.3	22.2	22.6	20.7	21.7	21.1	22.1	22.4
	3H	21.0	21.8	21.4	22.2	22.6	20.9	21.7	21.3	22.1	22.5
	4H	21.0	21.7	21.5	22.1	22.6	21.0	21.7	21.4	22.1	22.5
	6H	21.0	21.6	21.5	22.1	22.5	21.0	21.7	21.5	22.1	22.6
	8H	21.0	21.5	21.5	22.0	22.5	21.1	21.6	21.5	22.1	22.6
	12H	21.0	21.4	21.5	21.9	22.4	21.1	21.6	21.6	22.0	22.5
8H	4H	21.0	21.5	21.4	22.0	22.4	20.9	21.5	21.4	21.9	22.4
	6H	21.0	21.4	21.5	21.9	22.4	21.0	21.5	21.5	21.9	22.4
	8H	20.9	21.3	21.4	21.8	22.3	21.0	21.4	21.5	21.9	22.5
	12H	20.9	21.2	21.4	21.7	22.3	21.1	21.4	21.6	21.9	22.4
12H	4H	21.0	21.4	21.5	21.9	22.4	20.9	21.4	21.4	21.8	22.3
	6H	21.0	21.3	21.5	21.8	22.3	21.0	21.4	21.5	21.9	22.4
	8H	20.9	21.2	21.5	21.7	22.3	21.0	21.3	21.6	21.8	22.4

Luminance table		Max. for $\gamma \geq 65^\circ$				Photometric dimensions in mm:		L = 852 B = 264		
C-planes	0,0° 180,0°	10,0° 170,0° 190,0° 350,0°	20,0° 160,0° 200,0° 340,0°	30,0° 150,0° 210,0° 330,0°	40,0° 140,0° 220,0° 320,0°	50,0° 130,0° 230,0° 310,0°	60,0° 120,0° 240,0° 300,0°	70,0° 110,0° 250,0° 290,0°	80,0° 100,0° 260,0° 280,0°	90,0° 270,0°
		Luminance in cd/m²								
γ										
45,0°	33088.5	32064.3	32546.2	32727.1	32794.6	32065.1	30926.0	30079.8	29800.8	29718.8
50,0°	18770.5	18253.3	18595.0	18637.7	18635.1	18281.8	17625.3	17039.6	16667.5	16536.8
55,0°	12708.4	12336.6	12611.0	12933.1	13280.5	13026.0	12381.5	11864.2	11541.0	11580.3
60,0°	9777.2	9495.3	9655.2	10336.6	10661.5	10643.9	10253.5	9625.5	9513.6	9712.9
65,0°	8797.6	8286.2	8108.5	8776.1	9179.6	9441.5	9176.0	8559.7	8717.0	9106.6
70,0°	7852.6	7416.3	7175.6	7948.2	7774.3	8066.0	8630.4	8031.4	8350.0	8850.9
75,0°	6457.6	6233.9	6262.6	6199.3	6389.9	6753.7	6961.2	7580.7	7874.4	8355.1
80,0°	4211.1	4076.4	4337.1	4499.5	4574.5	5000.6	5567.9	6296.9	6767.5	7165.5
85,0°	1645.4	1604.0	1630.9	1638.9	1791.9	2258.8	3183.1	3963.7	4860.4	5298.6

Photometric test report

Family Highbay 21	Order number: 52HN12DB4WMA EAN: 4069025394897	LP number 59723_136
Luminance values in cd/m²		siteco
		γ 65° γ 70° γ 75° γ 80° γ 85°



Photometric test report

Family Highbay 21	Order number: 52HN12DB4WMA EAN: 4069025394897	LP number 59723_136
Dimming levels table environmental temperature: 25°C		siteco

Luminous flux %	Dimming level linear	Dimming level logarithmic	Luminous flux [lm]	Power consumption [W]
100	254	254	64000	345.0
95	240	252	60763	325.5
90	227	250	57700	307.4
85	213	248	54396	288.2
80	200	245	51269	270.3
75	186	243	47881	251.2
70	173	240	44694	233.6
65	160	237	41495	216.0
60	148	234	38492	199.8
55	135	231	35243	182.5
50	122	227	31959	165.1
45	110	223	28906	149.2
40	97	219	25569	132.0
35	85	214	22470	116.1
30	72	208	19091	99.0
25	60	201	15938	83.3
20	48	193	12779	67.9
15	36	182	9584	52.6
10	24	168	6370	37.1
5	12	142	3150	21.0
2	5	110	1262	11.4