

Photometric test report

Family
Highbay 21

Order number: 52HN12DA4HLA01
EAN: 4069025421623

LP number
59723_172

serial
documentation
20.03.2025



Version primary light control with lens, PMMA, housing, white, for Licross® rail, wide distribution, with multisensor node BT

Lamps LED 4000 K | CRI ≥ 80

Controlgear ECG-DALI

Rated values Net luminous flux = 19000 lm
Power consumption = 99.4 W
Luminous efficacy = 191.2 lm/W

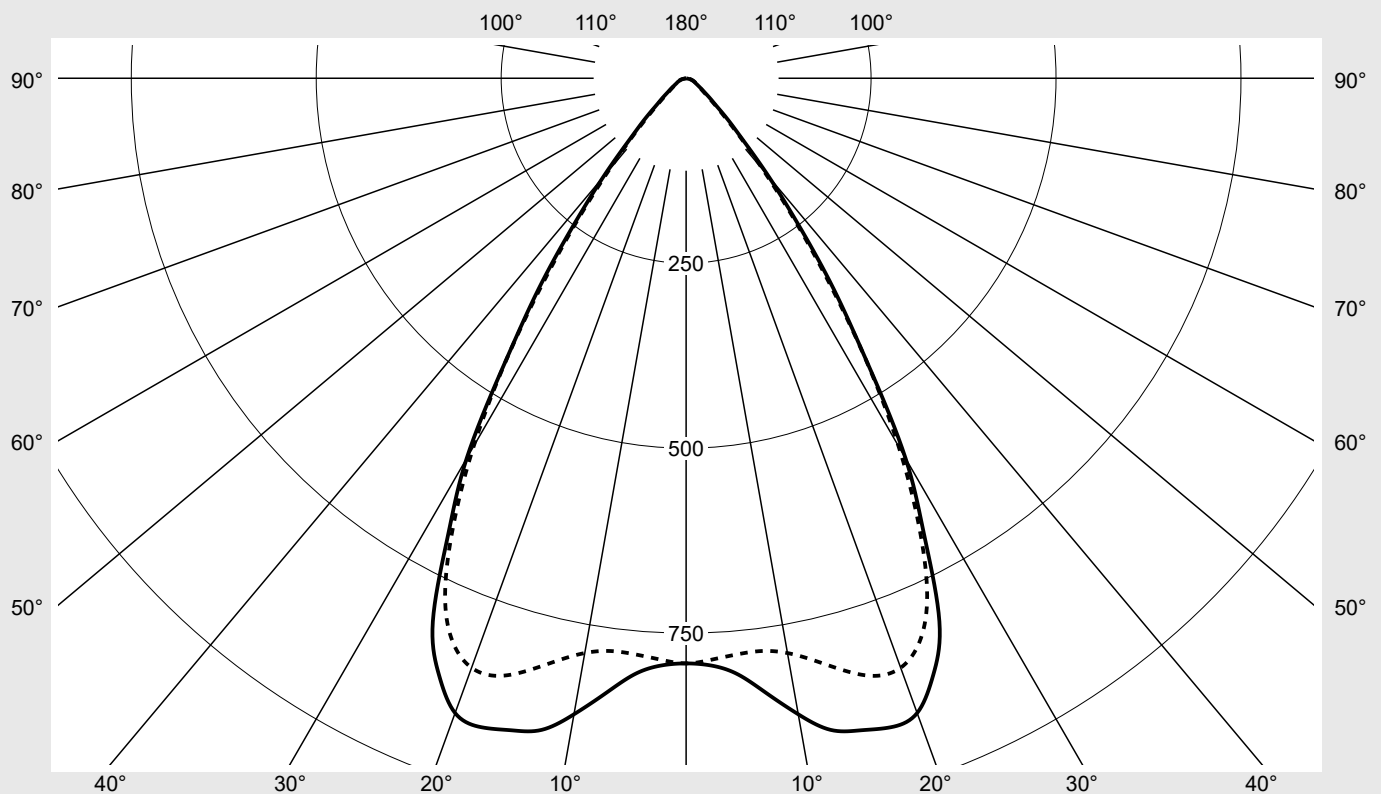
siteco

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

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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°
		Luminous intensity in cd/klm					
γ							
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

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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
	Luminous intensity in cd/klm						Luminous flux in lm/klm	
γ								
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

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Family Highbay 21			Order number: 52HN12DA4HLA01 EAN: 4069025421623							LP number 59723_172	
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	19.2	20.4	19.5	20.7	21.0	19.0	20.2	19.4	20.5	20.9
	3H	19.2	20.3	19.6	20.6	21.0	19.1	20.2	19.5	20.5	20.8
	4H	19.2	20.2	19.6	20.6	20.9	19.1	20.1	19.5	20.5	20.9
	6H	19.2	20.1	19.6	20.5	20.9	19.2	20.1	19.6	20.4	20.8
	8H	19.3	20.0	19.7	20.4	20.8	19.3	20.0	19.7	20.4	20.8
	12H	19.3	19.9	19.7	20.3	20.8	19.3	20.0	19.7	20.4	20.8
4H	2H	19.1	20.1	19.5	20.4	20.8	18.9	19.9	19.3	20.3	20.6
	3H	19.2	20.0	19.6	20.4	20.8	19.1	19.9	19.5	20.3	20.7
	4H	19.2	19.9	19.6	20.3	20.8	19.1	19.9	19.6	20.3	20.7
	6H	19.2	19.8	19.7	20.2	20.7	19.2	19.8	19.7	20.3	20.8
	8H	19.2	19.7	19.6	20.2	20.6	19.3	19.8	19.7	20.3	20.7
	12H	19.2	19.6	19.7	20.1	20.6	19.3	19.7	19.8	20.2	20.7
8H	4H	19.1	19.7	19.6	20.1	20.6	19.1	19.6	19.6	20.1	20.6
	6H	19.1	19.6	19.6	20.1	20.6	19.2	19.6	19.7	20.1	20.6
	8H	19.1	19.5	19.6	20.0	20.5	19.2	19.6	19.7	20.1	20.6
	12H	19.1	19.4	19.6	19.9	20.5	19.3	19.6	19.8	20.1	20.6
12H	4H	19.2	19.6	19.7	20.1	20.6	19.1	19.5	19.6	20.0	20.5
	6H	19.2	19.5	19.7	20.0	20.5	19.2	19.5	19.7	20.0	20.6
	8H	19.1	19.4	19.6	19.9	20.5	19.2	19.5	19.8	20.0	20.6

Luminance table		Max. for $\gamma \geq 65^\circ$		Photometric dimensions in mm:		L = 426 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°		19646.3	19038.2	19324.3	19431.7	19471.8	19038.7	18362.3	17859.9	17694.2
50,0°		11145.0	10837.9	11040.8	11066.1	11064.6	10854.8	10465.0	10117.2	9896.3
55,0°		7545.6	7324.8	7487.8	7679.0	7885.3	7734.2	7351.5	7044.4	6852.4
60,0°		5805.2	5637.9	5732.8	6137.4	6330.3	6319.8	6088.0	5715.2	5648.7
65,0°		5223.6	4919.9	4814.4	5210.8	5450.4	5605.9	5448.2	5082.3	5175.7
70,0°		4662.5	4403.4	4260.5	4719.3	4616.0	4789.2	5124.3	4768.7	4957.8
75,0°		3834.2	3701.4	3718.4	3680.8	3794.0	4010.0	4133.2	4501.0	4675.4
80,0°		2500.4	2420.4	2575.2	2671.6	2716.1	2969.1	3305.9	3738.8	4018.2
85,0°		977.0	952.4	968.3	973.1	1064.0	1341.2	1889.9	2353.4	2885.9

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Family Highbay 21	Order number: 52HN12DA4HLA01 EAN: 4069025421623	LP number 59723_172
Dimming levels table environmental temperature: 25°C		

Luminous flux %	Dimming level linear	Dimming level logarithmic	Luminous flux [lm]	Power consumption [W]
100	254	254	19000	99.4
95	241	252	18066	94.3
90	228	250	17132	89.2
85	214	248	16116	83.7
80	201	245	15171	78.6
75	188	243	14217	73.6
70	175	240	13264	68.6
65	163	238	12376	63.9
60	150	235	11412	58.9
55	137	231	10438	53.8
50	124	228	9465	48.8
45	112	224	8563	44.2
40	99	219	7581	39.3
35	87	215	6670	34.7
30	74	209	5679	29.9
25	62	202	4759	25.4
20	50	194	3836	20.9
15	37	183	2829	16.0
10	25	169	1899	11.5
5	13	145	966	6.8
2	5	110	342	3.6