

Photometric test report

Family
Highbay 21

Order number: 52HN12DB4TDA
EAN: 4069025394842

LP number
59723_30

serial
documentation
24.02.2025

siteco



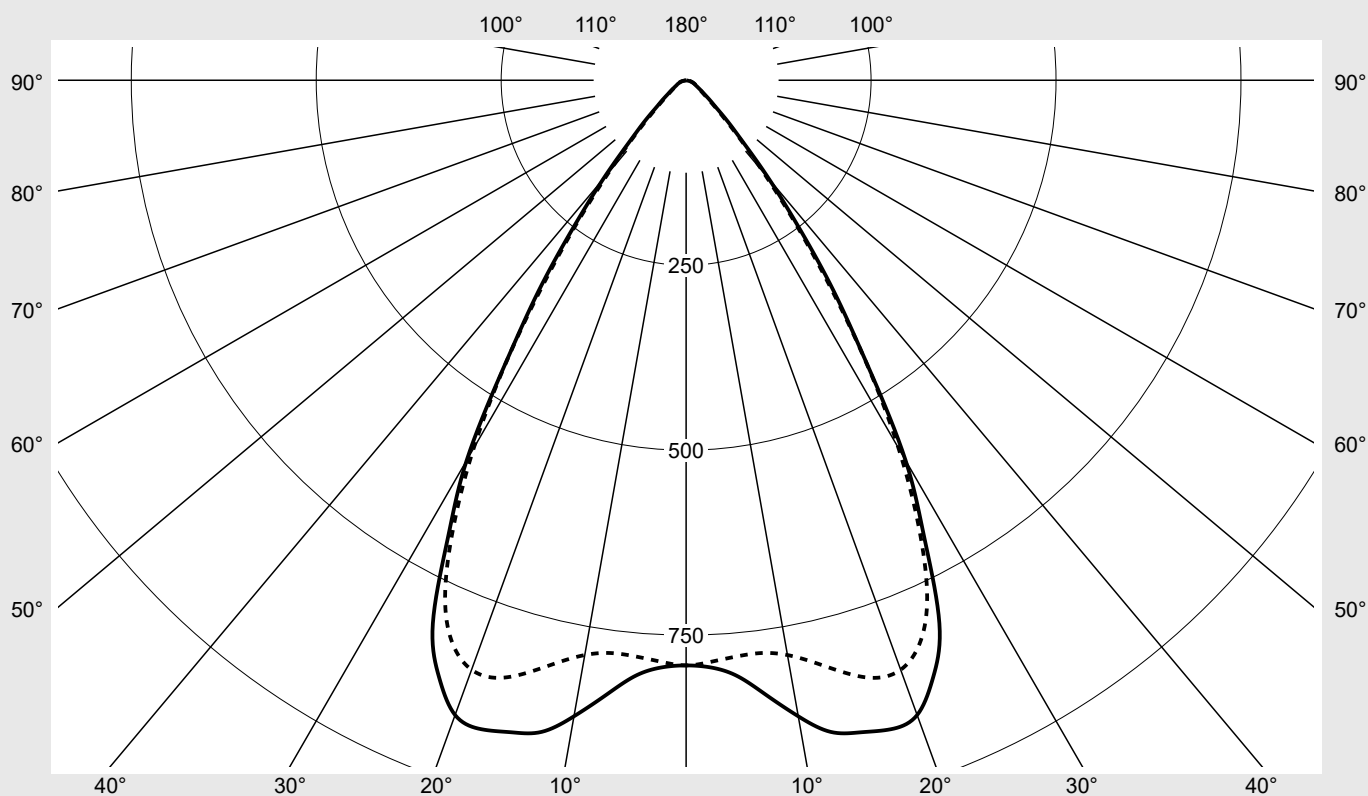
Version primary light control with lens, PMMA, housing, white, wide distribution
Lamps LED 4000 K | CRI ≥ 80
Controlgear ECG-DALI
Setting AC-mode
Rated values Net luminous flux = 53000 lm
Power consumption = 286.6 W
Luminous efficacy = 184.9 lm/W

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

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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

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Table of values for luminous intensities		Maximum luminous intensity
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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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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	20.3	21.6	20.7	21.9	22.2	20.2	21.4	20.5	21.7	22.0
	3H	20.4	21.4	20.8	21.8	22.1	20.2	21.3	20.6	21.6	22.0
	4H	20.4	21.4	20.8	21.7	22.1	20.3	21.3	20.7	21.6	22.0
	6H	20.4	21.3	20.8	21.6	22.0	20.3	21.2	20.7	21.6	22.0
	8H	20.5	21.2	20.9	21.6	22.0	20.5	21.2	20.9	21.6	22.0
	12H	20.4	21.1	20.9	21.5	21.9	20.5	21.1	20.9	21.5	21.9
4H	2H	20.2	21.2	20.6	21.6	22.0	20.1	21.1	20.5	21.4	21.8
	3H	20.3	21.1	20.8	21.5	21.9	20.2	21.0	20.6	21.4	21.8
	4H	20.4	21.1	20.8	21.5	21.9	20.3	21.0	20.7	21.4	21.9
	6H	20.3	21.0	20.8	21.4	21.9	20.4	21.0	20.9	21.4	21.9
	8H	20.3	20.9	20.8	21.3	21.8	20.4	21.0	20.9	21.4	21.9
	12H	20.3	20.8	20.8	21.2	21.7	20.5	20.9	21.0	21.4	21.9
8H	4H	20.3	20.9	20.8	21.3	21.8	20.3	20.8	20.7	21.3	21.7
	6H	20.3	20.7	20.8	21.2	21.7	20.4	20.8	20.9	21.3	21.8
	8H	20.3	20.7	20.8	21.1	21.7	20.4	20.8	20.9	21.3	21.8
	12H	20.3	20.6	20.8	21.1	21.6	20.4	20.7	21.0	21.2	21.8
12H	4H	20.3	20.8	20.8	21.2	21.7	20.3	20.7	20.8	21.2	21.7
	6H	20.3	20.7	20.8	21.1	21.7	20.4	20.7	20.9	21.2	21.7
	8H	20.3	20.6	20.8	21.1	21.6	20.4	20.7	20.9	21.2	21.7

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°		27401.4	26553.3	26952.3	27102.1	27158.0	26553.9	25610.6	24909.8	24678.8	24610.9
50,0°		15544.3	15116.0	15399.0	15434.3	15432.2	15139.6	14596.0	14110.9	13802.8	13694.6
55,0°		10524.1	10216.2	10443.5	10710.2	10997.9	10787.2	10253.4	9825.1	9557.4	9589.9
60,0°		8096.8	7863.3	7995.7	8560.0	8829.0	8814.5	8491.2	7971.1	7878.5	8043.5
65,0°		7285.5	6862.0	6714.8	7267.7	7601.8	7818.8	7598.9	7088.5	7218.8	7541.4
70,0°		6502.9	6141.6	5942.3	6582.1	6438.1	6679.6	7147.1	6651.0	6914.9	7329.6
75,0°		5347.7	5162.4	5186.2	5133.8	5291.6	5592.9	5764.7	6277.8	6520.9	6919.1
80,0°		3487.3	3375.8	3591.7	3726.2	3788.3	4141.1	4610.9	5214.6	5604.3	5933.9
85,0°		1362.6	1328.4	1350.6	1357.2	1484.0	1870.6	2636.0	3282.4	4025.0	4387.9

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Highbay 21

Order number: 52HN12DB4TDA
EAN: 4069025394842

LP number
59723_30

Luminance values in cd/m²

γ 65°

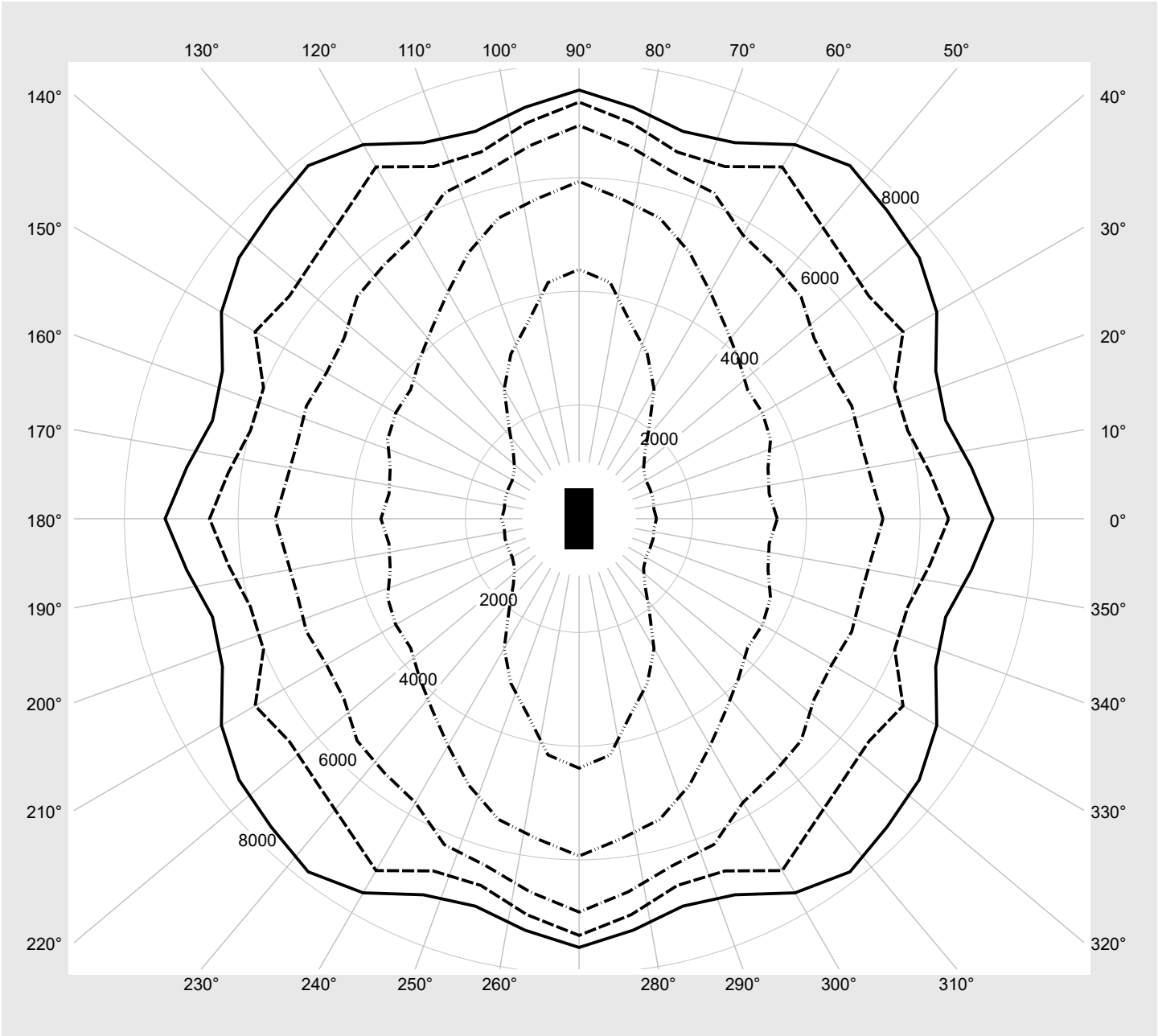
γ 70°

γ 75°

γ 80°

γ 85°

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Family Highbay 21	Order number: 52HN12DB4TDA EAN: 4069025394842	LP number 59723_30
Dimming levels table environmental temperature: 25°C		

Luminous flux %	Dimming level linear	Dimming level logarithmic	Luminous flux [lm]	Power consumption [W]
100	254	254	53000	286.6
95	240	252	50315	270.4
90	227	250	47747	255.4
85	213	248	44996	239.3
80	200	245	42396	224.4
75	187	243	39781	209.7
70	174	240	37143	195.0
65	161	237	34482	180.2
60	148	234	31789	165.6
55	135	231	29085	151.1
50	123	227	26576	137.7
45	110	223	23848	123.3
40	97	219	21094	108.7
35	85	214	18527	95.5
30	73	208	15952	82.5
25	60	201	13142	68.4
20	48	193	10520	55.4
15	36	182	7886	42.5
10	24	168	5241	29.5
5	12	142	2576	16.0
2	5	110	1018	8.1