

Photometric test report

Family
Modario® 31



Order number: 53BM812DU4GXC2

EAN: 4069025134554

LP number
59594_8

serial
documentation
02.05.2024

Version

diffuser optic, frosted, wide distribution

Lamps

LED 4000 K | CRI ≥ 80

Controlgear

ECG-DALI

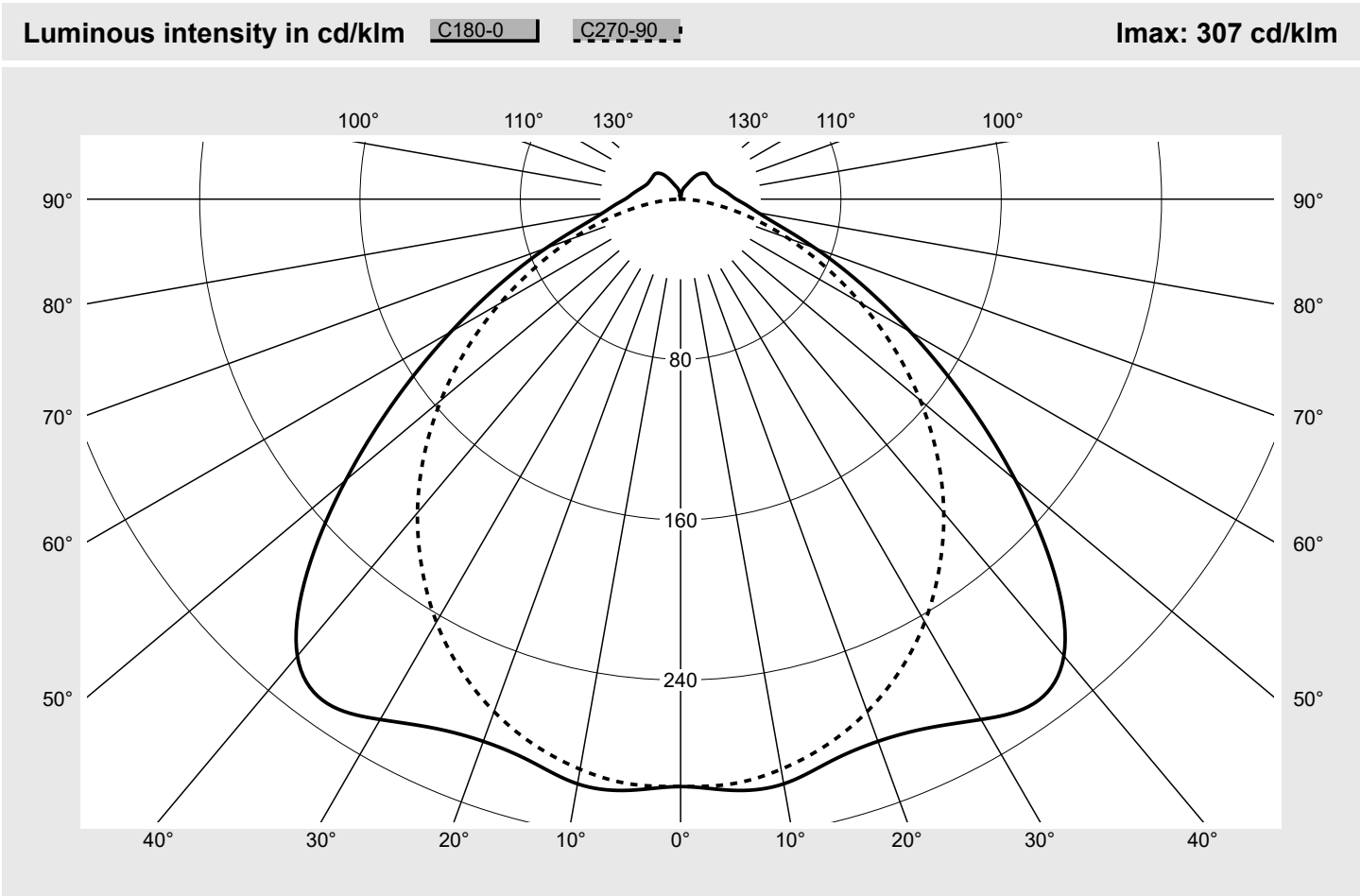
Rated values

Net luminous flux = 16290 lm

Power consumption = 92.1 W

Luminous efficacy = 176.9 lm/W

siteco



Classifications		Luminaire light output ratios	
DIN 5040	A 4 1	ηLB	100.0%
CIE	N1=47 N2=80 N3=95	φ _u	92.6%
	N4=93 N5=100	φ _o	7.4%

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°	293.1	293.1	293.1	293.1	293.1	293.1	293.1	1.8	1.8
5°	296.1	295.6	293.1	293.6	293.8	293.0	292.9	14.0	15.8
10°	296.3	296.3	293.6	293.6	292.6	289.9	288.9	27.9	43.7
15°	290.3	290.9	288.4	289.1	288.3	284.2	281.9	40.8	84.5
20°	287.9	288.2	282.8	281.1	280.6	275.9	272.2	52.8	137.3
25°	291.3	290.8	281.6	274.0	270.0	264.7	259.4	64.0	201.2
30°	299.8	298.4	283.7	269.7	258.3	250.5	243.7	74.6	275.8
35°	307.3	306.0	288.6	266.7	246.6	233.7	225.0	84.2	360.1
40°	297.5	299.0	287.4	263.1	235.0	215.2	204.3	91.1	451.1
45°	263.6	268.2	268.7	253.4	221.8	194.2	181.1	92.3	543.4
50°	218.1	223.5	232.0	231.1	204.9	171.7	156.1	87.5	630.9
55°	172.9	177.3	186.9	195.4	181.1	147.5	130.2	77.8	708.7
60°	132.3	135.3	142.3	152.9	149.4	121.4	104.1	64.8	773.5
65°	98.5	100.2	104.0	112.2	114.5	94.5	79.4	50.9	824.4
70°	71.4	72.6	74.4	79.3	82.2	69.0	57.1	37.9	862.3
75°	51.0	51.6	52.9	55.5	55.9	46.4	37.5	27.0	889.4
80°	39.4	39.1	38.7	38.1	35.5	27.5	20.9	18.8	908.2
85°	32.8	32.1	30.1	26.5	21.0	13.7	8.3	13.1	921.3
90°	27.7	27.1	24.5	19.3	12.6	5.6	0.8	9.4	930.7
95°	24.8	24.4	22.4	17.8	11.6	5.3	0.8	8.6	939.3
100°	22.5	22.2	20.5	16.7	11.5	5.5	0.8	7.9	947.2
105°	20.6	20.3	18.7	16.0	11.5	5.9	0.8	7.3	954.6
110°	19.2	18.7	17.6	15.5	11.7	6.3	0.7	6.8	961.4
115°	18.2	17.8	17.0	15.3	12.2	5.8	0.8	6.4	967.8
120°	17.9	17.4	16.9	15.5	12.3	5.3	0.8	6.1	973.9
125°	17.8	17.4	16.9	15.5	11.8	5.2	0.8	5.7	979.6
130°	17.9	17.4	16.8	15.0	10.1	5.0	0.9	5.2	984.7
135°	17.9	17.3	16.2	13.6	8.1	4.3	1.0	4.5	989.2
140°	16.9	16.0	14.5	11.2	6.7	3.5	1.1	3.6	992.8
145°	14.9	14.0	12.0	8.5	5.5	2.8	1.2	2.7	995.4
150°	11.8	10.8	9.0	6.5	4.7	2.2	1.4	1.8	997.3
155°	8.6	8.1	7.0	5.2	4.0	1.7	1.5	1.2	998.5
160°	6.8	6.5	5.3	4.3	3.2	1.5	1.5	0.8	999.2
165°	5.5	5.3	3.9	3.4	2.1	1.6	1.6	0.5	999.7
170°	3.8	3.1	2.5	2.0	1.6	1.6	1.6	0.2	999.9
175°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	0.1	1000.0
180°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	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	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	22.9	24.6	23.3	24.9	25.2	22.7	24.4	23.1	24.7	25.0
	3H	23.8	25.3	24.1	25.6	26.0	23.8	25.4	24.2	25.7	26.0
	4H	24.1	25.5	24.5	25.9	26.2	24.2	25.7	24.6	26.0	26.4
	6H	24.4	25.7	24.8	26.1	26.4	24.5	25.8	24.9	26.2	26.6
	8H	24.6	25.8	25.0	26.2	26.6	24.6	25.8	25.0	26.2	26.6
	12H	24.7	25.9	25.1	26.3	26.7	24.6	25.8	25.0	26.2	26.6
4H	2H	23.6	25.0	24.0	25.4	25.7	23.4	24.9	23.8	25.2	25.6
	3H	24.6	25.8	25.0	26.2	26.6	24.8	26.0	25.2	26.4	26.8
	4H	25.0	26.1	25.4	26.5	26.9	25.3	26.4	25.7	26.8	27.2
	6H	25.4	26.3	25.8	26.7	27.2	25.6	26.6	26.1	27.0	27.5
	8H	25.6	26.4	26.0	26.9	27.4	25.7	26.6	26.2	27.1	27.6
	12H	25.8	26.6	26.3	27.0	27.5	25.8	26.6	26.3	27.1	27.6
8H	4H	25.2	26.1	25.7	26.6	27.0	25.5	26.4	26.0	26.8	27.3
	6H	25.7	26.5	26.2	26.9	27.4	26.0	26.7	26.5	27.2	27.7
	8H	26.0	26.7	26.5	27.2	27.7	26.2	26.8	26.7	27.3	27.8
	12H	26.4	26.9	26.9	27.4	27.9	26.3	26.9	26.8	27.4	27.9
12H	4H	25.3	26.1	25.7	26.5	27.0	25.6	26.3	26.0	26.8	27.3
	6H	25.8	26.5	26.3	26.9	27.5	26.1	26.7	26.6	27.2	27.7
	8H	26.1	26.7	26.7	27.2	27.7	26.3	26.9	26.8	27.3	27.9

Luminance table		Max. for $\gamma \geq 65^\circ$		Photometric dimensions in mm:		L = 2392 B = 75	H(C0) = 25 H(C90) = 0	H(C180) = 25 H(C270) = 0
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°	90° 270°
			Luminance in cd/m²					
45°		25389.9	26056.3	26776.3	26332.1	24417.3	22959.4	23258.7
50°		22048.9	22814.5	24384.4	25482.9	24142.7	21997.3	22051.9
55°		18541.3	19222.5	20948.9	23147.4	23151.6	20793.4	20618.7
60°		15232.6	15769.1	17223.5	19717.1	21051.4	19175.2	18913.7
65°		12344.5	12739.7	13805.3	16017.1	18131.1	17124.9	17051.9
70°		9887.7	10223.2	11008.4	12781.0	14972.8	14810.8	15149.6
75°		7969.2	8223.4	8929.0	10357.9	12089.2	12302.8	13149.3
80°		7128.1	7238.6	7664.0	8534.0	9552.8	9664.2	10926.2
85°		7103.4	7154.4	7299.7	7472.1	7544.3	7176.1	8687.9

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Luminance values in cd/m²

γ 65°

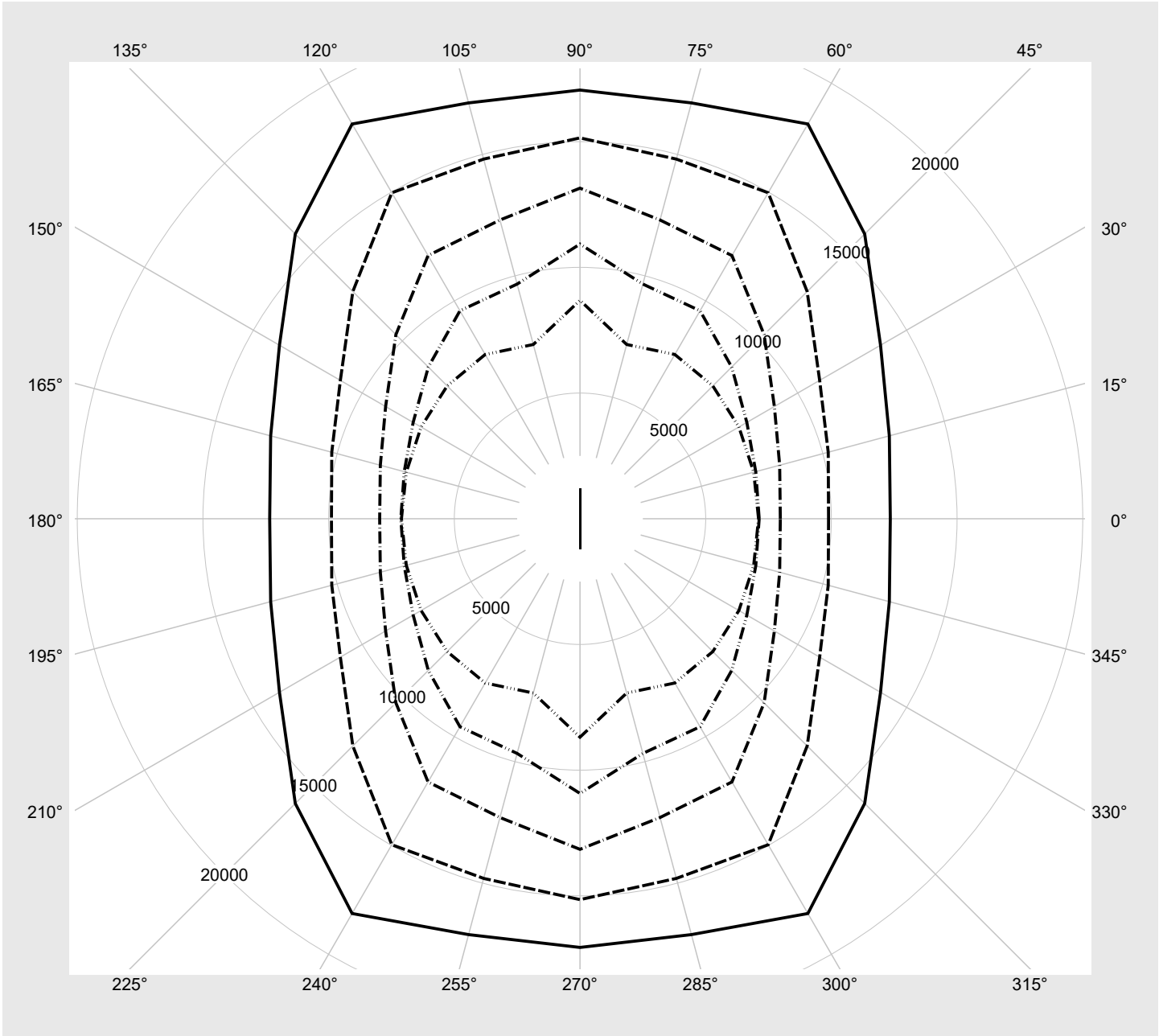
γ 70°

γ 75°

γ 80°

γ 85°

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Dimming levels table		environmental temperature: 25°C



Luminous flux %	Dimming level linear	Dimming level logarithmic	Luminous flux [lm]	Power consumption [W]
100	254	254	16290	92.1
95	240	252	15481	87.2
90	226	250	14659	82.6
85	212	247	13828	77.9
80	199	245	13045	73.6
75	185	242	12189	68.8
70	172	240	11387	64.4
65	159	237	10576	59.8
60	146	234	9757	55.2
55	134	231	8992	50.9
50	121	227	8154	46.3
45	108	223	7308	41.5
40	96	218	6520	37.1
35	84	213	5725	32.6
30	71	207	4856	27.6
25	59	201	4042	23.3
20	47	192	3227	19.0
15	36	182	2474	14.9
10	24	168	1647	10.5
5	12	142	814	6.0
2	4	102	256	2.9