

Photometric test report

Family
Modario® 31

Order number: **53BM812D2V4120**
EAN: **4058352421857**

LP number
59064_4



Version diffuser optic, frosted, wide distribution
Lamps LED 4000 K | CRI ≥ 80
Controlgear ECG-DALI
Rated values Net luminous flux = 12350 lm
Power consumption = 79.5 W
Luminous efficacy = 155.3 lm/W

serial
documentation
01.09.2020

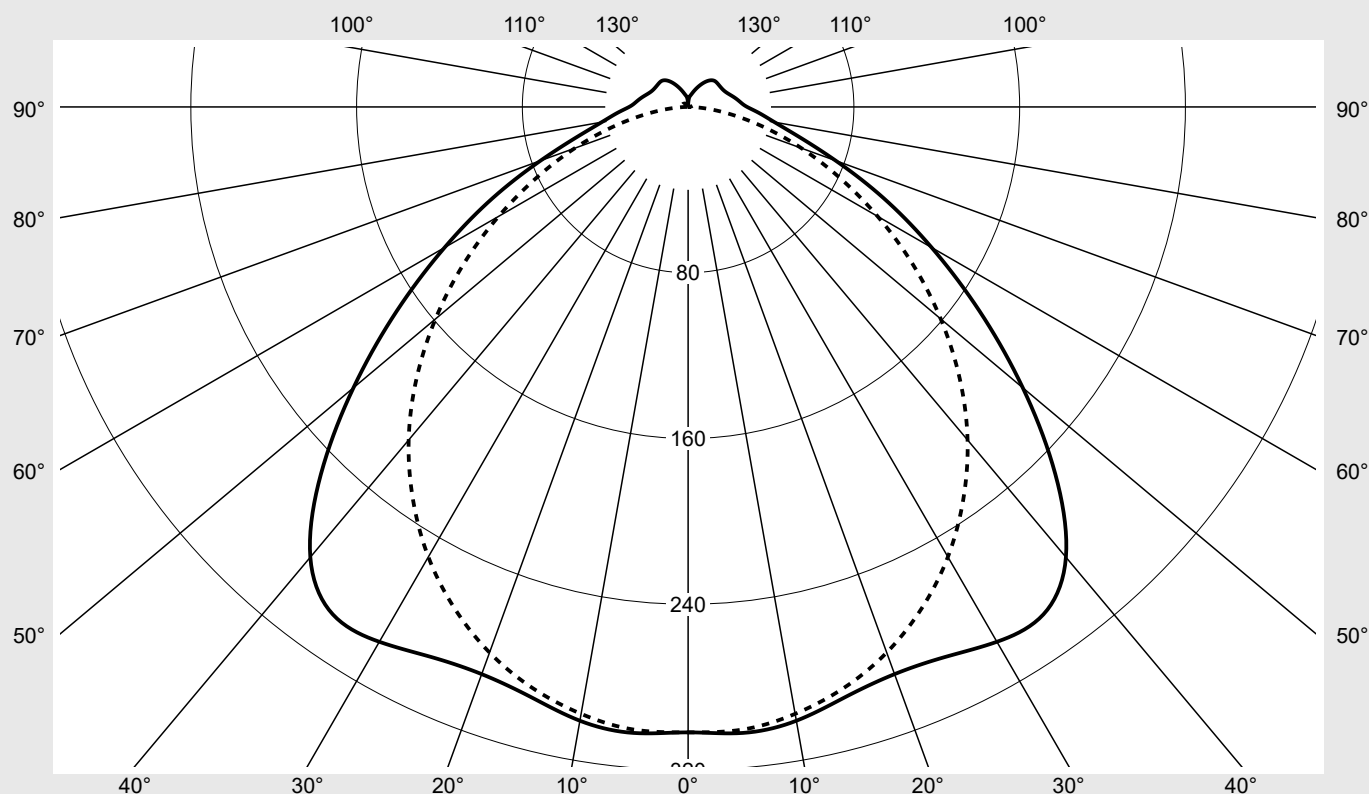
siteco

Luminous intensity in cd/klm

C180-0

C270-90

Imax: 303 cd/klm



Classifications

DIN 5040 A 4 1
CIE N1=47 N2=80 N3=95
N4=92 N5=100

Luminaire light output ratios

η_{LB} 100.0%
 ϕ_u 92.2%
 ϕ_o 7.8%

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°	301.8	301.8	301.8	301.8	301.8	301.8	301.8	1.8	1.8
5°	303.3	302.1	299.9	300.9	301.9	301.5	301.6	14.4	16.2
10°	300.8	300.0	297.7	298.5	298.9	297.8	297.4	28.4	44.6
15°	294.6	294.3	291.7	292.6	293.1	291.2	290.3	41.5	86.1
20°	291.3	290.6	285.8	284.4	284.3	281.8	280.2	53.5	139.7
25°	293.0	291.5	283.0	276.7	273.3	269.6	266.9	64.6	204.3
30°	298.0	296.0	283.3	270.8	261.1	254.6	250.8	74.9	279.2
35°	299.0	297.5	283.8	265.6	248.4	237.0	231.5	83.7	362.9
40°	283.7	284.3	276.5	258.3	235.0	217.5	209.8	89.2	452.1
45°	250.6	253.6	254.2	243.8	219.3	195.5	185.4	89.4	541.5
50°	210.8	214.1	220.0	218.9	199.3	171.7	159.1	84.6	626.1
55°	171.6	174.1	180.5	185.1	173.7	146.4	132.4	75.7	701.8
60°	135.7	137.3	141.6	147.2	142.6	119.7	105.6	64.0	765.8
65°	104.1	104.9	107.1	111.0	110.3	93.2	80.6	51.2	817.1
70°	75.8	76.7	78.0	80.6	80.3	68.4	58.2	38.7	855.8
75°	55.2	55.4	55.7	57.0	55.4	46.3	38.3	27.9	883.7
80°	42.4	41.9	40.8	39.2	35.6	27.7	21.5	19.5	903.3
85°	34.5	33.8	31.7	27.6	21.5	14.0	8.7	13.7	916.9
90°	28.5	27.9	25.4	20.0	13.0	5.8	0.8	9.7	926.7
95°	25.4	25.0	22.9	18.2	11.9	5.4	1.1	8.8	935.5
100°	23.4	22.9	21.0	17.1	11.6	5.5	1.7	8.2	943.6
105°	21.5	21.0	19.3	16.3	11.6	5.8	2.4	7.6	951.2
110°	19.9	19.3	18.1	15.8	11.8	6.2	2.9	7.1	958.3
115°	18.9	18.4	17.5	15.6	12.1	6.5	2.9	6.7	965.0
120°	18.5	17.9	17.3	15.6	12.2	6.6	2.9	6.3	971.4
125°	18.2	17.7	17.1	15.5	11.7	6.5	2.7	5.9	977.3
130°	18.1	17.6	16.9	14.9	10.9	6.2	2.5	5.4	982.6
135°	17.9	17.2	16.1	13.6	9.8	5.6	2.4	4.7	987.3
140°	16.8	15.9	14.5	12.0	8.4	5.0	2.2	3.8	991.1
145°	14.9	14.0	12.6	10.1	6.9	4.5	2.0	3.0	994.1
150°	12.5	11.8	10.5	8.0	5.7	4.2	1.8	2.2	996.3
155°	10.2	9.6	8.4	6.3	5.0	3.7	1.6	1.5	997.8
160°	8.1	7.7	6.3	5.1	4.6	3.6	1.5	1.0	998.8
165°	6.4	6.2	4.7	4.5	4.1	4.7	1.5	0.7	999.5
170°	5.4	4.4	3.9	4.0	3.9	3.8	1.5	0.4	999.8
175°	3.9	3.2	4.4	4.7	3.9	2.2	1.5	0.2	1000.0
180°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	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	23.5	25.2	23.9	25.5	25.8	23.3	25.0	23.7	25.3	25.6
	3H	24.5	26.0	24.9	26.4	26.7	24.5	26.0	24.8	26.3	26.7
	4H	24.9	26.3	25.3	26.6	27.0	24.9	26.3	25.3	26.7	27.0
	6H	25.2	26.5	25.6	26.9	27.3	25.2	26.5	25.6	26.9	27.3
	8H	25.4	26.6	25.8	27.0	27.4	25.3	26.5	25.7	26.9	27.3
	12H	25.6	26.7	26.0	27.1	27.5	25.3	26.5	25.7	26.9	27.3
4H	2H	24.2	25.6	24.6	26.0	26.3	24.1	25.5	24.4	25.8	26.2
	3H	25.3	26.5	25.7	26.9	27.3	25.4	26.6	25.8	27.0	27.4
	4H	25.8	26.9	26.2	27.3	27.7	25.9	27.0	26.4	27.4	27.9
	6H	26.2	27.2	26.7	27.6	28.1	26.3	27.3	26.7	27.7	28.2
	8H	26.4	27.3	26.9	27.8	28.2	26.4	27.3	26.9	27.8	28.2
	12H	26.7	27.5	27.2	27.9	28.4	26.5	27.3	27.0	27.8	28.2
8H	4H	26.0	26.9	26.5	27.4	27.8	26.2	27.1	26.7	27.5	28.0
	6H	26.6	27.4	27.1	27.8	28.3	26.7	27.4	27.2	27.9	28.4
	8H	26.9	27.6	27.4	28.1	28.6	26.9	27.5	27.4	28.0	28.5
	12H	27.3	27.8	27.8	28.3	28.9	27.0	27.6	27.5	28.1	28.6
12H	4H	26.1	26.9	26.6	27.3	27.8	26.2	27.0	26.7	27.5	28.0
	6H	26.7	27.3	27.2	27.8	28.3	26.8	27.4	27.3	27.9	28.4
	8H	27.0	27.6	27.5	28.1	28.6	27.0	27.6	27.5	28.1	28.6

Luminance table		Max. for $\gamma \geq 65^\circ$		Photometric dimensions in mm:		L = 1476 B = 75		H(C0) = 25 H(C90) = 0		H(C180) = 25 H(C270) = 0	
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°	
γ	Luminance in cd/m²										
45°	29657.5	30260.9	31115.8	31127.8		29658.8		28390.2		29246.6	
50°	26190.7	26855.7	28403.2	29663.0		28861.8		27021.9		27620.5	
55°	22614.9	23199.7	24859.6	26934.6		27284.3		25348.5		25742.8	
60°	19199.8	19664.3	21061.9	23325.2		24687.8		23242.2		23562.7	
65°	16017.8	16385.1	17460.9	19472.0	21441.1			20771.1		21267.0	
70°	12904.7	13269.6	14181.7	15965.6	17971.6			18041.6		18982.5	
75°	10595.9	10846.7	11551.2	13064.2	14723.2			15089.8		16515.1	
80°	9414.6	9525.8	9951.4	10789.8	11767.2			11937.9		13788.6	
85°	9188.3	9249.5	9424.1	9547.4	9451.6			9003.6		11115.9	

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Luminance values in cd/m²

γ 65°

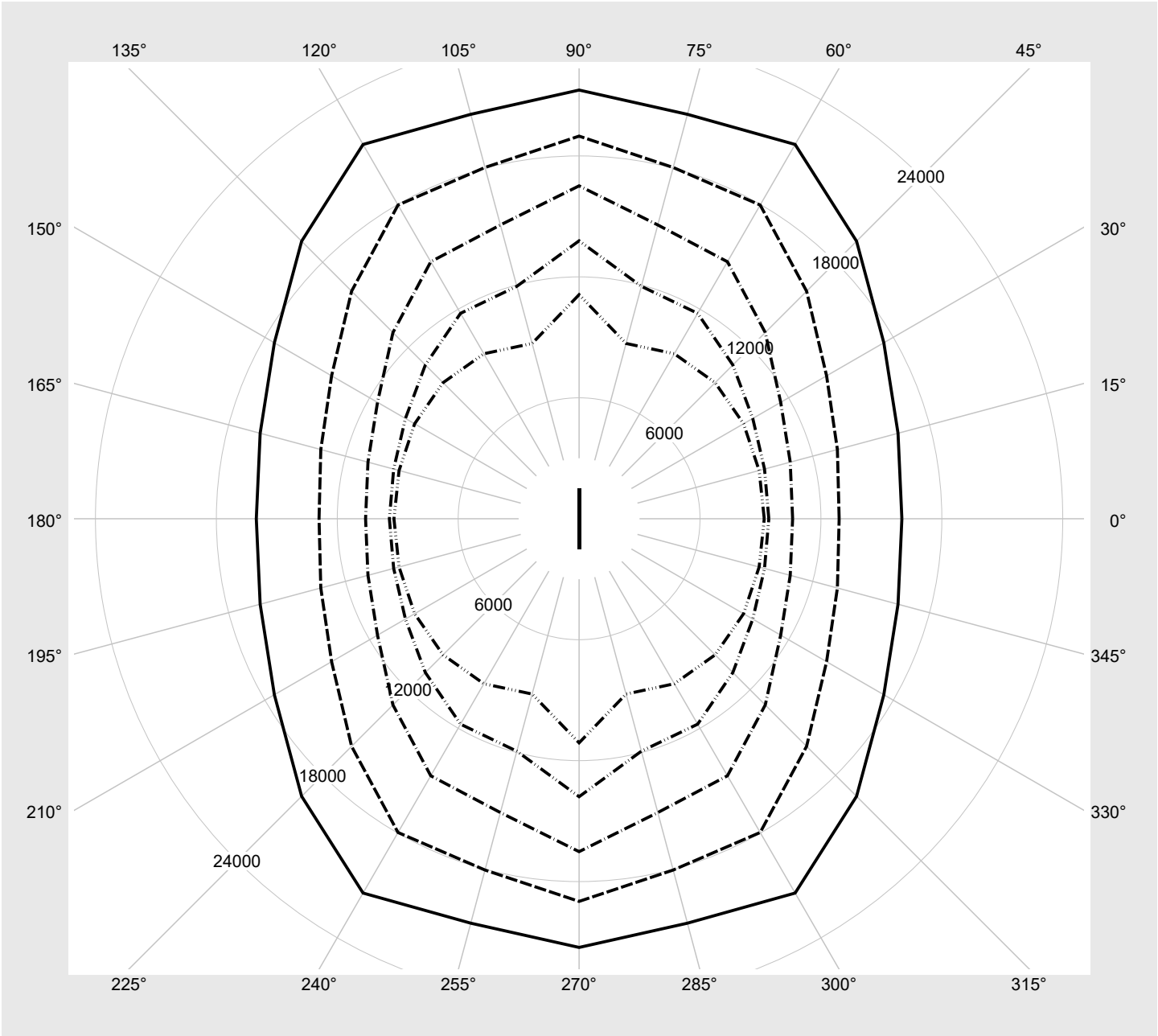
γ 70°

γ 75°

γ 80°

γ 85°

siteco



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Dimming levels table environmental temperature: 25°C		sit eco

Luminous flux %	Dimming level linear	Dimming level logarithmic	Luminous flux [lm]	Power consumption [W]
100	254	254	12350	79.5
95	239	252	11712	74.7
90	225	250	11101	70.1
85	211	247	10482	65.7
80	198	245	9900	61.6
75	184	242	9262	57.3
70	171	240	8649	53.2
65	158	237	8034	49.2
60	145	233	7414	45.2
55	132	230	6781	41.3
50	120	227	6189	37.6
45	107	222	5543	33.7
40	95	218	4937	30.2
35	83	213	4324	26.6
30	71	207	3703	23.0
25	59	201	3085	19.6
20	47	192	2458	16.1
15	36	182	1877	12.9
10	24	168	1240	9.4
5	12	142	603	6.0
3	7	122	343	4.5