

Photometric test report

Family
Modario® 31

Order number: **53BM812M1V4120**
EAN: **4058352421888**

LP number
59064_2



Version diffuser optic, frosted, wide distribution
Lamps LED 4000 K | CRI ≥ 80
Controlgear ECG Multilumen
Rated values Net luminous flux = 12380 lm
Power consumption = 77.3 W
Luminous efficacy = 160.2 lm/W

serial
documentation
01.09.2020

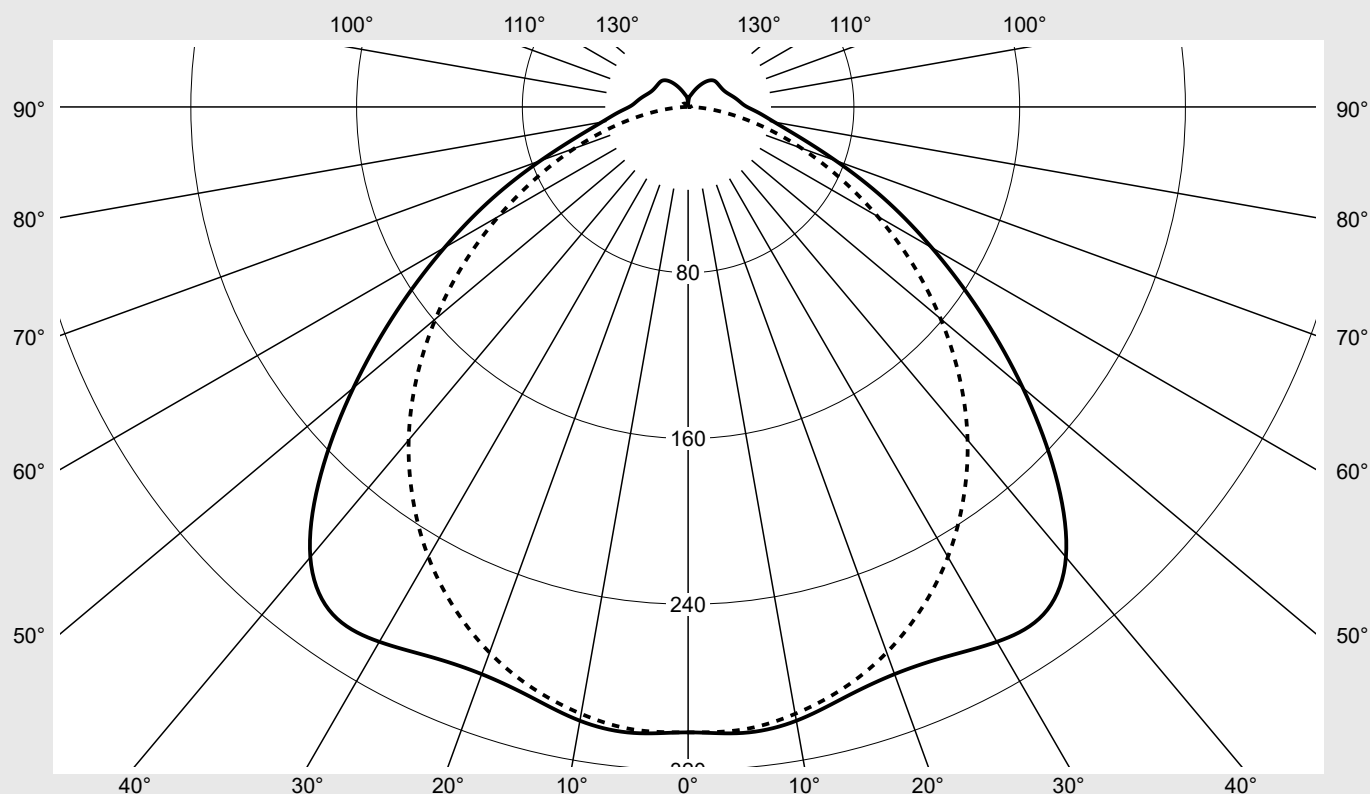
siteco

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	25.9	23.3	25.0	23.7	25.3	25.7
	3H	24.5	26.0	24.9	26.4	26.7	24.5	26.0	24.9	26.3	26.7
	4H	24.9	26.3	25.3	26.7	27.0	24.9	26.3	25.3	26.7	27.1
	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	24.5	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	26.8	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	28.3
8H	4H	26.0	26.9	26.5	27.4	27.9	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	27.1	27.6	27.6	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	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°		29729.5	30334.4	31191.4	31203.4	29730.9	28459.2	29317.7
50°		26254.3	26920.9	28472.2	29735.0	28931.9	27087.6	27687.6
55°		22669.9	23256.1	24920.0	27000.0	27350.6	25410.0	25805.3
60°		19246.5	19712.1	21113.0	23381.8	24747.8	23298.7	23620.0
65°		16056.7	16424.9	17503.4	19519.3	21493.2	20821.6	21318.7
70°		12936.0	13301.8	14216.1	16004.4	18015.3	18085.5	19028.6
75°		10621.6	10873.0	11579.3	13096.0	14759.0	15126.5	16555.2
80°		9437.5	9548.9	9975.6	10816.0	11795.8	11966.9	13822.1
85°		9210.6	9272.0	9447.0	9570.6	9474.5	9025.5	11142.9

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Luminance values in cd/m²

γ 65°

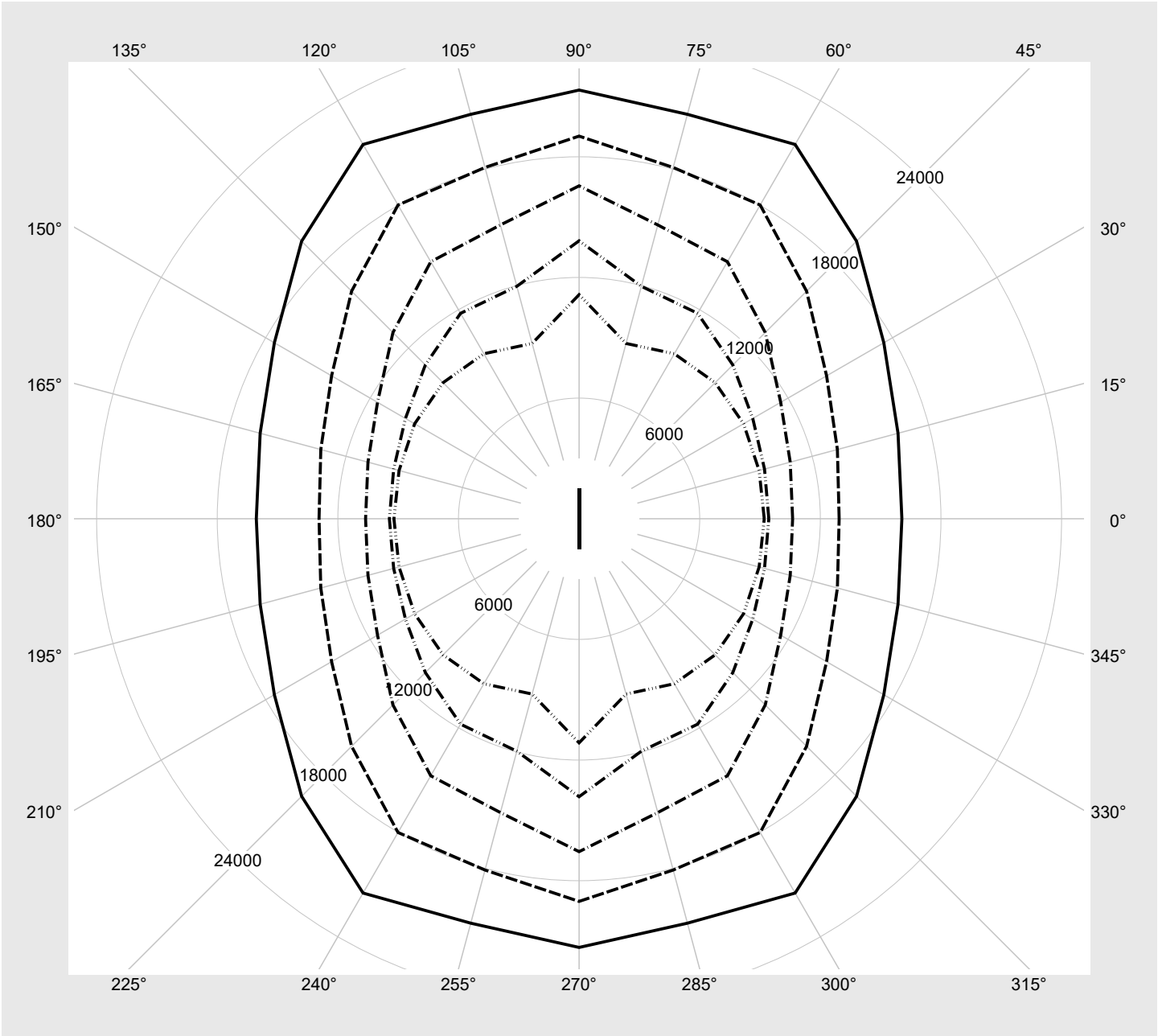
γ 70°

γ 75°

γ 80°

γ 85°

siteco



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Family Modario® 31	Order number: 53BM812M1V4120 EAN: 4058352421888	LP number 59064_2
Multilumen Table	environmental temperature: 25°C	siteco

DIP-Step	Switch Setting			Luminous flux [lm]	Power consumption [W]
	1	2	3		
1	A	C	E	12380	77.3
2	A	C	F	11050	67.5
3	A	D	E	10060	60.6
4	A	D	F	9050	53.8
5	B	C	E	8010	47.0
6	B	C	F	7020	40.8
7	B	D	E	6010	34.7
8	B	D	F	5050	29.1