

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: iO LED

Report Number: P958909

Luminaire Tested: MMG-08W-927-60x60-ID-X-X-1F-1-UNV-STD-X

Issue Date: 1/31/2025

Test Information

Test Method: LM-79-2019
Report Number: P958909
SCALED TEST REPORT
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/31/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: iO LED
Catalog Number: MMG-08W-927-60x60-ID-X-X-1F-1-UNV-STD-X
Description: iO LED MiniO-Graze LINEAR LIGHTING WITH 60x60 DEGREE OPTICS. INPUT WATTAGE IN IES FILE REPRESENTS CONSUMPTION IN A RUN, INDIVIDUAL FIXTURE MAY VARY.
8 WATTS PER FOOT
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 336.4 lumens
Efficiency: N/A
Efficacy: 46.1 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular w/ Sides (W: 0.07' x L: 1' x H: 0.09')
CIE Type: Direct

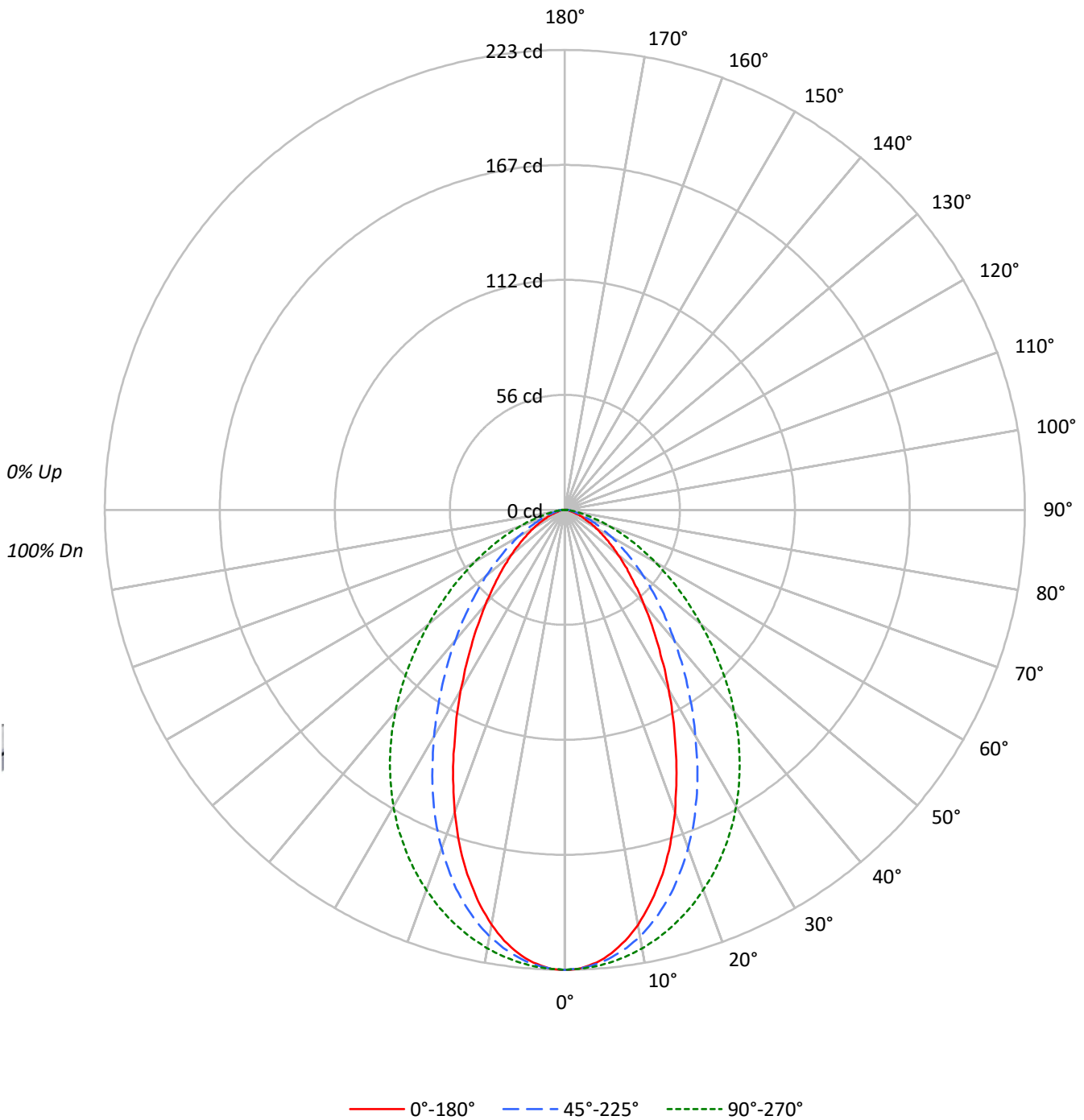
Input Watts (W): 7.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	89
2	103	96	91	86	101	95	90	85	91	87	83	88	85	81	85	82	80	78
3	96	87	80	75	93	85	79	74	83	77	73	80	75	72	78	74	71	69
4	89	79	71	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61
5	83	72	64	58	81	71	64	58	69	62	58	67	61	57	65	60	56	55
6	77	66	58	53	76	65	58	52	63	57	52	62	56	51	60	55	51	49
7	72	61	53	48	71	60	53	47	58	52	47	57	51	47	56	51	46	45
8	68	56	49	43	67	55	48	43	54	48	43	53	47	43	52	47	43	41
9	64	52	45	40	63	51	44	40	50	44	39	49	44	39	48	43	39	38
10	60	49	41	37	59	48	41	37	47	41	36	46	40	36	45	40	36	35

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	34854	34854	34854
5°	33965	31832	31285
10°	31929	28595	28112
15°	28905	25164	25201
20°	25154	21653	22475
25°	21054	18170	19923
30°	17313	14827	17474
35°	14055	11925	15099
40°	11343	9425	12773
45°	9181	7385	10523
50°	7369	5688	8463
55°	5924	4255	6632
60°	4628	3100	5018
65°	3531	2127	3601
70°	2590	1394	2366
75°	1740	887	1385
80°	1395	542	662
85°	1634	337	237

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10523 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.7	6.1
10°-20°	54.5	16.2
20°-30°	70.1	20.9
30°-40°	67.5	20.1
40°-50°	54.3	16.2
50°-60°	37.4	11.1
60°-70°	20.8	6.2
70°-80°	8.4	2.5
80°-90°	2.6	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	145.3	43.2
0°-40°	212.8	63.3
0°-60°	304.5	90.5
0°-90°	336.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	336.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	223	223	223	223	223	
5°	218	219	220	221	221	20
15°	183	186	195	204	208	51
25°	127	134	151	172	182	58
35°	78	84	104	132	148	49
45°	45	50	65	91	107	35
55°	24	27	36	57	67	22
65°	11	13	17	30	36	11
75°	4	5	7	11	13	4
85°	2	2	2	3	2	2
90°	2	2	2	2	2	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	223.1	223.1	223.1	223.1	223.1
1°	223.0	222.9	222.8	222.8	222.8
2°	222.4	222.4	222.4	222.5	222.6
3°	221.3	221.4	221.7	222.0	222.2
4°	220.0	220.2	220.8	221.4	221.7
5°	218.2	218.6	219.6	220.7	221.1
6°	216.1	216.7	218.1	219.7	220.3
7°	213.6	214.4	216.4	218.5	219.4
8°	210.9	211.9	214.5	217.2	218.4
9°	207.7	209.0	212.2	215.7	217.2
10°	204.3	205.9	210.0	214.1	215.9
11°	200.4	202.4	207.4	212.3	214.4
12°	196.4	198.7	204.5	210.3	212.9
13°	192.0	194.7	201.4	208.3	211.2
14°	187.4	190.4	198.1	206.0	209.4
15°	182.8	185.9	194.6	203.6	207.5
16°	177.7	181.5	191.1	201.0	205.4
17°	172.7	176.7	187.0	198.5	203.3
18°	167.2	171.8	183.0	195.7	201.0
19°	161.6	166.6	178.8	192.8	198.6
20°	156.0	161.3	174.6	189.7	196.1
21°	149.9	155.9	170.3	186.5	193.6
22°	144.2	150.1	165.8	183.1	190.9
23°	138.6	144.4	161.1	179.7	188.2
24°	133.0	139.0	156.2	176.1	185.3
25°	127.0	133.6	151.4	172.5	182.3
26°	121.4	128.1	146.6	168.8	179.2
27°	116.2	122.4	141.5	165.0	176.1
28°	110.9	117.6	136.5	161.0	172.9
29°	105.8	112.2	131.5	156.9	169.5
30°	100.7	107.3	126.6	152.7	166.1
31°	95.7	102.5	122.0	148.5	162.6
32°	91.3	97.7	117.2	144.3	159.0
33°	86.4	92.9	112.5	140.0	155.3
34°	82.0	88.7	107.9	135.8	151.6
35°	78.1	84.2	103.5	131.6	147.8
36°	74.0	79.9	99.0	127.2	143.9
37°	70.1	76.1	94.9	123.1	140.0
38°	66.5	72.3	90.7	118.8	136.0
39°	62.9	68.6	86.5	114.6	131.9
40°	59.6	65.0	82.5	110.6	127.7
41°	56.4	61.6	78.7	106.5	123.6
42°	53.4	58.4	75.1	102.5	119.3
43°	50.4	55.3	71.5	98.7	115.1
44°	47.7	52.4	67.9	94.9	110.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
45°	45.1	49.6	64.7	91.0	106.6
46°	42.6	46.7	61.5	87.2	102.5
47°	40.2	44.2	58.2	83.5	98.4
48°	37.7	41.6	55.3	79.9	94.2
49°	35.7	39.3	52.3	76.5	90.2
50°	33.4	37.0	49.5	73.1	86.2
51°	31.6	34.8	46.8	69.6	82.3
52°	29.7	32.8	44.1	66.4	78.5
53°	27.8	30.6	41.5	63.1	74.7
54°	26.1	28.8	39.0	60.0	71.0
55°	24.4	27.0	36.5	57.0	67.4
56°	22.8	25.3	34.2	53.8	63.9
57°	21.2	23.5	32.1	50.8	60.4
58°	19.8	22.0	29.9	47.9	57.0
59°	18.3	20.4	27.9	45.0	53.7
60°	17.0	18.9	26.0	42.3	50.5
61°	15.7	17.5	24.0	39.6	47.3
62°	14.5	16.2	22.2	37.0	44.3
63°	13.3	15.0	20.4	34.5	41.3
64°	12.3	13.8	18.8	32.0	38.5
65°	11.3	12.7	17.3	29.7	35.6
66°	10.4	11.6	15.8	27.4	32.9
67°	9.4	10.6	14.4	25.1	30.2
68°	8.6	9.7	13.2	23.0	27.6
69°	7.8	8.9	12.0	21.0	25.1
70°	7.0	8.0	10.9	19.1	22.8
71°	6.2	7.3	9.9	17.3	20.6
72°	5.5	6.6	9.0	15.5	18.5
73°	4.8	5.9	8.1	13.9	16.4
74°	4.3	5.2	7.3	12.3	14.5
75°	3.8	4.7	6.6	11.0	12.9
76°	3.4	4.2	5.9	9.6	11.1
77°	3.1	3.7	5.3	8.5	9.7
78°	2.8	3.3	4.7	7.5	8.2
79°	2.5	3.0	4.3	6.5	6.9
80°	2.3	2.7	3.8	5.6	5.9
81°	2.2	2.5	3.4	4.9	4.9
82°	2.1	2.2	3.1	4.3	4.0
83°	2.0	2.1	2.8	3.8	3.2
84°	1.9	1.9	2.5	3.3	2.6
85°	1.8	1.8	2.2	3.0	2.0
86°	1.7	1.7	2.0	2.6	1.6
87°	1.7	1.6	1.8	2.3	1.2
88°	1.7	1.6	1.7	2.0	0.9
89°	1.7	1.6	1.6	1.8	0.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
90°	1.5	1.5	1.5	1.5	1.5

(END OF REPORT)