

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: P958877

Luminaire Tested: MMG-03W-927-60x60-ID-X-X-1F-1-UNV-STD-X

Issue Date: 1/31/2025

Test Information

Test Method: LM-79-2019
Report Number: P958877
SCALED TEST REPORT
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/31/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: iO LED
Catalog Number: MMG-03W-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.
3 WATTS PER FOOT
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 117.8 lumens
Efficiency: N/A
Efficacy: 43.6 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

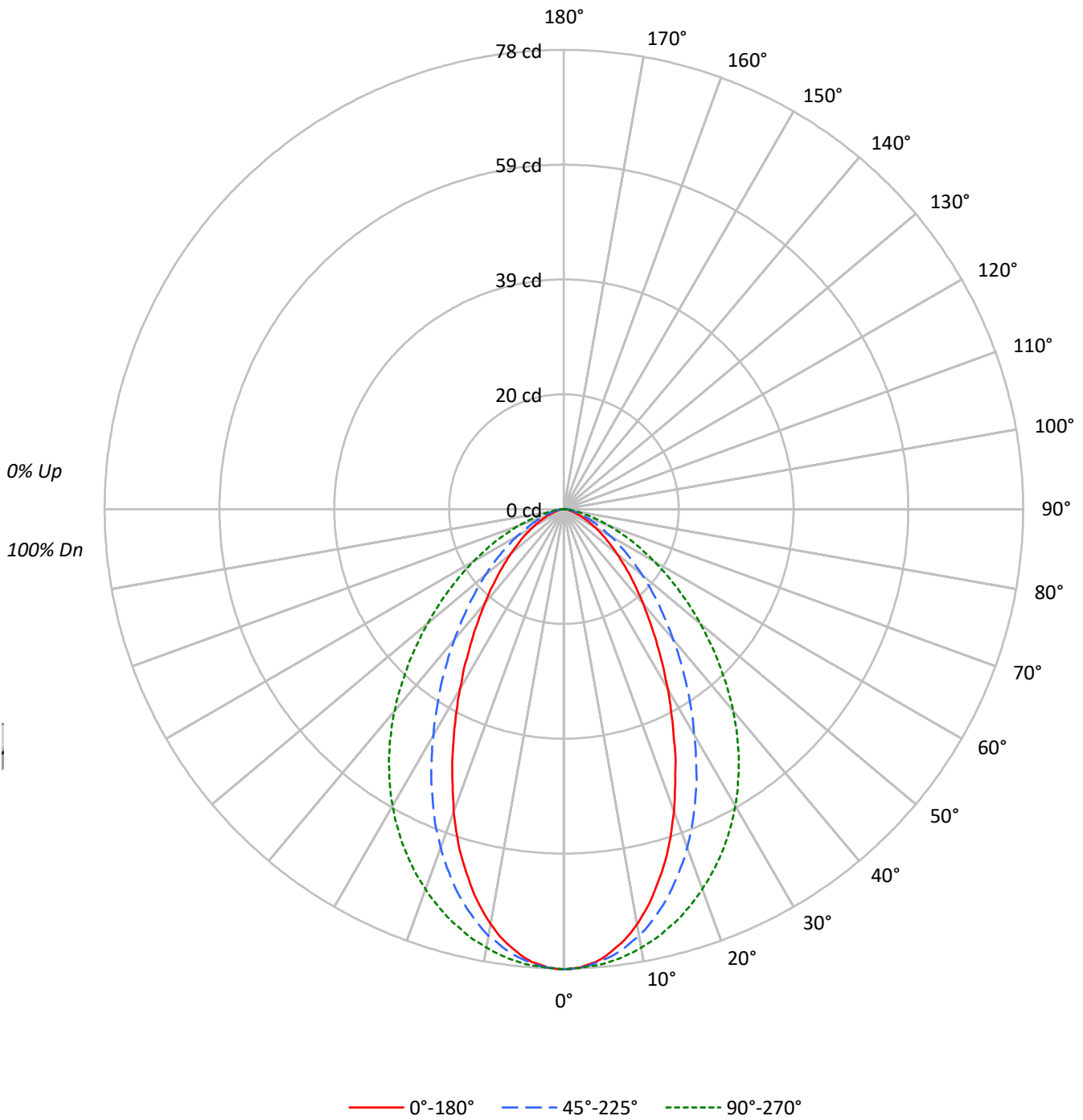
Input Watts (W): 2.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12217	12217	12217
5°	11908	11147	10966
10°	11190	10022	9844
15°	10120	8819	8829
20°	8820	7590	7874
25°	7377	6361	6983
30°	6069	5188	6123
35°	4931	4183	5292
40°	3978	3302	4471
45°	3216	2591	3692
50°	2581	1988	2965
55°	2088	1492	2322
60°	1606	1085	1759
65°	1250	738	1264
70°	888	486	830
75°	595	309	483
80°	485	185	236
85°	545	123	83

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3692 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	7.2	6.1
10°-20°	19.1	16.2
20°-30°	24.6	20.8
30°-40°	23.7	20.1
40°-50°	19.0	16.2
50°-60°	13.1	11.1
60°-70°	7.3	6.2
70°-80°	2.9	2.5
80°-90°	0.9	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°	50.9	43.2
0°-40°	74.6	63.3
0°-60°	106.7	90.5
0°-90°	117.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	117.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	78	78	78	78	78	
5°	76	77	77	77	78	7
15°	64	65	68	71	73	18
25°	44	47	53	60	64	20
35°	27	30	36	46	52	17
45°	16	17	23	32	37	12
55°	9	10	13	20	24	8
65°	4	4	6	10	12	4
75°	1	2	2	4	4	2
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	78.2	78.2	78.2	78.2	78.2
1°	78.1	78.1	78.1	78.0	78.0
2°	77.9	77.9	77.9	77.9	78.0
3°	77.5	77.6	77.7	77.8	77.8
4°	77.1	77.1	77.3	77.6	77.7
5°	76.5	76.6	76.9	77.3	77.5
6°	75.7	75.9	76.4	77.0	77.2
7°	74.8	75.1	75.8	76.6	76.9
8°	73.9	74.2	75.1	76.1	76.5
9°	72.8	73.2	74.3	75.6	76.1
10°	71.6	72.1	73.6	75.0	75.6
11°	70.2	70.9	72.7	74.4	75.1
12°	68.8	69.6	71.6	73.7	74.6
13°	67.3	68.2	70.5	73.0	74.0
14°	65.6	66.7	69.4	72.2	73.3
15°	64.0	65.1	68.2	71.3	72.7
16°	62.3	63.6	66.9	70.4	72.0
17°	60.5	61.9	65.5	69.5	71.2
18°	58.6	60.2	64.1	68.6	70.4
19°	56.6	58.4	62.7	67.5	69.6
20°	54.7	56.5	61.2	66.5	68.7
21°	52.5	54.6	59.6	65.3	67.8
22°	50.5	52.6	58.1	64.1	66.9
23°	48.5	50.6	56.4	62.9	65.9
24°	46.6	48.7	54.7	61.7	64.9
25°	44.5	46.8	53.0	60.4	63.9
26°	42.5	44.9	51.4	59.1	62.8
27°	40.7	42.9	49.6	57.8	61.7
28°	38.8	41.2	47.8	56.4	60.6
29°	37.1	39.3	46.1	55.0	59.4
30°	35.3	37.6	44.3	53.5	58.2
31°	33.5	35.9	42.7	52.0	57.0
32°	32.0	34.2	41.0	50.5	55.7
33°	30.3	32.6	39.4	49.1	54.4
34°	28.7	31.1	37.8	47.6	53.1
35°	27.4	29.5	36.3	46.1	51.8
36°	25.9	28.0	34.7	44.6	50.4
37°	24.5	26.7	33.2	43.1	49.0
38°	23.3	25.3	31.8	41.6	47.6
39°	22.0	24.0	30.3	40.2	46.2
40°	20.9	22.8	28.9	38.7	44.7
41°	19.8	21.6	27.6	37.3	43.3
42°	18.7	20.5	26.3	35.9	41.8
43°	17.7	19.4	25.0	34.6	40.3
44°	16.7	18.3	23.8	33.2	38.8

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
45°	15.8	17.4	22.7	31.9	37.4
46°	14.9	16.3	21.5	30.6	35.9
47°	14.1	15.5	20.4	29.3	34.5
48°	13.2	14.6	19.4	28.0	33.0
49°	12.5	13.8	18.3	26.8	31.6
50°	11.7	13.0	17.3	25.6	30.2
51°	11.1	12.2	16.4	24.4	28.8
52°	10.4	11.5	15.4	23.3	27.5
53°	9.7	10.7	14.5	22.1	26.2
54°	9.1	10.1	13.6	21.0	24.9
55°	8.6	9.5	12.8	20.0	23.6
56°	8.0	8.9	12.0	18.9	22.4
57°	7.4	8.2	11.2	17.8	21.2
58°	6.9	7.7	10.5	16.8	20.0
59°	6.4	7.1	9.8	15.8	18.8
60°	5.9	6.6	9.1	14.8	17.7
61°	5.5	6.1	8.4	13.9	16.6
62°	5.1	5.7	7.8	13.0	15.5
63°	4.7	5.2	7.2	12.1	14.5
64°	4.3	4.8	6.6	11.2	13.5
65°	4.0	4.4	6.0	10.4	12.5
66°	3.6	4.1	5.5	9.6	11.5
67°	3.3	3.7	5.1	8.8	10.6
68°	3.0	3.4	4.6	8.1	9.7
69°	2.7	3.1	4.2	7.4	8.8
70°	2.4	2.8	3.8	6.7	8.0
71°	2.2	2.5	3.5	6.0	7.2
72°	1.9	2.3	3.1	5.4	6.5
73°	1.7	2.1	2.8	4.9	5.8
74°	1.5	1.8	2.5	4.3	5.1
75°	1.3	1.6	2.3	3.8	4.5
76°	1.2	1.5	2.1	3.4	3.9
77°	1.1	1.3	1.9	3.0	3.4
78°	1.0	1.2	1.7	2.6	2.9
79°	0.9	1.1	1.5	2.3	2.4
80°	0.8	1.0	1.3	2.0	2.1
81°	0.8	0.9	1.2	1.7	1.7
82°	0.7	0.8	1.1	1.5	1.4
83°	0.7	0.7	1.0	1.3	1.1
84°	0.7	0.7	0.9	1.2	0.9
85°	0.6	0.6	0.8	1.0	0.7
86°	0.6	0.6	0.7	0.9	0.5
87°	0.6	0.6	0.6	0.8	0.4
88°	0.6	0.6	0.6	0.7	0.3
89°	0.6	0.5	0.6	0.6	0.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
90°	0.5	0.5	0.5	0.5	0.5

(END OF REPORT)