

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: P958912

Luminaire Tested: MMG-08W-930-30x60-ID-X-X-1F-1-UNV-STD-X

Issue Date: 1/31/2025

Test Information

Test Method: LM-79-2019
Report Number: P958912
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-930-30x60-ID-X-X-1F-1-UNV-STD-X
Description: iO LED MiniO-Graze LINEAR LIGHTING WITH 30x60 DEGREE OPTICS. INPUT WATTAGE IN IES FILE REPRESENTS CONSUMPTION IN A RUN, INDIVIDUAL FIXTURE MAY VARY.
8 WATTS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 372.4 lumens
Efficiency: N/A
Efficacy: 51.0 lumens/watt
Spacing Criteria (0/90/45): 0.55 / 1.09 / 0.76
Luminous Opening: Rectangular w/ Sides (W: 0.07' x L: 1' x H: 0.09')
CIE Type: Direct

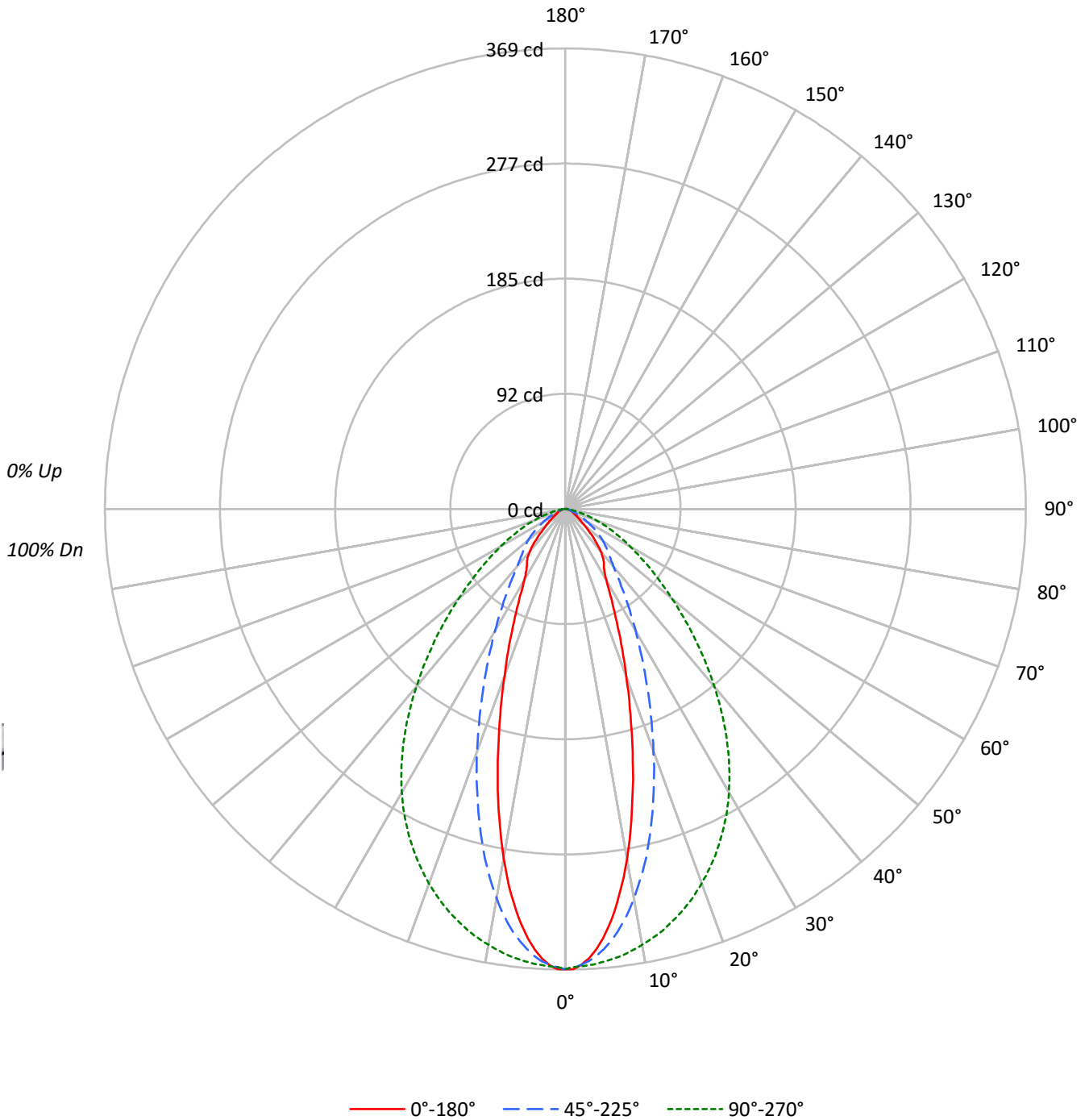
Input Watts (W): 7.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90				
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80				
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73	72				
4	91	81	75	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64				
5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	59				
6	80	69	62	57	78	68	61	56	67	61	56	65	60	56	64	59	55	53				
7	75	64	57	52	74	63	57	52	62	56	51	61	55	51	60	55	51	49				
8	71	60	53	48	70	59	52	48	58	52	47	57	51	47	56	51	47	45				
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42				
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	44	41	39				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	57600	57600	57600
5°	53765	51314	51490
10°	44447	43165	46186
15°	33032	34191	41268
20°	23026	25621	36606
25°	15816	18506	32064
30°	11296	13176	27573
35°	9682	9391	23047
40°	8374	6866	18585
45°	6189	5479	14472
50°	4214	4470	10947
55°	3132	3357	8128
60°	2450	2325	5922
65°	2187	1525	4177
70°	2035	985	2729
75°	1557	645	1568
80°	1334	428	751
85°	1543	307	272

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 14472 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.7	8.8
10°-20°	74.7	20.1
20°-30°	79.8	21.4
30°-40°	68.5	18.4
40°-50°	52.8	14.2
50°-60°	34.4	9.2
60°-70°	18.9	5.1
70°-80°	7.9	2.1
80°-90°	2.6	0.7
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°	187.2	50.3
0°-40°	255.7	68.7
0°-60°	342.9	92.1
0°-90°	372.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	372.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	369	369	369	369	369	
5°	345	348	354	361	364	31
15°	209	224	264	315	340	58
25°	95	108	154	238	293	44
35°	54	56	82	158	226	34
45°	30	36	48	100	147	24
55°	13	16	29	60	83	12
65°	7	7	12	32	41	7
75°	3	4	5	11	15	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°	368.7	368.7	368.7	368.7	368.7
1°	368.8	368.0	367.3	367.1	367.1
2°	365.5	365.2	365.5	366.1	366.7
3°	360.6	360.9	362.7	364.7	366.0
4°	353.8	355.0	358.9	363.0	365.1
5°	345.4	347.6	354.0	360.8	363.9
6°	335.5	338.9	348.3	358.1	362.6
7°	324.3	329.1	341.7	355.1	361.0
8°	311.5	318.0	334.2	351.5	359.1
9°	298.8	306.0	326.0	347.3	357.0
10°	284.4	293.6	317.0	343.0	354.7
11°	269.6	279.9	307.3	338.1	352.2
12°	254.3	266.2	297.2	332.9	349.5
13°	239.1	251.8	287.1	327.2	346.5
14°	224.0	237.9	275.7	321.4	343.2
15°	208.9	223.7	264.4	315.1	339.8
16°	194.4	209.4	252.9	308.4	336.2
17°	180.1	195.7	241.1	301.3	332.3
18°	167.3	182.3	229.8	294.0	328.2
19°	154.8	170.1	218.4	286.4	323.9
20°	142.8	158.0	206.6	278.8	319.4
21°	132.0	146.8	195.3	271.0	314.6
22°	121.6	136.0	184.4	263.0	309.6
23°	112.2	126.4	173.9	254.8	304.5
24°	103.3	116.9	163.8	246.5	299.0
25°	95.4	108.3	154.2	238.0	293.4
26°	87.9	100.1	145.1	229.4	287.6
27°	81.4	92.8	136.2	220.8	281.6
28°	75.4	86.1	127.8	212.4	275.4
29°	70.1	79.9	120.0	204.4	268.8
30°	65.7	74.3	112.5	196.4	262.1
31°	62.0	69.2	105.7	188.5	255.2
32°	59.1	65.0	98.9	180.6	248.0
33°	57.0	61.4	92.8	172.9	240.7
34°	55.3	58.6	86.9	165.4	233.3
35°	53.8	56.3	81.5	158.1	225.6
36°	52.4	54.5	76.3	151.3	217.8
37°	50.7	53.0	71.8	144.5	209.8
38°	48.7	51.5	67.4	138.2	201.9
39°	46.5	50.0	63.5	132.1	193.9
40°	44.0	48.2	60.1	126.4	185.8
41°	41.4	46.2	57.0	120.6	177.8
42°	38.7	44.0	54.3	115.1	169.9
43°	35.8	41.6	52.0	109.9	161.9
44°	33.0	38.9	49.9	104.9	154.1

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
45°	30.4	36.4	48.0	100.0	146.6
46°	27.8	33.8	46.1	95.4	139.2
47°	25.2	31.3	44.4	91.0	131.9
48°	22.9	28.8	42.6	86.7	124.8
49°	20.9	26.4	40.8	82.6	118.0
50°	19.1	24.1	38.9	78.6	111.5
51°	17.5	22.0	37.0	74.7	105.2
52°	16.1	20.1	35.0	71.0	99.2
53°	15.0	18.5	32.9	67.4	93.4
54°	13.9	17.0	30.9	63.9	87.9
55°	12.9	15.6	28.8	60.5	82.6
56°	11.9	14.5	26.9	57.1	77.5
57°	11.2	13.4	24.9	53.9	72.7
58°	10.4	12.4	23.0	50.9	68.1
59°	9.6	11.5	21.2	47.9	63.8
60°	9.0	10.6	19.5	44.9	59.6
61°	8.5	9.8	17.9	42.0	55.7
62°	8.0	9.1	16.4	39.2	51.9
63°	7.6	8.5	15.0	36.6	48.2
64°	7.3	7.9	13.6	33.9	44.7
65°	7.0	7.4	12.4	31.5	41.3
66°	6.7	6.9	11.3	29.0	38.1
67°	6.5	6.6	10.3	26.6	35.0
68°	6.2	6.2	9.3	24.3	32.0
69°	5.8	5.8	8.5	22.1	29.0
70°	5.5	5.5	7.7	20.1	26.3
71°	5.1	5.2	7.0	18.1	23.7
72°	4.6	4.9	6.4	16.2	21.2
73°	4.2	4.5	5.8	14.5	18.9
74°	3.8	4.2	5.2	12.8	16.7
75°	3.4	3.8	4.8	11.3	14.6
76°	3.1	3.5	4.4	10.0	12.7
77°	2.8	3.2	4.0	8.7	11.0
78°	2.5	2.9	3.6	7.6	9.4
79°	2.4	2.7	3.3	6.6	8.0
80°	2.2	2.4	3.0	5.8	6.7
81°	2.0	2.2	2.8	5.1	5.6
82°	1.9	2.1	2.6	4.4	4.6
83°	1.8	1.9	2.4	3.9	3.7
84°	1.7	1.8	2.2	3.4	3.0
85°	1.7	1.7	2.0	3.1	2.3
86°	1.7	1.7	1.9	2.7	1.8
87°	1.6	1.6	1.8	2.4	1.4
88°	1.6	1.5	1.7	2.2	1.1
89°	1.6	1.5	1.6	2.0	0.9



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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)