

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: P958859

Luminaire Tested: MMG-08W-927-10x60-ID-X-X-4F-4-UNV-STD-X

Issue Date: 1/31/2025

Test Information

Test Method: LM-79-2019
Report Number: P958859
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-927-10x60-ID-X-X-4F-4-UNV-STD-X
Description: iO LED MiniO-Graze LINEAR LIGHTING WITH 10x60 DEGREE OPTICS
8 WATTS PER FOOT
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 890.2 lumens
Efficiency: N/A
Efficacy: 30.5 lumens/watt
Spacing Criteria (0/90/45): 0.18 / 0.91 / 0.25
Luminous Opening: Rectangular w/ Sides (W: 0.07' x L: 4' x H: 0.09')
CIE Type: Direct

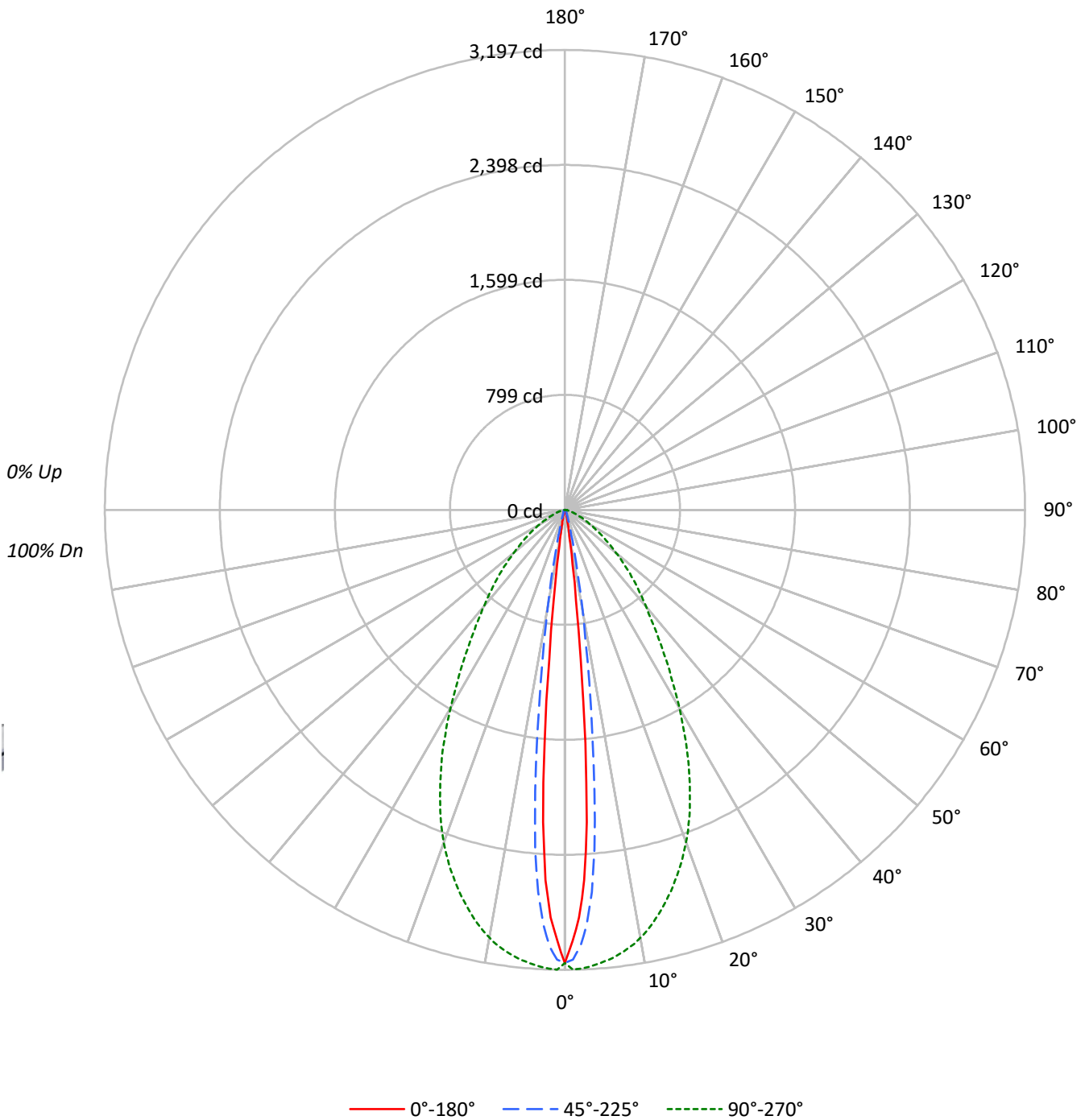
Input Watts (W): 29.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	100	100	
1	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92	92	92	92	
2	106	101	96	93	104	99	95	92	96	93	90	93	90	88	90	88	86	84	84	84	84	
3	100	93	88	84	98	92	87	83	89	85	82	87	83	80	85	82	79	77	77	77	77	
4	95	87	81	76	93	86	80	76	84	79	75	81	77	74	80	76	73	72	72	72	72	
5	90	81	75	70	88	80	74	70	78	73	69	77	72	69	75	71	68	67	67	67	67	
6	86	76	70	65	84	75	70	65	74	69	65	73	68	64	71	67	64	62	62	62	62	
7	82	72	66	61	80	71	65	61	70	65	61	69	64	60	68	63	60	59	59	59	59	
8	78	68	62	58	77	68	62	58	66	61	57	65	61	57	64	60	57	55	55	55	55	
9	75	65	59	55	73	64	59	55	63	58	54	62	58	54	62	57	54	53	53	53	53	
10	72	62	56	52	71	61	56	52	61	55	52	60	55	52	59	55	52	50	50	50	50	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	123043	123043	123043
5°	63743	86114	111485
10°	6341	23785	98364
15°	1668	4675	84388
20°	841	1620	70496
25°	610	825	55905
30°	615	548	41801
35°	465	443	30101
40°	396	409	21883
45°	379	386	16141
50°	367	354	11389
55°	344	303	7857
60°	339	243	5085
65°	415	197	3128
70°	399	166	1801
75°	405	136	932
80°	461	115	440
85°	685	108	160

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 16141 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.9	20.4
10°-20°	203.5	22.9
20°-30°	170.1	19.1
30°-40°	127.4	14.3
40°-50°	95.8	10.8
50°-60°	63.8	7.2
60°-70°	32.1	3.6
70°-80°	11.7	1.3
80°-90°	3.9	0.4
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°	555.5	62.4
0°-40°	682.9	76.7
0°-60°	842.5	94.6
0°-90°	890.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	890.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3150	3150	3150	3150	3150	
5°	1629	1798	2368	2946	3152	97
15°	42	52	143	1220	2779	14
25°	14	16	27	400	2046	7
35°	10	13	15	182	1179	6
45°	7	8	13	145	654	5
55°	5	6	10	107	319	5
65°	5	4	6	52	124	4
75°	3	3	4	16	35	3
85°	2	2	3	5	5	2
90°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3150.4	3150.4	3150.4	3150.4	3150.4
1°	2999.2	3064.0	3126.8	3173.9	3197.3
2°	2836.6	2904.1	3038.0	3152.7	3191.1
3°	2576.7	2665.8	2886.4	3101.6	3181.6
4°	2175.5	2289.1	2665.8	3029.8	3167.3
5°	1628.9	1798.5	2367.6	2946.1	3151.6
6°	1043.2	1250.5	1968.5	2845.3	3134.1
7°	636.5	839.6	1571.9	2716.6	3110.9
8°	384.0	552.0	1205.6	2574.0	3086.1
9°	240.3	345.2	917.9	2397.2	3057.2
10°	160.5	219.8	693.9	2173.9	3021.7
11°	113.6	154.1	498.1	1989.0	2980.8
12°	84.9	111.6	366.3	1786.9	2936.2
13°	63.6	82.2	258.0	1556.8	2886.8
14°	51.0	64.0	183.0	1392.8	2835.2
15°	41.5	51.6	143.2	1219.9	2779.4
16°	34.1	43.4	110.9	1102.9	2722.4
17°	28.3	36.1	86.8	973.4	2661.0
18°	24.8	30.0	71.3	874.3	2599.2
19°	21.9	26.6	59.7	771.4	2531.3
20°	20.4	23.1	51.6	697.2	2460.4
21°	18.4	21.1	44.2	622.8	2386.5
22°	17.1	19.4	39.5	547.7	2307.7
23°	16.1	17.8	34.1	497.5	2220.6
24°	15.1	17.1	29.8	443.9	2132.8
25°	14.3	15.9	27.1	400.4	2046.2
26°	13.8	15.1	25.0	360.5	1958.6
27°	13.6	14.3	22.9	328.1	1866.9
28°	13.6	14.0	21.1	298.1	1772.7
29°	13.6	13.2	19.8	270.6	1680.6
30°	13.8	13.2	18.4	248.1	1589.4
31°	13.2	13.2	17.8	231.4	1498.6
32°	12.8	13.2	16.9	215.3	1412.8
33°	11.8	13.2	16.3	201.6	1334.1
34°	10.7	13.2	15.7	190.7	1256.2
35°	9.9	12.8	15.1	181.6	1178.6
36°	9.3	12.2	14.7	173.5	1106.3
37°	8.9	11.2	14.5	169.0	1043.9
38°	8.5	10.5	14.3	163.6	984.6
39°	8.1	9.9	14.1	159.9	925.9
40°	7.9	9.5	14.0	156.6	875.1
41°	7.8	9.1	14.0	153.3	827.8
42°	7.6	8.7	13.6	151.2	780.3
43°	7.4	8.5	13.6	148.9	737.7
44°	7.2	8.3	13.6	146.7	697.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
45°	7.0	8.1	13.2	144.6	654.0
46°	6.8	7.8	13.2	142.3	612.1
47°	6.6	7.6	12.8	140.3	571.8
48°	6.6	7.4	12.4	137.0	534.2
49°	6.4	7.0	12.2	134.5	497.0
50°	6.2	7.0	12.0	131.4	464.0
51°	6.2	6.6	11.6	127.5	430.5
52°	5.8	6.6	11.2	122.9	399.1
53°	5.6	6.4	10.9	118.0	369.6
54°	5.4	6.2	10.5	113.2	343.5
55°	5.2	5.8	10.1	107.4	319.4
56°	5.0	5.8	9.7	102.0	292.3
57°	4.7	5.4	9.3	96.3	266.3
58°	4.7	5.2	8.7	90.3	244.6
59°	4.5	5.0	8.5	84.5	224.6
60°	4.5	4.8	7.9	78.7	204.7
61°	4.5	4.7	7.6	73.3	186.5
62°	4.3	4.5	7.2	67.5	168.8
63°	4.5	4.5	7.0	62.4	152.5
64°	4.5	4.3	6.6	57.4	137.4
65°	4.7	4.3	6.2	52.1	123.7
66°	4.5	4.3	6.0	47.3	111.1
67°	4.3	4.3	5.6	42.8	99.2
68°	4.1	4.1	5.4	38.4	88.4
69°	3.7	3.9	5.0	34.5	78.5
70°	3.7	3.7	5.0	30.6	69.4
71°	3.5	3.5	4.7	27.1	61.4
72°	3.3	3.5	4.7	24.0	53.7
73°	3.1	3.3	4.3	21.3	46.5
74°	3.1	3.1	4.3	18.6	40.1
75°	2.9	3.1	3.9	16.3	34.7
76°	2.7	2.9	3.9	14.3	29.8
77°	2.5	2.5	3.7	12.4	25.6
78°	2.5	2.5	3.5	10.9	21.7
79°	2.3	2.3	3.5	9.3	18.6
80°	2.3	2.3	3.1	8.3	15.7
81°	2.1	2.1	3.1	7.4	13.0
82°	1.9	1.9	3.1	6.6	10.7
83°	1.9	1.9	2.7	6.0	8.7
84°	1.9	1.9	2.7	5.6	7.0
85°	1.9	1.7	2.7	5.2	5.4
86°	1.7	1.7	2.7	5.0	4.3
87°	1.7	1.6	2.7	4.7	3.5
88°	1.6	1.6	2.5	4.3	2.7
89°	1.6	1.6	2.5	4.1	2.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
90°	2.3	2.3	2.3	2.3	2.3

(END OF REPORT)