

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: P958868

Luminaire Tested: MMG-08W-935-30x60-ID-X-X-4F-4-UNV-STD-X

Issue Date: 1/31/2025

Test Information

Test Method: LM-79-2019
Report Number: P958868
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-935-30x60-ID-X-X-4F-4-UNV-STD-X
Description: iO LED MiniO-Graze LINEAR LIGHTING WITH 30x60 DEGREE OPTICS
8 WATTS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1505.3 lumens
Efficiency: N/A
Efficacy: 51.6 lumens/watt
Spacing Criteria (0/90/45): 0.55 / 1.09 / 0.76
Luminous Opening: Rectangular w/ Sides (W: 0.07' x L: 4' x H: 0.09')
CIE Type: Direct

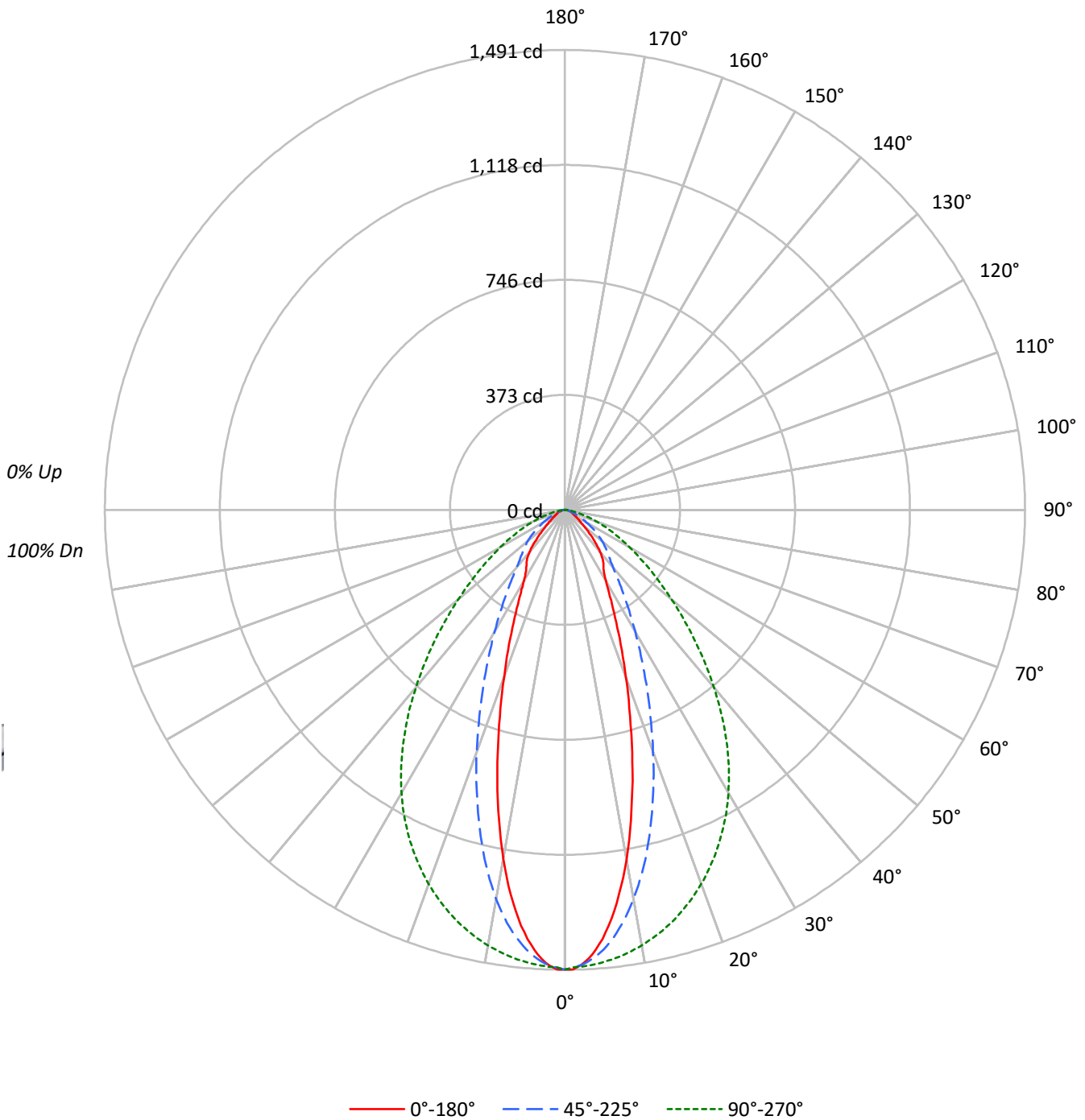
Input Watts (W): 29.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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				
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°	58213	58213	58213
5°	54633	52052	52039
10°	45421	43919	46674
15°	33953	34887	41708
20°	23801	26213	36993
25°	16449	18979	32400
30°	11824	13540	27862
35°	10218	9680	23287
40°	8911	7091	18783
45°	6647	5665	14625
50°	4569	4640	11058
55°	3449	3495	8209
60°	2750	2424	5990
65°	2501	1598	4225
70°	2395	1034	2760
75°	1915	677	1581
80°	1766	454	760
85°	2414	329	278

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 14625 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.0	8.8
10°-20°	302.1	20.1
20°-30°	322.8	21.4
30°-40°	276.8	18.4
40°-50°	213.4	14.2
50°-60°	139.2	9.2
60°-70°	76.6	5.1
70°-80°	32.1	2.1
80°-90°	10.5	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°	756.8	50.3
0°-40°	1033.6	68.7
0°-60°	1386.2	92.1
0°-90°	1505.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1505.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1490	1490	1490	1490	1490	
5°	1396	1405	1431	1458	1471	125
15°	844	904	1069	1274	1374	232
25°	386	438	623	962	1186	180
35°	218	228	330	639	912	136
45°	123	147	194	404	593	95
55°	52	63	117	245	334	48
65°	28	30	50	127	167	28
75°	14	15	19	46	59	15
85°	7	7	8	12	9	8
90°	6	6	6	6	6	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1490.5	1490.5	1490.5	1490.5	1490.5
1°	1490.7	1487.6	1484.8	1484.1	1483.9
2°	1477.4	1476.0	1477.4	1479.7	1482.1
3°	1457.6	1458.9	1466.0	1474.2	1479.3
4°	1430.1	1435.0	1450.9	1467.4	1475.6
5°	1396.1	1404.9	1431.1	1458.3	1471.1
6°	1356.1	1369.8	1407.9	1447.5	1465.6
7°	1310.9	1330.2	1381.2	1435.4	1459.1
8°	1259.3	1285.4	1351.0	1420.8	1451.7
9°	1207.7	1236.7	1317.6	1404.0	1443.2
10°	1149.6	1186.9	1281.3	1386.3	1433.8
11°	1089.7	1131.5	1242.0	1366.7	1423.6
12°	1027.8	1076.1	1201.4	1345.5	1412.6
13°	966.6	1017.6	1160.3	1322.7	1400.4
14°	905.4	961.5	1114.6	1299.1	1387.5
15°	844.5	904.2	1068.7	1273.6	1373.7
16°	785.6	846.5	1022.3	1246.5	1358.8
17°	727.9	791.1	974.5	1217.9	1343.3
18°	676.3	736.9	928.7	1188.2	1326.6
19°	625.8	687.5	882.8	1157.8	1309.3
20°	577.1	638.6	835.1	1127.0	1291.1
21°	533.7	593.2	789.5	1095.4	1271.8
22°	491.5	549.8	745.6	1063.2	1251.6
23°	453.5	510.8	702.8	1030.0	1230.8
24°	417.5	472.5	661.9	996.2	1208.4
25°	385.5	438.0	623.3	961.9	1185.9
26°	355.5	404.6	586.6	927.3	1162.5
27°	329.0	375.1	550.4	892.4	1138.2
28°	304.7	347.8	516.7	858.4	1113.0
29°	283.5	323.1	485.1	826.0	1086.7
30°	265.4	300.3	454.6	794.0	1059.4
31°	250.7	279.7	427.2	761.9	1031.4
32°	238.7	262.7	399.7	729.9	1002.5
33°	230.3	248.1	375.1	698.8	973.1
34°	223.6	236.7	351.4	668.6	942.8
35°	217.5	227.5	329.6	639.2	911.8
36°	211.6	220.4	308.6	611.5	880.2
37°	204.9	214.2	290.3	584.0	848.2
38°	196.9	208.1	272.5	558.5	816.0
39°	188.1	202.0	256.8	533.9	783.6
40°	177.9	194.7	243.0	510.8	751.1
41°	167.3	186.9	230.5	487.6	718.7
42°	156.3	177.9	219.5	465.4	686.7
43°	144.7	168.0	210.0	444.0	654.5
44°	133.5	157.4	201.8	424.0	623.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
45°	122.9	147.0	193.9	404.4	592.6
46°	112.3	136.6	186.3	385.7	562.6
47°	101.7	126.4	179.4	367.9	533.2
48°	92.7	116.6	172.4	350.4	504.5
49°	84.4	106.6	164.9	333.9	477.0
50°	77.1	97.4	157.4	317.8	450.5
51°	70.7	88.7	149.6	301.9	425.2
52°	65.2	81.3	141.3	287.0	400.9
53°	60.5	74.6	133.1	272.3	377.5
54°	56.1	68.7	124.8	258.1	355.1
55°	52.2	63.2	116.6	244.6	333.7
56°	48.3	58.5	108.6	230.9	313.3
57°	45.1	54.2	100.5	217.9	294.1
58°	42.0	50.1	92.9	205.7	275.4
59°	38.9	46.3	85.8	193.6	257.9
60°	36.5	42.8	78.9	181.4	241.1
61°	34.2	39.7	72.2	169.8	225.0
62°	32.2	36.9	66.4	158.6	209.7
63°	30.8	34.2	60.5	147.8	194.9
64°	29.4	31.8	55.2	137.2	180.6
65°	28.3	29.8	50.3	127.2	167.1
66°	27.1	28.1	45.5	117.2	153.9
67°	26.3	26.5	41.6	107.6	141.3
68°	25.1	25.1	37.7	98.3	129.2
69°	23.6	23.6	34.2	89.5	117.4
70°	22.2	22.4	31.2	81.3	106.4
71°	20.4	21.0	28.3	73.2	95.8
72°	18.6	19.6	25.7	65.6	85.8
73°	16.9	18.3	23.4	58.5	76.4
74°	15.3	16.9	21.2	51.8	67.3
75°	13.7	15.3	19.4	45.7	58.9
76°	12.6	14.1	17.7	40.2	51.4
77°	11.4	13.0	16.1	35.3	44.4
78°	10.2	11.8	14.7	30.6	38.1
79°	9.6	10.8	13.3	26.7	32.4
80°	8.8	9.8	12.2	23.4	27.1
81°	8.2	9.0	11.4	20.4	22.6
82°	7.9	8.4	10.4	17.9	18.6
83°	7.5	7.9	9.6	15.7	15.1
84°	7.1	7.5	9.0	13.7	12.0
85°	6.7	7.1	8.2	12.4	9.4
86°	6.7	6.7	7.7	11.0	7.3
87°	6.5	6.3	7.3	9.8	5.5
88°	6.3	6.1	6.7	9.0	4.3
89°	6.3	5.9	6.5	8.2	3.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
90°	6.1	6.1	6.1	6.1	6.1

(END OF REPORT)