

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: P958873

Luminaire Tested: MMG-08W-940-60x60-ID-X-X-4F-4-UNV-STD-X

Issue Date: 1/31/2025

Test Information

Test Method: LM-79-2019
Report Number: P958873
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-940-60x60-ID-X-X-4F-4-UNV-STD-X
Description: iO LED MiniO-Graze LINEAR LIGHTING WITH 60x60 DEGREE OPTICS
8 WATTS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1458.4 lumens
Efficiency: N/A
Efficacy: 49.9 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular w/ Sides (W: 0.07' x L: 4' x H: 0.09')
CIE Type: Direct

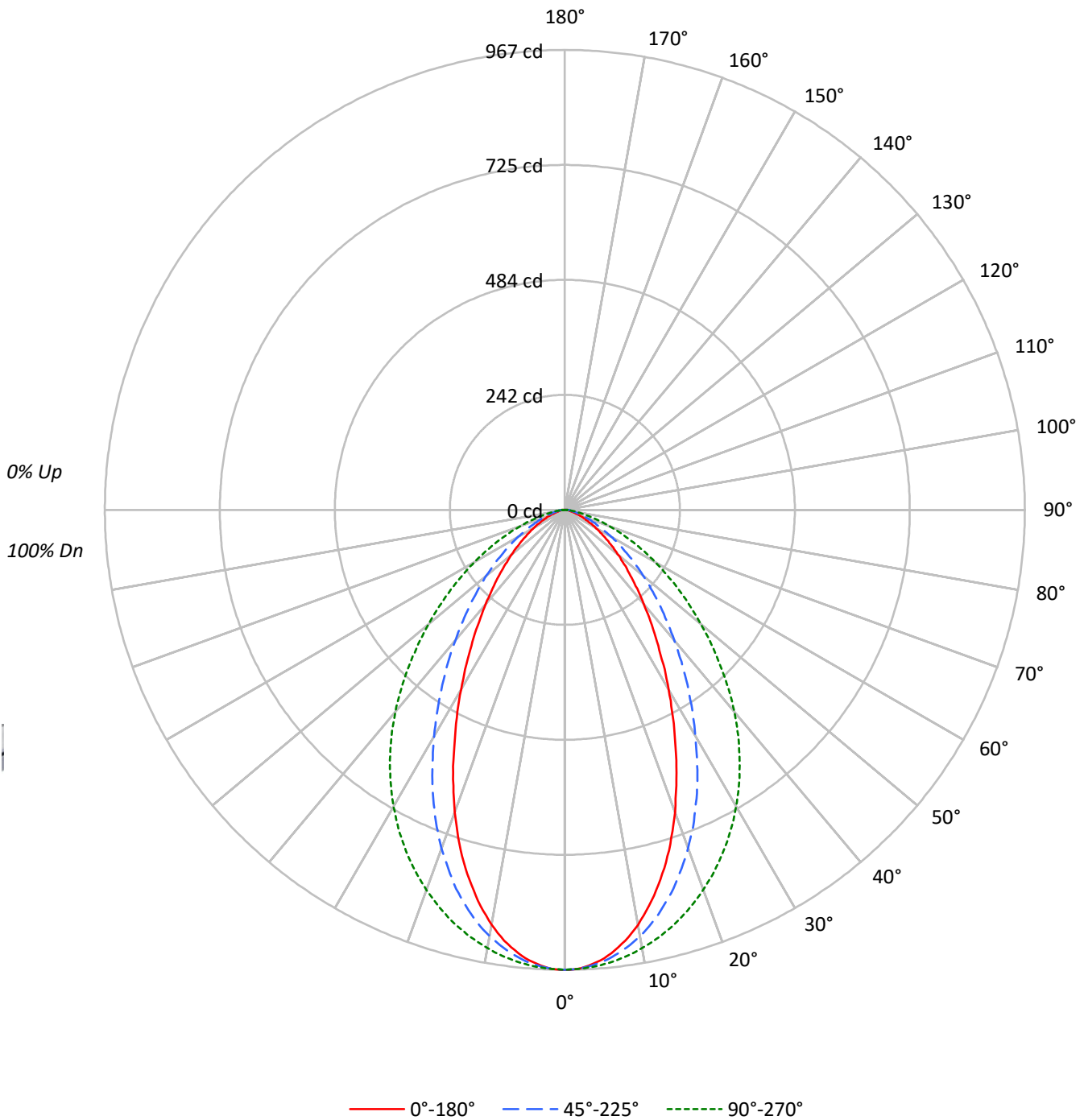
Input Watts (W): 29.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	
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°	37775	37775	37775
5°	37027	34630	33910
10°	34994	31202	30466
15°	31858	27549	27314
20°	27901	23768	24366
25°	23485	19990	21600
30°	19450	16343	18941
35°	15911	13186	16371
40°	12943	10435	13849
45°	10567	8201	11412
50°	8592	6323	9173
55°	6998	4748	7188
60°	5537	3460	5438
65°	4330	2376	3904
70°	3269	1567	2561
75°	2320	998	1501
80°	2027	610	712
85°	2882	389	260

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 11905 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.6	6.1
10°-20°	236.3	16.2
20°-30°	304.1	20.8
30°-40°	292.8	20.1
40°-50°	235.6	16.2
50°-60°	162.0	11.1
60°-70°	90.3	6.2
70°-80°	36.4	2.5
80°-90°	11.4	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°	629.9	43.2
0°-40°	922.7	63.3
0°-60°	1320.3	90.5
0°-90°	1458.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1458.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	967	967	967	967	967	
5°	946	948	952	957	959	88
15°	792	806	844	883	900	220
25°	550	579	656	748	791	252
35°	339	365	449	570	641	212
45°	195	215	281	394	462	152
55°	106	117	158	247	292	95
65°	49	55	75	129	154	49
75°	17	20	29	48	56	19
85°	8	8	10	13	9	9
90°	6	6	6	6	6	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	967.2	967.2	967.2	967.2	967.2
1°	967.0	966.6	966.2	966.0	966.0
2°	964.3	964.3	964.3	964.7	965.1
3°	959.7	959.9	961.4	962.6	963.5
4°	953.8	954.6	957.2	960.1	961.4
5°	946.2	947.7	952.1	956.7	958.6
6°	937.0	939.5	945.8	952.5	955.3
7°	926.1	929.4	938.5	947.5	951.3
8°	914.5	918.9	929.8	941.6	946.9
9°	900.4	906.3	920.2	935.3	941.6
10°	885.7	892.7	910.3	928.2	935.9
11°	868.9	877.7	899.2	920.6	929.6
12°	851.7	861.4	886.6	912.0	922.9
13°	832.4	844.1	873.1	903.0	915.6
14°	812.4	825.4	858.8	893.3	907.8
15°	792.4	806.1	843.9	882.8	899.6
16°	770.6	786.8	828.4	871.6	890.6
17°	748.7	766.2	810.9	860.5	881.3
18°	725.0	744.8	793.3	848.5	871.4
19°	700.8	722.3	775.4	835.7	861.1
20°	676.5	699.2	757.2	822.5	850.4
21°	650.0	675.8	738.2	808.4	839.3
22°	625.2	650.8	718.9	793.7	827.7
23°	600.8	626.1	698.3	779.0	815.8
24°	576.5	602.7	677.1	763.7	803.4
25°	550.4	579.4	656.5	748.1	790.6
26°	526.5	555.5	635.7	731.9	777.1
27°	503.8	530.9	613.5	715.3	763.5
28°	480.7	509.7	591.8	697.9	749.6
29°	458.6	486.4	570.2	680.3	734.9
30°	436.6	465.3	548.7	662.2	720.2
31°	414.7	444.5	529.0	643.7	705.0
32°	395.8	423.5	508.0	625.4	689.3
33°	374.8	402.9	487.8	607.1	673.5
34°	355.5	384.5	467.7	588.7	657.4
35°	338.7	364.9	449.0	570.4	641.0
36°	321.0	346.4	429.4	551.7	624.0
37°	303.8	330.0	411.3	533.6	606.9
38°	288.2	313.4	393.3	515.1	589.5
39°	272.7	297.3	375.0	497.1	571.9
40°	258.4	281.9	357.6	479.4	553.8
41°	244.5	267.0	341.2	461.8	535.7
42°	231.5	253.4	325.4	444.5	517.4
43°	218.5	239.9	309.9	427.7	499.0
44°	206.7	227.1	294.5	411.3	480.7

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
45°	195.4	214.9	280.7	394.5	462.4
46°	184.7	202.3	266.6	378.2	444.3
47°	174.4	191.6	252.5	362.2	426.5
48°	163.7	180.5	239.9	346.4	408.6
49°	154.8	170.6	226.9	331.5	391.0
50°	145.0	160.5	214.5	316.8	373.7
51°	137.0	150.8	202.9	301.9	356.9
52°	128.6	142.0	191.2	287.8	340.3
53°	120.6	132.8	179.8	273.5	324.0
54°	113.2	125.0	168.9	260.1	308.0
55°	105.9	117.2	158.4	247.1	292.2
56°	98.7	109.7	148.3	233.4	276.9
57°	92.0	102.1	139.1	220.2	261.8
58°	85.7	95.2	129.8	207.8	247.1
59°	79.4	88.2	121.0	195.2	232.8
60°	73.5	81.9	112.6	183.2	218.9
61°	68.1	76.1	104.2	171.6	205.3
62°	63.0	70.2	96.2	160.5	192.0
63°	57.8	64.9	88.7	149.6	179.0
64°	53.2	59.9	81.5	138.9	166.8
65°	49.0	55.0	74.8	128.6	154.4
66°	45.0	50.4	68.5	118.7	142.4
67°	41.0	46.0	62.6	109.0	130.9
68°	37.2	42.0	57.1	99.8	119.7
69°	33.6	38.4	52.1	91.2	109.0
70°	30.3	34.9	47.3	82.8	98.7
71°	26.9	31.5	42.9	74.8	89.3
72°	23.7	28.6	38.9	67.2	80.0
73°	21.0	25.6	35.1	60.1	71.2
74°	18.7	22.7	31.5	53.4	63.0
75°	16.6	20.2	28.6	47.5	55.9
76°	14.7	18.1	25.6	41.6	48.3
77°	13.4	16.2	23.1	36.8	42.0
78°	12.2	14.5	20.6	32.4	35.5
79°	10.9	13.0	18.5	28.2	30.0
80°	10.1	11.8	16.4	24.4	25.4
81°	9.5	10.7	14.9	21.4	21.2
82°	9.0	9.7	13.4	18.5	17.4
83°	8.6	9.0	12.0	16.4	14.1
84°	8.2	8.4	10.9	14.3	11.3
85°	8.0	8.0	9.7	12.8	8.8
86°	7.6	7.6	8.8	11.1	6.7
87°	7.6	7.1	8.0	9.9	5.3
88°	7.6	7.1	7.6	8.8	4.0
89°	7.4	6.7	7.1	8.0	3.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
90°	6.5	6.5	6.5	6.5	6.5

(END OF REPORT)