

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: P958865

Luminaire Tested: MMG-08W-930-60x60-ID-X-X-4F-4-UNV-STD-X

Issue Date: 1/31/2025

Test Information

Test Method: LM-79-2019
Report Number: P958865
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-930-60x60-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: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1348.5 lumens
Efficiency: N/A
Efficacy: 46.2 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

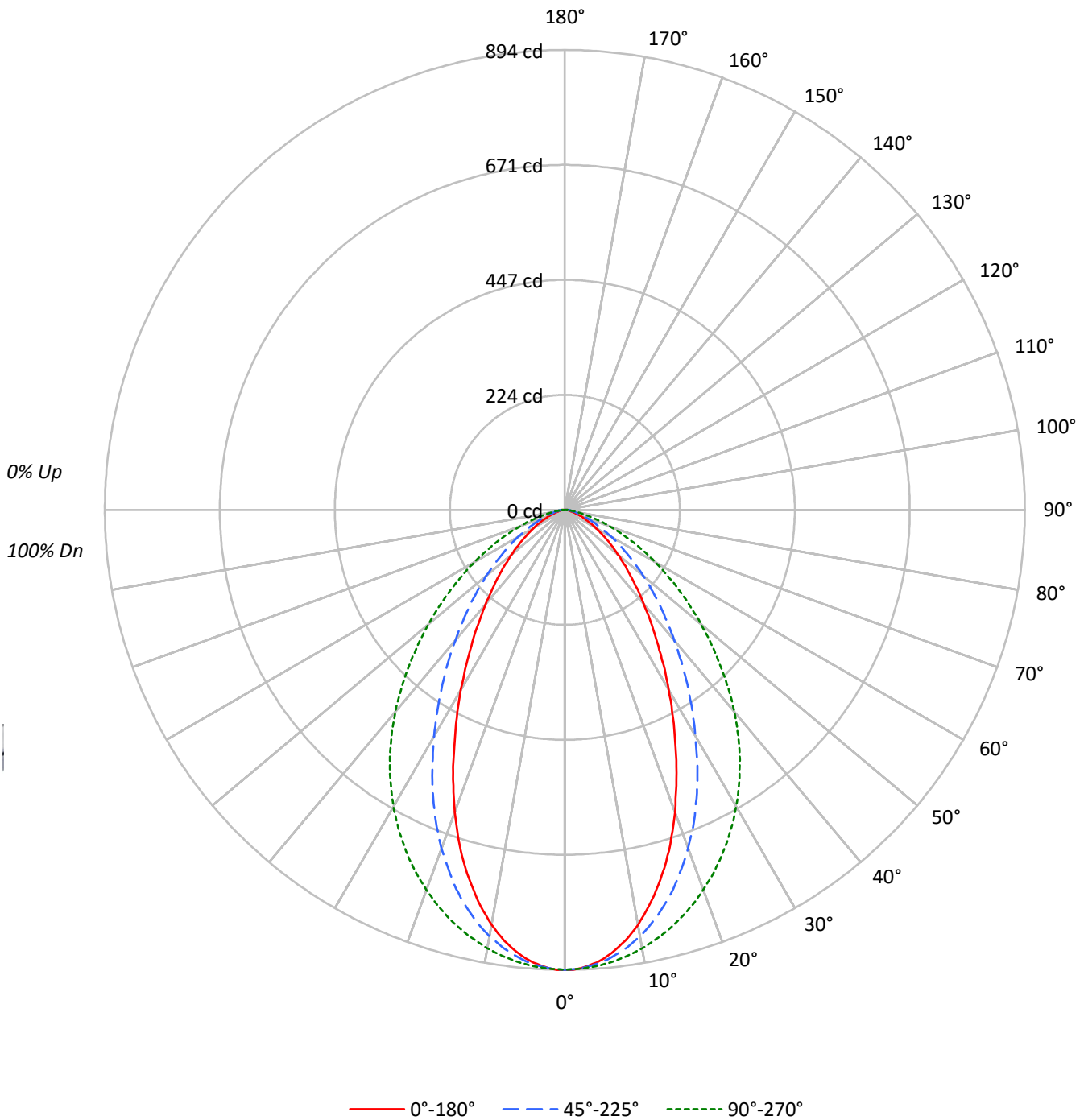
Input Watts (W): 29.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P958865

CATALOG NUMBER: MMG-08W-930-60x60-ID-X-X-4F-4-UNV-STD-X

Luminous Intensity Polar Plot





TEST NUMBER: P958865

CATALOG NUMBER: MMG-08W-930-60x60-ID-X-X-4F-4-UNV-STD-X

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°	34928	34928	34928
5°	34237	32018	31356
10°	32359	28851	28171
15°	29458	25473	25255
20°	25797	21976	22529
25°	21715	18483	19972
30°	17985	15113	17513
35°	14709	12190	15137
40°	11966	9647	12803
45°	9772	7582	10551
50°	7940	5845	8483
55°	6469	4391	6647
60°	5122	3198	5028
65°	4003	2198	3611
70°	3020	1448	2369
75°	2139	921	1388
80°	1866	565	659
85°	2666	357	243

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 10989 cd/sqm

TEST NUMBER: P958865

CATALOG NUMBER: MMG-08W-930-60x60-ID-X-X-4F-4-UNV-STD-X

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.8	6.1
10°-20°	218.5	16.2
20°-30°	281.2	20.8
30°-40°	270.7	20.1
40°-50°	217.8	16.2
50°-60°	149.8	11.1
60°-70°	83.5	6.2
70°-80°	33.7	2.5
80°-90°	10.6	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°	582.4	43.2
0°-40°	853.1	63.3
0°-60°	1220.8	90.5
0°-90°	1348.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1348.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	894	894	894	894	894	
5°	875	876	880	885	886	82
15°	733	745	780	816	832	204
25°	509	536	607	692	731	233
35°	313	337	415	527	593	196
45°	181	199	260	365	428	140
55°	98	108	146	228	270	88
65°	45	51	69	119	143	46
75°	15	19	26	44	52	17
85°	7	7	9	12	8	8
90°	6	6	6	6	6	

TEST NUMBER: P958865

CATALOG NUMBER: MMG-08W-930-60x60-ID-X-X-4F-4-UNV-STD-X

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	894.3	894.3	894.3	894.3	894.3
1°	894.1	893.8	893.4	893.2	893.2
2°	891.6	891.6	891.6	892.0	892.4
3°	887.3	887.5	888.9	890.1	890.8
4°	881.9	882.7	885.0	887.7	888.9
5°	874.9	876.3	880.3	884.6	886.4
6°	866.4	868.7	874.5	880.7	883.3
7°	856.3	859.4	867.7	876.1	879.6
8°	845.6	849.7	859.8	870.6	875.5
9°	832.6	838.0	850.8	864.8	870.6
10°	819.0	825.4	841.7	858.2	865.4
11°	803.4	811.6	831.4	851.2	859.6
12°	787.5	796.4	819.7	843.2	853.3
13°	769.6	780.5	807.3	834.9	846.5
14°	751.2	763.2	794.1	826.0	839.4
15°	732.7	745.3	780.3	816.2	831.8
16°	712.5	727.5	765.9	806.0	823.4
17°	692.3	708.4	749.8	795.7	814.9
18°	670.4	688.6	733.5	784.6	805.8
19°	648.0	667.8	717.0	772.7	796.2
20°	625.5	646.5	700.1	760.5	786.3
21°	601.0	624.9	682.6	747.5	776.0
22°	578.1	601.8	664.7	733.9	765.4
23°	555.6	578.9	645.7	720.3	754.3
24°	533.0	557.3	626.1	706.1	742.8
25°	508.9	535.7	607.0	691.7	731.0
26°	486.8	513.6	587.8	676.8	718.5
27°	465.8	490.9	567.2	661.4	705.9
28°	444.4	471.3	547.2	645.3	693.1
29°	424.1	449.7	527.2	629.0	679.5
30°	403.7	430.3	507.4	612.3	665.9
31°	383.5	411.0	489.1	595.2	651.9
32°	366.0	391.6	469.7	578.3	637.3
33°	346.5	372.6	451.1	561.4	622.8
34°	328.7	355.5	432.4	544.3	607.8
35°	313.1	337.4	415.1	527.4	592.7
36°	296.8	320.3	397.1	510.1	576.9
37°	280.9	305.2	380.3	493.4	561.2
38°	266.5	289.8	363.6	476.3	545.1
39°	252.1	274.9	346.7	459.6	528.8
40°	238.9	260.7	330.6	443.3	512.0
41°	226.1	246.9	315.5	427.0	495.3
42°	214.1	234.3	300.9	411.0	478.4
43°	202.0	221.8	286.5	395.5	461.3
44°	191.1	210.0	272.3	380.3	444.4

TEST NUMBER: P958865

CATALOG NUMBER: MMG-08W-930-60x60-ID-X-X-4F-4-UNV-STD-X

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
45°	180.7	198.7	259.5	364.8	427.5
46°	170.7	187.1	246.5	349.7	410.8
47°	161.2	177.2	233.5	334.9	394.3
48°	151.3	166.9	221.8	320.3	377.8
49°	143.2	157.7	209.8	306.5	361.5
50°	134.0	148.4	198.3	292.9	345.6
51°	126.7	139.5	187.6	279.1	330.0
52°	118.9	131.3	176.8	266.1	314.7
53°	111.5	122.8	166.3	252.9	299.5
54°	104.7	115.6	156.2	240.5	284.8
55°	97.9	108.4	146.5	228.4	270.2
56°	91.3	101.4	137.1	215.8	256.0
57°	85.1	94.4	128.6	203.6	242.0
58°	79.3	88.0	120.0	192.1	228.4
59°	73.4	81.6	111.9	180.5	215.2
60°	68.0	75.8	104.1	169.4	202.4
61°	62.9	70.3	96.3	158.7	189.8
62°	58.3	64.9	89.0	148.4	177.5
63°	53.4	60.0	82.0	138.3	165.5
64°	49.1	55.4	75.4	128.4	154.2
65°	45.3	50.9	69.2	118.9	142.8
66°	41.6	46.6	63.3	109.8	131.7
67°	37.9	42.5	57.9	100.8	121.0
68°	34.4	38.9	52.8	92.3	110.7
69°	31.1	35.5	48.2	84.3	100.8
70°	28.0	32.2	43.7	76.5	91.3
71°	24.9	29.1	39.6	69.2	82.6
72°	22.0	26.4	35.9	62.2	74.0
73°	19.4	23.7	32.4	55.6	65.9
74°	17.3	21.0	29.1	49.3	58.3
75°	15.3	18.6	26.4	43.9	51.7
76°	13.6	16.7	23.7	38.5	44.7
77°	12.4	15.0	21.4	34.0	38.9
78°	11.3	13.4	19.0	29.9	32.8
79°	10.1	12.0	17.1	26.0	27.8
80°	9.3	10.9	15.2	22.5	23.5
81°	8.7	9.9	13.8	19.8	19.6
82°	8.4	8.9	12.4	17.1	16.1
83°	8.0	8.4	11.1	15.2	13.0
84°	7.6	7.8	10.1	13.2	10.5
85°	7.4	7.4	8.9	11.8	8.2
86°	7.0	7.0	8.2	10.3	6.2
87°	7.0	6.6	7.4	9.1	4.9
88°	7.0	6.6	7.0	8.2	3.7
89°	6.8	6.2	6.6	7.4	3.1



TEST NUMBER: P958865

CATALOG NUMBER: MMG-08W-930-60x60-ID-X-X-4F-4-UNV-STD-X

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
90°	6.0	6.0	6.0	6.0	6.0

(END OF REPORT)