

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: P958910

Luminaire Tested: MMG-08W-927-ASYM-ID-X-X-1F-1-UNV-STD-X

Issue Date: 1/31/2025

Test Information

Test Method: LM-79-2019
Report Number: P958910
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-ASYM-ID-X-X-1F-1-UNV-STD-X
Description: iO LED MiniO-Graze LINEAR LIGHTING WITH ASYMMETRIC LAMBERTIAN OPTICS. INPUT WATTAGE IN IES FILE REPRESENTS CONSUMPTION IN A RUN, INDIVIDUAL FIXTURE MAY VARY
8 WATTS PER FOOT
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 539.8 lumens
Efficiency: N/A
Efficacy: 73.9 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.28 / 1.46
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 0.07' x H: 0.09')
CIE Type: Semi-Direct

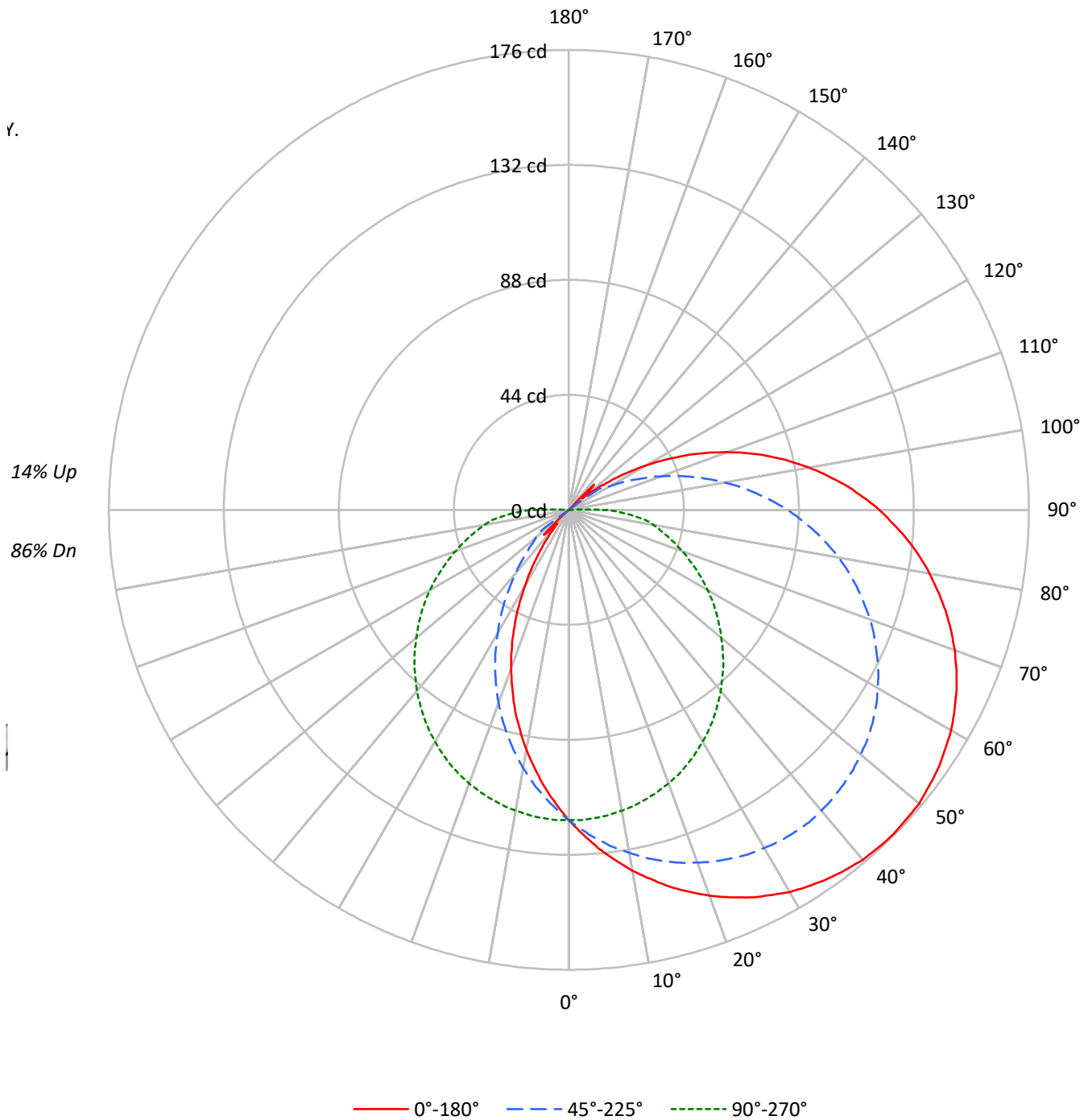
Input Watts (W): 7.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0
RCR																		
0	116	116	116	116	111	111	111	111	103	103	103	96	96	96	89	89	89	86
1	102	95	89	84	97	91	86	82	84	80	76	78	75	71	72	69	67	63
2	91	81	73	66	87	78	70	64	72	66	60	66	61	57	61	57	53	50
3	82	70	61	53	78	67	59	52	62	55	49	57	51	46	53	48	44	41
4	75	61	52	44	71	59	50	43	55	47	41	51	44	39	47	41	37	34
5	68	54	45	37	65	52	43	37	49	41	35	45	38	33	42	36	31	29
6	63	49	39	32	60	47	38	32	44	36	30	41	34	29	38	32	27	25
7	58	44	35	28	56	42	34	28	40	32	26	37	30	25	34	29	24	22
8	54	40	31	25	52	39	30	24	36	29	23	34	27	22	31	26	21	19
9	50	37	28	22	48	35	27	22	33	26	21	31	25	20	29	23	19	17
10	47	34	25	20	45	33	25	20	31	24	19	29	23	18	27	21	17	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	18560	18560	18560	18560	18560
5°	18394	18351	18430	15931	15069
10°	18256	18151	18270	13658	12149
15°	18132	18000	18121	11612	9643
20°	18005	17821	17963	9760	7392
25°	17890	17666	17805	8017	5388
30°	17768	17498	17605	6371	3545
35°	17622	17352	17421	4920	1931
40°	17495	17170	17224	3633	690
45°	17335	16961	17019	2579	1343
50°	17172	16742	16811	1850	0
55°	16973	16543	16728	0	0
60°	16784	16274	16688	0	0
65°	16557	15983	16750	0	0
70°	16303	15682	17059	0	0
75°	16034	15331	17856	0	0
80°	15725	14935	19827	0	0
85°	15380	14483	22327	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 90°
 Luminance: 24908 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	11.2	2.1
10°-20°	32.3	6.0
20°-30°	49.3	9.1
30°-40°	60.5	11.2
40°-50°	66.7	12.4
50°-60°	68.1	12.6
60°-70°	65.9	12.2
70°-80°	58.7	10.9
80°-90°	49.5	9.2
90°-100°	36.2	6.7
100°-110°	24.3	4.5
110°-120°	12.0	2.2
120°-130°	4.2	0.8
130°-140°	0.8	0.2
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°	92.9	17.2
0°-40°	153.4	28.4
0°-60°	288.2	53.4
0°-90°	462.2	85.6
90°-120°	72.5	13.4
90°-150°	77.6	14.4
90°-180°	78.0	14.4
0°-180°	539.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	119	119	119	119	119	
5°	130	127	118	110	106	13
15°	149	139	115	90	79	42
25°	164	147	107	67	49	76
35°	172	151	97	43	19	108
45°	176	149	84	23	14	136
55°	172	142	69	0	0	154
65°	164	130	54	0	0	162
75°	149	114	39	0	0	158
85°	130	94	25	0	0	108
90°	119	84	14	0	0	65
95°	106	72	0	0	0	84
105°	79	49	0	0	0	84
115°	49	27	0	0	0	49
125°	19	14	0	0	0	18
135°	14	0	0	0	0	5
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	118.8	118.8	118.8	118.8	118.8	118.8	118.8	118.8	118.8
2.5°	124.3	124.0	122.8	120.9	118.8	116.4	114.4	113.1	112.6
5°	130.0	129.2	126.6	122.8	118.4	113.7	109.9	107.4	106.5
7.5°	135.2	133.8	130.2	124.5	117.8	111.1	105.4	101.3	99.8
10°	140.2	138.5	133.3	125.8	116.9	108.1	100.3	95.2	93.3
12.5°	144.7	142.7	136.4	127.0	115.9	104.7	95.2	88.8	86.3
15°	149.3	146.6	139.2	127.8	114.6	101.2	89.8	82.3	79.4
17.5°	153.3	150.3	141.6	128.5	113.1	97.5	84.3	75.4	72.0
20°	157.1	153.6	143.7	129.0	111.4	93.6	78.7	68.3	64.5
22.5°	160.5	156.6	145.6	129.2	109.6	89.6	72.7	61.3	57.0
25°	163.7	159.3	147.2	129.0	107.4	85.6	66.8	54.1	49.3
27.5°	166.3	161.7	148.6	128.7	105.0	81.2	60.6	46.9	41.5
30°	168.9	163.8	149.4	128.0	102.4	76.9	54.4	39.9	33.7
32.5°	170.7	165.5	150.3	127.0	99.7	72.4	48.6	32.8	26.3
35°	172.5	166.7	150.6	125.8	96.8	67.7	42.7	26.3	18.9
37.5°	173.7	167.7	150.8	124.5	93.6	63.2	37.0	20.1	12.9
40°	174.9	168.4	150.3	122.8	90.5	58.5	31.8	14.9	6.9
42.5°	175.2	168.7	149.6	120.9	86.9	53.9	26.8	11.1	10.2
45°	175.6	168.7	148.6	118.6	83.6	49.6	22.6	12.4	13.6
47.5°	175.2	168.2	147.4	116.3	79.9	45.4	18.6	0.0	0.0
50°	174.9	167.2	145.7	113.6	76.2	41.2	16.1	0.0	0.0
52.5°	173.7	166.0	144.1	110.7	72.5	37.4	14.9	0.0	0.0
55°	172.5	164.7	141.9	107.5	68.9	33.5	0.0	0.0	0.0
57.5°	170.7	162.7	139.4	104.2	65.2	30.2	0.0	0.0	0.0
60°	168.9	160.5	136.5	100.7	61.3	27.0	0.0	0.0	0.0
62.5°	166.3	158.0	133.5	97.2	57.5	24.0	0.0	0.0	0.0
65°	163.7	155.0	130.0	93.3	53.6	20.3	0.0	0.0	0.0
67.5°	160.5	151.8	126.5	89.5	49.8	16.2	0.0	0.0	0.0
70°	157.1	148.3	122.6	85.4	46.1	0.0	0.0	0.0	0.0
72.5°	153.3	144.2	118.4	81.1	42.6	0.0	0.0	0.0	0.0
75°	149.3	140.2	114.1	76.7	39.0	0.0	0.0	0.0	0.0
77.5°	144.7	135.7	109.6	72.2	35.8	0.0	0.0	0.0	0.0
80°	140.2	131.2	104.7	67.8	32.7	0.0	0.0	0.0	0.0
82.5°	135.2	126.0	99.7	63.3	29.5	0.0	0.0	0.0	0.0
85°	130.0	120.8	94.5	58.8	24.6	0.0	0.0	0.0	0.0
87.5°	124.3	115.3	89.0	54.3	19.1	0.0	0.0	0.0	0.0
90°	118.8	109.6	83.6	49.8	13.6	0.0	0.0	0.0	0.0
92.5°	112.6	103.5	77.9	45.6	0.0	0.0	0.0	0.0	0.0
95°	106.5	97.3	72.0	41.4	0.0	0.0	0.0	0.0	0.0
97.5°	99.8	91.0	66.3	37.0	0.0	0.0	0.0	0.0	0.0
100°	93.3	84.4	60.5	33.2	0.0	0.0	0.0	0.0	0.0
102.5°	86.3	77.6	54.6	29.1	0.0	0.0	0.0	0.0	0.0
105°	79.4	70.7	48.7	25.0	0.0	0.0	0.0	0.0	0.0
107.5°	72.0	63.5	43.1	19.9	0.0	0.0	0.0	0.0	0.0
110°	64.5	56.3	37.5	15.2	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	57.0	49.3	32.2	0.0	0.0	0.0	0.0	0.0	0.0
115°	49.3	42.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	41.4	35.2	22.3	0.0	0.0	0.0	0.0	0.0	0.0
120°	33.7	28.6	17.9	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	26.3	22.1	15.7	0.0	0.0	0.0	0.0	0.0	0.0
125°	18.9	16.9	13.7	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	12.9	11.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	6.9	12.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	10.2	13.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	13.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)