

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: P958907

Luminaire Tested: MMG-08W-927-10x60-ID-X-X-1F-1-UNV-STD-X

Issue Date: 1/31/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P958907  
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-1F-1-UNV-STD-X  
Description: iO LED MiniO-Graze LINEAR LIGHTING WITH 10x60 DEGREE 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**

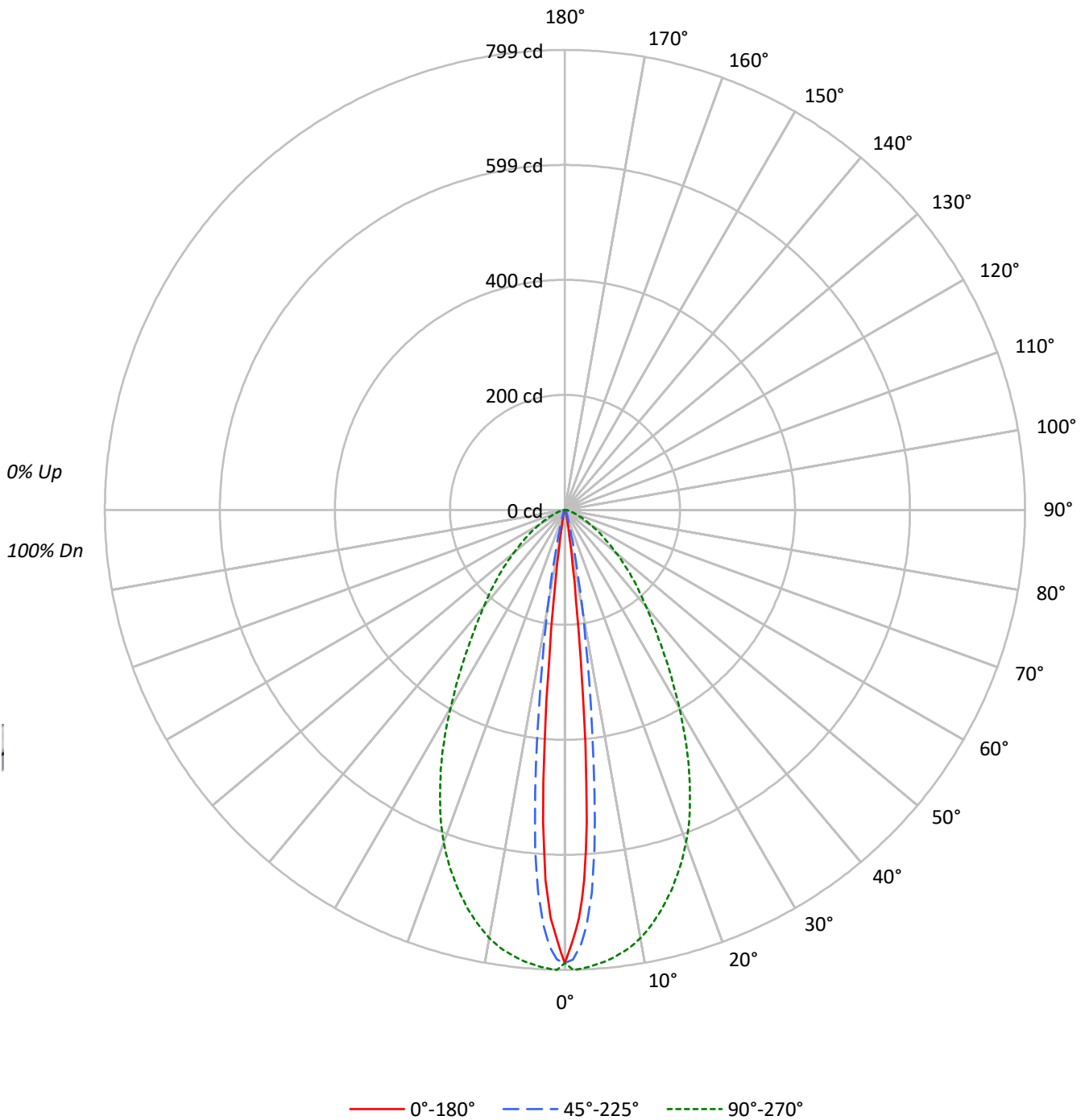
Lumens per Lamp: N/A  
Luminaire Lumens: 222.6 lumens  
Efficiency: N/A  
Efficacy: 30.5 lumens/watt  
Spacing Criteria (0/90/45): 0.18 / 0.91 / 0.25  
Luminous Opening: Rectangular w/ Sides (W: 0.07' x L: 1' x H: 0.09')  
CIE Type: Direct  
  
Input Watts (W): 7.3  
Input Voltage (V): 120  
Input Current (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	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	51	50	50	50	50	

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	123043	123043	123043
5°	63385	85799	111485
10°	6267	23625	98361
15°	1644	4629	84394
20°	822	1600	70496
25°	597	816	55899
30°	585	539	41796
35°	450	438	30106
40°	381	400	21886
45°	346	377	16141
50°	353	345	11389
55°	316	291	7862
60°	299	238	5088
65°	375	197	3125
70°	333	166	1795
75°	320	134	934
80°	364	114	437
85°	454	107	166

**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°	45.5	20.4
10°-20°	50.9	22.9
20°-30°	42.5	19.1
30°-40°	31.8	14.3
40°-50°	23.9	10.8
50°-60°	16.0	7.2
60°-70°	8.0	3.6
70°-80°	2.9	1.3
80°-90°	1.0	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°	138.9	62.4
0°-40°	170.7	76.7
0°-60°	210.6	94.6
0°-90°	222.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	222.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	788	788	788	788	788	
5°	407	450	592	736	788	24
15°	10	13	36	305	695	3
25°	4	4	7	100	512	2
35°	2	3	4	45	295	2
45°	2	2	3	36	164	1
55°	1	2	2	27	80	1
65°	1	1	2	13	31	1
75°	1	1	1	4	9	1
85°	0	0	1	1	1	1
90°	1	1	1	1	1	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	787.6	787.6	787.6	787.6	787.6
1°	749.8	766.0	781.7	793.5	799.3
2°	709.2	726.0	759.5	788.2	797.8
3°	644.2	666.5	721.6	775.4	795.4
4°	543.9	572.3	666.5	757.5	791.8
5°	407.2	449.6	591.9	736.5	787.9
6°	260.8	312.6	492.1	711.3	783.5
7°	159.1	209.9	393.0	679.2	777.7
8°	96.0	138.0	301.4	643.5	771.5
9°	60.1	86.3	229.5	599.3	764.3
10°	40.1	54.9	173.5	543.5	755.4
11°	28.4	38.5	124.5	497.3	745.2
12°	21.2	27.9	91.6	446.7	734.1
13°	15.9	20.5	64.5	389.2	721.7
14°	12.7	16.0	45.7	348.2	708.8
15°	10.4	12.9	35.8	305.0	694.9
16°	8.5	10.9	27.7	275.7	680.6
17°	7.1	9.0	21.7	243.3	665.3
18°	6.2	7.5	17.8	218.6	649.8
19°	5.5	6.6	14.9	192.9	632.8
20°	5.1	5.8	12.9	174.3	615.1
21°	4.6	5.3	11.0	155.7	596.6
22°	4.3	4.8	9.9	136.9	576.9
23°	4.0	4.5	8.5	124.4	555.2
24°	3.8	4.3	7.5	111.0	533.2
25°	3.6	4.0	6.8	100.1	511.5
26°	3.4	3.8	6.3	90.1	489.6
27°	3.4	3.6	5.7	82.0	466.7
28°	3.4	3.5	5.3	74.5	443.2
29°	3.4	3.3	4.9	67.6	420.2
30°	3.4	3.3	4.6	62.0	397.3
31°	3.3	3.3	4.5	57.9	374.7
32°	3.2	3.3	4.2	53.8	353.2
33°	3.0	3.3	4.1	50.4	333.5
34°	2.7	3.3	3.9	47.7	314.0
35°	2.5	3.2	3.8	45.4	294.7
36°	2.3	3.1	3.7	43.4	276.6
37°	2.2	2.8	3.6	42.3	261.0
38°	2.1	2.6	3.6	40.9	246.2
39°	2.0	2.5	3.5	40.0	231.5
40°	2.0	2.4	3.5	39.2	218.8
41°	1.9	2.3	3.5	38.3	207.0
42°	1.9	2.2	3.4	37.8	195.1
43°	1.8	2.1	3.4	37.2	184.4
44°	1.8	2.1	3.4	36.7	174.3

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
45°	1.7	2.0	3.3	36.1	163.5
46°	1.7	1.9	3.3	35.6	153.0
47°	1.6	1.9	3.2	35.1	142.9
48°	1.6	1.8	3.1	34.3	133.5
49°	1.6	1.7	3.1	33.6	124.2
50°	1.6	1.7	3.0	32.9	116.0
51°	1.6	1.6	2.9	31.9	107.6
52°	1.5	1.6	2.8	30.7	99.8
53°	1.4	1.6	2.7	29.5	92.4
54°	1.4	1.6	2.6	28.3	85.9
55°	1.3	1.5	2.5	26.8	79.9
56°	1.3	1.5	2.4	25.5	73.1
57°	1.2	1.4	2.3	24.1	66.6
58°	1.2	1.3	2.2	22.6	61.2
59°	1.1	1.3	2.1	21.1	56.2
60°	1.1	1.2	2.0	19.7	51.2
61°	1.1	1.2	1.9	18.3	46.6
62°	1.1	1.1	1.8	16.9	42.2
63°	1.1	1.1	1.7	15.6	38.1
64°	1.1	1.1	1.6	14.3	34.4
65°	1.2	1.1	1.6	13.0	30.9
66°	1.1	1.1	1.5	11.8	27.8
67°	1.1	1.1	1.4	10.7	24.8
68°	1.0	1.0	1.4	9.6	22.1
69°	0.9	1.0	1.3	8.6	19.6
70°	0.9	0.9	1.3	7.7	17.3
71°	0.9	0.9	1.2	6.8	15.4
72°	0.8	0.9	1.2	6.0	13.4
73°	0.8	0.8	1.1	5.3	11.6
74°	0.8	0.8	1.1	4.7	10.0
75°	0.7	0.8	1.0	4.1	8.7
76°	0.7	0.7	1.0	3.6	7.5
77°	0.6	0.6	0.9	3.1	6.4
78°	0.6	0.6	0.9	2.7	5.4
79°	0.6	0.6	0.9	2.3	4.7
80°	0.6	0.6	0.8	2.1	3.9
81°	0.5	0.5	0.8	1.8	3.2
82°	0.5	0.5	0.8	1.6	2.7
83°	0.5	0.5	0.7	1.5	2.2
84°	0.5	0.5	0.7	1.4	1.7
85°	0.5	0.4	0.7	1.3	1.4
86°	0.4	0.4	0.7	1.3	1.1
87°	0.4	0.4	0.7	1.2	0.9
88°	0.4	0.4	0.6	1.1	0.7
89°	0.4	0.4	0.6	1.0	0.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
90°	0.6	0.6	0.6	0.6	0.6

(END OF REPORT)