

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: P958948

Luminaire Tested: MFO-06W-940-20-X-4F-UNV-STD

Issue Date: 2/11/2025

Test Information

Test Method: LM-79-2019
Report Number: P958948
SCALED TEST REPORT
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 2/11/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: iO LED
Catalog Number: MFO-06W-940-20-X-4F-UNV-STD
Description: iO LED MiniO-FLEX LINEAR LIGHTING WITH 20 DEGREE OPTICS
6 WATTS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

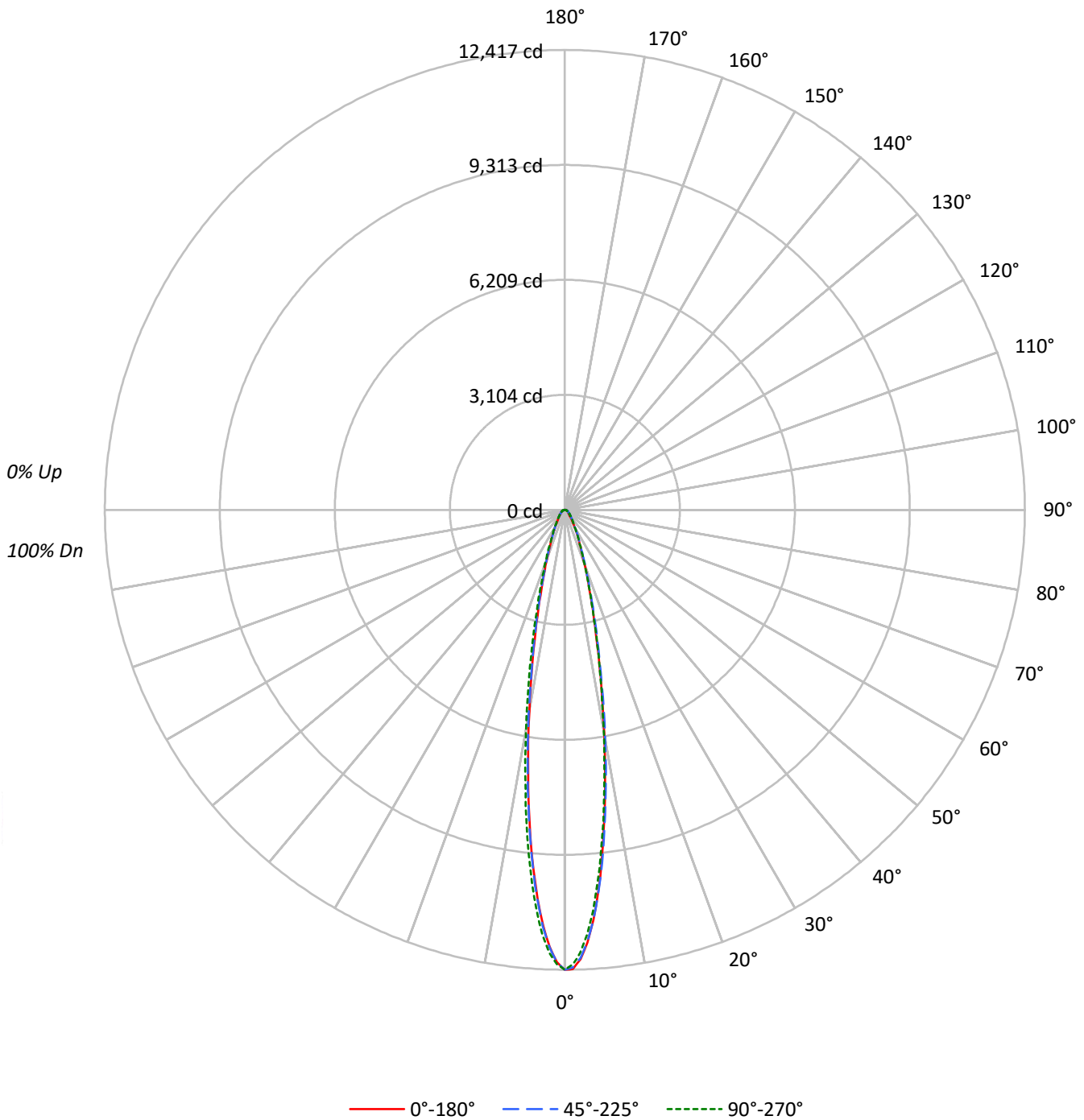
Lumens per Lamp: N/A
Luminaire Lumens: 2727.9 lumens
Efficiency: N/A
Efficacy: 119.6 lumens/watt
Spacing Criteria (0/90/45): 0.32 / 0.33 / 0.36
Luminous Opening: Rectangular w/ Sides (W: 0.08' x L: 4' x H: 0.03')
CIE Type: Direct

Input Watts (W): 22.8
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	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	97	96	95	93	92	91	89	87	87	87	
1	113	110	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95	93	92	91	89	87	85	84	82	81	79	78	78	78	
2	108	103	99	96	106	101	98	95	98	95	92	95	93	90	92	90	89	87	85	84	82	81	79	78	76	75	74	74	74	74	
3	103	97	92	88	101	95	91	87	93	89	86	90	87	85	88	86	83	82	82	82	82	82	82	82	82	82	82	82	82	82	
4	99	92	86	82	97	90	86	82	88	84	81	86	83	80	85	82	79	78	78	78	78	78	78	78	78	78	78	78	78	78	
5	95	87	82	78	93	86	81	77	84	80	77	83	79	76	81	78	75	74	74	74	74	74	74	74	74	74	74	74	74	74	
6	91	83	78	74	90	82	77	74	81	76	73	80	76	73	78	75	72	71	71	71	71	71	71	71	71	71	71	71	71	71	
7	88	80	74	70	87	79	74	70	78	73	70	77	73	70	76	72	69	68	68	68	68	68	68	68	68	68	68	68	68	68	
8	85	76	71	68	84	76	71	67	75	70	67	74	70	67	73	69	67	65	65	65	65	65	65	65	65	65	65	65	65	65	
9	82	74	69	65	81	73	68	65	72	68	65	71	67	65	71	67	64	63	63	63	63	63	63	63	63	63	63	63	63	63	
10	79	71	66	63	79	71	66	63	70	66	63	69	65	62	69	65	62	61	61	61	61	61	61	61	61	61	61	61	61	61	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	440806	440806	440806	440806	440806
5°	368819	360845	348381	339752	346401
10°	219255	213849	202358	191671	198556
15°	111336	107369	100865	95170	100663
20°	58149	54487	50914	48852	52991
25°	33707	30502	28337	27665	30859
30°	20889	19202	17712	17595	20224
35°	13710	13317	12212	12336	14594
40°	9520	9902	9019	9266	11302
45°	7571	7786	6995	7361	9280
50°	7146	6400	5651	6116	8070
55°	6916	5465	4724	5271	7375
60°	6668	4801	4027	4661	6969
65°	6509	4276	3428	4179	6740
70°	6420	3788	2816	3708	6634
75°	6755	3312	2143	3254	6781
80°	7669	2898	1498	2891	7709
85°	11840	2401	895	2741	11952

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 98552 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	822.9	30.2
10°-20°	850.0	31.2
20°-30°	405.3	14.9
30°-40°	227.4	8.3
40°-50°	151.1	5.5
50°-60°	110.5	4.0
60°-70°	80.1	2.9
70°-80°	51.1	1.9
80°-90°	29.7	1.1
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°	2078.1	76.2
0°-40°	2305.6	84.5
0°-60°	2567.1	94.1
0°-90°	2727.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2727.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	12417	12417	12417	12417	12417	
5°	10357	10393	10134	9785	9727	844
15°	3036	3157	3052	2798	2745	869
25°	864	888	864	806	791	411
35°	318	372	364	345	339	204
45°	152	202	198	191	186	121
55°	113	126	122	122	120	101
65°	79	84	77	82	82	78
75°	51	51	40	50	51	54
85°	32	26	13	30	32	35
90°	22	22	22	22	22	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	12416.7	12416.7	12416.7	12416.7	12416.7	12416.7	12416.7	12416.7	12416.7
1°	12397.2	12384.9	12359.2	12321.0	12277.1	12237.4	12211.8	12203.1	12212.3
2°	12141.3	12137.5	12105.8	12044.5	11964.1	11884.8	11824.3	11798.4	11808.8
3°	11698.0	11707.6	11676.5	11597.8	11484.8	11364.0	11268.8	11224.7	11238.7
4°	11091.0	11118.6	11095.1	11005.0	10863.2	10705.1	10576.1	10513.9	10530.3
5°	10356.6	10402.7	10392.6	10297.5	10133.6	9944.2	9785.1	9706.5	9727.1
6°	9533.8	9599.0	9602.5	9508.7	9330.1	9114.6	8932.8	8841.7	8864.3
7°	8661.8	8743.9	8763.0	8674.4	8490.2	8261.0	8060.8	7960.3	7983.2
8°	7776.5	7872.4	7904.2	7824.1	7641.2	7406.6	7197.7	7091.8	7114.6
9°	6912.4	7015.7	7058.3	6988.3	6814.3	6582.4	6370.6	6263.7	6286.6
10°	6090.7	6197.7	6247.4	6187.8	6027.4	5804.8	5599.5	5494.7	5515.7
11°	5332.1	5437.5	5492.5	5443.5	5296.6	5089.6	4895.1	4795.7	4815.3
12°	4644.9	4744.2	4799.9	4760.4	4629.6	4441.9	4263.5	4171.6	4188.9
13°	4035.1	4128.8	4182.9	4149.6	4035.8	3867.6	3707.3	3624.0	3638.9
14°	3500.5	3585.2	3635.8	3608.4	3510.5	3362.6	3220.3	3146.5	3159.5
15°	3035.7	3111.3	3157.2	3134.8	3051.9	2923.3	2798.5	2733.3	2744.7
16°	2636.5	2703.4	2743.8	2724.6	2654.6	2543.7	2435.2	2377.4	2387.9
17°	2295.5	2353.6	2388.4	2371.7	2312.6	2217.6	2124.3	2073.5	2082.9
18°	2003.5	2053.5	2082.9	2068.5	2018.3	1937.2	1857.9	1812.8	1821.0
19°	1755.5	1799.5	1823.1	1809.8	1767.5	1698.3	1630.5	1591.1	1598.1
20°	1543.6	1581.5	1600.4	1588.4	1552.8	1493.6	1434.9	1401.0	1406.7
21°	1362.6	1395.8	1410.4	1399.9	1369.9	1318.6	1267.9	1238.6	1243.2
22°	1208.1	1237.6	1247.9	1238.6	1213.0	1168.1	1124.2	1099.5	1103.1
23°	1075.4	1101.0	1108.8	1101.0	1078.6	1039.5	1001.2	980.8	982.7
24°	961.6	984.5	989.8	982.9	963.1	928.8	895.4	878.5	879.2
25°	863.7	884.7	888.1	881.7	864.5	834.4	805.5	791.3	790.7
26°	778.0	798.6	799.8	794.1	779.0	752.7	727.4	715.1	714.0
27°	703.5	724.0	724.0	718.3	705.4	682.2	659.9	649.1	647.8
28°	636.3	659.1	657.7	652.4	641.3	620.8	601.1	591.4	590.2
29°	571.2	602.5	600.4	595.0	585.5	567.3	549.4	540.7	539.7
30°	511.9	552.5	549.9	544.8	536.4	520.1	503.9	496.1	495.6
31°	461.5	508.4	505.7	500.8	493.1	478.7	464.0	456.8	456.3
32°	416.2	469.2	466.5	462.0	455.0	441.9	428.8	422.0	421.7
33°	381.0	434.5	431.5	427.9	421.3	409.4	397.7	391.3	390.9
34°	348.7	403.3	400.1	397.2	391.2	380.3	369.8	363.9	363.4
35°	318.1	375.2	372.1	369.5	364.3	354.2	344.7	339.2	338.6
36°	288.8	350.0	347.0	344.7	339.8	330.8	322.2	316.9	316.3
37°	265.6	326.9	324.2	322.1	318.1	309.5	301.8	296.7	296.1
38°	242.9	306.1	303.5	301.5	298.1	290.3	283.2	278.2	277.5
39°	223.4	287.1	284.8	282.9	279.7	272.8	266.1	261.4	260.8
40°	206.8	269.9	267.7	265.9	262.9	256.7	250.5	246.1	245.5
41°	193.1	254.1	252.1	250.7	247.5	242.0	236.3	232.0	231.6
42°	181.2	239.7	237.9	236.7	233.3	228.3	223.4	219.1	218.7
43°	169.2	226.2	224.9	223.9	220.3	216.0	211.6	207.3	206.9
44°	159.4	214.1	212.9	212.1	208.4	204.5	200.8	196.4	196.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
45°	152.0	202.7	201.8	201.1	197.6	194.1	190.8	186.4	186.3
46°	145.9	192.2	191.5	190.9	187.5	184.4	181.6	177.1	177.3
47°	139.7	182.3	182.1	181.4	178.0	175.4	172.9	168.6	168.9
48°	134.4	173.2	173.2	172.6	169.2	167.1	164.9	160.7	161.2
49°	132.7	164.9	165.1	164.4	161.0	159.3	157.4	153.4	154.1
50°	130.6	157.1	157.5	156.7	153.3	152.0	150.5	146.8	147.5
51°	127.3	150.0	150.5	149.7	146.3	145.2	143.8	140.5	141.4
52°	123.6	143.2	143.8	143.1	139.6	139.0	137.8	134.6	135.6
53°	120.0	136.9	137.5	137.0	133.3	133.2	132.0	129.2	130.3
54°	116.6	131.0	131.8	131.3	127.4	127.8	126.8	124.1	125.3
55°	113.0	125.5	126.3	125.8	121.9	122.7	121.8	119.3	120.5
56°	109.1	120.4	121.0	120.7	116.6	117.7	116.9	114.8	115.9
57°	105.8	115.5	116.2	115.7	111.6	113.1	112.5	110.6	111.6
58°	102.1	111.1	111.6	110.9	106.7	108.6	108.1	106.5	107.5
59°	98.4	106.6	107.2	106.5	102.2	104.2	103.9	102.6	103.4
60°	95.2	102.2	102.9	102.0	97.8	100.1	99.9	98.9	99.5
61°	91.9	98.1	99.0	97.9	93.7	96.0	96.2	95.5	95.8
62°	88.4	93.8	95.1	93.8	89.4	92.0	92.5	91.9	92.1
63°	85.0	89.4	91.2	89.7	85.5	88.2	88.8	88.4	88.5
64°	81.9	84.2	87.5	85.7	81.4	84.3	85.3	85.1	85.1
65°	78.8	78.3	83.8	81.9	77.4	80.5	81.9	81.8	81.6
66°	75.7	72.0	80.2	78.1	73.6	76.8	78.4	78.6	78.3
67°	72.3	66.7	76.8	74.3	69.6	73.2	75.0	75.2	75.0
68°	69.2	62.7	73.3	70.6	65.9	69.6	71.7	72.0	71.7
69°	66.2	58.9	70.0	66.9	62.1	66.0	68.5	68.8	68.5
70°	63.2	56.0	66.7	63.3	58.3	62.6	65.3	65.8	65.3
71°	60.4	53.1	63.5	59.9	54.6	59.1	62.2	62.7	62.2
72°	57.7	51.6	60.3	56.4	50.9	55.8	59.1	59.8	59.2
73°	55.4	50.7	57.2	53.1	47.3	52.6	56.0	56.8	56.3
74°	53.2	49.0	54.1	49.9	43.6	49.5	53.1	53.9	53.5
75°	50.7	46.8	51.3	46.8	40.0	46.4	50.4	51.2	50.9
76°	48.1	45.2	48.5	44.0	36.6	43.6	47.6	48.5	48.2
77°	45.8	43.6	45.8	41.2	33.4	40.9	45.0	46.1	45.8
78°	43.5	42.0	43.4	38.6	30.3	38.4	42.6	43.6	43.5
79°	41.3	40.0	40.9	36.3	27.4	36.1	40.4	41.5	41.3
80°	39.2	38.1	38.4	34.2	24.7	33.9	38.3	39.3	39.4
81°	37.4	36.2	35.2	32.0	22.0	31.9	36.2	37.5	37.6
82°	35.7	34.8	31.0	29.9	19.4	29.7	34.4	35.7	36.0
83°	34.2	33.3	27.8	27.9	17.0	27.6	32.8	34.2	34.5
84°	32.8	32.1	26.6	26.0	14.8	25.8	31.2	32.9	33.1
85°	31.7	31.1	26.2	24.2	12.7	24.1	29.9	31.7	32.0
86°	30.7	30.1	25.8	22.6	10.7	22.5	28.8	30.6	31.0
87°	29.8	29.3	25.5	21.2	9.0	21.0	27.8	29.6	29.9
88°	29.0	28.5	25.1	20.0	7.2	19.7	26.9	28.9	29.2
89°	28.5	28.0	24.7	16.8	5.2	18.6	26.1	28.3	28.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
90°	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0

(END OF REPORT)