

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  
(formerly Eaton)

Brand: iO LED

Report Number: P592056

Luminaire Tested: **GRZ-10L-940-17x30-X-UNV-STD-2F**

Issue Date: 2/2/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P592056  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2111-457-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/2/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: iO LED  
Catalog Number: GRZ-10L-940-17x30-X-UNV-STD-2F  
Description: iO LED GRAZER WITH 17x30 OPTIC  
1000 LUMENS PER FOOT, 2 FOOT FIXTURE  
SUMULATED RESULTS  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

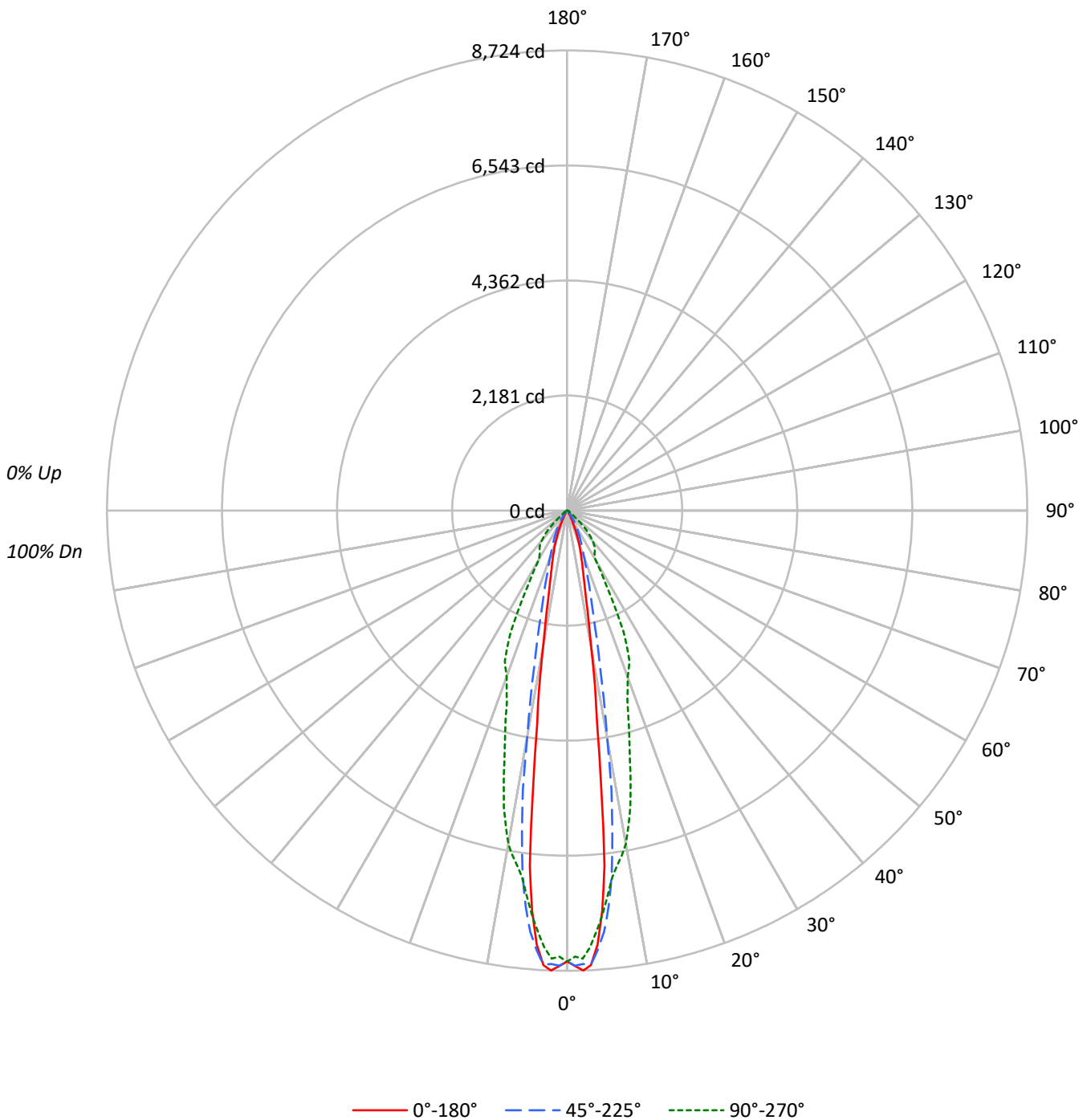
Lumens per Lamp: N/A  
Luminaire Lumens: 2074.0 lumens  
Efficiency: N/A  
Efficacy: 108.6 lumens/watt  
Spacing Criteria (0/90/45): 0.27 / 0.52 / 0.34  
Luminous Opening: Rectangular (W 2' x L: 0.17' x H: 0')  
CIE Type: Direct

Input Watts (W): 19.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95
2	110	105	102	99	107	104	100	98	100	98	96	98	95	94	95	93	92	90
3	105	100	95	92	103	98	94	91	96	93	90	93	91	88	91	89	87	86
4	101	95	90	86	99	94	89	86	92	88	85	90	86	84	88	85	83	82
5	97	90	85	82	96	89	85	81	88	84	81	86	83	80	85	82	79	78
6	94	86	81	78	92	86	81	77	84	80	77	83	79	76	82	78	76	75
7	90	83	78	74	89	82	77	74	81	77	74	80	76	73	79	75	73	72
8	87	79	75	71	86	79	74	71	78	74	71	77	73	71	76	73	70	69
9	84	77	72	68	83	76	72	68	75	71	68	74	71	68	74	70	68	67
10	82	74	69	66	81	73	69	66	73	69	66	72	68	66	71	68	65	64

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

	0°	45°	90°
0°	276084	276084	276084
5°	246905	259907	249207
10°	86021	142970	210429
15°	38238	59410	152438
20°	22292	31852	115278
25°	9574	20309	89780
30°	3222	12596	39644
35°	1967	6504	36086
40°	1699	3722	31712
45°	1840	2891	22171
50°	1447	1351	9736
55°	1295	1295	3890
60°	1240	1363	3597
65°	1322	1322	3370
70°	1265	1086	2540
75°	961	961	1198
80°	707	707	707
85°	704	704	704



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	627.9	30.3
10°-20°	664.0	32.0
20°-30°	411.1	19.8
30°-40°	208.0	10.0
40°-50°	102.9	5.0
50°-60°	30.7	1.5
60°-70°	18.9	0.9
70°-80°	8.9	0.4
80°-90°	1.6	0.1
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°	1703.0	82.1
0°-40°	1911.0	92.1
0°-60°	2044.6	98.6
0°-90°	2074.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2074.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	8550	8550	8550	8550	8550	
5°	7617	7782	8018	7795	7688	531
15°	1144	1269	1777	3110	4560	340
25°	269	335	570	1366	2520	136
35°	50	54	165	611	915	33
45°	40	36	63	167	486	29
55°	23	23	23	34	69	21
65°	17	21	17	11	44	16
75°	8	11	8	4	10	9
85°	2	2	2	0	2	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	8549.7	8549.7	8549.7	8549.7	8549.7	8549.7	8549.7	8549.7	8549.7	8549.7	8549.7
1°	8636.1	8609.2	8614.9	8649.5	8670.6	8630.3	8572.7	8528.6	8547.8	8488.3	8459.5
2°	8724.3	8703.2	8689.8	8701.3	8655.2	8603.4	8543.9	8511.3	8499.8	8469.1	8497.9
3°	8628.4	8601.5	8609.2	8636.1	8613.0	8616.9	8469.1	8369.3	8359.7	8319.4	8286.8
4°	8248.4	8267.6	8306.0	8309.8	8336.7	8344.3	8292.5	8102.5	8106.4	8031.5	7995.1
5°	7617.0	7630.4	7745.6	7793.6	7966.3	8018.1	8031.5	7801.2	7778.2	7665.0	7688.0
6°	6770.7	6523.1	6832.1	6954.9	7302.3	7538.3	7620.8	7584.4	7469.2	7338.7	7340.6
7°	5283.3	5304.5	5481.0	5820.7	6467.4	6924.2	7263.9	7338.7	7185.2	7093.1	7006.7
8°	4074.3	4162.6	4414.0	4772.9	5415.8	6154.6	6770.7	6939.5	6901.2	6809.0	6795.6
9°	3373.8	3306.6	3508.2	3794.1	4410.1	5360.1	6120.1	6479.0	6590.3	6619.1	6624.8
10°	2623.4	2702.1	2798.1	3095.5	3617.5	4360.2	5358.2	5914.7	6206.4	6369.6	6417.5
11°	2124.5	2153.3	2276.1	2556.3	2949.7	3632.9	4642.4	5269.9	5719.0	6049.1	6091.3
12°	1748.3	1773.3	1855.8	2063.1	2420.0	2963.1	3830.6	4615.5	5291.0	5676.8	5763.1
13°	1485.4	1514.2	1581.4	1742.6	2018.9	2492.9	3093.6	3943.8	4721.0	5268.0	5344.8
14°	1276.2	1308.8	1353.0	1495.0	1719.5	2055.4	2567.8	3379.6	4212.5	4826.6	4928.3
15°	1143.8	1147.6	1195.6	1293.5	1491.2	1777.1	2218.5	2897.9	3746.1	4437.0	4559.8
17.5°	859.8	854.0	859.8	936.5	1051.7	1260.9	1564.1	2153.3	3057.2	3657.8	3792.2
20°	648.7	650.6	637.1	681.3	777.2	926.9	1178.3	1752.2	2677.2	3277.9	3354.6
22.5°	451.0	447.2	452.9	495.1	587.3	725.4	923.1	1429.7	2439.2	3024.5	3087.9
25°	268.7	274.4	297.5	347.4	437.6	570.0	754.2	1155.3	1997.8	2387.4	2519.8
27.5°	155.4	157.4	176.6	230.3	316.7	443.3	619.9	900.1	1383.7	1591.0	1625.5
30°	86.4	86.4	99.8	134.3	214.9	337.8	506.6	746.5	1003.7	1061.3	1063.2
32.5°	57.6	57.6	61.4	78.7	132.4	245.6	412.6	642.9	871.3	953.8	967.2
35°	49.9	48.0	49.9	55.7	82.5	165.0	316.7	546.9	802.2	900.1	915.4
37.5°	44.1	44.1	46.1	51.8	63.3	107.5	224.5	433.7	710.1	832.9	850.2
40°	40.3	40.3	42.2	51.8	63.3	88.3	142.0	314.7	585.3	733.1	752.3
42.5°	38.4	38.4	38.4	46.1	59.5	80.6	82.5	201.5	451.0	602.6	631.4
45°	40.3	38.4	34.5	36.5	46.1	63.3	48.0	119.0	312.8	464.4	485.5
47.5°	38.4	38.4	36.5	34.5	34.5	42.2	30.7	65.3	195.8	322.4	333.9
50°	28.8	28.8	24.9	30.7	32.6	26.9	23.0	42.2	120.9	182.3	193.8
52.5°	24.9	24.9	23.0	23.0	26.9	24.9	17.3	34.5	76.8	101.7	105.6
55°	23.0	21.1	21.1	23.0	24.9	23.0	15.4	26.9	53.7	67.2	69.1
57.5°	21.1	21.1	21.1	21.1	24.9	23.0	15.4	19.2	42.2	53.7	59.5
60°	19.2	19.2	21.1	21.1	23.0	21.1	13.4	13.4	34.5	48.0	55.7
62.5°	17.3	19.2	19.2	21.1	23.0	19.2	11.5	9.6	26.9	44.1	51.8
65°	17.3	17.3	19.2	21.1	21.1	17.3	9.6	7.7	21.1	36.5	44.1
67.5°	15.4	15.4	17.3	19.2	21.1	15.4	5.8	5.8	17.3	30.7	36.5
70°	13.4	13.4	15.4	17.3	17.3	11.5	5.8	5.8	11.5	24.9	26.9
72.5°	11.5	11.5	13.4	15.4	15.4	9.6	3.8	3.8	7.7	19.2	17.3
75°	7.7	9.6	9.6	11.5	11.5	7.7	3.8	3.8	5.8	11.5	9.6
77.5°	5.8	5.8	7.7	9.6	9.6	5.8	1.9	1.9	3.8	7.7	5.8
80°	3.8	3.8	5.8	5.8	5.8	3.8	1.9	1.9	1.9	3.8	3.8
82.5°	1.9	1.9	3.8	3.8	3.8	1.9	1.9	1.9	1.9	1.9	1.9
85°	1.9	1.9	1.9	1.9	1.9	1.9	0.0	0.0	0.0	1.9	1.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)