

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: P592025

Luminaire Tested: **GRZ-10L-930-17x30-X-UNV-STD-4F**

Issue Date: 2/2/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P592025  
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-930-17x30-X-UNV-STD-4F  
Description: iO LED GRAZER WITH 17x30 OPTIC  
1000 LUMENS PER FOOT, 4 FOOT FIXTURE  
SUMULATED RESULTS  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

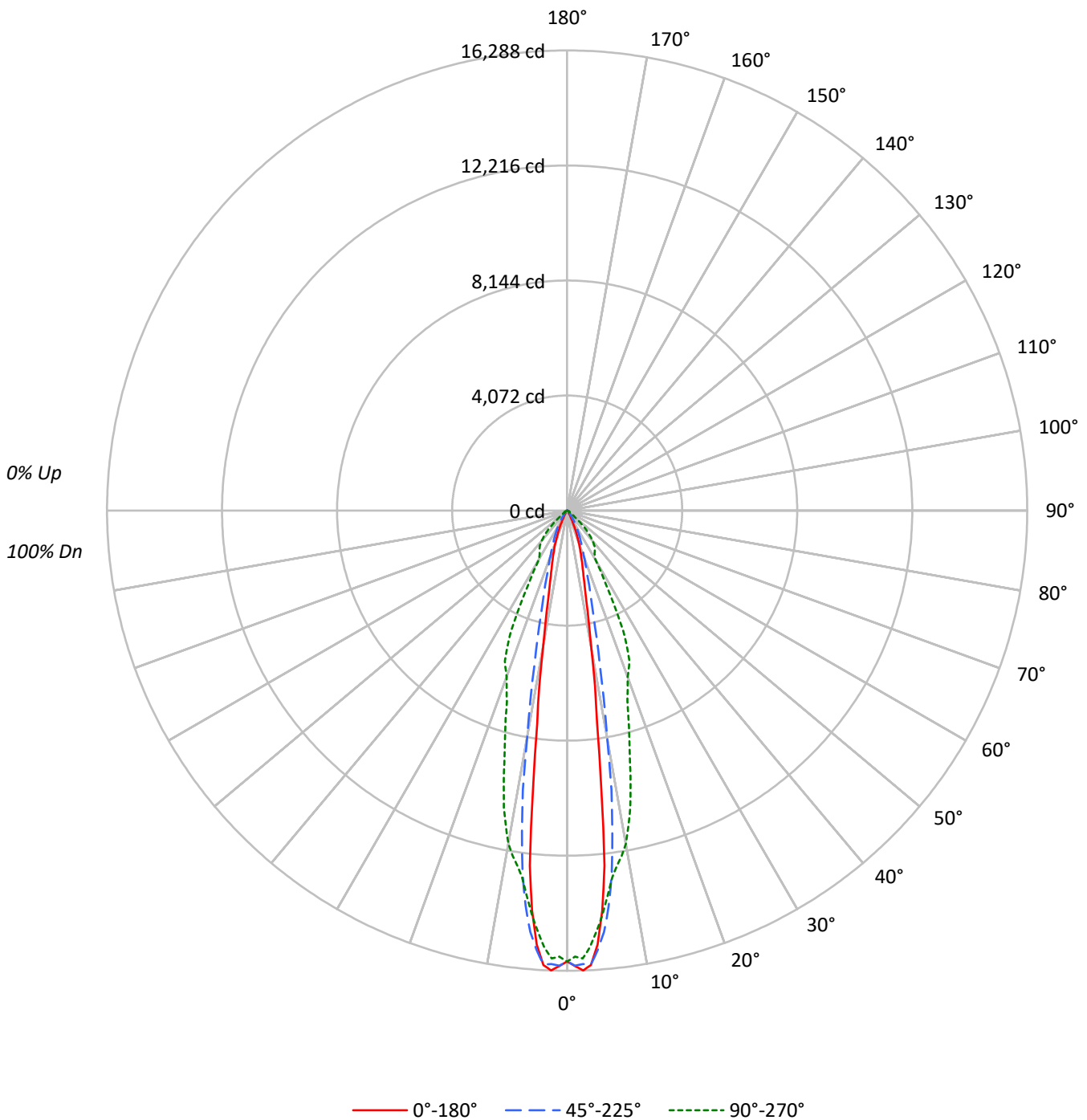
Lumens per Lamp: N/A  
Luminaire Lumens: 3872.0 lumens  
Efficiency: N/A  
Efficacy: 101.9 lumens/watt  
Spacing Criteria (0/90/45): 0.27 / 0.52 / 0.34  
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')  
CIE Type: Direct

Input Watts (W): 38  
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°	257713	257713	257713
5°	230477	242614	232625
10°	80299	133458	196429
15°	35694	55457	142297
20°	20807	29734	107608
25°	8936	18957	83807
30°	3005	11757	37006
35°	1837	6073	33685
40°	1585	3473	29603
45°	1717	2699	20699
50°	1349	1261	9090
55°	1210	1210	3631
60°	1156	1272	3355
65°	1230	1230	3148
70°	1185	1015	2370
75°	892	892	1117
80°	669	669	669
85°	667	667	667



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1172.3	30.3
10°-20°	1239.6	32.0
20°-30°	767.5	19.8
30°-40°	388.3	10.0
40°-50°	192.2	5.0
50°-60°	57.2	1.5
60°-70°	35.2	0.9
70°-80°	16.7	0.4
80°-90°	2.9	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°	3179.4	82.1
0°-40°	3567.8	92.1
0°-60°	3817.1	98.6
0°-90°	3872.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3872.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	15962	15962	15962	15962	15962	
5°	14220	14528	14969	14554	14353	992
15°	2135	2369	3318	5806	8513	635
25°	502	625	1064	2550	4704	254
35°	93	101	308	1140	1709	62
45°	75	67	118	313	906	55
55°	43	42	43	63	129	39
65°	32	38	32	21	82	31
75°	14	21	14	8	18	16
85°	4	4	4	0	4	3
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°	15961.6	15961.6	15961.6	15961.6	15961.6	15961.6	15961.6	15961.6	15961.6	15961.6	15961.6
1°	16122.9	16072.7	16083.4	16147.9	16187.3	16112.1	16004.6	15922.2	15958.0	15847.0	15793.2
2°	16287.7	16248.3	16223.2	16244.7	16158.7	16061.9	15950.9	15890.0	15868.5	15811.1	15864.9
3°	16108.5	16058.4	16072.7	16122.9	16079.9	16087.0	15811.1	15624.8	15606.9	15531.7	15470.8
4°	15399.1	15434.9	15506.6	15513.8	15563.9	15578.3	15481.5	15126.8	15134.0	14994.3	14926.2
5°	14220.4	14245.4	14460.4	14550.0	14872.4	14969.2	14994.3	14564.3	14521.3	14309.9	14352.9
6°	12640.3	12178.1	12755.0	12984.3	13632.8	14073.5	14227.5	14159.4	13944.5	13700.8	13704.4
7°	9863.6	9903.0	10232.6	10866.8	12074.2	12926.9	13561.1	13700.8	13414.2	13242.2	13081.0
8°	7606.4	7771.2	8240.6	8910.6	10110.8	11490.2	12640.3	12955.6	12884.0	12712.0	12686.9
9°	6298.7	6173.3	6549.5	7083.3	8233.4	10006.9	11425.7	12095.7	12303.5	12357.3	12368.0
10°	4897.8	5044.7	5223.8	5779.1	6753.7	8140.2	10003.3	11042.4	11587.0	11891.5	11981.1
11°	3966.2	4020.0	4249.3	4772.4	5506.8	6782.3	8666.9	9838.5	10676.9	11293.2	11372.0
12°	3264.0	3310.6	3464.6	3851.6	4518.0	5531.9	7151.4	8616.8	9877.9	10598.1	10759.3
13°	2773.1	2826.9	2952.3	3253.2	3769.2	4654.1	5775.6	7362.8	8813.8	9834.9	9978.3
14°	2382.6	2443.5	2525.9	2791.0	3210.2	3837.2	4793.9	6309.4	7864.4	9010.9	9200.8
15°	2135.4	2142.5	2232.1	2414.8	2783.9	3317.7	4141.8	5410.1	6993.7	8283.6	8512.9
17.5°	1605.1	1594.4	1605.1	1748.4	1963.4	2353.9	2920.0	4020.0	5707.5	6828.9	7079.7
20°	1211.0	1214.6	1189.5	1271.9	1451.1	1730.5	2199.9	3271.1	4998.1	6119.5	6262.8
22.5°	842.0	834.8	845.6	924.4	1096.4	1354.3	1723.4	2669.2	4553.8	5646.6	5764.8
25°	501.6	512.3	555.3	648.5	816.9	1064.1	1408.1	2156.9	3729.8	4457.1	4704.3
27.5°	290.2	293.8	329.6	429.9	591.2	827.6	1157.3	1680.4	2583.2	2970.2	3034.7
30°	161.2	161.2	186.3	250.8	401.3	630.6	945.9	1393.7	1873.8	1981.3	1984.9
32.5°	107.5	107.5	114.7	146.9	247.2	458.6	770.3	1200.3	1626.6	1780.7	1805.8
35°	93.2	89.6	93.2	103.9	154.1	308.1	591.2	1021.1	1497.6	1680.4	1709.0
37.5°	82.4	82.4	86.0	96.7	118.2	200.6	419.2	809.7	1325.7	1555.0	1587.2
40°	75.2	75.2	78.8	96.7	118.2	164.8	265.1	587.6	1092.8	1368.7	1404.5
42.5°	71.7	71.7	71.7	86.0	111.1	150.5	154.1	376.2	842.0	1125.0	1178.8
45°	75.2	71.7	64.5	68.1	86.0	118.2	89.6	222.1	584.0	867.1	906.5
47.5°	71.7	71.7	68.1	64.5	64.5	78.8	57.3	121.8	365.5	601.9	623.4
50°	53.7	53.7	46.6	57.3	60.9	50.2	43.0	78.8	225.7	340.4	361.9
52.5°	46.6	46.6	43.0	43.0	50.2	46.6	32.2	64.5	143.3	189.9	197.1
55°	43.0	39.4	39.4	43.0	46.6	43.0	28.7	50.2	100.3	125.4	129.0
57.5°	39.4	39.4	39.4	39.4	46.6	43.0	28.7	35.8	78.8	100.3	111.1
60°	35.8	35.8	39.4	39.4	43.0	39.4	25.1	25.1	64.5	89.6	103.9
62.5°	32.2	35.8	35.8	39.4	43.0	35.8	21.5	17.9	50.2	82.4	96.7
65°	32.2	32.2	35.8	39.4	39.4	32.2	17.9	14.3	39.4	68.1	82.4
67.5°	28.7	28.7	32.2	35.8	39.4	28.7	10.7	10.7	32.2	57.3	68.1
70°	25.1	25.1	28.7	32.2	32.2	21.5	10.7	10.7	21.5	46.6	50.2
72.5°	21.5	21.5	25.1	28.7	28.7	17.9	7.2	7.2	14.3	35.8	32.2
75°	14.3	17.9	17.9	21.5	21.5	14.3	7.2	7.2	10.7	21.5	17.9
77.5°	10.7	10.7	14.3	17.9	17.9	10.7	3.6	3.6	7.2	14.3	10.7
80°	7.2	7.2	10.7	10.7	10.7	7.2	3.6	3.6	3.6	7.2	7.2
82.5°	3.6	3.6	7.2	7.2	7.2	3.6	3.6	3.6	3.6	3.6	3.6
85°	3.6	3.6	3.6	3.6	3.6	3.6	0.0	0.0	0.0	3.6	3.6
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)