

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: P592088

Luminaire Tested: **GRZ-15L-930-17x30-X-UNV-STD-2F**

Issue Date: 2/2/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P592088  
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-15L-930-17x30-X-UNV-STD-2F  
Description: iO LED GRAZER WITH 17x30 OPTIC  
1500 LUMENS PER FOOT, 2 FOOT FIXTURE  
SUMULATED RESULTS  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

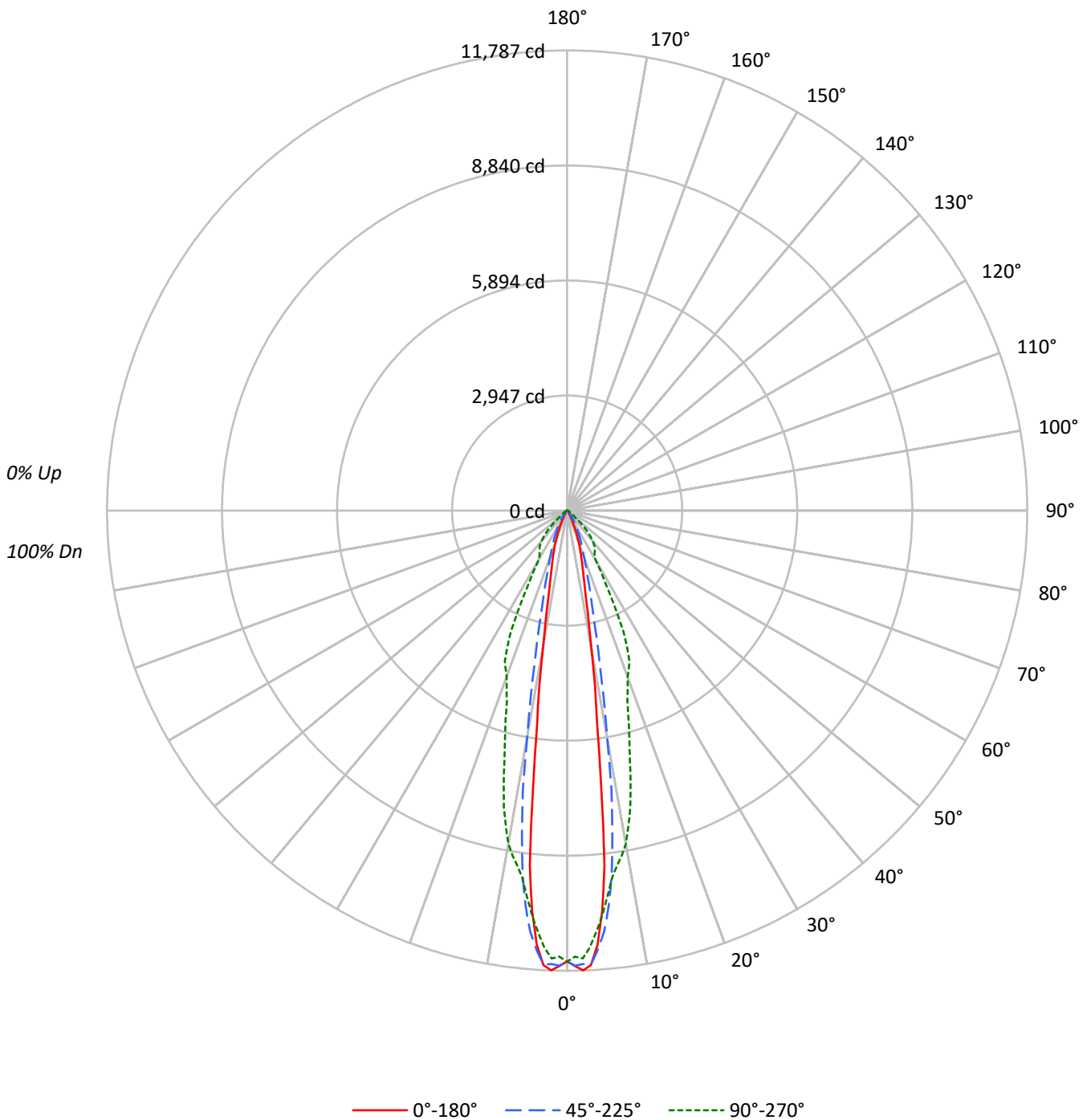
Lumens per Lamp: N/A  
Luminaire Lumens: 2802.0 lumens  
Efficiency: N/A  
Efficacy: 96.6 lumens/watt  
Spacing Criteria (0/90/45): 0.27 / 0.52 / 0.34  
Luminous Opening: Rectangular (W 2' x L: 0.17' x H: 0')  
CIE Type: Direct

Input Watts (W): 29  
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							
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10				
RCR																								
0	119	119	119	119	116	116	116	116	111	111	111	111	106	106	106	106	102	102	102	102	100	100	100	100
1	114	112	110	108	112	110	108	106	106	104	103	103	102	101	100	100	99	98	97	97	95	95	95	95
2	110	105	102	99	107	104	100	98	100	98	96	96	98	95	94	94	95	93	92	92	90	90	90	90
3	105	100	95	92	103	98	94	91	96	93	90	90	93	91	88	88	91	89	87	87	86	86	86	86
4	101	95	90	86	99	94	89	86	92	88	85	85	90	86	84	84	88	85	83	83	82	82	82	82
5	97	90	85	82	96	89	85	81	88	84	81	81	86	83	80	80	85	82	79	79	78	78	78	78
6	94	86	81	78	92	86	81	77	84	80	77	77	83	79	76	76	82	78	76	76	75	75	75	75
7	90	83	78	74	89	82	77	74	81	77	74	74	80	76	73	73	79	75	73	73	72	72	72	72
8	87	79	75	71	86	79	74	71	78	74	71	71	77	73	71	71	76	73	70	70	69	69	69	69
9	84	77	72	68	83	76	72	68	75	71	68	68	74	71	68	68	74	70	68	68	67	67	67	67
10	82	74	69	66	81	73	69	66	73	69	66	66	72	68	66	66	71	68	65	65	64	64	64	64

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

	0°	45°	90°
0°	372992	372992	372992
5°	333573	351136	336682
10°	116217	193155	284294
15°	51661	80264	205947
20°	30117	43034	155741
25°	12934	27435	121295
30°	4351	17014	53559
35°	2657	8791	48752
40°	2293	5029	42845
45°	2484	3909	29958
50°	1954	1824	13157
55°	1751	1751	5253
60°	1673	1841	4857
65°	1780	1780	4554
70°	1709	1473	3427
75°	1298	1298	1622
80°	967	967	967
85°	963	963	963



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	848.3	30.3
10°-20°	897.1	32.0
20°-30°	555.4	19.8
30°-40°	281.0	10.0
40°-50°	139.1	5.0
50°-60°	41.4	1.5
60°-70°	25.5	0.9
70°-80°	12.1	0.4
80°-90°	2.1	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°	2300.8	82.1
0°-40°	2581.8	92.1
0°-60°	2762.3	98.6
0°-90°	2802.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2802.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	11551	11551	11551	11551	11551	
5°	10291	10513	10832	10532	10387	718
15°	1545	1714	2401	4202	6160	459
25°	363	452	770	1845	3404	184
35°	67	73	223	825	1237	45
45°	54	49	86	226	656	40
55°	31	30	31	45	93	28
65°	23	28	23	15	60	22
75°	10	15	10	6	13	12
85°	3	3	3	0	3	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°	11550.7	11550.7	11550.7	11550.7	11550.7	11550.7	11550.7	11550.7	11550.7	11550.7	11550.7
1°	11667.4	11631.1	11638.9	11685.6	11714.1	11659.6	11581.9	11522.2	11548.1	11467.8	11428.9
2°	11786.7	11758.2	11740.0	11755.6	11693.3	11623.3	11543.0	11498.9	11483.3	11441.8	11480.7
3°	11657.0	11620.7	11631.1	11667.4	11636.3	11641.5	11441.8	11307.0	11294.1	11239.6	11195.5
4°	11143.7	11169.6	11221.5	11226.6	11262.9	11273.3	11203.3	10946.6	10951.8	10850.7	10801.4
5°	10290.7	10308.8	10464.4	10529.2	10762.5	10832.5	10850.7	10539.6	10508.5	10355.5	10386.6
6°	9147.3	8812.8	9230.2	9396.2	9865.4	10184.4	10295.8	10246.6	10091.0	9914.7	9917.3
7°	7137.9	7166.4	7404.9	7863.8	8737.6	9354.7	9813.6	9914.7	9707.3	9582.8	9466.2
8°	5504.4	5623.7	5963.3	6448.2	7316.8	8315.0	9147.3	9375.4	9323.6	9199.1	9181.0
9°	4558.1	4467.3	4739.6	5125.9	5958.2	7241.6	8268.3	8753.2	8903.5	8942.4	8950.2
10°	3544.3	3650.6	3780.2	4182.1	4887.4	5890.7	7239.0	7990.9	8385.0	8605.4	8670.2
11°	2870.2	2909.1	3075.0	3453.6	3985.1	4908.1	6271.9	7119.7	7726.4	8172.4	8229.4
12°	2362.0	2395.7	2507.2	2787.2	3269.5	4003.2	5175.1	6235.6	7148.2	7669.4	7786.1
13°	2006.8	2045.7	2136.4	2354.2	2727.6	3368.0	4179.5	5328.1	6378.2	7117.1	7220.8
14°	1724.2	1768.3	1827.9	2019.8	2323.1	2776.8	3469.1	4565.8	5691.1	6520.8	6658.2
15°	1545.3	1550.5	1615.3	1747.5	2014.6	2400.9	2997.2	3915.1	5061.1	5994.5	6160.4
17.5°	1161.6	1153.8	1161.6	1265.3	1420.8	1703.4	2113.1	2909.1	4130.3	4941.8	5123.3
20°	876.4	878.9	860.8	920.4	1050.1	1252.3	1592.0	2367.2	3616.9	4428.4	4532.1
22.5°	609.3	604.1	611.9	668.9	793.4	980.1	1247.1	1931.6	3295.4	4086.2	4171.7
25°	363.0	370.8	401.9	469.3	591.1	770.0	1019.0	1560.8	2699.1	3225.4	3404.3
27.5°	210.0	212.6	238.5	311.1	427.8	598.9	837.5	1216.0	1869.4	2149.4	2196.1
30°	116.7	116.7	134.8	181.5	290.4	456.3	684.5	1008.6	1356.0	1433.8	1436.4
32.5°	77.8	77.8	83.0	106.3	178.9	331.9	557.4	868.6	1177.1	1288.6	1306.8
35°	67.4	64.8	67.4	75.2	111.5	223.0	427.8	738.9	1083.8	1216.0	1236.7
37.5°	59.6	59.6	62.2	70.0	85.6	145.2	303.4	586.0	959.3	1125.3	1148.6
40°	54.4	54.4	57.0	70.0	85.6	119.3	191.9	425.2	790.8	990.4	1016.4
42.5°	51.9	51.9	51.9	62.2	80.4	108.9	111.5	272.2	609.3	814.1	853.0
45°	54.4	51.9	46.7	49.3	62.2	85.6	64.8	160.8	422.6	627.4	656.0
47.5°	51.9	51.9	49.3	46.7	46.7	57.0	41.5	88.2	264.5	435.6	451.1
50°	38.9	38.9	33.7	41.5	44.1	36.3	31.1	57.0	163.3	246.3	261.9
52.5°	33.7	33.7	31.1	31.1	36.3	33.7	23.3	46.7	103.7	137.4	142.6
55°	31.1	28.5	28.5	31.1	33.7	31.1	20.7	36.3	72.6	90.7	93.3
57.5°	28.5	28.5	28.5	28.5	33.7	31.1	20.7	25.9	57.0	72.6	80.4
60°	25.9	25.9	28.5	28.5	31.1	28.5	18.1	18.1	46.7	64.8	75.2
62.5°	23.3	25.9	25.9	28.5	31.1	25.9	15.6	13.0	36.3	59.6	70.0
65°	23.3	23.3	25.9	28.5	28.5	23.3	13.0	10.4	28.5	49.3	59.6
67.5°	20.7	20.7	23.3	25.9	28.5	20.7	7.8	7.8	23.3	41.5	49.3
70°	18.1	18.1	20.7	23.3	23.3	15.6	7.8	7.8	15.6	33.7	36.3
72.5°	15.6	15.6	18.1	20.7	20.7	13.0	5.2	5.2	10.4	25.9	23.3
75°	10.4	13.0	13.0	15.6	15.6	10.4	5.2	5.2	7.8	15.6	13.0
77.5°	7.8	7.8	10.4	13.0	13.0	7.8	2.6	2.6	5.2	10.4	7.8
80°	5.2	5.2	7.8	7.8	7.8	5.2	2.6	2.6	2.6	5.2	5.2
82.5°	2.6	2.6	5.2	5.2	5.2	2.6	2.6	2.6	2.6	2.6	2.6
85°	2.6	2.6	2.6	2.6	2.6	2.6	0.0	0.0	0.0	2.6	2.6
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)