

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: P592024

Luminaire Tested: **GRZ-10L-930-17x30-X-UNV-STD-2F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P592024
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-2F
Description: iO LED GRAZER WITH 17x30 OPTIC
1000 LUMENS PER FOOT, 2 FOOT FIXTURE
SUMULATED RESULTS
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

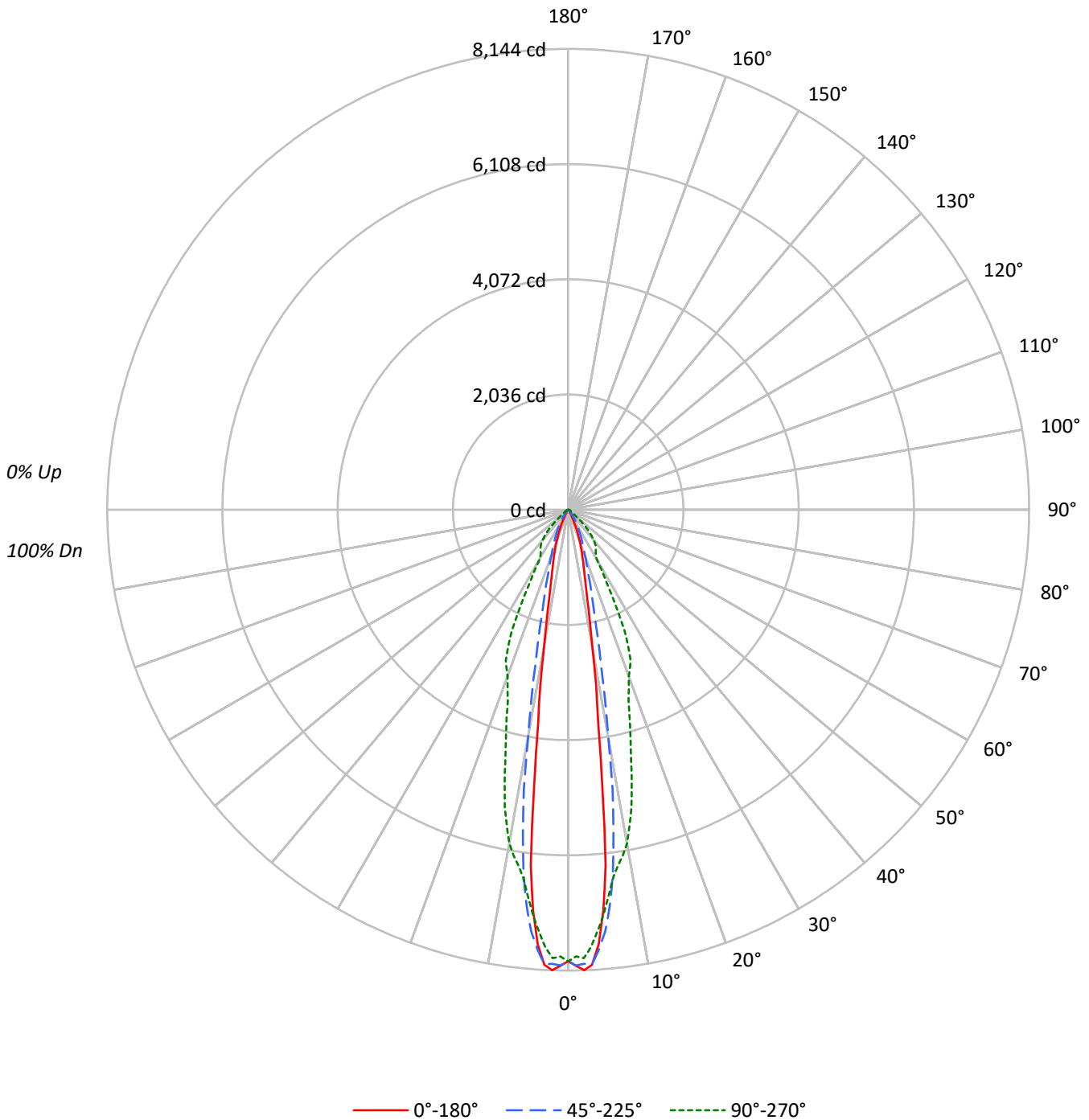
Lumens per Lamp: N/A
Luminaire Lumens: 1936.0 lumens
Efficiency: N/A
Efficacy: 101.4 lumens/watt
Spacing Criteria (0/90/45): 0.27 / 0.52 / 0.34
Luminous Opening: Rectangular (W 2' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
Input Voltage (V): 120
Input Current (A_{in}): 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	232626
10°	80299	133458	196427
15°	35694	55458	142295
20°	20807	29735	107608
25°	8936	18959	83805
30°	3005	11757	37008
35°	1837	6075	33685
40°	1585	3473	29600
45°	1717	2699	20696
50°	1351	1261	9088
55°	1210	1210	3631
60°	1156	1272	3358
65°	1230	1230	3148
70°	1180	1010	2370
75°	898	898	1123
80°	669	669	669
85°	667	667	667



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	586.1	30.3
10°-20°	619.8	32.0
20°-30°	383.8	19.8
30°-40°	194.2	10.0
40°-50°	96.1	5.0
50°-60°	28.6	1.5
60°-70°	17.6	0.9
70°-80°	8.3	0.4
80°-90°	1.5	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°	1589.7	82.1
0°-40°	1783.9	92.1
0°-60°	1908.6	98.6
0°-90°	1936.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1936.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7981	7981	7981	7981	7981	
5°	7110	7264	7485	7277	7176	496
15°	1068	1185	1659	2903	4256	317
25°	251	313	532	1275	2352	127
35°	47	51	154	570	854	31
45°	38	34	59	156	453	27
55°	22	21	22	31	64	19
65°	16	19	16	10	41	15
75°	7	10	7	4	9	8
85°	2	2	2	0	2	1
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°	7980.8	7980.8	7980.8	7980.8	7980.8	7980.8	7980.8	7980.8	7980.8	7980.8	7980.8
1°	8061.4	8036.3	8041.7	8074.0	8093.7	8056.1	8002.3	7961.1	7979.0	7923.5	7896.6
2°	8143.8	8124.1	8111.6	8122.3	8079.3	8031.0	7975.4	7945.0	7934.2	7905.6	7932.4
3°	8054.3	8029.2	8036.3	8061.4	8039.9	8043.5	7905.6	7812.4	7803.5	7765.8	7735.4
4°	7699.6	7717.5	7753.3	7756.9	7782.0	7789.1	7740.8	7563.4	7567.0	7497.1	7463.1
5°	7110.2	7122.7	7230.2	7275.0	7436.2	7484.6	7497.1	7282.2	7260.7	7155.0	7176.5
6°	6320.2	6089.1	6377.5	6492.1	6816.4	7036.7	7113.8	7079.7	6972.2	6850.4	6852.2
7°	4931.8	4951.5	5116.3	5433.4	6037.1	6463.5	6780.6	6850.4	6707.1	6621.1	6540.5
8°	3803.2	3885.6	4120.3	4455.3	5055.4	5745.1	6320.2	6477.8	6442.0	6356.0	6343.4
9°	3149.3	3086.6	3274.7	3541.7	4116.7	5003.5	5712.9	6047.9	6151.8	6178.6	6184.0
10°	2448.9	2522.3	2611.9	2889.6	3376.8	4070.1	5001.7	5521.2	5793.5	5945.7	5990.5
11°	1983.1	2010.0	2124.6	2386.2	2753.4	3391.2	4333.5	4919.3	5338.5	5646.6	5686.0
12°	1632.0	1655.3	1732.3	1925.8	2259.0	2766.0	3575.7	4308.4	4939.0	5299.0	5379.7
13°	1386.6	1413.4	1476.1	1626.6	1884.6	2327.1	2887.8	3681.4	4406.9	4917.5	4989.1
14°	1191.3	1221.8	1263.0	1395.5	1605.1	1918.6	2396.9	3154.7	3932.2	4505.4	4600.4
15°	1067.7	1071.3	1116.1	1207.4	1391.9	1658.9	2070.9	2705.1	3496.9	4141.8	4256.4
17.5°	802.6	797.2	802.6	874.2	981.7	1177.0	1460.0	2010.0	2853.7	3414.5	3539.9
20°	605.5	607.3	594.8	636.0	725.5	865.3	1099.9	1635.6	2499.0	3059.8	3131.4
22.5°	421.0	417.4	422.8	462.2	548.2	677.2	861.7	1334.6	2276.9	2823.3	2882.4
25°	250.8	256.2	277.7	324.2	408.4	532.1	704.0	1078.4	1864.9	2228.5	2352.1
27.5°	145.1	146.9	164.8	215.0	295.6	413.8	578.6	840.2	1291.6	1485.1	1517.3
30°	80.6	80.6	93.2	125.4	200.6	315.3	472.9	696.9	936.9	990.7	992.5
32.5°	53.7	53.7	57.3	73.4	123.6	229.3	385.2	600.1	813.3	890.3	902.9
35°	46.6	44.8	46.6	52.0	77.0	154.1	295.6	510.6	748.8	840.2	854.5
37.5°	41.2	41.2	43.0	48.4	59.1	100.3	209.6	404.9	662.8	777.5	793.6
40°	37.6	37.6	39.4	48.4	59.1	82.4	132.6	293.8	546.4	684.3	702.2
42.5°	35.8	35.8	35.8	43.0	55.5	75.2	77.0	188.1	421.0	562.5	589.4
45°	37.6	35.8	32.2	34.0	43.0	59.1	44.8	111.1	292.0	433.5	453.2
47.5°	35.8	35.8	34.0	32.2	32.2	39.4	28.7	60.9	182.7	301.0	311.7
50°	26.9	26.9	23.3	28.7	30.5	25.1	21.5	39.4	112.9	170.2	180.9
52.5°	23.3	23.3	21.5	21.5	25.1	23.3	16.1	32.2	71.7	94.9	98.5
55°	21.5	19.7	19.7	21.5	23.3	21.5	14.3	25.1	50.2	62.7	64.5
57.5°	19.7	19.7	19.7	19.7	23.3	21.5	14.3	17.9	39.4	50.2	55.5
60°	17.9	17.9	19.7	19.7	21.5	19.7	12.5	12.5	32.2	44.8	52.0
62.5°	16.1	17.9	17.9	19.7	21.5	17.9	10.7	9.0	25.1	41.2	48.4
65°	16.1	16.1	17.9	19.7	19.7	16.1	9.0	7.2	19.7	34.0	41.2
67.5°	14.3	14.3	16.1	17.9	19.7	14.3	5.4	5.4	16.1	28.7	34.0
70°	12.5	12.5	14.3	16.1	16.1	10.7	5.4	5.4	10.7	23.3	25.1
72.5°	10.7	10.7	12.5	14.3	14.3	9.0	3.6	3.6	7.2	17.9	16.1
75°	7.2	9.0	9.0	10.7	10.7	7.2	3.6	3.6	5.4	10.7	9.0
77.5°	5.4	5.4	7.2	9.0	9.0	5.4	1.8	1.8	3.6	7.2	5.4
80°	3.6	3.6	5.4	5.4	5.4	3.6	1.8	1.8	1.8	3.6	3.6
82.5°	1.8	1.8	3.6	3.6	3.6	1.8	1.8	1.8	1.8	1.8	1.8
85°	1.8	1.8	1.8	1.8	1.8	1.8	0.0	0.0	0.0	1.8	1.8
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)