

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: P592105

Luminaire Tested: **GRZ-15L-935-17x30-X-UNV-STD-4F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P592105
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-935-17x30-X-UNV-STD-4F
Description: iO LED GRAZER WITH 17x30 OPTIC
1500 LUMENS PER FOOT, 4 FOOT FIXTURE
SUMULATED RESULTS
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

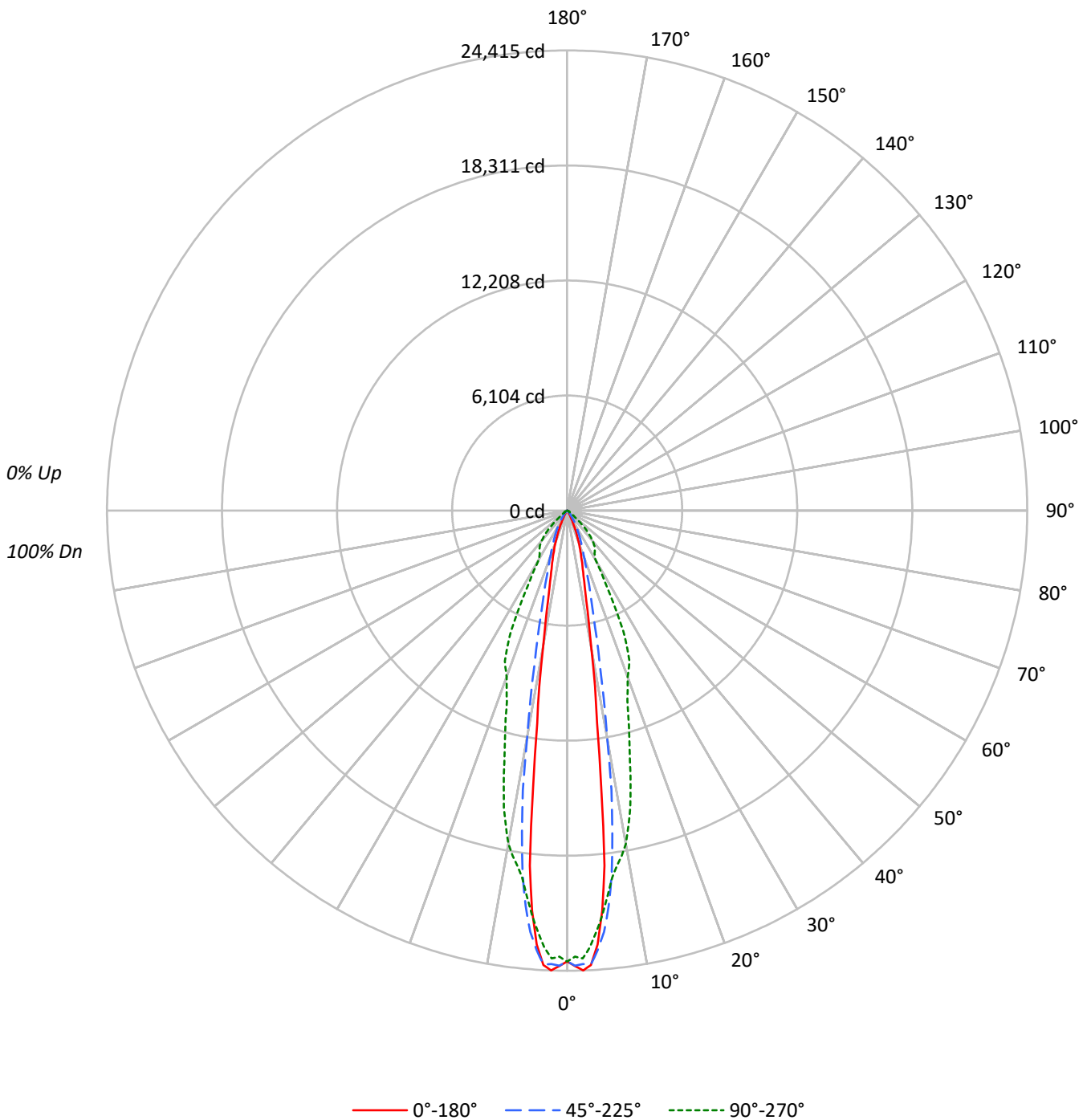
Lumens per Lamp: N/A
Luminaire Lumens: 5804.0 lumens
Efficiency: N/A
Efficacy: 103.6 lumens/watt
Spacing Criteria (0/90/45): 0.27 / 0.52 / 0.34
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 56
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°	386304	386304	386304
5°	345476	363669	348698
10°	120365	200051	294440
15°	53504	83129	213297
20°	31191	44570	161302
25°	13395	28417	125624
30°	4506	17622	55470
35°	2752	9104	50494
40°	2377	5206	44373
45°	2576	4046	31026
50°	2025	1889	13624
55°	1813	1813	5441
60°	1734	1908	5028
65°	1845	1845	4718
70°	1775	1520	3550
75°	1341	1341	1678
80°	995	995	995
85°	1000	1000	1000



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1757.2	30.3
10°-20°	1858.2	32.0
20°-30°	1150.5	19.8
30°-40°	582.1	10.0
40°-50°	288.0	5.0
50°-60°	85.8	1.5
60°-70°	52.8	0.9
70°-80°	25.0	0.4
80°-90°	4.4	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°	4765.9	82.1
0°-40°	5347.9	92.1
0°-60°	5721.8	98.6
0°-90°	5804.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5804.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	23926	23926	23926	23926	23926	
5°	21316	21776	22438	21815	21515	1487
15°	3201	3551	4973	8703	12760	952
25°	752	937	1595	3823	7052	381
35°	140	152	462	1709	2562	93
45°	113	101	177	469	1359	82
55°	64	63	64	94	193	58
65°	48	58	48	31	124	46
75°	22	31	22	12	27	25
85°	5	5	5	0	5	4
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°	23925.9	23925.9	23925.9	23925.9	23925.9	23925.9	23925.9	23925.9	23925.9	23925.9	23925.9
1°	24167.6	24092.4	24108.5	24205.2	24264.3	24151.5	23990.4	23866.9	23920.6	23754.1	23673.5
2°	24414.7	24355.6	24318.0	24350.2	24221.3	24076.3	23909.8	23818.5	23786.3	23700.4	23780.9
3°	24146.1	24071.0	24092.4	24167.6	24103.2	24113.9	23700.4	23421.1	23394.3	23281.5	23190.2
4°	23082.8	23136.5	23243.9	23254.6	23329.8	23351.3	23206.3	22674.6	22685.3	22475.9	22373.8
5°	21315.8	21353.4	21675.7	21809.9	22293.3	22438.3	22475.9	21831.4	21767.0	21450.1	21514.6
6°	18947.4	18254.6	19119.3	19463.0	20435.1	21095.6	21326.6	21224.5	20902.3	20537.1	20542.5
7°	14785.2	14844.3	15338.4	16289.0	18098.9	19377.1	20327.7	20537.1	20107.5	19849.7	19608.0
8°	11401.7	11648.8	12352.3	13356.6	15155.8	17223.5	18947.4	19420.0	19312.6	19054.8	19017.2
9°	9441.5	9253.5	9817.4	10617.6	12341.6	15000.0	17126.8	18131.1	18442.6	18523.1	18539.3
10°	7341.6	7561.8	7830.3	8662.7	10123.5	12202.0	14994.7	16552.1	17368.5	17825.0	17959.2
11°	5945.2	6025.8	6369.5	7153.6	8254.6	10166.5	12991.4	14747.6	16004.3	16928.1	17046.2
12°	4892.6	4962.4	5193.4	5773.4	6772.3	8292.2	10719.7	12916.3	14806.7	15886.2	16127.9
13°	4156.8	4237.4	4425.4	4876.5	5649.9	6976.4	8657.4	11036.5	13211.6	14742.2	14957.1
14°	3571.4	3662.7	3786.3	4183.7	4812.0	5751.9	7185.8	9457.6	11788.4	13507.0	13791.7
15°	3200.9	3211.6	3345.9	3619.8	4172.9	4973.2	6208.4	8109.6	10483.4	12416.8	12760.5
17.5°	2406.0	2389.9	2406.0	2620.8	2943.1	3528.5	4377.0	6025.8	8555.3	10236.3	10612.3
20°	1815.3	1820.6	1783.0	1906.6	2175.1	2594.0	3297.5	4903.3	7492.0	9173.0	9387.8
22.5°	1262.1	1251.3	1267.5	1385.6	1643.4	2030.1	2583.3	4001.1	6826.0	8464.0	8641.3
25°	751.9	768.0	832.4	972.1	1224.5	1595.1	2110.6	3233.1	5590.8	6681.0	7051.6
27.5°	435.0	440.4	494.1	644.5	886.1	1240.6	1734.7	2518.8	3872.2	4452.2	4548.9
30°	241.7	241.7	279.3	375.9	601.5	945.2	1417.8	2089.2	2808.8	2969.9	2975.3
32.5°	161.1	161.1	171.9	220.2	370.6	687.4	1154.7	1799.1	2438.2	2669.2	2706.8
35°	139.6	134.3	139.6	155.7	230.9	461.9	886.1	1530.6	2244.9	2518.8	2561.8
37.5°	123.5	123.5	128.9	145.0	177.2	300.8	628.4	1213.8	1987.1	2330.8	2379.2
40°	112.8	112.8	118.2	145.0	177.2	247.0	397.4	880.8	1638.0	2051.6	2105.3
42.5°	107.4	107.4	107.4	128.9	166.5	225.6	230.9	563.9	1262.1	1686.4	1766.9
45°	112.8	107.4	96.7	102.0	128.9	177.2	134.3	333.0	875.4	1299.7	1358.8
47.5°	107.4	107.4	102.0	96.7	96.7	118.2	85.9	182.6	547.8	902.3	934.5
50°	80.6	80.6	69.8	85.9	91.3	75.2	64.4	118.2	338.3	510.2	542.4
52.5°	69.8	69.8	64.4	64.4	75.2	69.8	48.3	96.7	214.8	284.6	295.4
55°	64.4	59.1	59.1	64.4	69.8	64.4	43.0	75.2	150.4	188.0	193.3
57.5°	59.1	59.1	59.1	59.1	69.8	64.4	43.0	53.7	118.2	150.4	166.5
60°	53.7	53.7	59.1	59.1	64.4	59.1	37.6	37.6	96.7	134.3	155.7
62.5°	48.3	53.7	53.7	59.1	64.4	53.7	32.2	26.9	75.2	123.5	145.0
65°	48.3	48.3	53.7	59.1	59.1	48.3	26.9	21.5	59.1	102.0	123.5
67.5°	43.0	43.0	48.3	53.7	59.1	43.0	16.1	16.1	48.3	85.9	102.0
70°	37.6	37.6	43.0	48.3	48.3	32.2	16.1	16.1	32.2	69.8	75.2
72.5°	32.2	32.2	37.6	43.0	43.0	26.9	10.7	10.7	21.5	53.7	48.3
75°	21.5	26.9	26.9	32.2	32.2	21.5	10.7	10.7	16.1	32.2	26.9
77.5°	16.1	16.1	21.5	26.9	26.9	16.1	5.4	5.4	10.7	21.5	16.1
80°	10.7	10.7	16.1	16.1	16.1	10.7	5.4	5.4	5.4	10.7	10.7
82.5°	5.4	5.4	10.7	10.7	10.7	5.4	5.4	5.4	5.4	5.4	5.4
85°	5.4	5.4	5.4	5.4	5.4	5.4	0.0	0.0	0.0	5.4	5.4
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)