

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: P592104

Luminaire Tested: **GRZ-15L-935-17x30-X-UNV-STD-2F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P592104
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-2F
Description: iO LED GRAZER WITH 17x30 OPTIC
1500 LUMENS PER FOOT, 2 FOOT FIXTURE
SUMULATED RESULTS
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

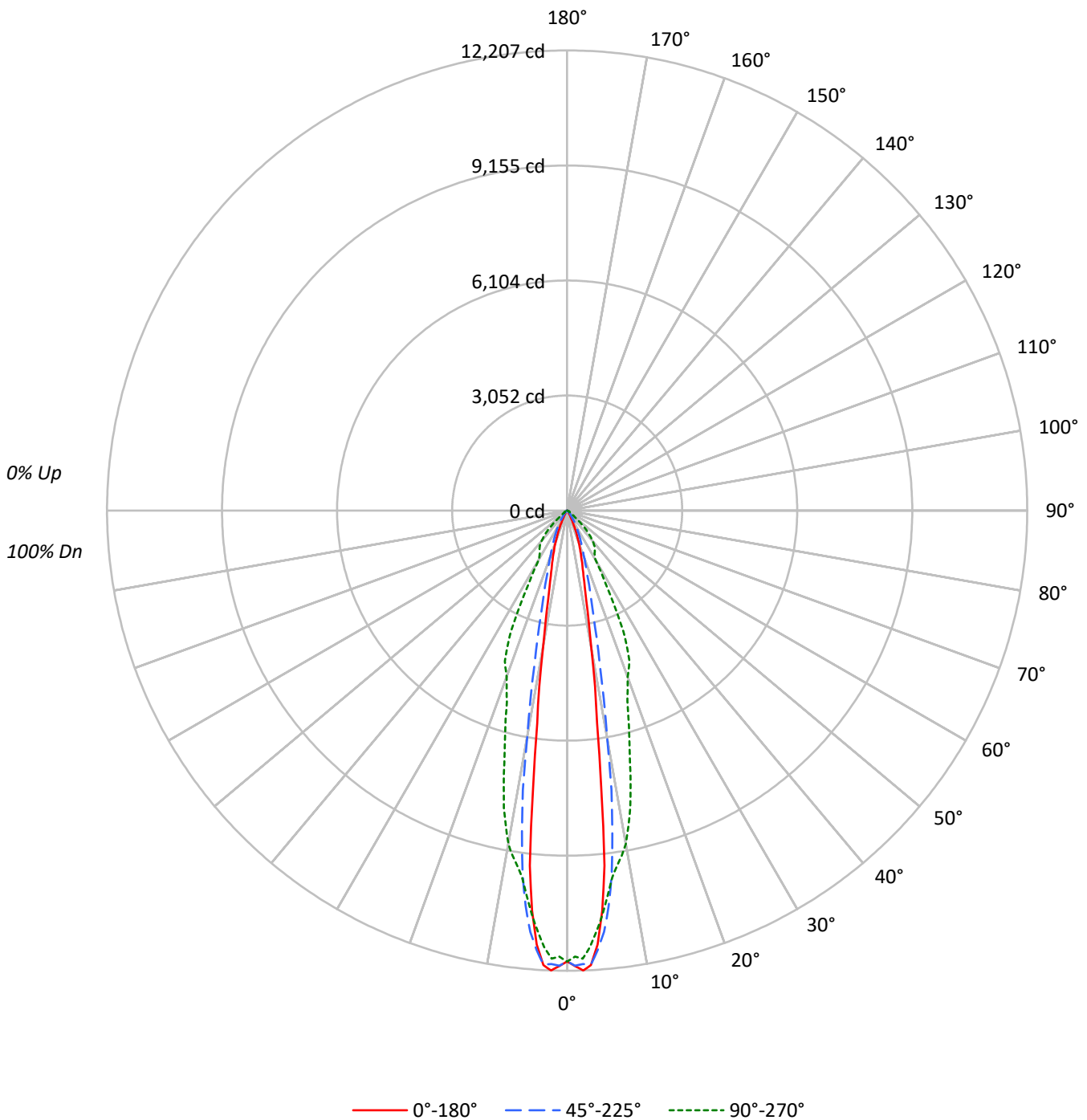
Lumens per Lamp: N/A
Luminaire Lumens: 2902.0 lumens
Efficiency: N/A
Efficacy: 100.1 lumens/watt
Spacing Criteria (0/90/45): 0.27 / 0.52 / 0.34
Luminous Opening: Rectangular (W 2' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 29
Input Voltage (V): 120
Input Current (A_{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°	386305	386305	386305
5°	345476	363667	348698
10°	120365	200051	294440
15°	53503	83129	213299
20°	31189	44570	161302
25°	13393	28415	125624
30°	4504	17622	55472
35°	2752	9102	50494
40°	2377	5206	44371
45°	2576	4046	31026
50°	2025	1889	13624
55°	1813	1813	5444
60°	1737	1905	5031
65°	1849	1849	4722
70°	1775	1520	3550
75°	1335	1335	1672
80°	1004	1004	1004
85°	1000	1000	1000



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	878.6	30.3
10°-20°	929.1	32.0
20°-30°	575.2	19.8
30°-40°	291.0	10.0
40°-50°	144.0	5.0
50°-60°	42.9	1.5
60°-70°	26.4	0.9
70°-80°	12.5	0.4
80°-90°	2.2	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°	2382.9	82.1
0°-40°	2674.0	92.1
0°-60°	2860.9	98.6
0°-90°	2902.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2902.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	11963	11963	11963	11963	11963	
5°	10658	10888	11219	10908	10757	744
15°	1600	1776	2487	4352	6380	476
25°	376	469	798	1911	3526	190
35°	70	76	231	855	1281	47
45°	56	50	89	234	679	41
55°	32	32	32	47	97	29
65°	24	29	24	15	62	23
75°	11	15	11	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°	11963.0	11963.0	11963.0	11963.0	11963.0	11963.0	11963.0	11963.0	11963.0	11963.0	11963.0
1°	12083.8	12046.2	12054.3	12102.6	12132.1	12075.8	11995.2	11933.4	11960.3	11877.0	11836.8
2°	12207.3	12177.8	12159.0	12175.1	12110.7	12038.2	11954.9	11909.3	11893.2	11850.2	11890.5
3°	12073.1	12035.5	12046.2	12083.8	12051.6	12057.0	11850.2	11710.6	11697.1	11640.7	11595.1
4°	11541.4	11568.2	11621.9	11627.3	11664.9	11675.6	11603.1	11337.3	11342.7	11237.9	11186.9
5°	10657.9	10676.7	10837.8	10905.0	11146.6	11219.1	11237.9	10915.7	10883.5	10725.1	10757.3
6°	9473.7	9127.3	9559.6	9731.5	10217.5	10547.8	10663.3	10612.3	10451.2	10268.6	10271.2
7°	7392.6	7422.1	7669.2	8144.5	9049.4	9688.5	10163.8	10268.6	10053.7	9924.8	9804.0
8°	5700.9	5824.4	6176.2	6678.3	7577.9	8611.7	9473.7	9710.0	9656.3	9527.4	9508.6
9°	4720.7	4626.8	4908.7	5308.8	6170.8	7500.0	8563.4	9065.5	9221.3	9261.6	9269.6
10°	3670.8	3780.9	3915.2	4331.4	5061.8	6101.0	7497.3	8276.1	8684.2	8912.5	8979.6
11°	2972.6	3012.9	3184.8	3576.8	4127.3	5083.3	6495.7	7373.8	8002.2	8464.0	8523.1
12°	2446.3	2481.2	2596.7	2886.7	3386.2	4146.1	5359.8	6458.1	7403.3	7943.1	8063.9
13°	2078.4	2118.7	2212.7	2438.2	2824.9	3488.2	4328.7	5518.3	6605.8	7371.1	7478.5
14°	1785.7	1831.4	1893.1	2091.8	2406.0	2875.9	3592.9	4728.8	5894.2	6753.5	6895.8
15°	1600.4	1605.8	1672.9	1809.9	2086.5	2486.6	3104.2	4054.8	5241.7	6208.4	6380.3
17.5°	1203.0	1195.0	1203.0	1310.4	1471.5	1764.2	2188.5	3012.9	4277.7	5118.2	5306.1
20°	907.6	910.3	891.5	953.3	1087.5	1297.0	1648.8	2451.7	3746.0	4586.5	4693.9
22.5°	631.0	625.7	633.7	692.8	821.7	1015.0	1291.6	2000.5	3413.0	4232.0	4320.6
25°	375.9	384.0	416.2	486.0	612.2	797.5	1055.3	1616.5	2795.4	3340.5	3525.8
27.5°	217.5	220.2	247.0	322.2	443.1	620.3	867.3	1259.4	1936.1	2226.1	2274.4
30°	120.8	120.8	139.6	188.0	300.8	472.6	708.9	1044.6	1404.4	1485.0	1487.7
32.5°	80.6	80.6	85.9	110.1	185.3	343.7	577.3	899.6	1219.1	1334.6	1353.4
35°	69.8	67.1	69.8	77.9	115.5	230.9	443.1	765.3	1122.5	1259.4	1280.9
37.5°	61.8	61.8	64.4	72.5	88.6	150.4	314.2	606.9	993.6	1165.4	1189.6
40°	56.4	56.4	59.1	72.5	88.6	123.5	198.7	440.4	819.0	1025.8	1052.6
42.5°	53.7	53.7	53.7	64.4	83.2	112.8	115.5	282.0	631.0	843.2	883.5
45°	56.4	53.7	48.3	51.0	64.4	88.6	67.1	166.5	437.7	649.8	679.4
47.5°	53.7	53.7	51.0	48.3	48.3	59.1	43.0	91.3	273.9	451.1	467.2
50°	40.3	40.3	34.9	43.0	45.6	37.6	32.2	59.1	169.2	255.1	271.2
52.5°	34.9	34.9	32.2	32.2	37.6	34.9	24.2	48.3	107.4	142.3	147.7
55°	32.2	29.5	29.5	32.2	34.9	32.2	21.5	37.6	75.2	94.0	96.7
57.5°	29.5	29.5	29.5	29.5	34.9	32.2	21.5	26.9	59.1	75.2	83.2
60°	26.9	26.9	29.5	29.5	32.2	29.5	18.8	18.8	48.3	67.1	77.9
62.5°	24.2	26.9	26.9	29.5	32.2	26.9	16.1	13.4	37.6	61.8	72.5
65°	24.2	24.2	26.9	29.5	29.5	24.2	13.4	10.7	29.5	51.0	61.8
67.5°	21.5	21.5	24.2	26.9	29.5	21.5	8.1	8.1	24.2	43.0	51.0
70°	18.8	18.8	21.5	24.2	24.2	16.1	8.1	8.1	16.1	34.9	37.6
72.5°	16.1	16.1	18.8	21.5	21.5	13.4	5.4	5.4	10.7	26.9	24.2
75°	10.7	13.4	13.4	16.1	16.1	10.7	5.4	5.4	8.1	16.1	13.4
77.5°	8.1	8.1	10.7	13.4	13.4	8.1	2.7	2.7	5.4	10.7	8.1
80°	5.4	5.4	8.1	8.1	8.1	5.4	2.7	2.7	2.7	5.4	5.4
82.5°	2.7	2.7	5.4	5.4	5.4	2.7	2.7	2.7	2.7	2.7	2.7
85°	2.7	2.7	2.7	2.7	2.7	2.7	0.0	0.0	0.0	2.7	2.7
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)