

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: P591945

Luminaire Tested: **GRZ-05L-927-17x30-X-UNV-STD-4F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P591945
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-05L-927-17x30-X-UNV-STD-4F
Description: iO LED GRAZER WITH 17x30 OPTIC
500 LUMENS PER FOOT, 4 FOOT FIXTURE
SUMULATED RESULTS
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

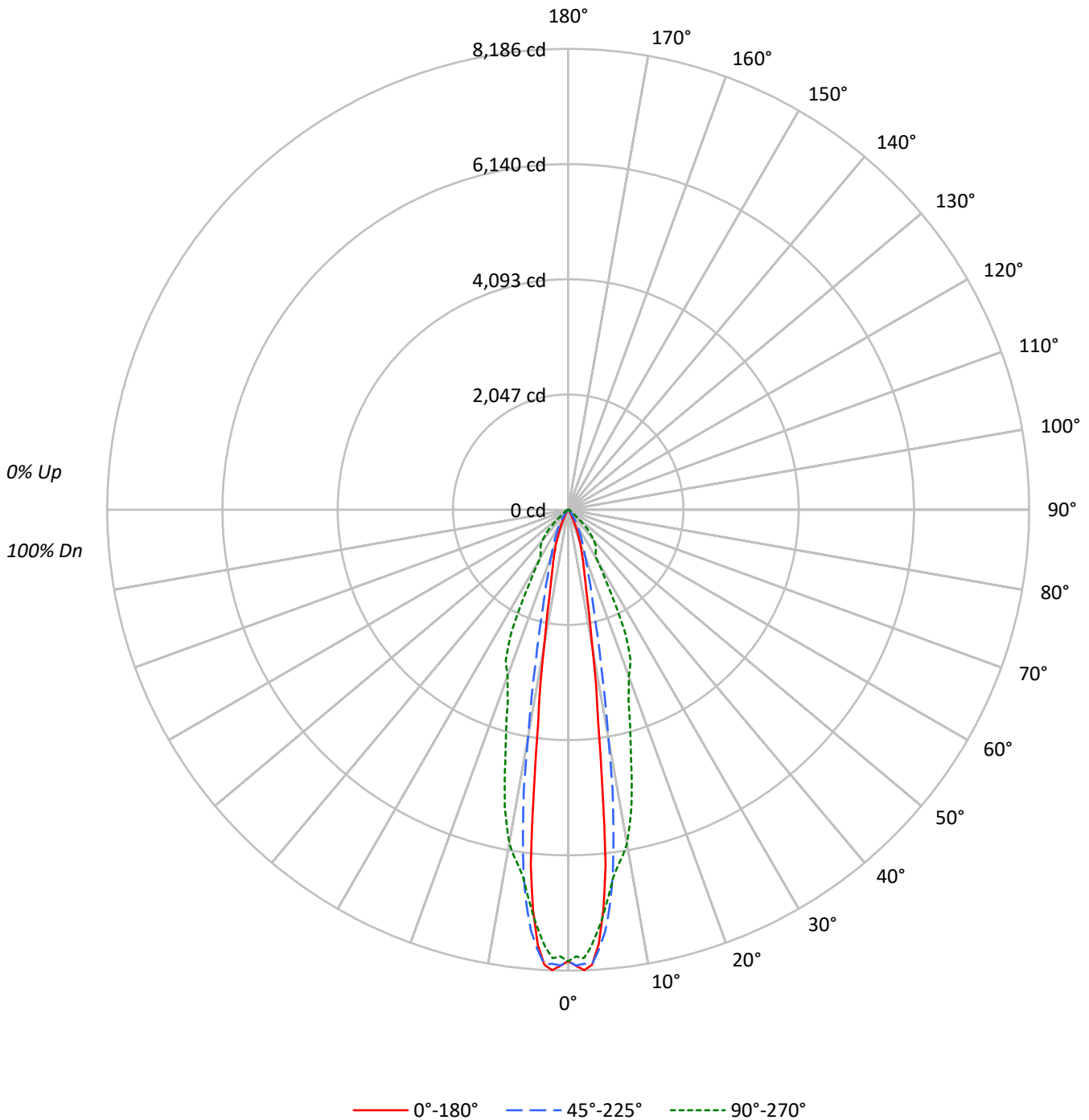
Lumens per Lamp: N/A
Luminaire Lumens: 1946.0 lumens
Efficiency: N/A
Efficacy: 100.8 lumens/watt
Spacing Criteria (0/90/45): 0.27 / 0.52 / 0.34
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 19.3
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°	129522	129522	129522
5°	115833	121932	116913
10°	40356	67073	98722
15°	17939	27871	71515
20°	10457	14943	54082
25°	4491	9527	42120
30°	1510	5908	18599
35°	922	3053	16929
40°	797	1745	14878
45°	863	1356	10403
50°	678	633	4569
55°	608	608	1824
60°	581	639	1686
65°	619	619	1582
70°	595	510	1190
75°	449	449	561
80°	335	335	335
85°	333	333	333



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	589.2	30.3
10°-20°	623.0	32.0
20°-30°	385.8	19.8
30°-40°	195.2	10.0
40°-50°	96.6	5.0
50°-60°	28.8	1.5
60°-70°	17.7	0.9
70°-80°	8.4	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°	1597.9	82.1
0°-40°	1793.1	92.1
0°-60°	1918.4	98.6
0°-90°	1946.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1946.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8022	8022	8022	8022	8022	
5°	7147	7301	7523	7314	7214	499
15°	1073	1191	1667	2918	4278	319
25°	252	314	535	1282	2364	128
35°	47	51	155	573	859	31
45°	38	34	59	157	456	27
55°	22	21	22	32	65	20
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°	8022.0	8022.0	8022.0	8022.0	8022.0	8022.0	8022.0	8022.0	8022.0	8022.0	8022.0
1°	8103.1	8077.9	8083.3	8115.7	8135.5	8097.7	8043.6	8002.2	8020.2	7964.4	7937.4
2°	8185.9	8166.1	8153.5	8164.3	8121.1	8072.5	8016.6	7986.0	7975.2	7946.4	7973.4
3°	8095.9	8070.7	8077.9	8103.1	8081.5	8085.1	7946.4	7852.8	7843.8	7806.0	7775.3
4°	7739.3	7757.3	7793.3	7796.9	7822.2	7829.4	7780.7	7602.5	7606.1	7535.9	7501.6
5°	7146.9	7159.5	7267.5	7312.6	7474.6	7523.2	7535.9	7319.8	7298.2	7191.9	7213.5
6°	6352.8	6120.5	6410.4	6525.7	6851.6	7073.1	7150.5	7116.3	7008.3	6885.8	6887.6
7°	4957.3	4977.1	5142.7	5461.5	6068.3	6496.9	6815.6	6885.8	6741.8	6655.3	6574.3
8°	3822.8	3905.7	4141.6	4478.3	5081.5	5774.8	6352.8	6511.3	6475.2	6388.8	6376.2
9°	3165.6	3102.6	3291.6	3559.9	4138.0	5029.3	5742.4	6079.1	6183.5	6210.5	6216.0
10°	2461.5	2535.4	2625.4	2904.5	3394.3	4091.1	5027.5	5549.7	5823.4	5976.5	6021.5
11°	1993.4	2020.4	2135.6	2398.5	2767.6	3408.7	4355.8	4944.7	5366.0	5675.7	5715.4
12°	1640.4	1663.8	1741.3	1935.7	2270.7	2780.3	3594.2	4330.6	4964.5	5326.4	5407.4
13°	1393.7	1420.7	1483.8	1635.0	1894.3	2339.1	2902.7	3700.4	4429.7	4942.9	5014.9
14°	1197.5	1228.1	1269.5	1402.7	1613.4	1928.5	2409.3	3171.0	3952.5	4528.7	4624.1
15°	1073.2	1076.8	1121.8	1213.7	1399.1	1667.4	2081.6	2719.0	3514.9	4163.2	4278.4
17.5°	806.7	801.3	806.7	878.7	986.8	1183.0	1467.6	2020.4	2868.5	3432.1	3558.1
20°	608.6	610.4	597.8	639.2	729.3	869.7	1105.6	1644.0	2512.0	3075.6	3147.6
22.5°	423.2	419.6	425.0	464.6	551.0	680.7	866.1	1341.5	2288.7	2837.9	2897.3
25°	252.1	257.5	279.1	325.9	410.6	534.8	707.7	1084.0	1874.5	2240.0	2364.3
27.5°	145.9	147.7	165.7	216.1	297.1	416.0	581.6	844.5	1298.3	1492.8	1525.2
30°	81.0	81.0	93.6	126.0	201.7	316.9	475.4	700.5	941.8	995.8	997.6
32.5°	54.0	54.0	57.6	73.8	124.2	230.5	387.1	603.2	817.5	894.9	907.5
35°	46.8	45.0	46.8	52.2	77.4	154.9	297.1	513.2	752.7	844.5	858.9
37.5°	41.4	41.4	43.2	48.6	59.4	100.8	210.7	407.0	666.3	781.5	797.7
40°	37.8	37.8	39.6	48.6	59.4	82.8	133.3	295.3	549.2	687.9	705.9
42.5°	36.0	36.0	36.0	43.2	55.8	75.6	77.4	189.1	423.2	565.4	592.4
45°	37.8	36.0	32.4	34.2	43.2	59.4	45.0	111.6	293.5	435.8	455.6
47.5°	36.0	36.0	34.2	32.4	32.4	39.6	28.8	61.2	183.7	302.5	313.3
50°	27.0	27.0	23.4	28.8	30.6	25.2	21.6	39.6	113.4	171.1	181.9
52.5°	23.4	23.4	21.6	21.6	25.2	23.4	16.2	32.4	72.0	95.4	99.0
55°	21.6	19.8	19.8	21.6	23.4	21.6	14.4	25.2	50.4	63.0	64.8
57.5°	19.8	19.8	19.8	19.8	23.4	21.6	14.4	18.0	39.6	50.4	55.8
60°	18.0	18.0	19.8	19.8	21.6	19.8	12.6	12.6	32.4	45.0	52.2
62.5°	16.2	18.0	18.0	19.8	21.6	18.0	10.8	9.0	25.2	41.4	48.6
65°	16.2	16.2	18.0	19.8	19.8	16.2	9.0	7.2	19.8	34.2	41.4
67.5°	14.4	14.4	16.2	18.0	19.8	14.4	5.4	5.4	16.2	28.8	34.2
70°	12.6	12.6	14.4	16.2	16.2	10.8	5.4	5.4	10.8	23.4	25.2
72.5°	10.8	10.8	12.6	14.4	14.4	9.0	3.6	3.6	7.2	18.0	16.2
75°	7.2	9.0	9.0	10.8	10.8	7.2	3.6	3.6	5.4	10.8	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)