

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: P592001

Luminaire Tested: **GRZ-10L-927-10x10-X-UNV-STD-4F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P592001
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2111-457-14)
Test Lab: INNOVATION CENTER
Issue Date: 2/2/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: iO LED
Catalog Number: GRZ-10L-927-10x10-X-UNV-STD-4F
Description: iO LED GRAZER WITH 10x10 OPTIC
1000 LUMENS PER FOOT, 4 FOOT FIXTURE
SCALED BASED ON PHOTOMETRIC TESTING
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

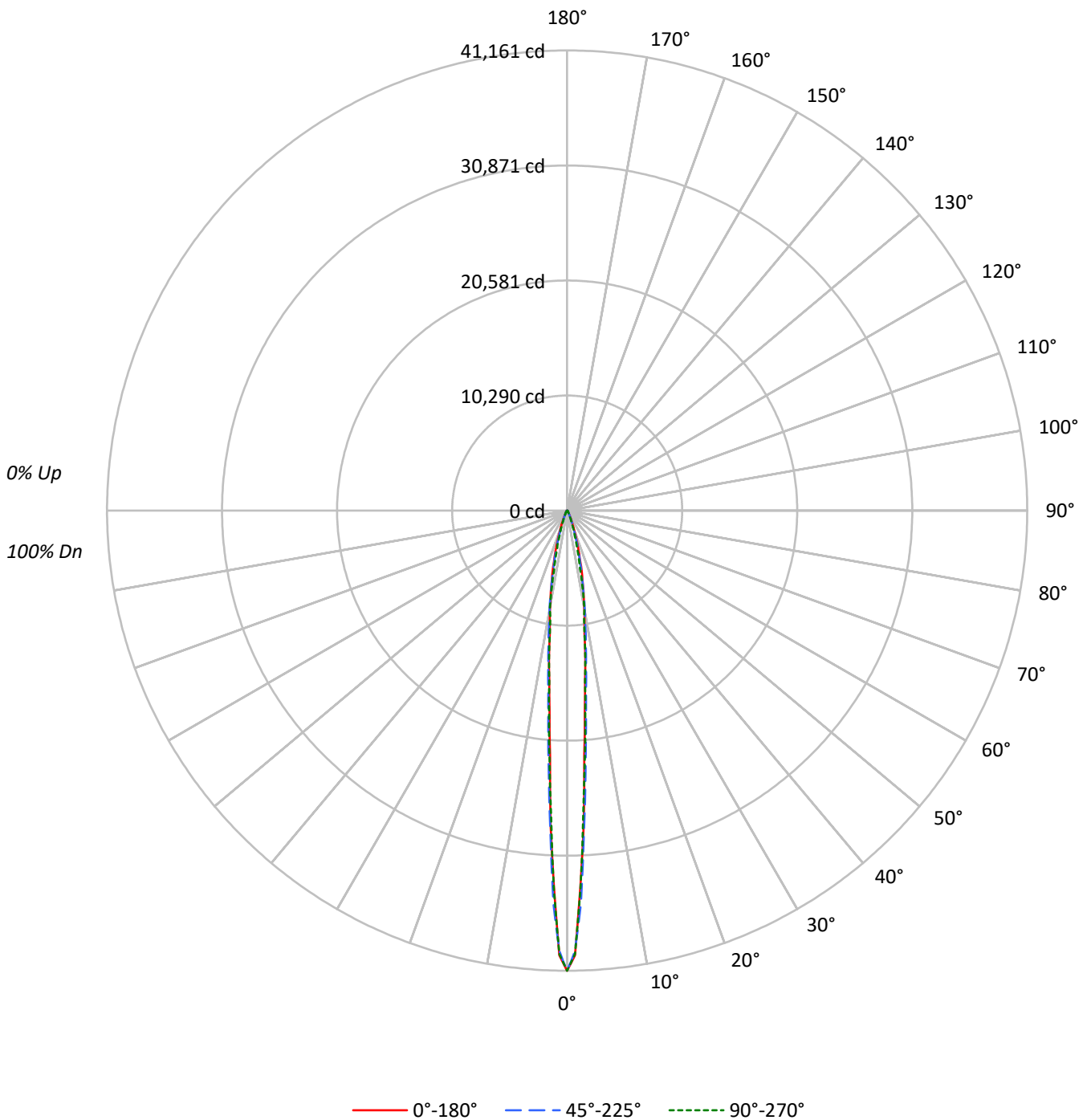
Lumens per Lamp: N/A
Luminaire Lumens: 3294.0 lumens
Efficiency: N/A
Efficacy: 86.7 lumens/watt
Spacing Criteria (0/90/45): 0.15 / 0.16 / 0.22
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 38
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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100	
1	115	113	111	109	113	111	109	107	107	105	104	103	102	101	100	99	98	96	96	96	96	
2	111	107	104	102	109	106	103	101	103	100	99	100	98	96	97	96	95	93	93	93	93	
3	108	103	99	96	106	102	98	96	99	96	94	97	95	93	95	93	91	90	90	90	90	
4	104	99	95	92	103	98	94	92	96	93	91	94	92	90	93	90	89	87	87	87	87	
5	102	96	92	89	100	95	91	88	93	90	88	92	89	87	90	88	86	85	85	85	85	
6	99	93	89	86	98	92	88	86	91	88	85	90	87	85	88	86	84	83	83	83	83	
7	96	90	86	83	95	90	86	83	89	85	83	88	85	82	87	84	82	81	81	81	81	
8	94	88	84	81	93	87	84	81	86	83	81	86	83	80	85	82	80	79	79	79	79	
9	92	86	82	79	91	85	82	79	85	81	79	84	81	79	83	80	78	78	78	78	78	
10	90	84	80	77	89	83	80	77	83	79	77	82	79	77	82	79	77	76	76	76	76	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	664584	664584	664584
5°	292657	312410	301730
10°	144228	148477	145497
15°	72757	67039	57772
20°	30527	25857	21960
25°	12378	10358	8722
30°	5906	5269	4665
35°	3725	3264	2590
40°	2656	2428	1821
45°	2384	2096	1521
50°	2261	1989	1176
55°	2027	1773	1013
60°	1628	1395	988
65°	1582	1375	1032
70°	1614	1360	935
75°	1460	1347	898
80°	1339	1172	837
85°	1000	1000	667



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1546.9	47.0
10°-20°	1143.9	34.7
20°-30°	312.1	9.5
30°-40°	110.3	3.3
40°-50°	69.5	2.1
50°-60°	51.6	1.6
60°-70°	33.9	1.0
70°-80°	20.4	0.6
80°-90°	5.4	0.2
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°	3002.9	91.2
0°-40°	3113.2	94.5
0°-60°	3234.3	98.2
0°-90°	3294.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3294.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	41161	41161	41161	41161	41161	
5°	18057	18854	19276	18561	18617	1500
15°	4353	4297	4011	3550	3456	1234
25°	695	682	581	515	490	366
35°	189	185	166	151	131	122
45°	104	101	92	77	67	81
55°	72	68	63	47	36	65
65°	41	36	36	31	27	41
75°	23	20	22	18	14	25
85°	5	4	5	4	4	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	41161.3	41161.3	41161.3	41161.3	41161.3
1°	39784.2	38988.6	39451.2	39433.2	39663.6
2°	33658.4	36149.8	35179.5	35073.3	33968.1
3°	28159.1	29260.8	28645.1	29007.0	27275.2
4°	21925.3	23300.6	23511.2	23037.8	22427.6
5°	18056.9	18854.3	19275.6	18560.9	18616.7
6°	15209.1	16219.0	16156.0	16175.8	15374.7
7°	13324.4	13850.0	13925.6	13468.4	13250.6
8°	11167.9	12073.3	12003.1	11659.3	11171.5
9°	9954.6	10510.8	10422.6	9808.8	9630.6
10°	8797.1	9103.1	9056.3	8381.3	8874.5
12.5°	6334.6	6363.4	6053.8	5686.5	5393.1
15°	4352.7	4296.9	4010.6	3549.8	3456.2
17.5°	2858.6	2865.8	2478.7	2131.3	2077.3
20°	1776.7	1787.5	1504.9	1312.3	1278.1
22.5°	1117.9	1069.3	894.7	813.6	792.0
25°	694.8	682.2	581.4	514.8	489.6
27.5°	469.8	460.8	378.0	347.4	345.6
30°	316.8	329.4	282.6	257.4	250.2
32.5°	239.4	239.4	219.6	201.6	181.8
35°	189.0	185.4	165.6	151.2	131.4
37.5°	144.0	151.2	133.2	122.4	102.6
40°	126.0	126.0	115.2	100.8	86.4
42.5°	111.6	115.2	100.8	86.4	72.0
45°	104.4	100.8	91.8	77.4	66.6
47.5°	95.4	93.6	84.6	68.4	57.6
50°	90.0	86.4	79.2	61.2	46.8
52.5°	84.6	79.2	72.0	54.0	39.6
55°	72.0	68.4	63.0	46.8	36.0
57.5°	63.0	55.8	52.2	39.6	32.4
60°	50.4	45.0	43.2	36.0	30.6
62.5°	45.0	41.4	39.6	34.2	28.8
65°	41.4	36.0	36.0	30.6	27.0
67.5°	37.8	32.4	32.4	27.0	23.4
70°	34.2	28.8	28.8	23.4	19.8
72.5°	28.8	23.4	25.2	19.8	18.0
75°	23.4	19.8	21.6	18.0	14.4
77.5°	19.8	16.2	16.2	14.4	10.8
80°	14.4	12.6	12.6	10.8	9.0
82.5°	9.0	7.2	9.0	7.2	5.4
85°	5.4	3.6	5.4	3.6	3.6
87.5°	1.8	1.8	1.8	1.8	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)