

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: P592009

Luminaire Tested: **GRZ-10L-927-17x30-X-UNV-STD-4F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P592009
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-927-17x30-X-UNV-STD-4F
Description: iO LED GRAZER WITH 17x30 OPTIC
1000 LUMENS PER FOOT, 4 FOOT FIXTURE
SUMULATED RESULTS
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

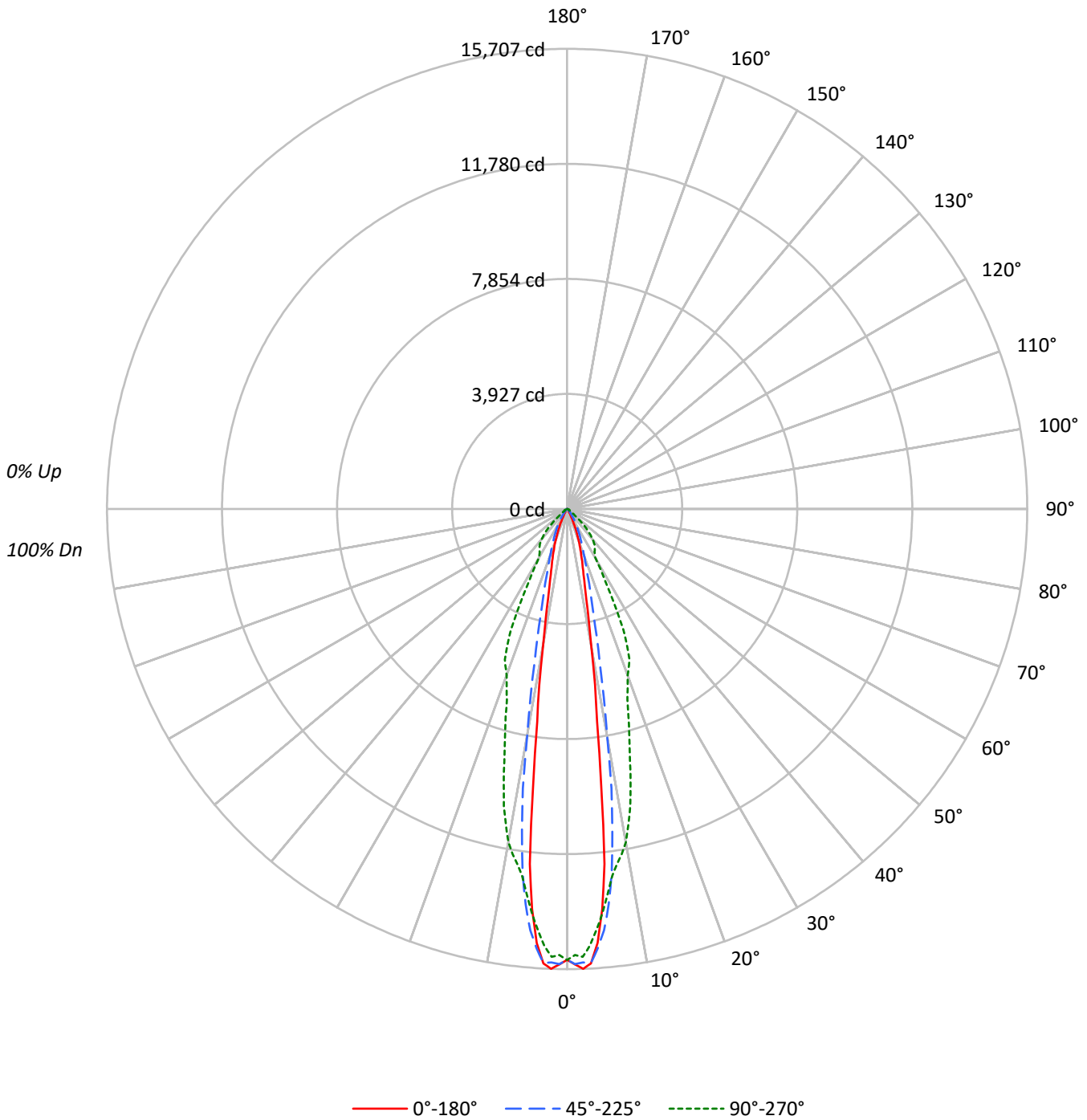
Lumens per Lamp: N/A
Luminaire Lumens: 3734.0 lumens
Efficiency: N/A
Efficacy: 98.3 lumens/watt
Spacing Criteria (0/90/45): 0.27 / 0.52 / 0.34
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	248528	248528	248528
5°	222262	233967	224335
10°	77436	128702	189428
15°	34422	53481	137225
20°	20065	28673	103773
25°	8617	18282	80819
30°	2899	11337	35688
35°	1770	5856	32485
40°	1530	3349	28547
45°	1658	2603	19961
50°	1301	1216	8766
55°	1168	1168	3502
60°	1117	1227	3236
65°	1188	1188	3037
70°	1142	977	2285
75°	861	861	1079
80°	642	642	642
85°	648	648	648



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1130.5	30.3
10°-20°	1195.4	32.0
20°-30°	740.2	19.8
30°-40°	374.5	10.0
40°-50°	185.3	5.0
50°-60°	55.2	1.5
60°-70°	34.0	0.9
70°-80°	16.1	0.4
80°-90°	2.8	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°	3066.1	82.1
0°-40°	3440.6	92.1
0°-60°	3681.1	98.6
0°-90°	3734.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3734.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	15393	15393	15393	15393	15393	
5°	13714	14010	14436	14035	13841	957
15°	2059	2285	3200	5599	8210	612
25°	484	603	1026	2459	4537	245
35°	90	98	297	1100	1648	60
45°	73	65	114	301	874	53
55°	42	41	42	60	124	37
65°	31	37	31	20	80	30
75°	14	20	14	8	17	16
85°	4	4	4	0	4	3
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°	15392.7	15392.7	15392.7	15392.7	15392.7	15392.7	15392.7	15392.7	15392.7	15392.7	15392.7
1°	15548.2	15499.9	15510.2	15572.4	15610.4	15537.9	15434.2	15354.7	15389.3	15282.2	15230.4
2°	15707.2	15669.2	15645.0	15665.7	15582.8	15489.5	15382.4	15323.6	15302.9	15247.6	15299.5
3°	15534.4	15486.0	15499.9	15548.2	15506.8	15513.7	15247.6	15068.0	15050.7	14978.1	14919.4
4°	14850.3	14884.8	14953.9	14960.8	15009.2	15023.0	14929.8	14587.7	14594.6	14459.8	14394.2
5°	13713.5	13737.7	13945.0	14031.4	14342.4	14435.7	14459.8	14045.2	14003.8	13799.9	13841.4
6°	12189.8	11744.1	12300.4	12521.5	13146.9	13571.9	13720.4	13654.8	13447.5	13212.5	13216.0
7°	9512.1	9550.1	9867.9	10479.5	11643.9	12466.2	13077.8	13212.5	12936.1	12770.3	12614.8
8°	7335.3	7494.2	7946.9	8593.0	9750.5	11080.7	12189.8	12493.9	12424.8	12258.9	12234.7
9°	6074.2	5953.2	6316.0	6830.9	7940.0	9650.3	11018.5	11664.6	11865.0	11916.9	11927.2
10°	4723.2	4864.9	5037.6	5573.2	6513.0	7850.1	9646.8	10648.8	11174.0	11467.7	11554.1
11°	3824.9	3876.7	4097.8	4602.3	5310.6	6540.6	8358.0	9487.9	10296.4	10890.7	10966.7
12°	3147.7	3192.6	3341.1	3714.3	4357.0	5334.8	6896.5	8309.7	9525.9	10220.4	10375.8
13°	2674.3	2726.1	2847.1	3137.3	3634.8	4488.3	5569.7	7100.4	8499.7	9484.4	9622.6
14°	2297.7	2356.4	2435.9	2691.6	3095.8	3700.5	4623.0	6084.5	7584.1	8689.7	8872.9
15°	2059.3	2066.2	2152.6	2328.8	2684.7	3199.5	3994.2	5217.3	6744.5	7988.3	8209.5
17.5°	1547.9	1537.5	1547.9	1686.1	1893.4	2270.0	2816.0	3876.7	5504.1	6585.5	6827.4
20°	1167.8	1171.3	1147.1	1226.6	1399.3	1668.8	2121.5	3154.6	4819.9	5901.4	6039.6
22.5°	812.0	805.1	815.4	891.4	1057.3	1306.1	1661.9	2574.1	4391.5	5445.3	5559.4
25°	483.7	494.1	535.5	625.4	787.8	1026.2	1357.9	2080.0	3596.8	4298.2	4536.6
27.5°	279.9	283.3	317.9	414.6	570.1	798.1	1116.0	1620.5	2491.2	2864.3	2926.5
30°	155.5	155.5	179.7	241.9	387.0	608.1	912.2	1344.1	1807.0	1910.7	1914.2
32.5°	103.7	103.7	110.6	141.7	238.4	442.3	742.9	1157.5	1568.6	1717.2	1741.4
35°	89.8	86.4	89.8	100.2	148.6	297.1	570.1	984.7	1444.3	1620.5	1648.1
37.5°	79.5	79.5	82.9	93.3	114.0	193.5	404.3	780.9	1278.4	1499.5	1530.6
40°	72.6	72.6	76.0	93.3	114.0	158.9	255.7	566.6	1053.8	1319.9	1354.4
42.5°	69.1	69.1	69.1	82.9	107.1	145.1	148.6	362.8	812.0	1084.9	1136.7
45°	72.6	69.1	62.2	65.6	82.9	114.0	86.4	214.2	563.2	836.1	874.2
47.5°	69.1	69.1	65.6	62.2	62.2	76.0	55.3	117.5	352.4	580.5	601.2
50°	51.8	51.8	44.9	55.3	58.7	48.4	41.5	76.0	217.7	328.2	349.0
52.5°	44.9	44.9	41.5	41.5	48.4	44.9	31.1	62.2	138.2	183.1	190.0
55°	41.5	38.0	38.0	41.5	44.9	41.5	27.6	48.4	96.7	120.9	124.4
57.5°	38.0	38.0	38.0	38.0	44.9	41.5	27.6	34.6	76.0	96.7	107.1
60°	34.6	34.6	38.0	38.0	41.5	38.0	24.2	24.2	62.2	86.4	100.2
62.5°	31.1	34.6	34.6	38.0	41.5	34.6	20.7	17.3	48.4	79.5	93.3
65°	31.1	31.1	34.6	38.0	38.0	31.1	17.3	13.8	38.0	65.6	79.5
67.5°	27.6	27.6	31.1	34.6	38.0	27.6	10.4	10.4	31.1	55.3	65.6
70°	24.2	24.2	27.6	31.1	31.1	20.7	10.4	10.4	20.7	44.9	48.4
72.5°	20.7	20.7	24.2	27.6	27.6	17.3	6.9	6.9	13.8	34.6	31.1
75°	13.8	17.3	17.3	20.7	20.7	13.8	6.9	6.9	10.4	20.7	17.3
77.5°	10.4	10.4	13.8	17.3	17.3	10.4	3.5	3.5	6.9	13.8	10.4
80°	6.9	6.9	10.4	10.4	10.4	6.9	3.5	3.5	3.5	6.9	6.9
82.5°	3.5	3.5	6.9	6.9	6.9	3.5	3.5	3.5	3.5	3.5	3.5
85°	3.5	3.5	3.5	3.5	3.5	3.5	0.0	0.0	0.0	3.5	3.5
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)