

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: P592089

Luminaire Tested: **GRZ-15L-930-17x30-X-UNV-STD-4F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P592089
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-930-17x30-X-UNV-STD-4F
Description: iO LED GRAZER WITH 17x30 OPTIC
1500 LUMENS PER FOOT, 4 FOOT FIXTURE
SUMULATED RESULTS
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

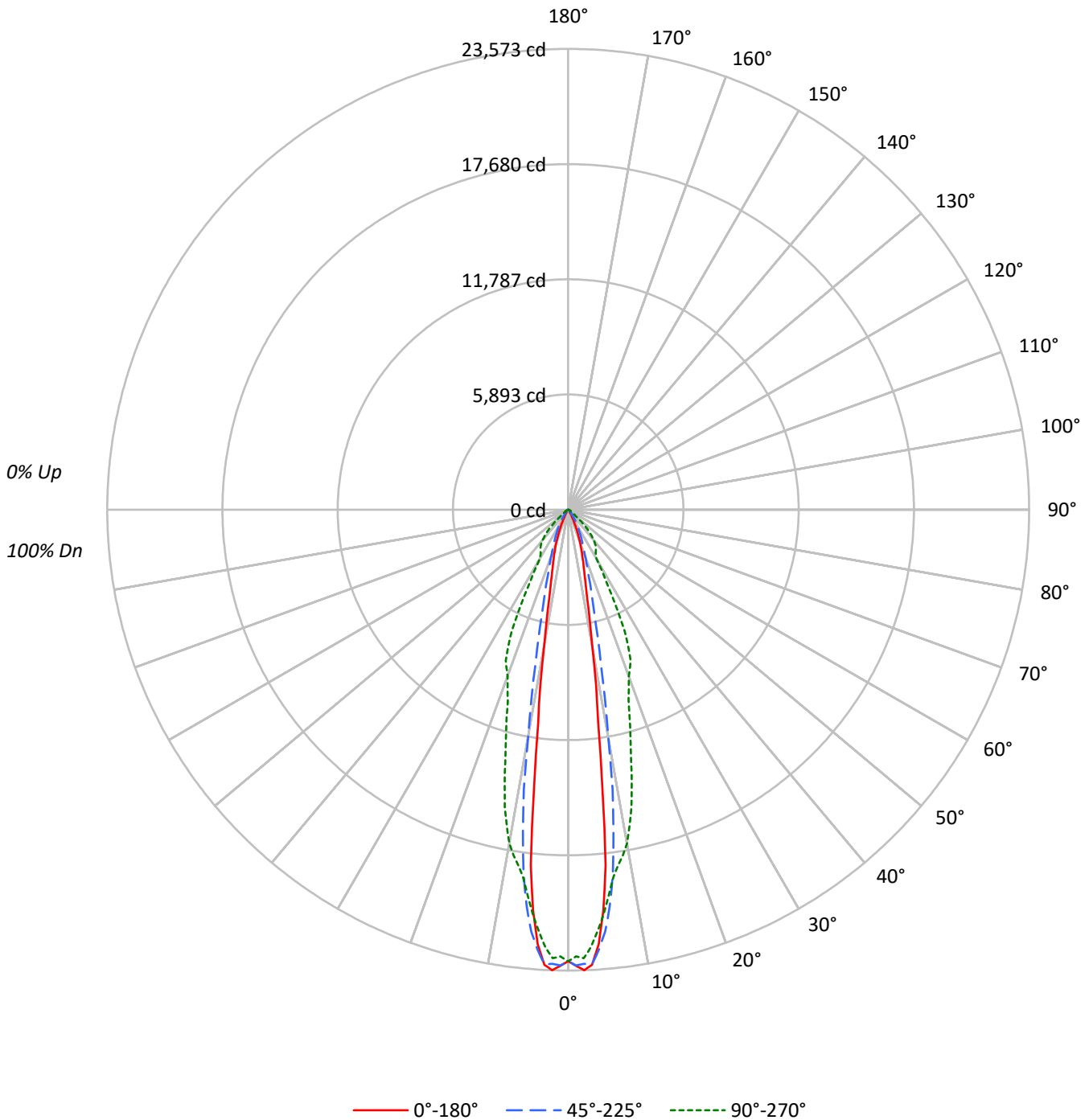
Lumens per Lamp: N/A
Luminaire Lumens: 5604.0 lumens
Efficiency: N/A
Efficacy: 100.1 lumens/watt
Spacing Criteria (0/90/45): 0.27 / 0.52 / 0.34
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')
CIE Type: Direct

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°	372993	372993	372993
5°	333572	351137	336682
10°	116217	193157	284294
15°	51661	80264	205947
20°	30115	43034	155743
25°	12934	27437	121295
30°	4350	17016	53559
35°	2657	8791	48754
40°	2295	5027	42843
45°	2487	3907	29955
50°	1954	1824	13155
55°	1751	1751	5255
60°	1676	1841	4857
65°	1784	1784	4558
70°	1714	1468	3427
75°	1291	1291	1616
80°	967	967	967
85°	963	963	963



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1696.6	30.3
10°-20°	1794.1	32.0
20°-30°	1110.9	19.8
30°-40°	562.0	10.0
40°-50°	278.1	5.0
50°-60°	82.8	1.5
60°-70°	51.0	0.9
70°-80°	24.1	0.4
80°-90°	4.2	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°	4601.6	82.1
0°-40°	5163.7	92.1
0°-60°	5524.6	98.6
0°-90°	5604.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5604.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	23102	23102	23102	23102	23102	
5°	20581	21026	21665	21064	20773	1436
15°	3091	3429	4802	8403	12321	919
25°	726	905	1540	3691	6809	368
35°	135	146	446	1650	2474	90
45°	109	97	171	452	1312	79
55°	62	61	62	91	187	56
65°	47	56	47	30	119	44
75°	21	30	21	12	26	24
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°	23101.5	23101.5	23101.5	23101.5	23101.5	23101.5	23101.5	23101.5	23101.5	23101.5	23101.5
1°	23334.8	23262.2	23277.8	23371.1	23428.2	23319.3	23163.7	23044.4	23096.3	22935.5	22857.8
2°	23573.4	23516.3	23480.0	23511.1	23386.7	23246.7	23085.9	22997.8	22966.7	22883.7	22961.5
3°	23314.1	23241.5	23262.2	23334.8	23272.6	23283.0	22883.7	22614.0	22588.1	22479.2	22391.1
4°	22287.4	22339.2	22442.9	22453.3	22525.9	22546.6	22406.6	21893.3	21903.6	21701.4	21602.9
5°	20581.3	20617.6	20928.7	21058.4	21525.1	21665.1	21701.4	21079.1	21016.9	20711.0	20773.2
6°	18294.5	17625.6	18460.4	18792.3	19730.9	20368.7	20591.7	20493.2	20182.0	19829.4	19834.6
7°	14275.7	14332.8	14809.8	15727.7	17475.2	18709.3	19627.2	19829.4	19414.6	19165.7	18932.3
8°	11008.9	11247.4	11926.7	12896.4	14633.5	16630.0	18294.5	18750.8	18647.1	18398.2	18361.9
9°	9116.1	8934.6	9479.1	10251.8	11916.3	14483.2	16536.6	17506.3	17807.1	17884.9	17900.4
10°	7088.6	7301.2	7560.5	8364.2	9774.7	11781.5	14478.0	15981.8	16770.0	17210.7	17340.4
11°	5740.4	5818.2	6150.0	6907.1	7970.1	9816.2	12543.8	14239.4	15452.8	16344.8	16458.8
12°	4724.0	4791.4	5014.4	5574.4	6538.9	8006.4	10350.3	12471.2	14296.5	15338.8	15572.1
13°	4013.6	4091.4	4272.9	4708.5	5455.2	6736.0	8359.1	10656.2	12756.4	14234.2	14441.7
14°	3448.4	3536.5	3655.8	4039.5	4646.2	5553.7	6938.2	9131.7	11382.2	13041.6	13316.4
15°	3090.6	3100.9	3230.6	3495.0	4029.1	4801.8	5994.5	7830.1	10122.1	11988.9	12320.8
17.5°	2323.1	2307.6	2323.1	2530.5	2841.7	3406.9	4226.2	5818.2	8260.5	9883.6	10246.6
20°	1752.7	1757.9	1721.6	1840.9	2100.1	2504.6	3183.9	4734.4	7233.8	8856.9	9064.3
22.5°	1218.6	1208.2	1223.8	1337.9	1586.8	1960.1	2494.2	3863.2	6590.8	8172.4	8343.5
25°	726.0	741.5	803.8	938.6	1182.3	1540.1	2037.9	3121.7	5398.1	6450.8	6808.6
27.5°	420.0	425.2	477.1	622.3	855.6	1197.9	1674.9	2432.0	3738.8	4298.8	4392.1
30°	233.3	233.3	269.6	363.0	580.8	912.7	1369.0	2017.2	2712.0	2867.6	2872.8
32.5°	155.6	155.6	165.9	212.6	357.8	663.7	1114.9	1737.1	2354.2	2577.2	2613.5
35°	134.8	129.6	134.8	150.4	223.0	446.0	855.6	1477.9	2167.5	2432.0	2473.5
37.5°	119.3	119.3	124.5	140.0	171.1	290.4	606.7	1171.9	1918.6	2250.5	2297.2
40°	108.9	108.9	114.1	140.0	171.1	238.5	383.7	850.4	1581.6	1980.9	2032.7
42.5°	103.7	103.7	103.7	124.5	160.8	217.8	223.0	544.5	1218.6	1628.3	1706.0
45°	108.9	103.7	93.3	98.5	124.5	171.1	129.6	321.5	845.2	1254.9	1311.9
47.5°	103.7	103.7	98.5	93.3	93.3	114.1	83.0	176.3	528.9	871.2	902.3
50°	77.8	77.8	67.4	83.0	88.2	72.6	62.2	114.1	326.7	492.6	523.7
52.5°	67.4	67.4	62.2	62.2	72.6	67.4	46.7	93.3	207.4	274.8	285.2
55°	62.2	57.0	57.0	62.2	67.4	62.2	41.5	72.6	145.2	181.5	186.7
57.5°	57.0	57.0	57.0	57.0	67.4	62.2	41.5	51.9	114.1	145.2	160.8
60°	51.9	51.9	57.0	57.0	62.2	57.0	36.3	36.3	93.3	129.6	150.4
62.5°	46.7	51.9	51.9	57.0	62.2	51.9	31.1	25.9	72.6	119.3	140.0
65°	46.7	46.7	51.9	57.0	57.0	46.7	25.9	20.7	57.0	98.5	119.3
67.5°	41.5	41.5	46.7	51.9	57.0	41.5	15.6	15.6	46.7	83.0	98.5
70°	36.3	36.3	41.5	46.7	46.7	31.1	15.6	15.6	31.1	67.4	72.6
72.5°	31.1	31.1	36.3	41.5	41.5	25.9	10.4	10.4	20.7	51.9	46.7
75°	20.7	25.9	25.9	31.1	31.1	20.7	10.4	10.4	15.6	31.1	25.9
77.5°	15.6	15.6	20.7	25.9	25.9	15.6	5.2	5.2	10.4	20.7	15.6
80°	10.4	10.4	15.6	15.6	15.6	10.4	5.2	5.2	5.2	10.4	10.4
82.5°	5.2	5.2	10.4	10.4	10.4	5.2	5.2	5.2	5.2	5.2	5.2
85°	5.2	5.2	5.2	5.2	5.2	5.2	0.0	0.0	0.0	5.2	5.2
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)