

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: P591952

Luminaire Tested: **GRZ-05L-930-10x10-X-UNV-STD-2F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P591952
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-05L-930-10x10-X-UNV-STD-2F
Description: iO LED GRAZER WITH 10x10 OPTIC
500 LUMENS PER FOOT, 2 FOOT FIXTURE
SCALED BASED ON PHOTOMETRIC TESTING
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

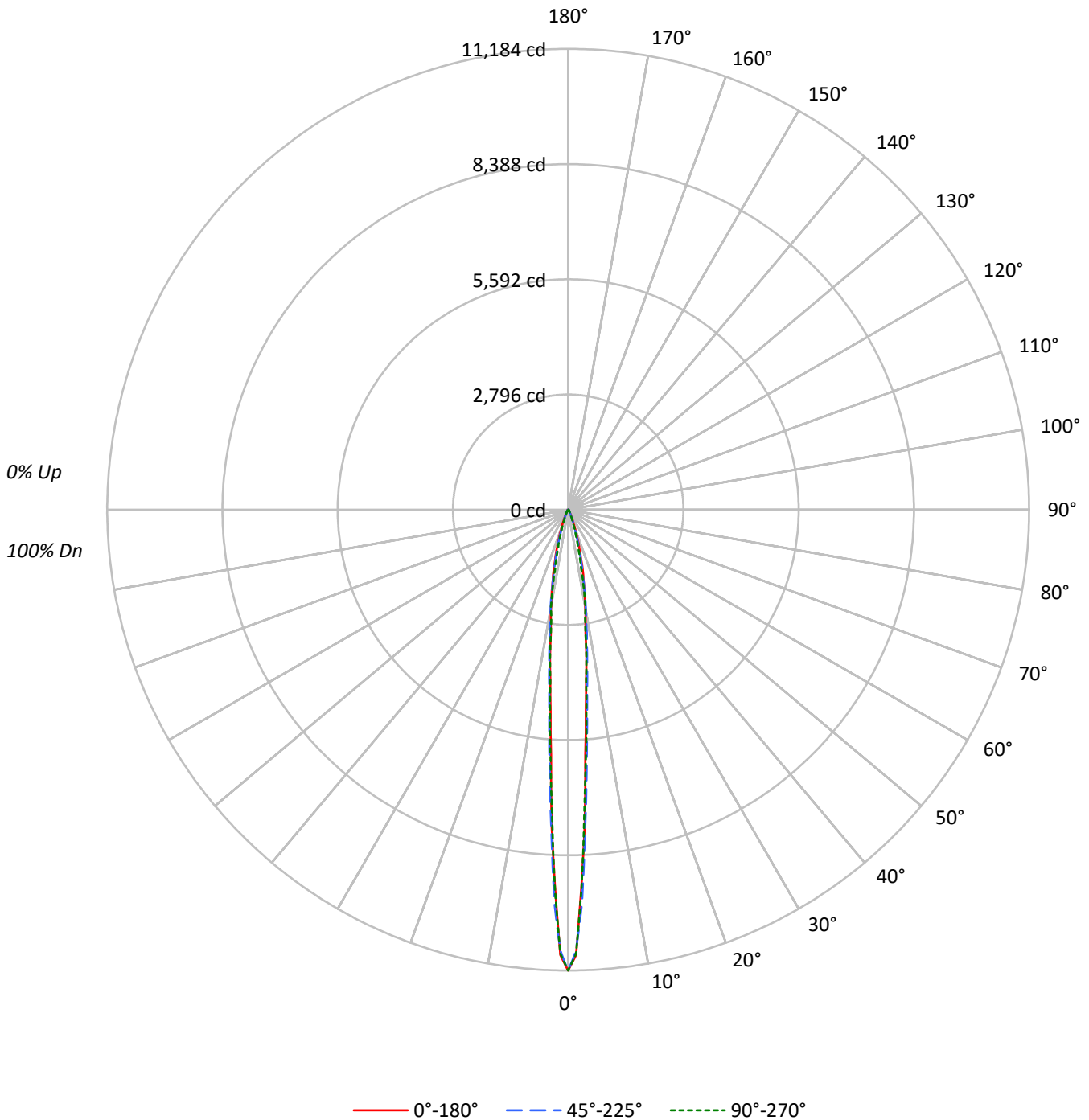
Lumens per Lamp: N/A
Luminaire Lumens: 895.0 lumens
Efficiency: N/A
Efficacy: 93.2 lumens/watt
Spacing Criteria (0/90/45): 0.15 / 0.16 / 0.22
Luminous Opening: Rectangular (W 2' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 9.6
Input Voltage (V): 120
Input Current (Ain): 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	115	113	111	109	113	111	109	107	107	105	104	103	102	101	100	99	98	96
2	111	107	104	102	109	106	103	101	103	100	99	100	98	96	97	96	95	93
3	108	103	99	96	106	102	98	96	99	96	94	97	95	93	95	93	91	90
4	104	99	95	92	103	98	94	92	96	93	91	94	92	90	93	90	89	87
5	102	96	92	89	100	95	91	88	93	90	88	92	89	87	90	88	86	85
6	99	93	89	86	98	92	88	86	91	88	85	90	87	85	88	86	84	83
7	96	90	86	83	95	90	86	83	89	85	83	88	85	82	87	84	82	81
8	94	88	84	81	93	87	84	81	86	83	81	86	83	80	85	82	80	79
9	92	86	82	79	91	85	82	79	85	81	79	84	81	79	83	80	78	78
10	90	84	80	77	89	83	80	77	83	79	77	82	79	77	82	79	77	76

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	361144	361144	361144
5°	159035	169767	163965
10°	78374	80686	79066
15°	39535	36430	31395
20°	16588	14051	11935
25°	6727	5630	4739
30°	3210	2864	2536
35°	2026	1774	1407
40°	1442	1319	991
45°	1297	1137	827
50°	1231	1080	638
55°	1103	963	552
60°	885	756	536
65°	856	749	558
70°	878	736	510
75°	798	736	487
80°	725	632	446
85°	556	556	371



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	420.3	47.0
10°-20°	310.8	34.7
20°-30°	84.8	9.5
30°-40°	30.0	3.4
40°-50°	18.9	2.1
50°-60°	14.0	1.6
60°-70°	9.2	1.0
70°-80°	5.6	0.6
80°-90°	1.5	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°	815.9	91.2
0°-40°	845.9	94.5
0°-60°	878.8	98.2
0°-90°	895.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	895.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	11184	11184	11184	11184	11184	
5°	4906	5123	5237	5043	5058	407
15°	1183	1168	1090	964	939	335
25°	189	185	158	140	133	100
35°	51	50	45	41	36	33
45°	28	27	25	21	18	22
55°	20	19	17	13	10	18
65°	11	10	10	8	7	11
75°	6	5	6	5	4	7
85°	2	1	2	1	1	2
90°	0	0	0	0	0	



TEST NUMBER: P591952

CATALOG NUMBER: GRZ-05L-930-10x10-X-UNV-STD-2F

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	11183.8	11183.8	11183.8	11183.8	11183.8
1°	10809.6	10593.4	10719.1	10714.2	10776.8
2°	9145.2	9822.1	9558.5	9529.6	9229.3
3°	7651.0	7950.3	7783.1	7881.4	7410.9
4°	5957.2	6330.9	6388.1	6259.5	6093.7
5°	4906.2	5122.8	5237.3	5043.1	5058.3
6°	4132.4	4406.8	4389.7	4395.1	4177.4
7°	3620.3	3763.1	3783.7	3659.5	3600.3
8°	3034.4	3280.4	3261.3	3167.9	3035.4
9°	2704.7	2855.9	2831.9	2665.1	2616.7
10°	2390.2	2473.4	2460.7	2277.3	2411.3
12.5°	1721.1	1729.0	1644.8	1545.1	1465.3
15°	1182.6	1167.5	1089.7	964.5	939.1
17.5°	776.7	778.6	673.5	579.1	564.4
20°	482.7	485.7	408.9	356.6	347.3
22.5°	303.7	290.5	243.1	221.1	215.2
25°	188.8	185.4	158.0	139.9	133.0
27.5°	127.7	125.2	102.7	94.4	93.9
30°	86.1	89.5	76.8	69.9	68.0
32.5°	65.1	65.1	59.7	54.8	49.4
35°	51.4	50.4	45.0	41.1	35.7
37.5°	39.1	41.1	36.2	33.3	27.9
40°	34.2	34.2	31.3	27.4	23.5
42.5°	30.3	31.3	27.4	23.5	19.6
45°	28.4	27.4	24.9	21.0	18.1
47.5°	25.9	25.4	23.0	18.6	15.7
50°	24.5	23.5	21.5	16.6	12.7
52.5°	23.0	21.5	19.6	14.7	10.8
55°	19.6	18.6	17.1	12.7	9.8
57.5°	17.1	15.2	14.2	10.8	8.8
60°	13.7	12.2	11.7	9.8	8.3
62.5°	12.2	11.2	10.8	9.3	7.8
65°	11.2	9.8	9.8	8.3	7.3
67.5°	10.3	8.8	8.8	7.3	6.4
70°	9.3	7.8	7.8	6.4	5.4
72.5°	7.8	6.4	6.8	5.4	4.9
75°	6.4	5.4	5.9	4.9	3.9
77.5°	5.4	4.4	4.4	3.9	2.9
80°	3.9	3.4	3.4	2.9	2.4
82.5°	2.4	2.0	2.4	2.0	1.5
85°	1.5	1.0	1.5	1.0	1.0
87.5°	0.5	0.5	0.5	0.5	0.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)