Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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: P591940

Luminaire Tested: **GRZ-05L-927-10x30-X-UNV-STD-2F**

Issue Date: 2/2/2022

Report Generated By 670245626 / DESKTOP-25HFRC3

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Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P591940
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2111-457-17)
Test Lab:	INNOVATION CENTER
Issue Date:	2/2/2022
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	iO LED
Catalog Number:	GRZ-05L-927-10x30-X-UNV-STD-2F
Description:	iO LED GRAZER WITH 10x30 OPTIC
	500 LUMENS PER FOOT, 2 FOOT FIXTURE
	SUMULATED RESULTS
Light Source:	2700K CCT, 90 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	959.0 lumens
Efficiency:	N/A
Efficacy:	99.9 lumens/watt
Spacing Criteria (0/90/45):	0.16 / 0.44 / 0.26
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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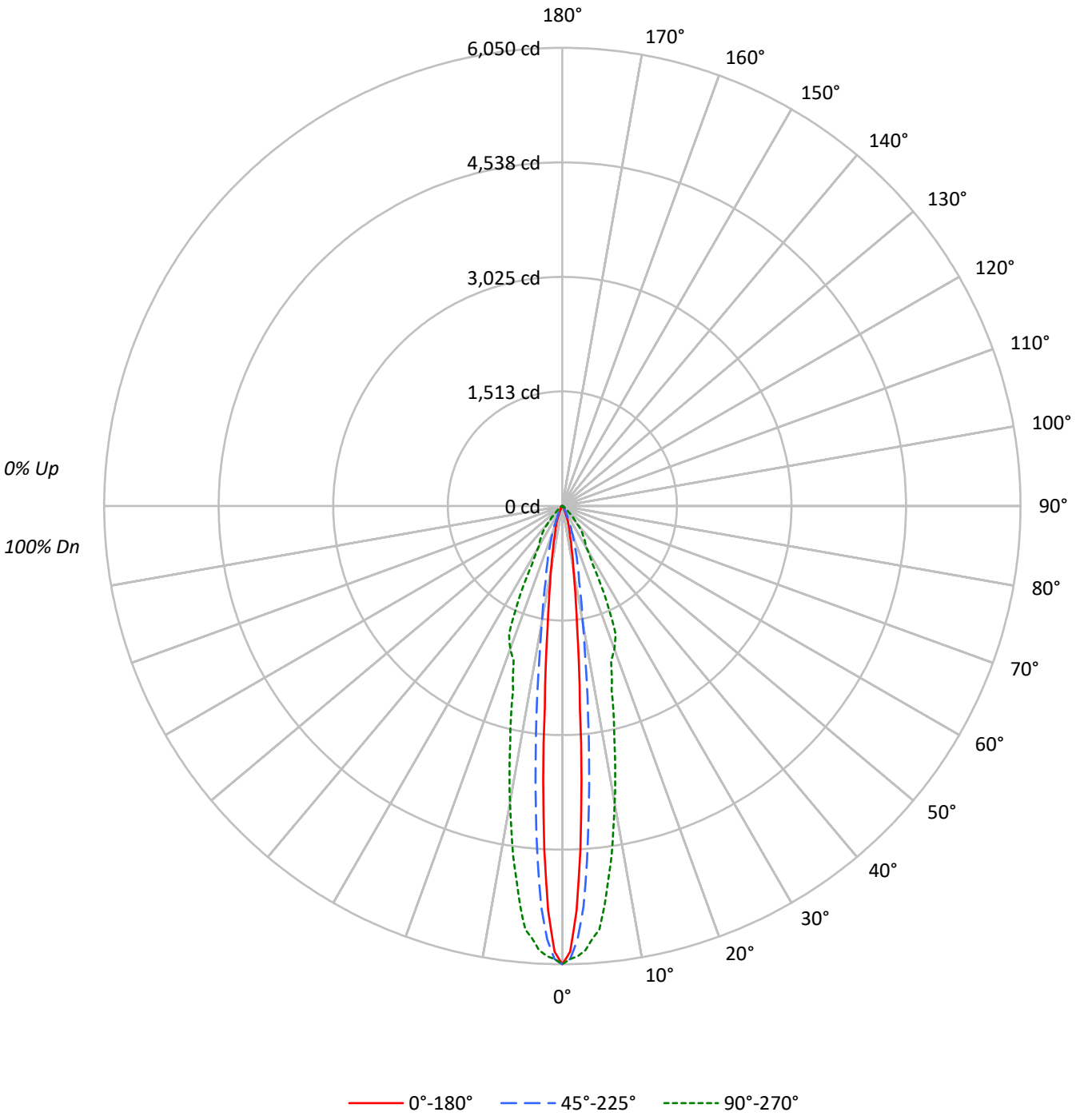
Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			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	106	102	100	108	104	101	99	101	99	96	98	96	94	95	94	92	91
3	106	100	96	93	104	99	95	92	97	93	91	94	92	90	92	90	88	87
4	102	96	91	88	100	95	91	87	93	89	86	91	88	85	89	86	84	83
5	98	92	87	83	97	91	86	83	89	85	82	87	84	82	86	83	81	80
6	95	88	83	80	94	87	83	79	86	82	79	84	81	78	83	80	78	77
7	92	84	80	76	91	84	79	76	83	79	76	82	78	75	81	77	75	74
8	89	81	77	73	88	81	76	73	80	76	73	79	75	73	78	75	72	71
9	86	79	74	71	85	78	74	71	77	73	71	77	73	70	76	73	70	69
10	84	76	72	69	83	76	71	68	75	71	68	74	71	68	74	70	68	67

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	195371	195371	195371
5°	86532	129929	181994
10°	28075	50690	130487
15°	12249	25043	84125
20°	6900	12807	69055
25°	2469	5679	48888
30°	1510	2920	23633
35°	1135	1880	18954
40°	911	1366	12524
45°	781	822	6375
50°	904	497	2984
55°	963	405	1469
60°	814	349	872
65°	688	413	688
70°	595	425	595
75°	449	337	449
80°	335	335	335
85°	333	333	333

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	321.8	33.6
10°-20°	314.3	32.8
20°-30°	176.1	18.4
30°-40°	79.5	8.3
40°-50°	40.2	4.2
50°-60°	15.0	1.6
60°-70°	7.4	0.8
70°-80°	3.9	0.4
80°-90°	0.7	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°	812.2	84.7
0°-40°	891.7	93.0
0°-60°	946.9	98.7
0°-90°	959.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	959.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6050	6050	6050	6050	6050	
5°	2670	3061	4008	5145	5614	204
15°	366	452	749	1638	2516	113
25°	69	77	159	595	1372	39
35°	29	20	48	190	481	18
45°	17	15	18	86	140	14
55°	17	8	7	26	26	15
65°	9	7	5	8	9	9
75°	4	4	3	3	4	4
85°	1	1	1	0	1	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°	6050.2	6050.2	6050.2	6050.2	6050.2	6050.2	6050.2	6050.2	6050.2	6050.2	6050.2
1°	5885.5	5886.4	5930.5	5901.7	5971.9	5981.8	5972.8	5989.0	5993.5	5968.3	5981.8
2°	5347.1	5363.3	5389.4	5540.6	5610.0	5722.5	5817.0	5898.1	5933.2	5947.6	5945.8
3°	4552.1	4541.3	4670.0	4815.0	5063.5	5299.3	5531.6	5684.7	5819.7	5862.9	5871.0
4°	3625.6	3583.3	3803.9	3926.3	4262.2	4686.2	5100.4	5430.8	5653.2	5745.0	5723.4
5°	2669.5	2744.2	2898.2	3115.1	3481.6	4008.3	4562.0	5057.2	5408.3	5563.1	5614.5
6°	2079.8	2065.4	2189.6	2454.3	2824.3	3389.7	4022.7	4643.9	5080.6	5266.9	5311.0
7°	1604.4	1595.4	1718.7	1906.9	2217.5	2799.1	3499.6	4225.2	4760.9	4971.6	4969.8
8°	1271.3	1265.9	1351.4	1499.9	1793.5	2285.0	2981.9	3764.3	4378.3	4661.9	4661.9
9°	1027.3	1039.0	1091.2	1222.6	1454.0	1865.5	2548.8	3373.5	4003.8	4281.1	4305.4
10°	856.2	862.5	904.8	1012.9	1205.5	1545.9	2141.9	2918.9	3634.6	3985.8	3979.5
12.5°	555.5	569.0	599.6	668.9	809.4	1021.9	1423.4	2046.4	2770.3	3121.4	3180.9
15°	366.4	369.1	406.9	467.3	578.9	749.1	1030.0	1494.5	2068.1	2466.0	2516.4
17.5°	273.7	276.4	285.4	321.4	403.3	548.3	776.1	1136.2	1680.9	2082.5	2140.1
20°	200.8	191.8	189.1	209.8	273.7	372.7	566.3	885.9	1364.0	1906.0	2009.5
22.5°	117.0	115.2	110.7	127.8	176.5	244.9	385.3	661.7	1153.3	1697.1	1840.3
25°	69.3	67.5	66.6	81.0	110.7	159.4	262.9	500.6	877.8	1247.9	1372.1
27.5°	50.4	48.6	44.1	50.4	72.9	109.8	185.5	361.9	602.3	802.2	869.7
30°	40.5	38.7	30.6	33.3	50.4	78.3	135.9	250.3	427.7	596.0	633.8
32.5°	34.2	32.4	23.4	24.3	35.1	59.4	106.2	192.7	345.7	515.9	558.2
35°	28.8	27.0	18.9	19.8	27.0	47.7	87.3	158.5	283.6	443.9	480.8
37.5°	24.3	22.5	16.2	17.1	23.4	39.6	79.2	136.9	235.0	364.6	400.6
40°	21.6	19.8	14.4	16.2	21.6	32.4	70.2	116.1	192.7	281.8	297.1
42.5°	18.9	17.1	14.4	16.2	19.8	25.2	51.3	92.7	156.7	202.6	215.2
45°	17.1	16.2	13.5	15.3	17.1	18.0	32.4	72.0	126.0	139.6	139.6
47.5°	18.0	16.2	12.6	13.5	13.5	13.5	19.8	56.7	98.1	94.5	91.8
50°	18.0	15.3	11.7	10.8	10.8	9.9	13.5	44.1	72.9	60.3	59.4
52.5°	18.0	15.3	10.8	9.9	9.0	8.1	9.9	33.3	51.3	38.7	38.7
55°	17.1	14.4	9.0	8.1	7.2	7.2	8.1	23.4	35.1	27.0	26.1
57.5°	15.3	12.6	8.1	7.2	7.2	6.3	6.3	15.3	27.0	20.7	18.0
60°	12.6	10.8	7.2	7.2	7.2	5.4	5.4	9.9	21.6	15.3	13.5
62.5°	10.8	9.0	7.2	7.2	7.2	5.4	4.5	7.2	18.0	12.6	10.8
65°	9.0	7.2	6.3	7.2	7.2	5.4	3.6	5.4	15.3	9.9	9.0
67.5°	7.2	6.3	5.4	6.3	6.3	4.5	2.7	3.6	12.6	8.1	7.2
70°	6.3	5.4	4.5	5.4	6.3	4.5	2.7	3.6	9.9	6.3	6.3
72.5°	4.5	4.5	4.5	5.4	5.4	3.6	1.8	2.7	8.1	5.4	5.4
75°	3.6	3.6	3.6	4.5	4.5	2.7	1.8	1.8	6.3	4.5	3.6
77.5°	2.7	2.7	2.7	3.6	3.6	1.8	0.9	1.8	4.5	2.7	2.7
80°	1.8	1.8	1.8	2.7	2.7	1.8	0.9	0.9	2.7	1.8	1.8
82.5°	0.9	0.9	0.9	1.8	1.8	0.9	0.9	0.9	0.9	0.9	0.9
85°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.9	0.9	0.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)