

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: P592080

Luminaire Tested: **GRZ-15L-930-10x10-X-UNV-STD-2F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P592080
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-15L-930-10x10-X-UNV-STD-2F
Description: iO LED GRAZER WITH 10x10 OPTIC
1500 LUMENS PER FOOT, 2 FOOT FIXTURE
SCALED BASED ON PHOTOMETRIC TESTING
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

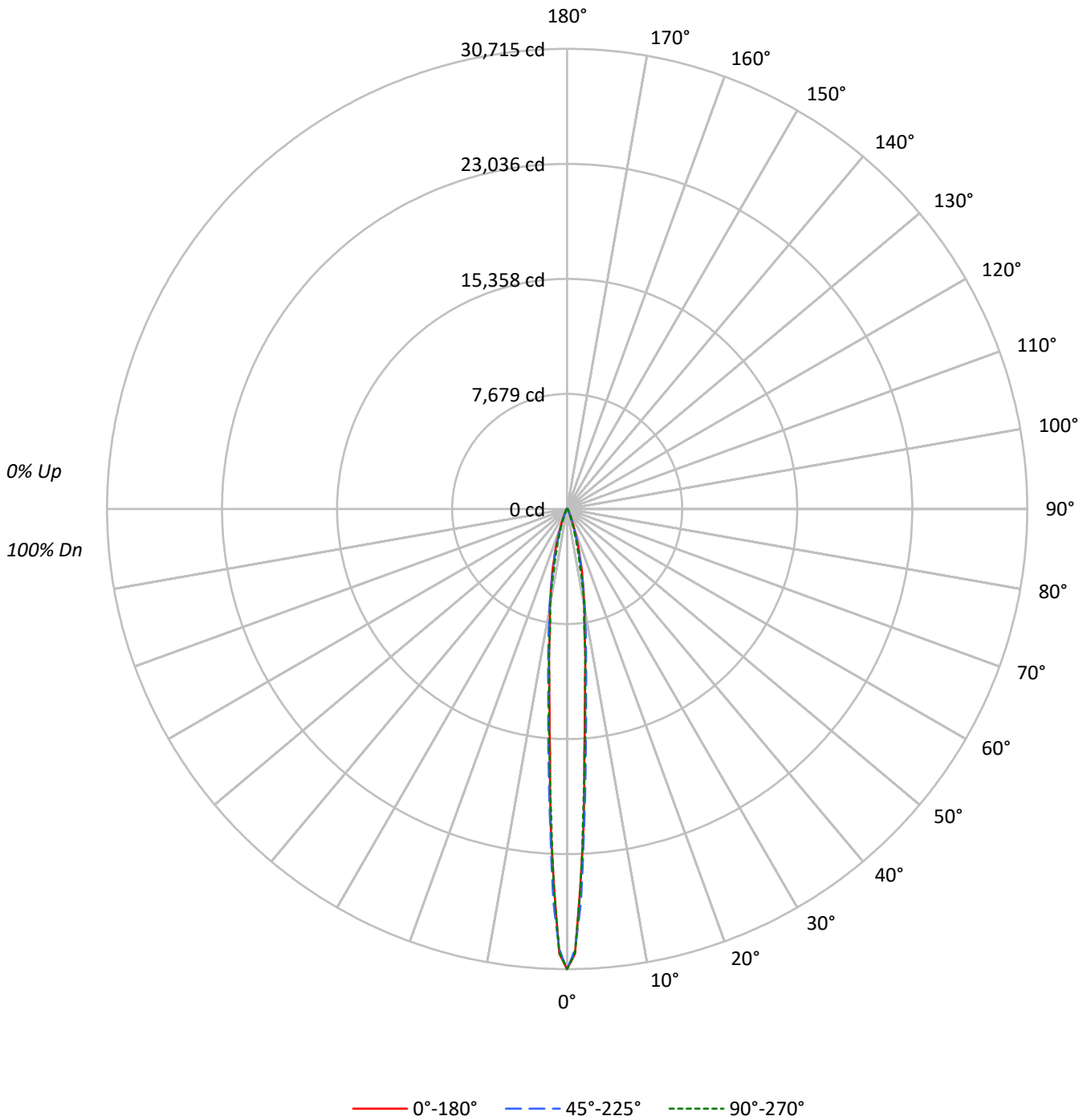
Lumens per Lamp: N/A
Luminaire Lumens: 2458.0 lumens
Efficiency: N/A
Efficacy: 84.8 lumens/watt
Spacing Criteria (0/90/45): 0.15 / 0.16 / 0.22
Luminous Opening: Rectangular (W 2' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 29
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							
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10				
RCR																								
0	119	119	119	119	116	116	116	116	111	111	111	111	106	106	106	106	102	102	102	102	100	100	100	100
1	115	113	111	109	113	111	109	107	107	105	104	104	103	102	101	101	100	99	98	98	96	96	96	96
2	111	107	104	102	109	106	103	101	103	100	99	99	100	98	96	96	97	96	95	95	93	93	93	93
3	108	103	99	96	106	102	98	96	99	96	94	94	97	95	93	93	95	93	91	91	90	90	90	90
4	104	99	95	92	103	98	94	92	96	93	91	91	94	92	90	90	93	90	89	89	87	87	87	87
5	102	96	92	89	100	95	91	88	93	90	88	88	92	89	87	87	90	88	86	86	85	85	85	85
6	99	93	89	86	98	92	88	86	91	88	85	85	90	87	85	85	88	86	84	84	83	83	83	83
7	96	90	86	83	95	90	86	83	89	85	83	83	88	85	82	82	87	84	82	82	81	81	81	81
8	94	88	84	81	93	87	84	81	86	83	81	81	86	83	80	80	85	82	80	80	79	79	79	79
9	92	86	82	79	91	85	82	79	85	81	79	79	84	81	79	79	83	80	78	78	78	78	78	78
10	90	84	80	77	89	83	80	77	83	79	77	77	82	79	77	77	82	79	77	77	76	76	76	76

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	991833	991833	991833
5°	436763	466242	450306
10°	215249	221590	217141
15°	108583	100052	86218
20°	45560	38591	32773
25°	18474	15460	13019
30°	8815	7864	6962
35°	5558	4872	3867
40°	3962	3625	2719
45°	3557	3128	2270
50°	3376	2969	1753
55°	3023	2646	1514
60°	2428	2080	1473
65°	2361	2055	1536
70°	2408	2030	1397
75°	2183	2009	1335
80°	1990	1748	1246
85°	1482	1482	1000



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1154.3	47.0
10°-20°	853.6	34.7
20°-30°	232.9	9.5
30°-40°	82.3	3.3
40°-50°	51.9	2.1
50°-60°	38.5	1.6
60°-70°	25.3	1.0
70°-80°	15.3	0.6
80°-90°	4.0	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°	2240.8	91.2
0°-40°	2323.1	94.5
0°-60°	2413.5	98.2
0°-90°	2458.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2458.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	30715	30715	30715	30715	30715	
5°	13474	14069	14384	13850	13892	1119
15°	3248	3206	2993	2649	2579	921
25°	518	509	434	384	365	273
35°	141	138	124	113	98	91
45°	78	75	68	58	50	60
55°	54	51	47	35	27	48
65°	31	27	27	23	20	31
75°	18	15	16	13	11	19
85°	4	3	4	3	3	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	30714.8	30714.8	30714.8	30714.8	30714.8
1°	29687.2	29093.5	29438.7	29425.2	29597.2
2°	25116.1	26975.2	26251.1	26171.9	25347.1
3°	21012.5	21834.5	21375.1	21645.1	20352.9
4°	16360.8	17387.0	17544.2	17190.9	16735.6
5°	13474.1	14069.2	14383.5	13850.3	13891.9
6°	11349.1	12102.7	12055.7	12070.4	11472.7
7°	9942.7	10335.0	10391.4	10050.2	9887.7
8°	8333.5	9009.2	8956.8	8700.2	8336.2
9°	7428.2	7843.2	7777.4	7319.4	7186.4
10°	6564.5	6792.8	6757.9	6254.2	6622.2
12.5°	4726.9	4748.4	4517.4	4243.3	4024.4
15°	3248.0	3206.3	2992.8	2648.9	2579.0
17.5°	2133.1	2138.5	1849.7	1590.4	1550.1
20°	1325.8	1333.8	1123.0	979.2	953.7
22.5°	834.2	797.9	667.6	607.1	591.0
25°	518.5	509.1	433.9	384.2	365.4
27.5°	350.6	343.9	282.1	259.2	257.9
30°	236.4	245.8	210.9	192.1	186.7
32.5°	178.7	178.7	163.9	150.4	135.7
35°	141.0	138.4	123.6	112.8	98.1
37.5°	107.5	112.8	99.4	91.3	76.6
40°	94.0	94.0	86.0	75.2	64.5
42.5°	83.3	86.0	75.2	64.5	53.7
45°	77.9	75.2	68.5	57.8	49.7
47.5°	71.2	69.8	63.1	51.0	43.0
50°	67.2	64.5	59.1	45.7	34.9
52.5°	63.1	59.1	53.7	40.3	29.6
55°	53.7	51.0	47.0	34.9	26.9
57.5°	47.0	41.6	39.0	29.6	24.2
60°	37.6	33.6	32.2	26.9	22.8
62.5°	33.6	30.9	29.6	25.5	21.5
65°	30.9	26.9	26.9	22.8	20.1
67.5°	28.2	24.2	24.2	20.1	17.5
70°	25.5	21.5	21.5	17.5	14.8
72.5°	21.5	17.5	18.8	14.8	13.4
75°	17.5	14.8	16.1	13.4	10.7
77.5°	14.8	12.1	12.1	10.7	8.1
80°	10.7	9.4	9.4	8.1	6.7
82.5°	6.7	5.4	6.7	5.4	4.0
85°	4.0	2.7	4.0	2.7	2.7
87.5°	1.3	1.3	1.3	1.3	1.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)