

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: P592029

Luminaire Tested: **GRZ-10L-930-50x60-X-UNV-STD-4F**

Issue Date: 2/2/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P592029  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2111-457-22)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/2/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: iO LED  
Catalog Number: GRZ-10L-930-50x60-X-UNV-STD-4F  
Description: iO LED GRAZER WITH 50x60 OPTIC  
1000 LUMENS PER FOOT, 4 FOOT FIXTURE  
SUMULATED RESULTS  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

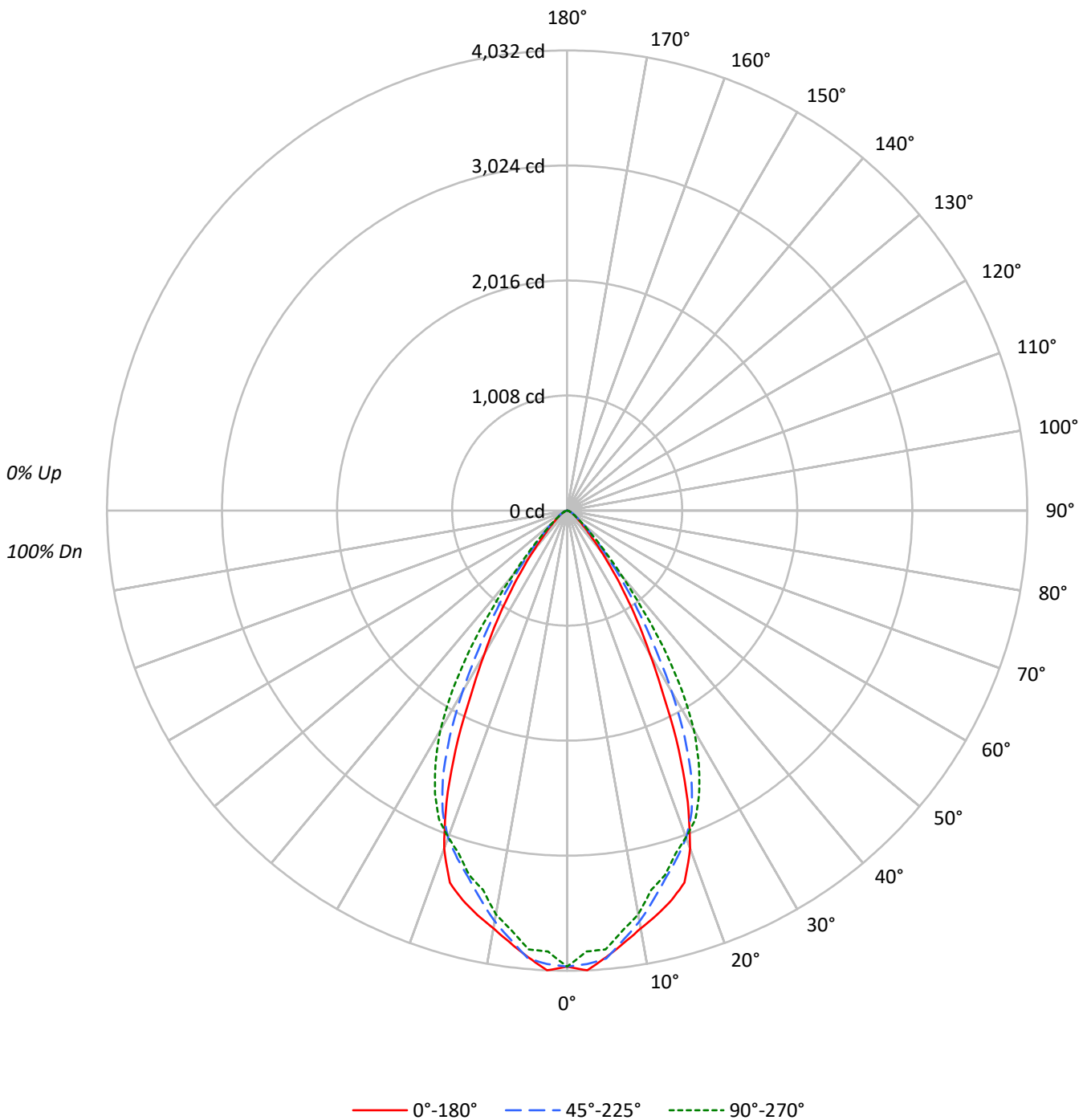
Lumens per Lamp: N/A  
Luminaire Lumens: 3686.0 lumens  
Efficiency: N/A  
Efficacy: 97.0 lumens/watt  
Spacing Criteria (0/90/45): 0.87 / 0.95 / 0.87  
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')  
CIE Type: Direct

Input Watts (W): 38  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	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					100			
1	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93					93			
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	86					86			
3	101	95	89	85	99	93	88	85	91	87	83	88	85	82	86	83	81	79					79			
4	96	88	82	78	94	87	81	77	85	80	76	83	79	75	81	77	75	73					73			
5	91	82	76	71	89	81	75	71	79	74	70	78	73	70	76	72	69	68					68			
6	86	77	70	66	84	76	70	66	74	69	65	73	68	65	72	68	64	63					63			
7	82	72	66	61	80	71	65	61	70	65	61	69	64	60	67	63	60	59					59			
8	77	67	61	57	76	67	61	57	66	60	57	65	60	56	64	59	56	55					55			
9	74	64	57	53	72	63	57	53	62	57	53	61	56	53	60	56	53	51					51			
10	70	60	54	50	69	60	54	50	59	53	50	58	53	50	57	53	49	48					48			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	64514	64514	64514
5°	63657	63832	62553
10°	60927	59928	58869
15°	59062	55707	55288
20°	54123	52398	52337
25°	41242	45902	48776
30°	26992	34207	41422
35°	16882	21896	29171
40°	9592	12992	15711
45°	5318	7446	7773
50°	3421	4320	4230
55°	2522	2925	2624
60°	1850	2083	1850
65°	1505	1643	1368
70°	1015	1185	1185
75°	674	892	892
80°	669	669	669
85°	667	667	667



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	363.8	9.9
10°-20°	942.0	25.6
20°-30°	1136.1	30.8
30°-40°	775.5	21.0
40°-50°	309.1	8.4
50°-60°	100.3	2.7
60°-70°	40.5	1.1
70°-80°	15.5	0.4
80°-90°	3.2	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°	2441.9	66.2
0°-40°	3217.4	87.3
0°-60°	3626.8	98.4
0°-90°	3686.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3686.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3996	3996	3996	3996	3996	
5°	3928	3924	3938	3870	3860	368
15°	3533	3412	3333	3283	3308	986
25°	2315	2301	2577	2659	2738	1042
35°	856	1079	1111	1584	1480	549
45°	233	448	326	441	340	195
55°	90	122	104	100	93	82
65°	39	39	43	39	36	38
75°	11	14	14	14	14	13
85°	4	4	4	4	4	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3995.7	3995.7	3995.7	3995.7	3995.7
2.5°	4031.5	3992.1	3977.8	3959.9	3866.7
5°	3927.6	3924.0	3938.4	3870.3	3859.5
7.5°	3820.1	3802.2	3791.4	3744.8	3712.6
10°	3716.2	3676.8	3655.3	3590.7	3590.7
12.5°	3630.2	3565.7	3494.0	3429.5	3404.4
15°	3533.4	3411.6	3332.7	3282.6	3307.6
17.5°	3418.7	3228.8	3196.6	3128.5	3153.6
20°	3150.0	3021.0	3049.6	2985.1	3046.0
22.5°	2762.9	2691.3	2852.5	2838.2	2931.4
25°	2315.0	2300.7	2576.6	2659.0	2737.9
27.5°	1831.2	1906.5	2225.4	2451.2	2497.8
30°	1447.8	1566.0	1834.8	2200.3	2221.8
32.5°	1136.0	1304.4	1447.8	1906.5	1874.2
35°	856.5	1078.7	1110.9	1583.9	1480.0
37.5°	630.7	906.6	845.7	1247.1	1064.3
40°	455.1	741.8	616.4	921.0	745.4
42.5°	322.5	591.3	447.9	666.5	505.3
45°	232.9	447.9	326.1	440.8	340.4
47.5°	175.6	329.7	236.5	290.3	240.1
50°	136.2	232.9	172.0	197.1	168.4
52.5°	111.1	168.4	132.6	139.8	125.4
55°	89.6	121.8	103.9	100.3	93.2
57.5°	71.7	93.2	82.4	78.8	75.3
60°	57.3	68.1	64.5	60.9	57.3
62.5°	46.6	53.8	53.8	46.6	46.6
65°	39.4	39.4	43.0	39.4	35.8
67.5°	28.7	32.3	32.3	28.7	28.7
70°	21.5	25.1	25.1	25.1	25.1
72.5°	17.9	17.9	21.5	17.9	17.9
75°	10.8	14.3	14.3	14.3	14.3
77.5°	7.2	10.8	10.8	10.8	10.8
80°	7.2	7.2	7.2	7.2	7.2
82.5°	3.6	3.6	7.2	3.6	3.6
85°	3.6	3.6	3.6	3.6	3.6
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)