

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: P592045

Luminaire Tested: **GRZ-10L-935-50x60-X-UNV-STD-4F**

Issue Date: 2/2/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P592045  
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-935-50x60-X-UNV-STD-4F  
Description: iO LED GRAZER WITH 50x60 OPTIC  
1000 LUMENS PER FOOT, 4 FOOT FIXTURE  
SUMULATED RESULTS  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

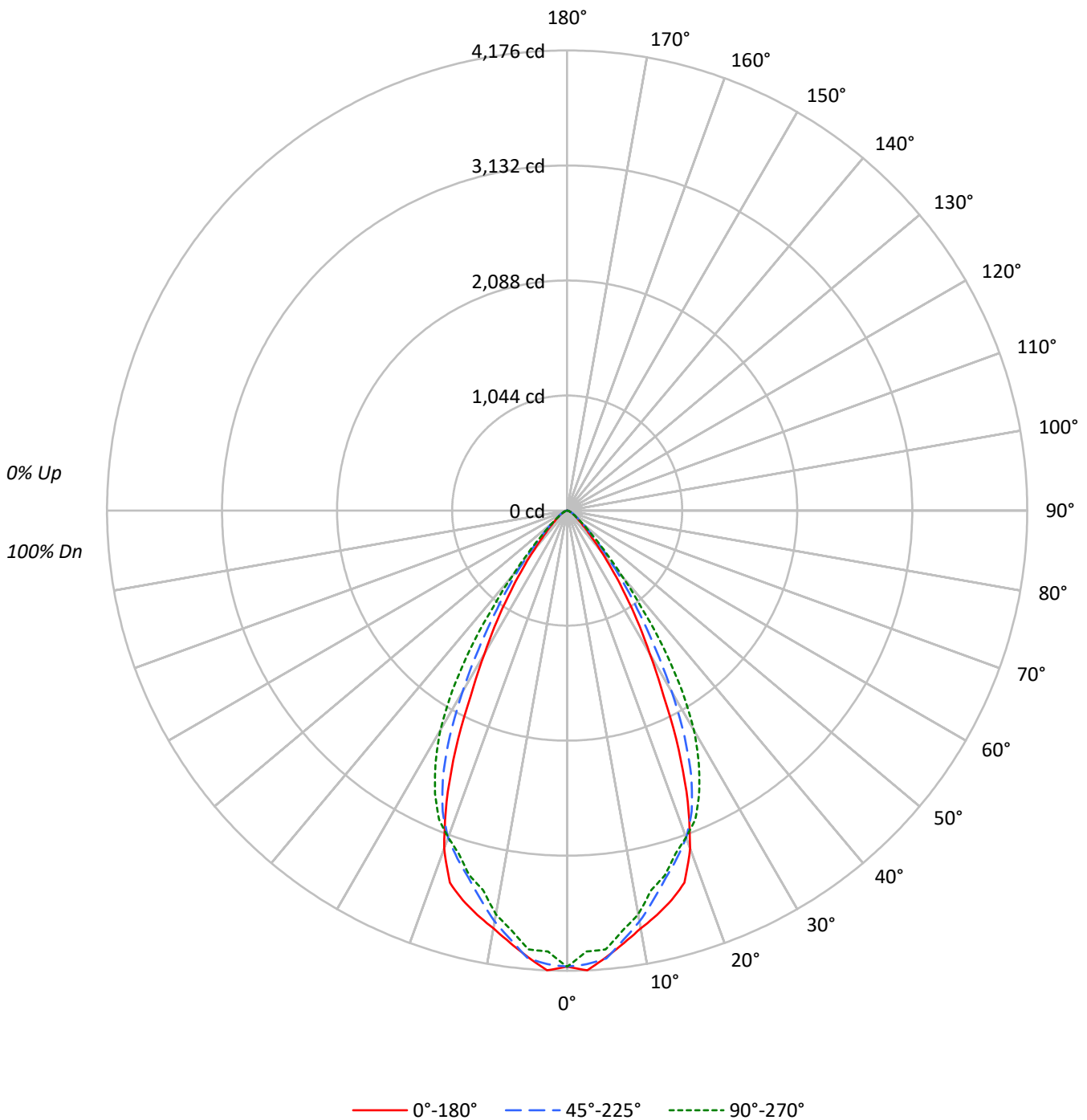
Lumens per Lamp: N/A  
Luminaire Lumens: 3818.0 lumens  
Efficiency: N/A  
Efficacy: 100.5 lumens/watt  
Spacing Criteria (0/90/45): 0.87 / 0.95 / 0.87  
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')  
CIE Type: Direct

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	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	
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87				86	
3	101	95	89	85	99	93	88	85	91	87	83	88	85	82	86	83	81				79	
4	96	88	82	78	94	87	81	77	85	80	76	83	79	75	81	77	75				73	
5	91	82	76	71	89	81	75	71	79	74	70	78	73	70	76	72	69				68	
6	86	77	70	66	84	76	70	66	74	69	65	73	68	65	72	68	64				63	
7	82	72	66	61	80	71	65	61	70	65	61	69	64	60	67	63	60				59	
8	77	67	61	57	76	67	61	57	66	60	57	65	60	56	64	59	56				55	
9	74	64	57	53	72	63	57	53	62	57	53	61	56	53	60	56	53				51	
10	70	60	54	50	69	60	54	50	59	53	50	58	53	50	57	53	49				48	

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

	0°	45°	90°
0°	66824	66824	66824
5°	65937	66117	64793
10°	63109	62074	60978
15°	61177	57703	57269
20°	56062	54275	54211
25°	42719	47546	50521
30°	27958	35432	42906
35°	17485	22681	30216
40°	9936	13455	16273
45°	5510	7713	8051
50°	3544	4476	4383
55°	2612	3029	2716
60°	1918	2157	1918
65°	1559	1700	1417
70°	1053	1227	1227
75°	692	923	923
80°	688	688	688
85°	685	685	685



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	376.8	9.9
10°-20°	975.8	25.6
20°-30°	1176.7	30.8
30°-40°	803.3	21.0
40°-50°	320.2	8.4
50°-60°	103.9	2.7
60°-70°	41.9	1.1
70°-80°	16.1	0.4
80°-90°	3.3	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°	2529.3	66.2
0°-40°	3332.6	87.3
0°-60°	3756.7	98.4
0°-90°	3818.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3818.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4139	4139	4139	4139	4139	
5°	4068	4064	4079	4009	3998	381
15°	3660	3534	3452	3400	3426	1021
25°	2398	2383	2669	2754	2836	1079
35°	887	1117	1151	1641	1533	569
45°	241	464	338	457	353	203
55°	93	126	108	104	96	85
65°	41	41	44	41	37	39
75°	11	15	15	15	15	14
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°	4138.8	4138.8	4138.8	4138.8	4138.8
2.5°	4175.9	4135.1	4120.2	4101.7	4005.2
5°	4068.3	4064.5	4079.4	4008.9	3997.7
7.5°	3956.9	3938.3	3927.2	3878.9	3845.5
10°	3849.3	3808.4	3786.2	3719.3	3719.3
12.5°	3760.2	3693.4	3619.1	3552.3	3526.3
15°	3659.9	3533.7	3452.1	3400.1	3426.1
17.5°	3541.2	3344.4	3311.0	3240.5	3266.5
20°	3262.8	3129.1	3158.8	3092.0	3155.1
22.5°	2861.9	2787.6	2954.7	2939.8	3036.3
25°	2397.9	2383.0	2668.9	2754.2	2835.9
27.5°	1896.8	1974.7	2305.1	2538.9	2587.2
30°	1499.6	1622.1	1900.5	2279.1	2301.4
32.5°	1176.7	1351.1	1499.6	1974.7	1941.3
35°	887.1	1117.3	1150.7	1640.7	1533.0
37.5°	653.3	939.1	876.0	1291.7	1102.4
40°	471.4	768.4	638.4	954.0	772.1
42.5°	334.1	612.5	464.0	690.4	523.4
45°	241.3	464.0	337.8	456.6	352.6
47.5°	181.9	341.5	245.0	300.7	248.7
50°	141.1	241.3	178.2	204.2	174.5
52.5°	115.1	174.5	137.3	144.8	129.9
55°	92.8	126.2	107.6	103.9	96.5
57.5°	74.2	96.5	85.4	81.7	78.0
60°	59.4	70.5	66.8	63.1	59.4
62.5°	48.3	55.7	55.7	48.3	48.3
65°	40.8	40.8	44.5	40.8	37.1
67.5°	29.7	33.4	33.4	29.7	29.7
70°	22.3	26.0	26.0	26.0	26.0
72.5°	18.6	18.6	22.3	18.6	18.6
75°	11.1	14.8	14.8	14.8	14.8
77.5°	7.4	11.1	11.1	11.1	11.1
80°	7.4	7.4	7.4	7.4	7.4
82.5°	3.7	3.7	7.4	3.7	3.7
85°	3.7	3.7	3.7	3.7	3.7
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)