

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: P591948

Luminaire Tested: **GRZ-05L-927-50x60-X-UNV-STD-2F**

Issue Date: 2/2/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P591948  
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-05L-927-50x60-X-UNV-STD-2F  
Description: iO LED GRAZER WITH 50x60 OPTIC  
500 LUMENS PER FOOT, 2 FOOT FIXTURE  
SUMULATED RESULTS  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

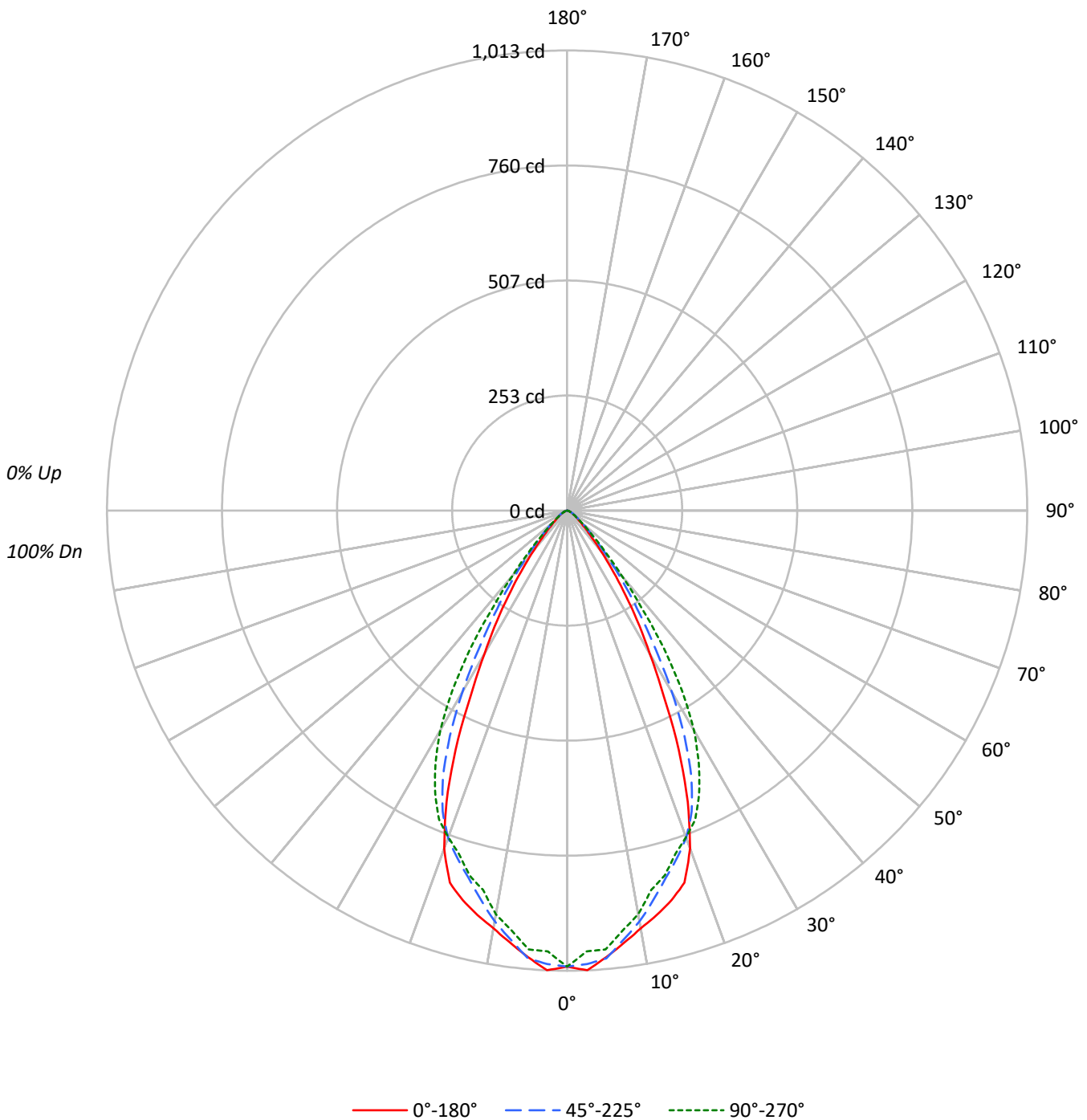
Lumens per Lamp: N/A  
Luminaire Lumens: 926.0 lumens  
Efficiency: N/A  
Efficacy: 96.5 lumens/watt  
Spacing Criteria (0/90/45): 0.87 / 0.95 / 0.87  
Luminous Opening: Rectangular (W 2' x L: 0.17' x H: 0')  
CIE Type: Direct

Input Watts (W): 9.6  
Input Voltage (V): 120  
Input Current (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	68	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°	32414	32414	32414
5°	31984	32071	31430
10°	30613	30111	29580
15°	29677	27992	27778
20°	27192	26326	26295
25°	20722	23063	24506
30°	13561	17186	20814
35°	8483	11002	14657
40°	4818	6525	7895
45°	2672	3740	3905
50°	1718	2170	2125
55°	1267	1469	1317
60°	930	1046	930
65°	756	825	688
70°	510	595	595
75°	337	449	449
80°	335	335	335
85°	333	333	333



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.4	9.9
10°-20°	236.7	25.6
20°-30°	285.4	30.8
30°-40°	194.8	21.0
40°-50°	77.6	8.4
50°-60°	25.2	2.7
60°-70°	10.2	1.1
70°-80°	3.9	0.4
80°-90°	0.8	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°	613.5	66.2
0°-40°	808.3	87.3
0°-60°	911.1	98.4
0°-90°	926.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	926.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1004	1004	1004	1004	1004	
5°	987	986	989	972	970	92
15°	888	857	837	825	831	248
25°	582	578	647	668	688	262
35°	215	271	279	398	372	138
45°	58	112	82	111	86	49
55°	22	31	26	25	23	21
65°	10	10	11	10	9	10
75°	3	4	4	4	4	3
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1003.8	1003.8	1003.8	1003.8	1003.8
2.5°	1012.8	1002.9	999.3	994.8	971.4
5°	986.7	985.8	989.4	972.3	969.6
7.5°	959.7	955.2	952.5	940.8	932.7
10°	933.6	923.7	918.3	902.1	902.1
12.5°	912.0	895.8	877.8	861.6	855.3
15°	887.7	857.1	837.3	824.6	830.9
17.5°	858.9	811.1	803.0	785.9	792.2
20°	791.3	758.9	766.1	749.9	765.2
22.5°	694.1	676.1	716.6	713.0	736.4
25°	581.6	578.0	647.3	668.0	687.8
27.5°	460.0	478.9	559.1	615.8	627.5
30°	363.7	393.4	460.9	552.8	558.2
32.5°	285.4	327.7	363.7	478.9	470.8
35°	215.2	271.0	279.1	397.9	371.8
37.5°	158.4	227.8	212.5	313.3	267.4
40°	114.3	186.4	154.8	231.4	187.3
42.5°	81.0	148.5	112.5	167.5	126.9
45°	58.5	112.5	81.9	110.7	85.5
47.5°	44.1	82.8	59.4	72.9	60.3
50°	34.2	58.5	43.2	49.5	42.3
52.5°	27.9	42.3	33.3	35.1	31.5
55°	22.5	30.6	26.1	25.2	23.4
57.5°	18.0	23.4	20.7	19.8	18.9
60°	14.4	17.1	16.2	15.3	14.4
62.5°	11.7	13.5	13.5	11.7	11.7
65°	9.9	9.9	10.8	9.9	9.0
67.5°	7.2	8.1	8.1	7.2	7.2
70°	5.4	6.3	6.3	6.3	6.3
72.5°	4.5	4.5	5.4	4.5	4.5
75°	2.7	3.6	3.6	3.6	3.6
77.5°	1.8	2.7	2.7	2.7	2.7
80°	1.8	1.8	1.8	1.8	1.8
82.5°	0.9	0.9	1.8	0.9	0.9
85°	0.9	0.9	0.9	0.9	0.9
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)