

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: P591996

Luminaire Tested: **GRZ-05L-940-50x60-X-UNV-STD-2F**

Issue Date: 2/2/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P591996  
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-940-50x60-X-UNV-STD-2F  
Description: iO LED GRAZER WITH 50x60 OPTIC  
500 LUMENS PER FOOT, 2 FOOT FIXTURE  
SUMULATED RESULTS  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

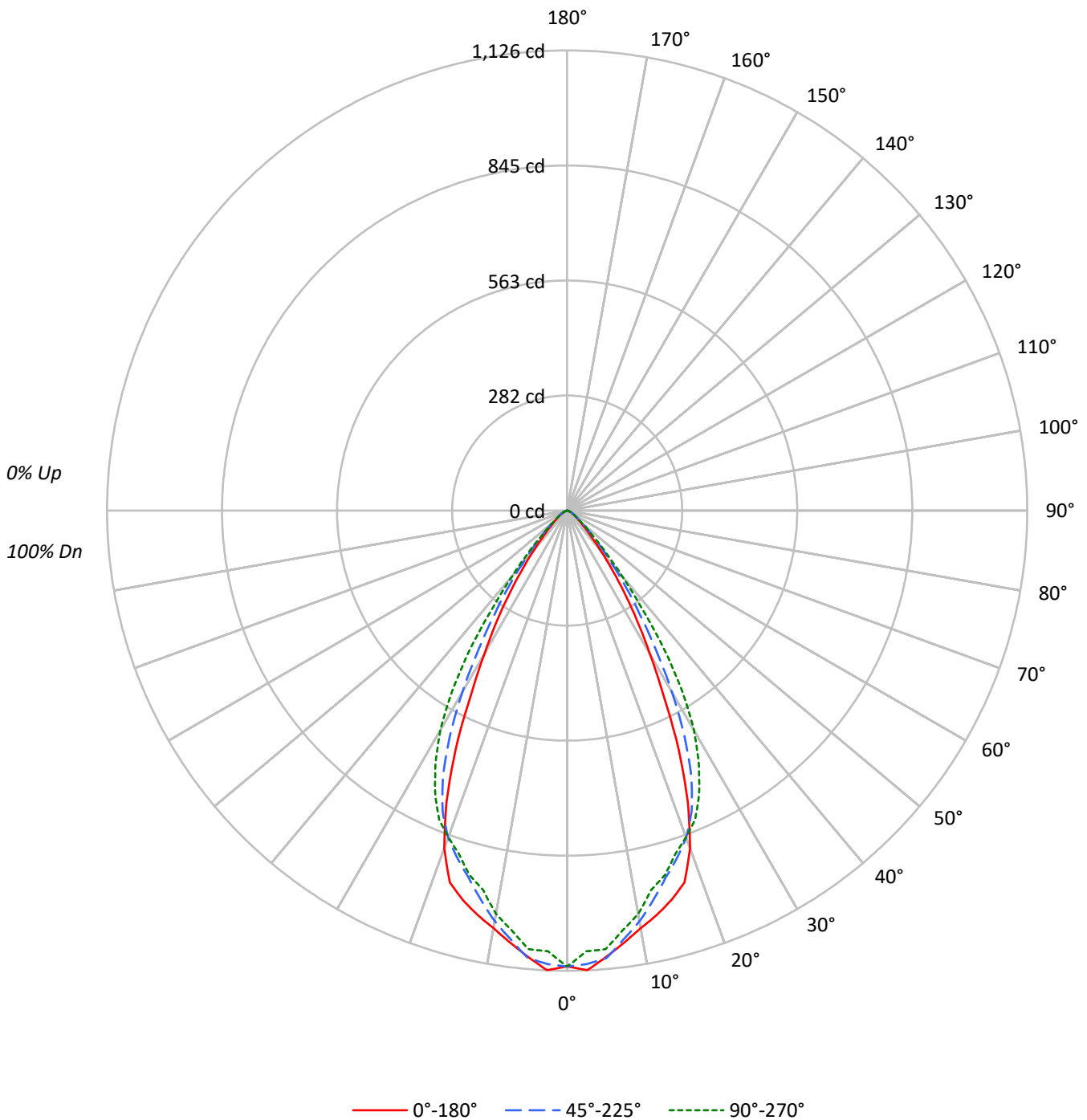
Lumens per Lamp: N/A  
Luminaire Lumens: 1029.0 lumens  
Efficiency: N/A  
Efficacy: 107.2 lumens/watt  
Spacing Criteria (0/90/45): 0.87 / 0.95 / 0.87  
Luminous Opening: Rectangular (W 2' x L: 0.17' x H: 0')  
CIE Type: Direct

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°	36021	36021	36021
5°	35540	35637	34924
10°	34016	33459	32869
15°	32976	31104	30870
20°	30220	29254	29220
25°	23028	25629	27232
30°	15071	19099	23129
35°	9426	12224	16289
40°	5358	7255	8772
45°	2968	4156	4338
50°	1909	2411	2361
55°	1407	1633	1464
60°	1033	1163	1033
65°	840	917	764
70°	566	661	661
75°	374	499	499
80°	372	372	372
85°	371	371	371



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.6	9.9
10°-20°	263.0	25.6
20°-30°	317.2	30.8
30°-40°	216.5	21.0
40°-50°	86.3	8.4
50°-60°	28.0	2.7
60°-70°	11.3	1.1
70°-80°	4.3	0.4
80°-90°	0.9	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°	681.7	66.2
0°-40°	898.2	87.3
0°-60°	1012.5	98.4
0°-90°	1029.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1029.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1116	1116	1116	1116	1116	
5°	1096	1095	1099	1080	1077	103
15°	986	952	930	916	923	275
25°	646	642	719	742	764	291
35°	239	301	310	442	413	153
45°	65	125	91	123	95	55
55°	25	34	29	28	26	23
65°	11	11	12	11	10	11
75°	3	4	4	4	4	4
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°	1115.5	1115.5	1115.5	1115.5	1115.5
2.5°	1125.5	1114.5	1110.5	1105.5	1079.4
5°	1096.4	1095.4	1099.4	1080.4	1077.4
7.5°	1066.4	1061.4	1058.4	1045.4	1036.4
10°	1037.4	1026.4	1020.4	1002.4	1002.4
12.5°	1013.4	995.4	975.4	957.4	950.4
15°	986.4	952.4	930.4	916.4	923.4
17.5°	954.4	901.4	892.4	873.4	880.4
20°	879.4	843.3	851.3	833.3	850.3
22.5°	771.3	751.3	796.3	792.3	818.3
25°	646.3	642.3	719.3	742.3	764.3
27.5°	511.2	532.2	621.3	684.3	697.3
30°	404.2	437.2	512.2	614.3	620.3
32.5°	317.1	364.1	404.2	532.2	523.2
35°	239.1	301.1	310.1	442.2	413.2
37.5°	176.1	253.1	236.1	348.1	297.1
40°	127.1	207.1	172.1	257.1	208.1
42.5°	90.0	165.1	125.1	186.1	141.1
45°	65.0	125.1	91.0	123.1	95.0
47.5°	49.0	92.0	66.0	81.0	67.0
50°	38.0	65.0	48.0	55.0	47.0
52.5°	31.0	47.0	37.0	39.0	35.0
55°	25.0	34.0	29.0	28.0	26.0
57.5°	20.0	26.0	23.0	22.0	21.0
60°	16.0	19.0	18.0	17.0	16.0
62.5°	13.0	15.0	15.0	13.0	13.0
65°	11.0	11.0	12.0	11.0	10.0
67.5°	8.0	9.0	9.0	8.0	8.0
70°	6.0	7.0	7.0	7.0	7.0
72.5°	5.0	5.0	6.0	5.0	5.0
75°	3.0	4.0	4.0	4.0	4.0
77.5°	2.0	3.0	3.0	3.0	3.0
80°	2.0	2.0	2.0	2.0	2.0
82.5°	1.0	1.0	2.0	1.0	1.0
85°	1.0	1.0	1.0	1.0	1.0
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)