

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: P592028

Luminaire Tested: **GRZ-10L-930-50x60-X-UNV-STD-2F**

Issue Date: 2/2/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P592028  
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-2F  
Description: iO LED GRAZER WITH 50x60 OPTIC  
1000 LUMENS PER FOOT, 2 FOOT FIXTURE  
SUMULATED RESULTS  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

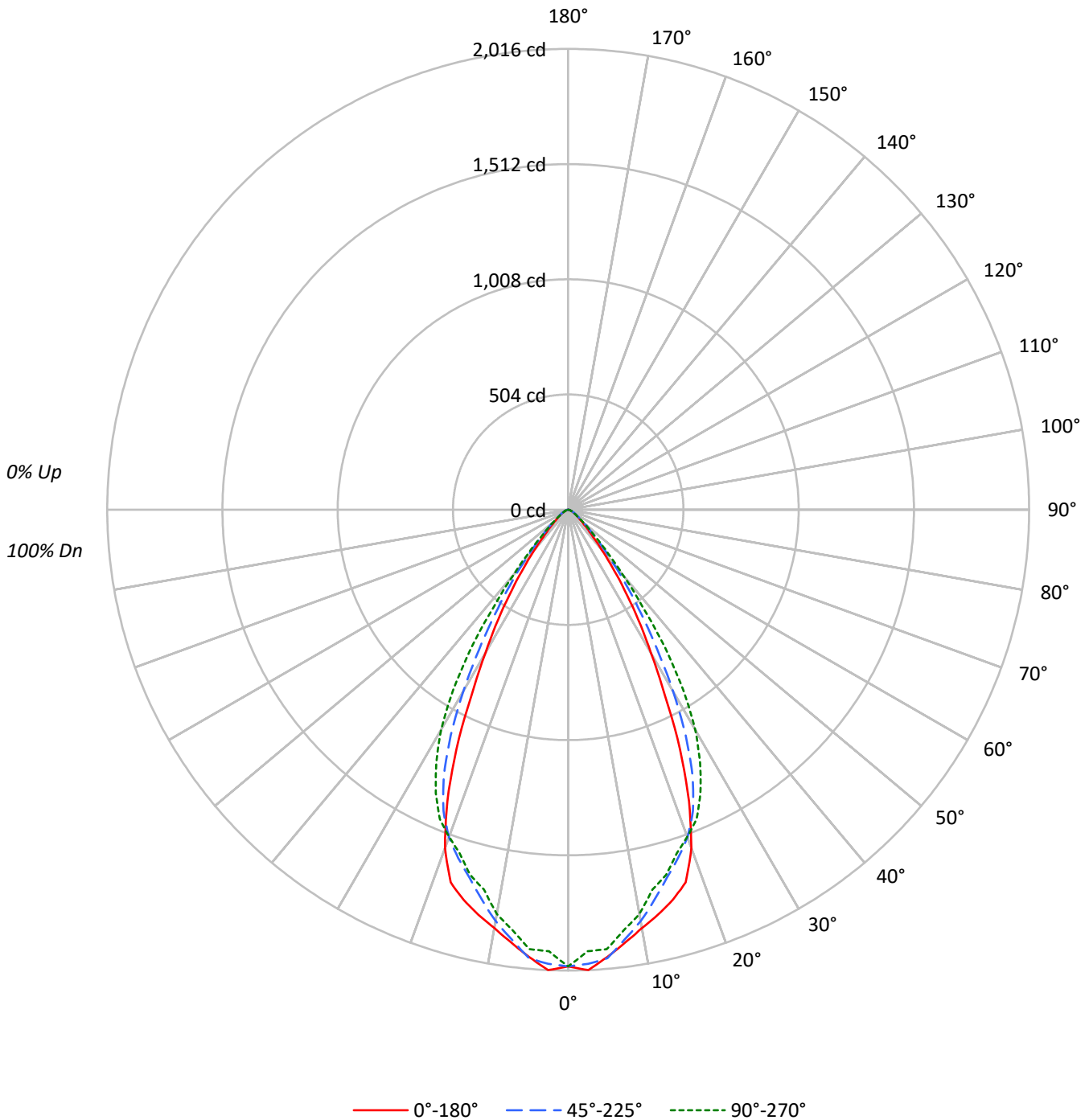
Lumens per Lamp: N/A  
Luminaire Lumens: 1843.0 lumens  
Efficiency: N/A  
Efficacy: 96.5 lumens/watt  
Spacing Criteria (0/90/45): 0.87 / 0.95 / 0.87  
Luminous Opening: Rectangular (W 2' x L: 0.17' x H: 0')  
CIE Type: Direct

Input Watts (W): 19.1  
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				
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°	64512	64512	64512
5°	63657	63832	62555
10°	60927	59927	58871
15°	59062	55709	55288
20°	54123	52398	52337
25°	41242	45902	48774
30°	26992	34207	41422
35°	16880	21898	29171
40°	9594	12992	15711
45°	5320	7448	7773
50°	3421	4320	4230
55°	2522	2928	2624
60°	1854	2086	1854
65°	1505	1643	1368
70°	1020	1180	1180
75°	674	898	898
80°	669	669	669
85°	667	667	667



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	181.9	9.9
10°-20°	471.0	25.6
20°-30°	568.0	30.8
30°-40°	387.8	21.0
40°-50°	154.6	8.4
50°-60°	50.1	2.7
60°-70°	20.2	1.1
70°-80°	7.8	0.4
80°-90°	1.6	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°	1221.0	66.2
0°-40°	1608.7	87.3
0°-60°	1813.4	98.4
0°-90°	1843.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1843.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1998	1998	1998	1998	1998	
5°	1964	1962	1969	1935	1930	184
15°	1767	1706	1666	1641	1654	493
25°	1158	1150	1288	1330	1369	521
35°	428	539	556	792	740	275
45°	116	224	163	220	170	98
55°	45	61	52	50	47	41
65°	20	20	22	20	18	19
75°	5	7	7	7	7	7
85°	2	2	2	2	2	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1997.8	1997.8	1997.8	1997.8	1997.8
2.5°	2015.8	1996.1	1988.9	1979.9	1933.3
5°	1963.8	1962.0	1969.2	1935.1	1929.8
7.5°	1910.0	1901.1	1895.7	1872.4	1856.3
10°	1858.1	1838.4	1827.6	1795.4	1795.4
12.5°	1815.1	1782.8	1747.0	1714.7	1702.2
15°	1766.7	1705.8	1666.4	1641.3	1653.8
17.5°	1709.4	1614.4	1598.3	1564.2	1576.8
20°	1575.0	1510.5	1524.8	1492.6	1523.0
22.5°	1381.5	1345.6	1426.3	1419.1	1465.7
25°	1157.5	1150.3	1288.3	1329.5	1368.9
27.5°	915.6	953.2	1112.7	1225.6	1248.9
30°	723.9	783.0	917.4	1100.2	1110.9
32.5°	568.0	652.2	723.9	953.2	937.1
35°	428.2	539.3	555.5	792.0	740.0
37.5°	315.4	453.3	422.9	623.5	532.2
40°	227.6	370.9	308.2	460.5	372.7
42.5°	161.3	295.6	224.0	333.3	252.6
45°	116.5	224.0	163.1	220.4	170.2
47.5°	87.8	164.8	118.3	145.1	120.0
50°	68.1	116.5	86.0	98.5	84.2
52.5°	55.5	84.2	66.3	69.9	62.7
55°	44.8	60.9	52.0	50.2	46.6
57.5°	35.8	46.6	41.2	39.4	37.6
60°	28.7	34.0	32.3	30.5	28.7
62.5°	23.3	26.9	26.9	23.3	23.3
65°	19.7	19.7	21.5	19.7	17.9
67.5°	14.3	16.1	16.1	14.3	14.3
70°	10.8	12.5	12.5	12.5	12.5
72.5°	9.0	9.0	10.8	9.0	9.0
75°	5.4	7.2	7.2	7.2	7.2
77.5°	3.6	5.4	5.4	5.4	5.4
80°	3.6	3.6	3.6	3.6	3.6
82.5°	1.8	1.8	3.6	1.8	1.8
85°	1.8	1.8	1.8	1.8	1.8
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)