

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: P592058

Luminaire Tested: **GRZ-10L-940-30x60-X-UNV-STD-2F**

Issue Date: 2/2/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P592058  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2111-457-21)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/2/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: iO LED  
Catalog Number: GRZ-10L-940-30x60-X-UNV-STD-2F  
Description: iO LED GRAZER WITH 30x60 OPTIC  
1000 LUMENS PER FOOT, 2 FOOT FIXTURE  
SUMULATED RESULTS  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

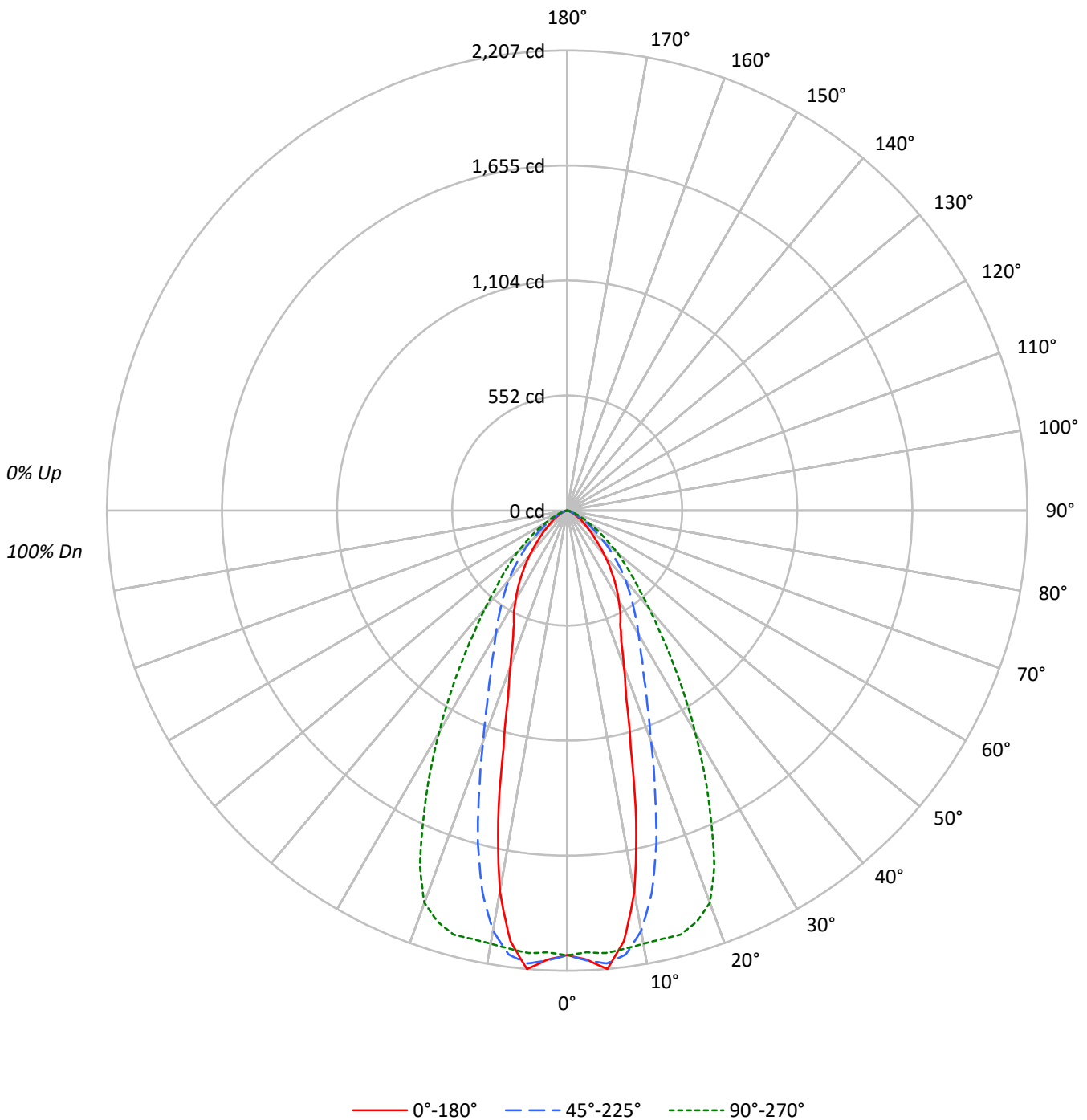
Lumens per Lamp: N/A  
Luminaire Lumens: 1957.0 lumens  
Efficiency: N/A  
Efficacy: 102.5 lumens/watt  
Spacing Criteria (0/90/45): 0.53 / 1.01 / 0.76  
Luminous Opening: Rectangular (W 2' x L: 0.17' x H: 0')  
CIE Type: Direct

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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	113	109	107	104	110	107	105	102	103	101	99	99	98	96	96	95	94	92				92
2	106	100	96	92	104	99	94	91	95	92	89	92	89	87	89	87	85	83				83
3	100	92	87	82	98	91	86	81	88	84	80	86	82	79	83	80	78	76				76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69				69
5	88	79	72	67	87	78	72	67	76	71	66	74	70	66	73	69	65	64				64
6	83	73	67	62	82	73	66	62	71	65	61	69	65	61	68	64	60	59				59
7	79	68	62	57	77	68	61	57	66	61	57	65	60	56	64	59	56	54				54
8	75	64	57	53	73	63	57	53	62	57	53	61	56	52	60	56	52	51				51
9	71	60	54	49	70	60	53	49	59	53	49	58	53	49	57	52	49	47				47
10	67	57	50	46	66	56	50	46	55	50	46	55	49	46	54	49	46	44				44

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

	0°	45°	90°
0°	68859	68859	68859
5°	71550	70678	69060
10°	60858	67088	69167
15°	39398	55248	70389
20°	27306	40367	68793
25°	21474	30913	58130
30°	18394	25478	45733
35°	15134	21638	34501
40°	11731	18366	25731
45°	8677	14814	19897
50°	6365	11379	15815
55°	4757	8107	11564
60°	3345	5457	7808
65°	2346	3522	5280
70°	1633	2360	3446
75°	1198	1435	2395
80°	707	1079	1785
85°	704	704	704



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	201.6	10.3
10°-20°	459.5	23.5
20°-30°	469.6	24.0
30°-40°	375.7	19.2
40°-50°	251.2	12.8
50°-60°	132.4	6.8
60°-70°	50.0	2.6
70°-80°	14.7	0.8
80°-90°	2.2	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°	1130.7	57.8
0°-40°	1506.4	77.0
0°-60°	1890.0	96.6
0°-90°	1957.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1957.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2132	2132	2132	2132	2132	
5°	2207	2175	2180	2147	2130	198
15°	1178	1300	1653	2006	2106	336
25°	603	651	868	1426	1632	283
35°	384	417	549	795	875	239
45°	190	220	324	429	436	149
55°	84	96	144	197	205	77
65°	31	34	46	62	69	32
75°	10	10	12	16	19	11
85°	2	2	2	2	2	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2132.4	2132.4	2132.4	2132.4	2132.4	2132.4	2132.4	2132.4	2132.4	2132.4	2132.4
2.5°	2155.5	2153.5	2174.6	2159.3	2165.0	2159.3	2142.0	2132.4	2130.5	2111.3	2120.9
5°	2207.3	2176.6	2182.3	2172.7	2182.3	2180.4	2161.2	2149.7	2140.1	2128.6	2130.5
7.5°	2082.5	2086.4	2103.6	2111.3	2138.2	2147.8	2138.2	2130.5	2122.8	2117.1	2119.0
10°	1856.0	1869.5	1894.4	1944.3	2000.0	2046.0	2065.2	2086.4	2103.6	2105.5	2109.4
12.5°	1527.8	1547.0	1587.3	1641.1	1763.9	1875.2	1969.3	2042.2	2084.4	2107.5	2103.6
15°	1178.5	1184.2	1234.2	1322.4	1456.8	1652.6	1838.8	1986.5	2063.3	2117.1	2105.5
17.5°	938.6	946.2	986.6	1053.7	1182.3	1399.2	1677.5	1898.3	2038.4	2076.8	2067.2
20°	794.6	788.9	819.6	875.2	982.7	1174.7	1464.5	1760.1	1936.6	1990.4	2001.9
22.5°	679.5	685.2	704.4	748.6	842.6	1001.9	1266.8	1579.6	1775.4	1834.9	1844.5
25°	602.7	608.4	627.6	658.3	735.1	867.6	1096.0	1378.1	1570.0	1627.6	1631.5
27.5°	552.8	548.9	562.4	585.4	652.6	765.8	953.9	1188.1	1366.6	1424.2	1428.0
30°	493.3	491.4	504.8	529.7	583.5	683.3	842.6	1032.6	1159.3	1215.0	1226.5
32.5°	439.5	437.6	453.0	474.1	527.8	614.2	752.4	900.2	986.6	1032.6	1044.1
35°	383.9	385.8	397.3	424.2	472.2	548.9	675.6	779.3	840.7	863.7	875.2
37.5°	330.1	332.1	347.4	374.3	422.3	491.4	593.1	673.7	710.2	727.4	725.5
40°	278.3	282.1	291.7	322.5	370.4	435.7	518.2	577.7	602.7	604.6	610.4
42.5°	232.2	232.2	247.6	272.6	318.6	380.0	453.0	495.2	514.4	512.5	508.6
45°	190.0	191.9	201.5	226.5	268.7	324.4	387.7	426.1	437.6	429.9	435.7
47.5°	155.5	157.4	165.1	188.1	224.6	278.3	328.2	364.7	374.3	368.5	368.5
50°	126.7	128.6	134.4	151.6	182.3	226.5	272.6	303.3	312.9	310.9	314.8
52.5°	103.6	103.6	109.4	122.8	147.8	184.3	220.7	247.6	255.3	253.4	251.4
55°	84.5	84.5	88.3	97.9	117.1	144.0	174.7	195.8	201.5	203.5	205.4
57.5°	67.2	67.2	69.1	76.8	90.2	111.3	134.4	149.7	155.5	157.4	159.3
60°	51.8	51.8	55.7	59.5	71.0	84.5	99.8	111.3	119.0	119.0	120.9
62.5°	40.3	40.3	42.2	46.1	53.7	63.3	72.9	82.5	86.4	90.2	92.1
65°	30.7	30.7	32.6	34.5	40.3	46.1	53.7	61.4	65.3	67.2	69.1
67.5°	23.0	23.0	23.0	26.9	30.7	34.5	38.4	44.1	46.1	49.9	51.8
70°	17.3	17.3	17.3	19.2	21.1	25.0	26.9	30.7	34.5	36.5	36.5
72.5°	13.4	13.4	13.4	13.4	15.4	17.3	19.2	21.1	25.0	26.9	26.9
75°	9.6	9.6	9.6	9.6	11.5	11.5	13.4	15.4	17.3	19.2	19.2
77.5°	7.7	7.7	5.8	7.7	7.7	7.7	9.6	9.6	11.5	13.4	13.4
80°	3.8	3.8	3.8	3.8	5.8	5.8	5.8	7.7	7.7	7.7	9.6
82.5°	1.9	1.9	1.9	1.9	3.8	3.8	3.8	3.8	3.8	5.8	5.8
85°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)