

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: P592010

Luminaire Tested: **GRZ-10L-927-30x60-X-UNV-STD-2F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P592010
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-927-30x60-X-UNV-STD-2F
Description: iO LED GRAZER WITH 30x60 OPTIC
1000 LUMENS PER FOOT, 2 FOOT FIXTURE
SUMULATED RESULTS
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

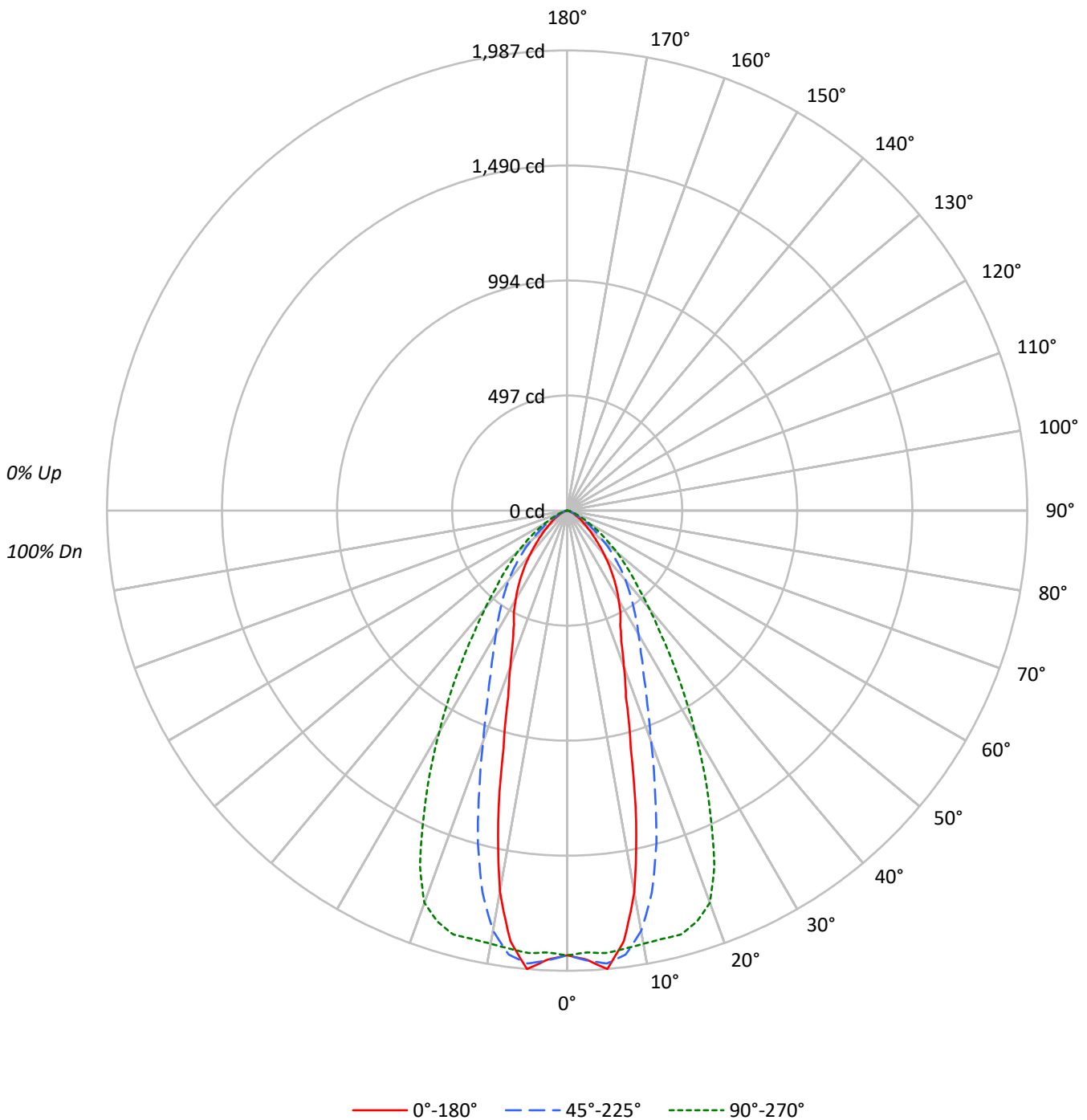
Lumens per Lamp: N/A
Luminaire Lumens: 1762.0 lumens
Efficiency: N/A
Efficacy: 92.3 lumens/watt
Spacing Criteria (0/90/45): 0.53 / 1.01 / 0.76
Luminous Opening: Rectangular (W 2' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
Input Voltage (V): 120
Input Current (A_{in}): 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	109	107	104	110	107	105	102	103	101	99	99	98	96	96	95	93	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°	61997	61997	61997
5°	64418	63634	62179
10°	54795	60405	62274
15°	35473	49742	63375
20°	24584	36343	61938
25°	19333	27831	52337
30°	16559	22939	41176
35°	13624	19482	31064
40°	10564	16537	23164
45°	7814	13339	17915
50°	5732	10243	14237
55°	4279	7296	10410
60°	3016	4908	7033
65°	2109	3171	4753
70°	1473	2124	3097
75°	1073	1298	2158
80°	651	967	1599
85°	630	630	630



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.5	10.3
10°-20°	413.7	23.5
20°-30°	422.8	24.0
30°-40°	338.3	19.2
40°-50°	226.2	12.8
50°-60°	119.2	6.8
60°-70°	45.0	2.6
70°-80°	13.2	0.8
80°-90°	2.0	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°	1018.0	57.8
0°-40°	1356.3	77.0
0°-60°	1701.7	96.6
0°-90°	1762.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1762.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1920	1920	1920	1920	1920	
5°	1987	1958	1963	1933	1918	178
15°	1061	1171	1488	1806	1896	303
25°	543	586	781	1284	1469	255
35°	346	376	494	715	788	215
45°	171	198	292	386	392	135
55°	76	86	130	178	185	69
65°	28	31	42	56	62	29
75°	9	9	10	14	17	10
85°	2	2	2	2	2	1
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°	1919.9	1919.9	1919.9	1919.9	1919.9	1919.9	1919.9	1919.9	1919.9	1919.9	1919.9
2.5°	1940.7	1938.9	1958.0	1944.1	1949.3	1944.1	1928.6	1919.9	1918.2	1900.9	1909.6
5°	1987.3	1959.7	1964.9	1956.2	1964.9	1963.1	1945.9	1935.5	1926.9	1916.5	1918.2
7.5°	1875.0	1878.5	1894.0	1900.9	1925.1	1933.8	1925.1	1918.2	1911.3	1906.1	1907.8
10°	1671.1	1683.2	1705.7	1750.6	1800.7	1842.2	1859.5	1878.5	1894.0	1895.7	1899.2
12.5°	1375.6	1392.9	1429.2	1477.5	1588.1	1688.4	1773.0	1838.7	1876.7	1897.5	1894.0
15°	1061.1	1066.2	1111.2	1190.7	1311.6	1487.9	1655.5	1788.6	1857.7	1906.1	1895.7
17.5°	845.0	852.0	888.3	948.7	1064.5	1259.8	1510.4	1709.1	1835.3	1869.8	1861.2
20°	715.4	710.3	737.9	788.0	884.8	1057.6	1318.6	1584.7	1743.7	1792.1	1802.4
22.5°	611.8	616.9	634.2	674.0	758.6	902.1	1140.6	1422.2	1598.5	1652.1	1660.7
25°	542.6	547.8	565.1	592.7	661.9	781.1	986.8	1240.8	1413.6	1465.4	1468.9
27.5°	497.7	494.2	506.3	527.1	587.6	689.5	858.9	1069.7	1230.4	1282.3	1285.7
30°	444.1	442.4	454.5	477.0	525.3	615.2	758.6	929.7	1043.8	1093.9	1104.3
32.5°	395.7	394.0	407.8	426.8	475.2	553.0	677.4	810.5	888.3	929.7	940.1
35°	345.6	347.4	357.7	381.9	425.1	494.2	608.3	701.6	756.9	777.7	788.0
37.5°	297.2	299.0	312.8	337.0	380.2	442.4	534.0	606.6	639.4	655.0	653.2
40°	250.6	254.0	262.7	290.3	333.5	392.3	466.6	520.2	542.6	544.4	549.5
42.5°	209.1	209.1	222.9	245.4	286.9	342.2	407.8	445.9	463.1	461.4	458.0
45°	171.1	172.8	181.5	203.9	241.9	292.1	349.1	383.6	394.0	387.1	392.3
47.5°	140.0	141.7	148.6	169.4	202.2	250.6	295.5	328.3	337.0	331.8	331.8
50°	114.1	115.8	121.0	136.5	164.2	203.9	245.4	273.0	281.7	280.0	283.4
52.5°	93.3	93.3	98.5	110.6	133.1	165.9	198.7	222.9	229.8	228.1	226.4
55°	76.0	76.0	79.5	88.1	105.4	129.6	157.3	176.3	181.5	183.2	184.9
57.5°	60.5	60.5	62.2	69.1	81.2	100.2	121.0	134.8	140.0	141.7	143.4
60°	46.7	46.7	50.1	53.6	63.9	76.0	89.9	100.2	107.1	107.1	108.9
62.5°	36.3	36.3	38.0	41.5	48.4	57.0	65.7	74.3	77.8	81.2	82.9
65°	27.6	27.6	29.4	31.1	36.3	41.5	48.4	55.3	58.8	60.5	62.2
67.5°	20.7	20.7	20.7	24.2	27.6	31.1	34.6	39.7	41.5	44.9	46.7
70°	15.6	15.6	15.6	17.3	19.0	22.5	24.2	27.6	31.1	32.8	32.8
72.5°	12.1	12.1	12.1	12.1	13.8	15.6	17.3	19.0	22.5	24.2	24.2
75°	8.6	8.6	8.6	8.6	10.4	10.4	12.1	13.8	15.6	17.3	17.3
77.5°	6.9	6.9	5.2	6.9	6.9	6.9	8.6	8.6	10.4	12.1	12.1
80°	3.5	3.5	3.5	3.5	5.2	5.2	5.2	6.9	6.9	6.9	8.6
82.5°	1.7	1.7	1.7	1.7	3.5	3.5	3.5	3.5	3.5	5.2	5.2
85°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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)