

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: P592107

Luminaire Tested: **GRZ-15L-935-30x60-X-UNV-STD-4F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P592107
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-15L-935-30x60-X-UNV-STD-4F
Description: iO LED GRAZER WITH 30x60 OPTIC
1500 LUMENS PER FOOT, 4 FOOT FIXTURE
SUMULATED RESULTS
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

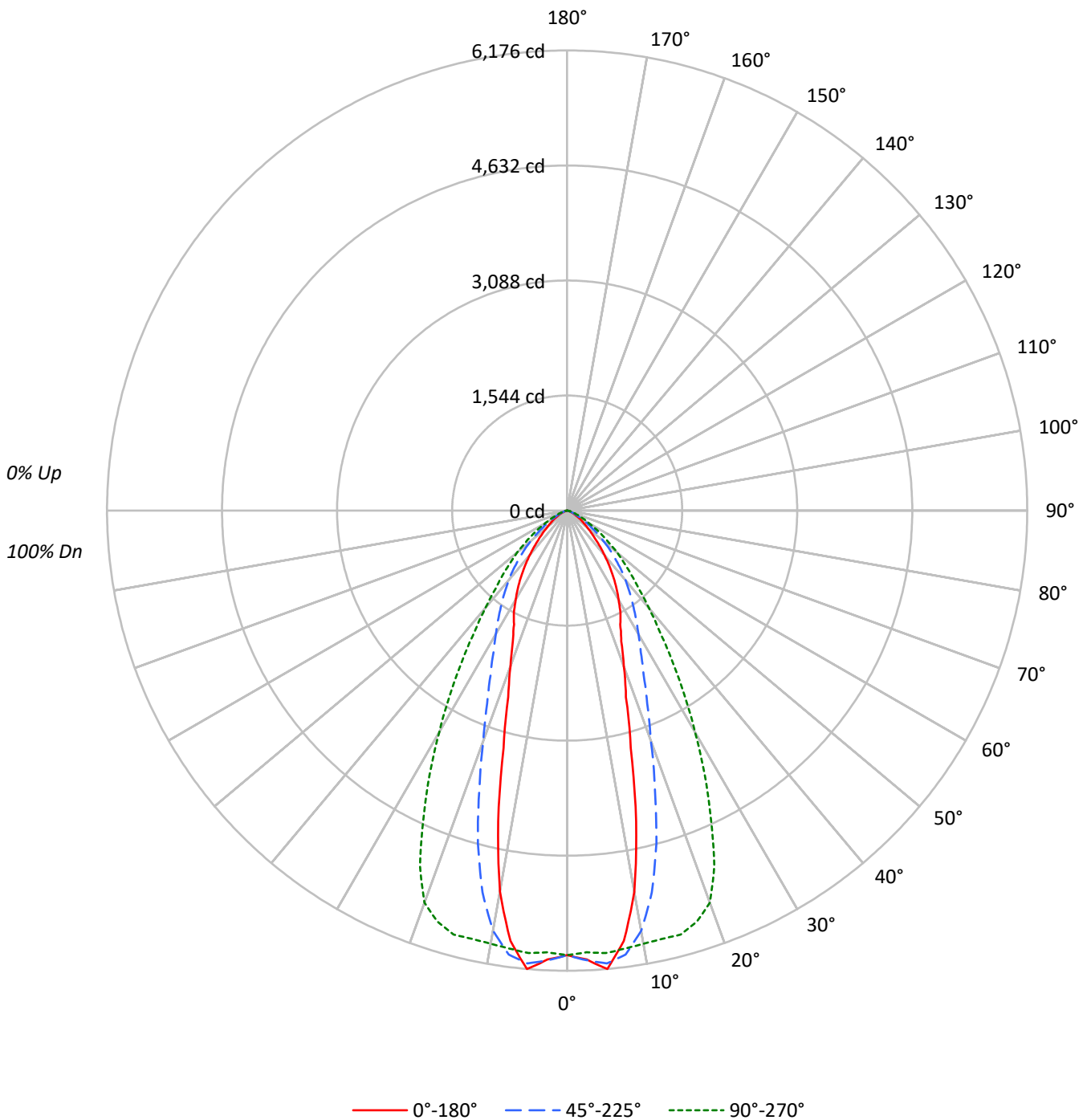
Lumens per Lamp: N/A
Luminaire Lumens: 5476.0 lumens
Efficiency: N/A
Efficacy: 97.8 lumens/watt
Spacing Criteria (0/90/45): 0.53 / 1.01 / 0.76
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 56
Input Voltage (V): 120
Input Current (Ain): 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				
1	113	109	107	104	110	107	105	102	103	101	99	99	98	96	96	95	93	92				
2	106	100	96	92	104	99	94	91	95	92	89	92	89	87	89	87	85	83				
3	100	92	87	82	98	91	86	81	88	84	80	86	82	79	83	80	78	76				
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69				
5	88	79	72	67	87	78	72	67	76	71	66	74	70	66	73	69	65	64				
6	83	73	67	62	82	73	66	62	71	65	61	69	65	61	68	64	60	59				
7	79	68	62	57	77	68	61	57	66	61	57	65	60	56	64	59	56	54				
8	75	64	57	53	73	63	57	53	62	57	53	61	56	52	60	56	52	51				
9	71	60	54	49	70	60	53	49	59	53	49	58	53	49	57	52	49	47				
10	67	57	50	46	66	56	50	46	55	50	46	55	49	46	54	49	46	44				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	96339	96339	96339
5°	100102	98884	96621
10°	85147	93864	96769
15°	55121	77295	98482
20°	38204	56476	96247
25°	30043	43248	81327
30°	25734	35647	63983
35°	21171	30275	48271
40°	16415	25695	35997
45°	12141	20724	27837
50°	8904	15918	22124
55°	6652	11339	16177
60°	4682	7631	10928
65°	3282	4925	7385
70°	2280	3295	4815
75°	1678	2009	3350
80°	995	1497	2501
85°	1000	1000	1000



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	564.2	10.3
10°-20°	1285.7	23.5
20°-30°	1314.0	24.0
30°-40°	1051.4	19.2
40°-50°	702.9	12.8
50°-60°	370.5	6.8
60°-70°	140.0	2.6
70°-80°	41.2	0.8
80°-90°	6.3	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°	3163.8	57.8
0°-40°	4215.2	77.0
0°-60°	5288.6	96.6
0°-90°	5476.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5476.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5967	5967	5967	5967	5967	
5°	6176	6086	6101	6008	5962	554
15°	3298	3639	4624	5612	5892	941
25°	1686	1821	2428	3990	4565	792
35°	1074	1168	1536	2223	2449	669
45°	532	616	908	1200	1219	418
55°	236	267	403	552	575	214
65°	86	95	129	175	193	89
75°	27	27	32	44	54	30
85°	5	5	5	5	5	4
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°	5966.8	5966.8	5966.8	5966.8	5966.8	5966.8	5966.8	5966.8	5966.8	5966.8	5966.8
2.5°	6031.3	6025.9	6085.0	6042.0	6058.1	6042.0	5993.7	5966.8	5961.5	5907.8	5934.6
5°	6176.3	6090.4	6106.5	6079.6	6106.5	6101.1	6047.4	6015.2	5988.3	5956.1	5961.5
7.5°	5827.2	5837.9	5886.3	5907.8	5983.0	6009.8	5983.0	5961.5	5940.0	5923.9	5929.3
10°	5193.5	5231.1	5300.9	5440.5	5596.3	5725.2	5778.9	5837.9	5886.3	5891.7	5902.4
12.5°	4275.1	4328.8	4441.6	4591.9	4935.7	5247.2	5510.3	5714.4	5832.6	5897.0	5886.3
15°	3297.6	3313.7	3453.4	3700.4	4076.4	4624.2	5145.1	5558.7	5773.5	5923.9	5891.7
17.5°	2626.3	2647.8	2760.5	2948.5	3308.4	3915.2	4694.0	5311.6	5703.7	5811.1	5784.2
20°	2223.5	2207.4	2293.3	2449.0	2749.8	3286.9	4097.8	4924.9	5419.0	5569.4	5601.6
22.5°	1901.2	1917.3	1971.0	2094.6	2357.7	2803.5	3544.7	4420.1	4967.9	5134.4	5161.2
25°	1686.4	1702.5	1756.2	1842.1	2057.0	2427.6	3066.7	3856.2	4393.2	4554.4	4565.1
27.5°	1546.8	1536.0	1573.6	1638.1	1826.0	2142.9	2669.2	3324.5	3823.9	3985.1	3995.8
30°	1380.3	1374.9	1412.5	1482.3	1632.7	1912.0	2357.7	2889.4	3243.9	3399.7	3431.9
32.5°	1229.9	1224.5	1267.5	1326.6	1476.9	1718.6	2105.3	2518.9	2760.5	2889.4	2921.7
35°	1074.1	1079.5	1111.7	1186.9	1321.2	1536.0	1890.5	2180.5	2352.4	2416.8	2449.0
37.5°	923.8	929.1	972.1	1047.3	1181.6	1374.9	1659.5	1885.1	1987.2	2035.5	2030.1
40°	778.8	789.5	816.3	902.3	1036.5	1219.1	1450.1	1616.6	1686.4	1691.8	1707.9
42.5°	649.9	649.9	692.8	762.6	891.5	1063.4	1267.5	1385.6	1439.3	1434.0	1423.2
45°	531.7	537.1	563.9	633.7	751.9	907.6	1084.9	1192.3	1224.5	1203.0	1219.1
47.5°	435.0	440.4	461.9	526.3	628.4	778.8	918.4	1020.4	1047.3	1031.2	1031.2
50°	354.5	359.8	375.9	424.3	510.2	633.7	762.6	848.6	875.4	870.1	880.8
52.5°	290.0	290.0	306.1	343.7	413.5	515.6	617.6	692.8	714.3	708.9	703.6
55°	236.3	236.3	247.1	273.9	327.6	402.8	488.7	547.8	563.9	569.3	574.7
57.5°	188.0	188.0	193.3	214.8	252.4	311.5	375.9	418.9	435.0	440.4	445.8
60°	145.0	145.0	155.8	166.5	198.7	236.3	279.3	311.5	333.0	333.0	338.4
62.5°	112.8	112.8	118.2	128.9	150.4	177.2	204.1	230.9	241.7	252.4	257.8
65°	85.9	85.9	91.3	96.7	112.8	128.9	150.4	171.9	182.6	188.0	193.3
67.5°	64.4	64.4	64.4	75.2	85.9	96.7	107.4	123.5	128.9	139.6	145.0
70°	48.3	48.3	48.3	53.7	59.1	69.8	75.2	85.9	96.7	102.0	102.0
72.5°	37.6	37.6	37.6	37.6	43.0	48.3	53.7	59.1	69.8	75.2	75.2
75°	26.9	26.9	26.9	26.9	32.2	32.2	37.6	43.0	48.3	53.7	53.7
77.5°	21.5	21.5	16.1	21.5	21.5	21.5	26.9	26.9	32.2	37.6	37.6
80°	10.7	10.7	10.7	10.7	16.1	16.1	16.1	21.5	21.5	21.5	26.9
82.5°	5.4	5.4	5.4	5.4	10.7	10.7	10.7	10.7	10.7	16.1	16.1
85°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
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)