

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: P592123

Luminaire Tested: **GRZ-15L-940-30x60-X-UNV-STD-4F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P592123
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-940-30x60-X-UNV-STD-4F
Description: iO LED GRAZER WITH 30x60 OPTIC
1500 LUMENS PER FOOT, 4 FOOT FIXTURE
SUMULATED RESULTS
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

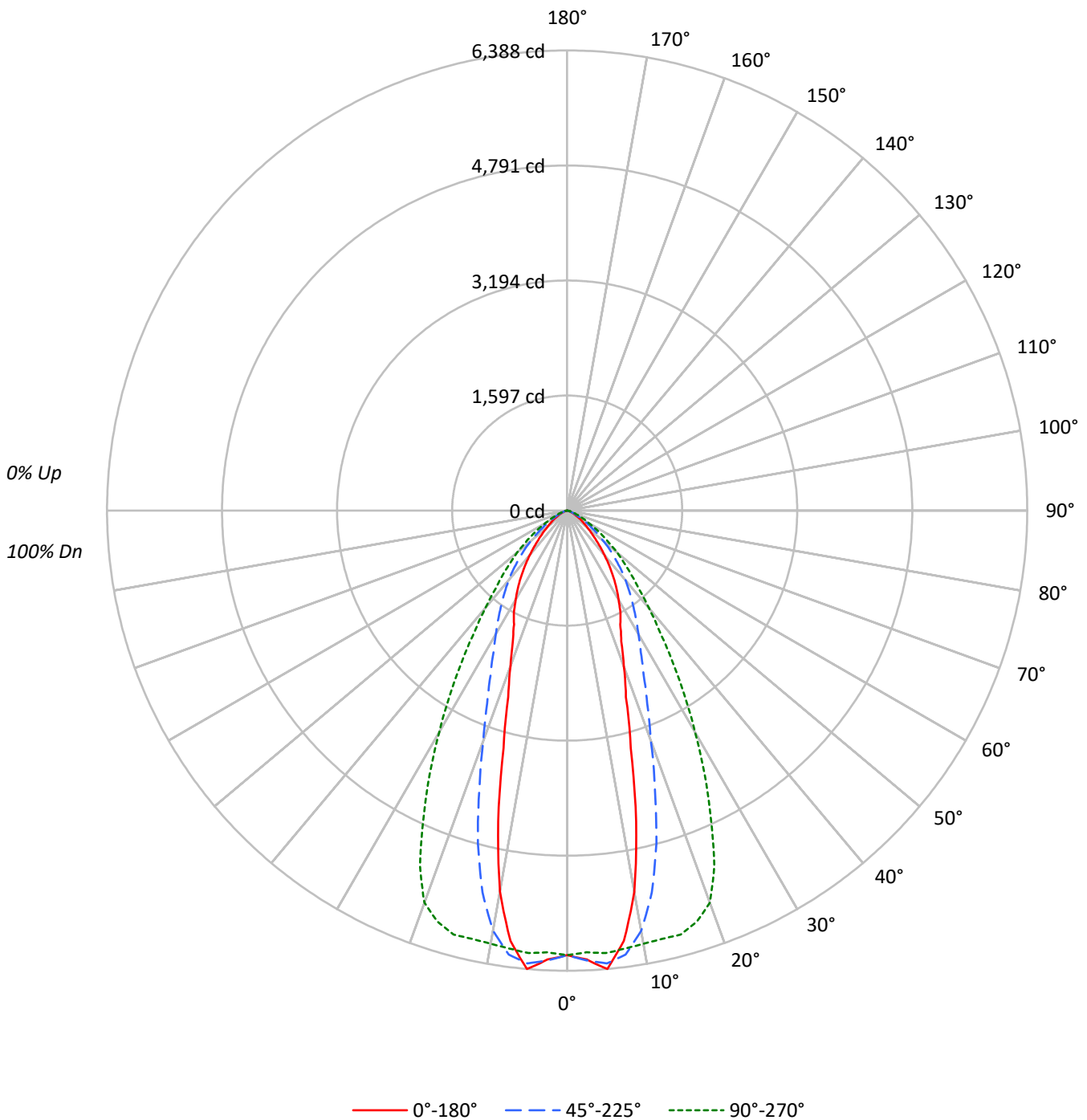
Lumens per Lamp: N/A
Luminaire Lumens: 5664.0 lumens
Efficiency: N/A
Efficacy: 101.1 lumens/watt
Spacing Criteria (0/90/45): 0.53 / 1.01 / 0.76
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')
CIE Type: Direct

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	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°	99647	99647	99647
5°	103538	102279	99937
10°	88070	97086	100091
15°	57013	79948	101862
20°	39515	58414	99553
25°	31075	44732	84119
30°	26617	36870	66179
35°	21898	31316	49928
40°	16977	26578	37232
45°	12559	21436	28793
50°	9208	16465	22883
55°	6880	11727	16732
60°	4844	7892	11302
65°	3396	5093	7641
70°	2360	3408	4980
75°	1734	2077	3468
80°	1032	1553	2585
85°	1037	1037	1037



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	583.5	10.3
10°-20°	1329.9	23.5
20°-30°	1359.1	24.0
30°-40°	1087.5	19.2
40°-50°	727.0	12.8
50°-60°	383.3	6.8
60°-70°	144.8	2.6
70°-80°	42.6	0.8
80°-90°	6.5	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°	3272.5	57.8
0°-40°	4359.9	77.0
0°-60°	5470.2	96.6
0°-90°	5664.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5664.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6172	6172	6172	6172	6172	
5°	6388	6295	6311	6215	6166	573
15°	3411	3764	4783	5805	6094	973
25°	1744	1883	2511	4127	4722	819
35°	1111	1208	1589	2300	2533	692
45°	550	637	939	1242	1261	433
55°	244	276	417	571	594	222
65°	89	99	133	181	200	92
75°	28	28	33	46	56	31
85°	6	6	6	6	6	5
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°	6171.7	6171.7	6171.7	6171.7	6171.7	6171.7	6171.7	6171.7	6171.7	6171.7	6171.7
2.5°	6238.4	6232.8	6293.9	6249.5	6266.1	6249.5	6199.5	6171.7	6166.1	6110.6	6138.4
5°	6388.3	6299.5	6316.1	6288.4	6316.1	6310.6	6255.0	6221.7	6193.9	6160.6	6166.1
7.5°	6027.3	6038.4	6088.4	6110.6	6188.4	6216.1	6188.4	6166.1	6143.9	6127.3	6132.8
10°	5371.8	5410.7	5482.9	5627.3	5788.4	5921.7	5977.3	6038.4	6088.4	6093.9	6105.0
12.5°	4421.8	4477.4	4594.1	4749.6	5105.1	5427.3	5699.5	5910.6	6032.8	6099.5	6088.4
15°	3410.8	3427.5	3571.9	3827.5	4216.3	4782.9	5321.8	5749.5	5971.7	6127.3	6093.9
17.5°	2716.4	2738.7	2855.3	3049.7	3421.9	4049.7	4855.1	5494.0	5899.5	6010.6	5982.8
20°	2299.8	2283.1	2372.0	2533.1	2844.2	3399.7	4238.5	5094.0	5605.1	5760.6	5794.0
22.5°	1966.5	1983.2	2038.7	2166.5	2438.7	2899.8	3666.4	4571.8	5138.5	5310.7	5338.4
25°	1744.3	1761.0	1816.5	1905.4	2127.6	2510.9	3172.0	3988.6	4544.1	4710.7	4721.8
27.5°	1599.9	1588.8	1627.6	1694.3	1888.7	2216.5	2760.9	3438.6	3955.2	4121.9	4133.0
30°	1427.7	1422.1	1461.0	1533.2	1688.7	1977.6	2438.7	2988.6	3355.3	3516.4	3549.7
32.5°	1272.1	1266.6	1311.0	1372.1	1527.6	1777.6	2177.6	2605.3	2855.3	2988.6	3022.0
35°	1111.0	1116.6	1149.9	1227.7	1366.6	1588.8	1955.4	2255.4	2433.1	2499.8	2533.1
37.5°	955.5	961.0	1005.5	1083.2	1222.1	1422.1	1716.5	1949.8	2055.4	2105.4	2099.8
40°	805.5	816.6	844.4	933.3	1072.1	1261.0	1499.9	1672.1	1744.3	1749.9	1766.5
42.5°	672.2	672.2	716.6	788.8	922.1	1099.9	1311.0	1433.2	1488.8	1483.2	1472.1
45°	550.0	555.5	583.3	655.5	777.7	938.8	1122.1	1233.2	1266.6	1244.3	1261.0
47.5°	450.0	455.5	477.7	544.4	649.9	805.5	949.9	1055.5	1083.2	1066.6	1066.6
50°	366.6	372.2	388.9	438.9	527.7	655.5	788.8	877.7	905.5	899.9	911.0
52.5°	300.0	300.0	316.6	355.5	427.7	533.3	638.8	716.6	738.8	733.3	727.7
55°	244.4	244.4	255.5	283.3	338.9	416.6	505.5	566.6	583.3	588.8	594.4
57.5°	194.4	194.4	200.0	222.2	261.1	322.2	388.9	433.3	450.0	455.5	461.1
60°	150.0	150.0	161.1	172.2	205.5	244.4	288.9	322.2	344.4	344.4	350.0
62.5°	116.7	116.7	122.2	133.3	155.5	183.3	211.1	238.9	250.0	261.1	266.6
65°	88.9	88.9	94.4	100.0	116.7	133.3	155.5	177.8	188.9	194.4	200.0
67.5°	66.7	66.7	66.7	77.8	88.9	100.0	111.1	127.8	133.3	144.4	150.0
70°	50.0	50.0	50.0	55.6	61.1	72.2	77.8	88.9	100.0	105.5	105.5
72.5°	38.9	38.9	38.9	38.9	44.4	50.0	55.6	61.1	72.2	77.8	77.8
75°	27.8	27.8	27.8	27.8	33.3	33.3	38.9	44.4	50.0	55.6	55.6
77.5°	22.2	22.2	16.7	22.2	22.2	22.2	27.8	27.8	33.3	38.9	38.9
80°	11.1	11.1	11.1	11.1	16.7	16.7	16.7	22.2	22.2	22.2	27.8
82.5°	5.6	5.6	5.6	5.6	11.1	11.1	11.1	11.1	11.1	16.7	16.7
85°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
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)