

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: P592074

Luminaire Tested: **GRZ-15L-927-30x60-X-UNV-STD-2F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P592074
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-927-30x60-X-UNV-STD-2F
Description: iO LED GRAZER WITH 30x60 OPTIC
1500 LUMENS PER FOOT, 2 FOOT FIXTURE
SUMULATED RESULTS
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

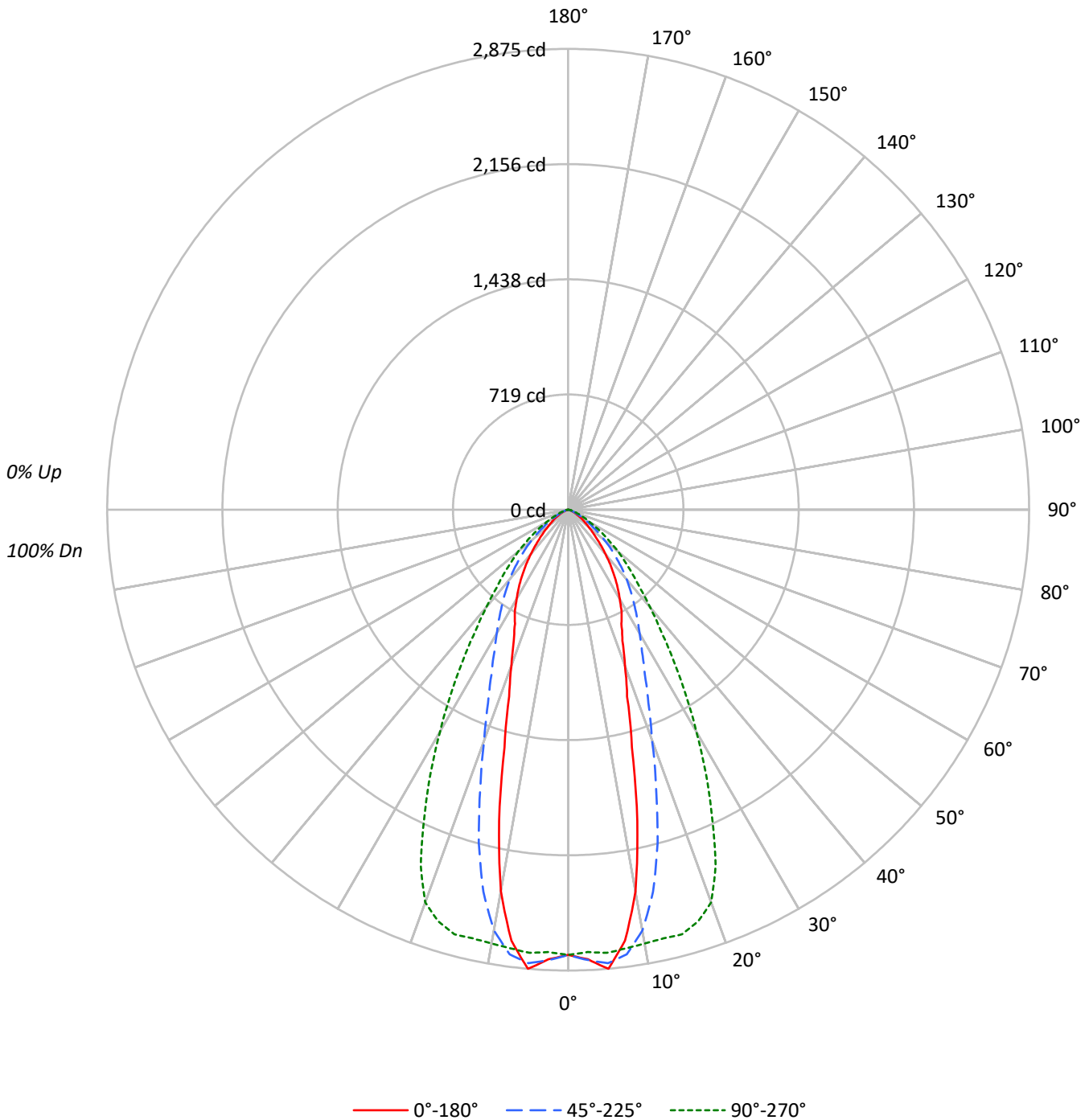
Lumens per Lamp: N/A
Luminaire Lumens: 2549.0 lumens
Efficiency: N/A
Efficacy: 87.9 lumens/watt
Spacing Criteria (0/90/45): 0.53 / 1.01 / 0.76
Luminous Opening: Rectangular (W 2' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 29
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



TEST NUMBER: P592074
CATALOG NUMBER: GRZ-15L-927-30x60-X-UNV-STD-2F

Luminous Intensity Polar Plot





TEST NUMBER: P592074

CATALOG NUMBER: GRZ-15L-927-30x60-X-UNV-STD-2F

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°	89690	89690	89690
5°	93193	92059	89952
10°	79269	87385	90090
15°	51316	71960	91684
20°	35567	52577	89604
25°	27969	40262	75714
30°	23957	33186	59566
35°	19710	28186	44940
40°	15281	23922	33512
45°	11303	19294	25916
50°	8289	14820	20597
55°	6193	10556	15060
60°	4359	7104	10172
65°	3056	4585	6877
70°	2124	3068	4485
75°	1560	1871	3119
80°	930	1395	2325
85°	926	926	926



TEST NUMBER: P592074

CATALOG NUMBER: GRZ-15L-927-30x60-X-UNV-STD-2F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	262.6	10.3
10°-20°	598.5	23.5
20°-30°	611.6	24.0
30°-40°	489.4	19.2
40°-50°	327.2	12.8
50°-60°	172.5	6.8
60°-70°	65.2	2.6
70°-80°	19.2	0.8
80°-90°	2.9	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°	1472.7	57.8
0°-40°	1962.1	77.0
0°-60°	2461.8	96.6
0°-90°	2549.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2549.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2778	2778	2778	2778	2778	
5°	2875	2833	2840	2797	2775	258
15°	1535	1694	2152	2612	2742	438
25°	785	848	1130	1858	2125	369
35°	500	544	715	1035	1140	311
45°	248	287	422	559	568	195
55°	110	124	188	257	268	100
65°	40	44	60	81	90	41
75°	12	12	15	21	25	14
85°	2	2	2	2	2	2
90°	0	0	0	0	0	



TEST NUMBER: P592074

CATALOG NUMBER: GRZ-15L-927-30x60-X-UNV-STD-2F

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2777.5	2777.5	2777.5	2777.5	2777.5	2777.5	2777.5	2777.5	2777.5	2777.5	2777.5
2.5°	2807.5	2805.0	2832.5	2812.5	2820.0	2812.5	2790.0	2777.5	2775.0	2750.0	2762.5
5°	2875.0	2835.0	2842.5	2830.0	2842.5	2840.0	2815.0	2800.0	2787.5	2772.5	2775.0
7.5°	2712.5	2717.5	2740.0	2750.0	2785.0	2797.5	2785.0	2775.0	2765.0	2757.5	2760.0
10°	2417.5	2435.0	2467.5	2532.5	2605.0	2665.0	2690.0	2717.5	2740.0	2742.5	2747.5
12.5°	1990.0	2015.0	2067.5	2137.5	2297.5	2442.5	2565.0	2660.0	2715.0	2745.0	2740.0
15°	1535.0	1542.5	1607.5	1722.5	1897.5	2152.5	2395.0	2587.5	2687.5	2757.5	2742.5
17.5°	1222.5	1232.5	1285.0	1372.5	1540.0	1822.5	2185.0	2472.5	2655.0	2705.0	2692.5
20°	1035.0	1027.5	1067.5	1140.0	1280.0	1530.0	1907.5	2292.5	2522.5	2592.5	2607.5
22.5°	885.0	892.5	917.5	975.0	1097.5	1305.0	1650.0	2057.5	2312.5	2390.0	2402.5
25°	785.0	792.5	817.5	857.5	957.5	1130.0	1427.5	1795.0	2045.0	2120.0	2125.0
27.5°	720.0	715.0	732.5	762.5	850.0	997.5	1242.5	1547.5	1780.0	1855.0	1860.0
30°	642.5	640.0	657.5	690.0	760.0	890.0	1097.5	1345.0	1510.0	1582.5	1597.5
32.5°	572.5	570.0	590.0	617.5	687.5	800.0	980.0	1172.5	1285.0	1345.0	1360.0
35°	500.0	502.5	517.5	552.5	615.0	715.0	880.0	1015.0	1095.0	1125.0	1140.0
37.5°	430.0	432.5	452.5	487.5	550.0	640.0	772.5	877.5	925.0	947.5	945.0
40°	362.5	367.5	380.0	420.0	482.5	567.5	675.0	752.5	785.0	787.5	795.0
42.5°	302.5	302.5	322.5	355.0	415.0	495.0	590.0	645.0	670.0	667.5	662.5
45°	247.5	250.0	262.5	295.0	350.0	422.5	505.0	555.0	570.0	560.0	567.5
47.5°	202.5	205.0	215.0	245.0	292.5	362.5	427.5	475.0	487.5	480.0	480.0
50°	165.0	167.5	175.0	197.5	237.5	295.0	355.0	395.0	407.5	405.0	410.0
52.5°	135.0	135.0	142.5	160.0	192.5	240.0	287.5	322.5	332.5	330.0	327.5
55°	110.0	110.0	115.0	127.5	152.5	187.5	227.5	255.0	262.5	265.0	267.5
57.5°	87.5	87.5	90.0	100.0	117.5	145.0	175.0	195.0	202.5	205.0	207.5
60°	67.5	67.5	72.5	77.5	92.5	110.0	130.0	145.0	155.0	155.0	157.5
62.5°	52.5	52.5	55.0	60.0	70.0	82.5	95.0	107.5	112.5	117.5	120.0
65°	40.0	40.0	42.5	45.0	52.5	60.0	70.0	80.0	85.0	87.5	90.0
67.5°	30.0	30.0	30.0	35.0	40.0	45.0	50.0	57.5	60.0	65.0	67.5
70°	22.5	22.5	22.5	25.0	27.5	32.5	35.0	40.0	45.0	47.5	47.5
72.5°	17.5	17.5	17.5	17.5	20.0	22.5	25.0	27.5	32.5	35.0	35.0
75°	12.5	12.5	12.5	12.5	15.0	15.0	17.5	20.0	22.5	25.0	25.0
77.5°	10.0	10.0	7.5	10.0	10.0	10.0	12.5	12.5	15.0	17.5	17.5
80°	5.0	5.0	5.0	5.0	7.5	7.5	7.5	10.0	10.0	10.0	12.5
82.5°	2.5	2.5	2.5	2.5	5.0	5.0	5.0	5.0	5.0	7.5	7.5
85°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
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)