

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: P592090

Luminaire Tested: **GRZ-15L-930-30x60-X-UNV-STD-2F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P592090
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-930-30x60-X-UNV-STD-2F
Description: iO LED GRAZER WITH 30x60 OPTIC
1500 LUMENS PER FOOT, 2 FOOT FIXTURE
SUMULATED RESULTS
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

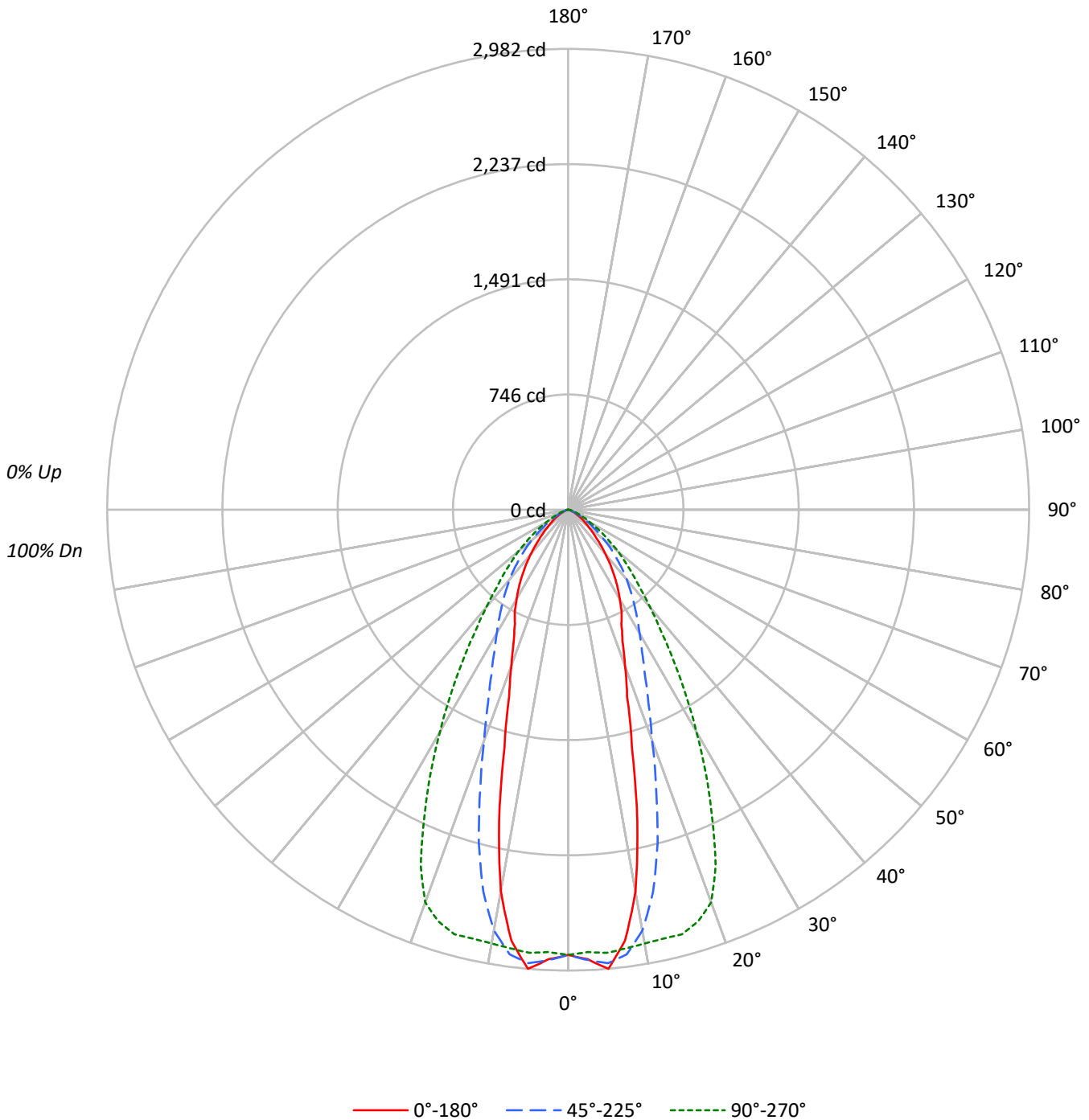
Lumens per Lamp: N/A
Luminaire Lumens: 2644.0 lumens
Efficiency: N/A
Efficacy: 91.2 lumens/watt
Spacing Criteria (0/90/45): 0.53 / 1.01 / 0.76
Luminous Opening: Rectangular (W 2' x L: 0.17' x H: 0')
CIE Type: Direct

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



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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°	93032	93032	93032
5°	96665	95488	93303
10°	82224	90641	93448
15°	53229	74641	95101
20°	36893	54536	92945
25°	29013	41762	78535
30°	24848	34424	61785
35°	20444	29235	46615
40°	15850	24812	34760
45°	11723	20011	26880
50°	8596	15373	21366
55°	6424	10950	15623
60°	4521	7369	10553
65°	3171	4753	7137
70°	2200	3182	4655
75°	1622	1946	3231
80°	967	1450	2417
85°	963	963	963



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CATALOG NUMBER: GRZ-15L-930-30x60-X-UNV-STD-2F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	272.4	10.3
10°-20°	620.8	23.5
20°-30°	634.4	24.0
30°-40°	507.6	19.2
40°-50°	339.4	12.8
50°-60°	178.9	6.8
60°-70°	67.6	2.6
70°-80°	19.9	0.8
80°-90°	3.0	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°	1527.6	57.8
0°-40°	2035.2	77.0
0°-60°	2553.5	96.6
0°-90°	2644.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2644.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2881	2881	2881	2881	2881	
5°	2982	2939	2946	2901	2878	268
15°	1592	1757	2233	2710	2845	454
25°	814	879	1172	1927	2204	382
35°	519	564	742	1074	1182	323
45°	257	298	438	580	589	202
55°	114	129	194	266	278	104
65°	42	46	62	84	93	43
75°	13	13	16	21	26	15
85°	3	3	3	3	3	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°	2881.0	2881.0	2881.0	2881.0	2881.0	2881.0	2881.0	2881.0	2881.0	2881.0	2881.0
2.5°	2912.1	2909.5	2938.0	2917.3	2925.1	2917.3	2894.0	2881.0	2878.4	2852.5	2865.4
5°	2982.1	2940.6	2948.4	2935.5	2948.4	2945.8	2919.9	2904.3	2891.4	2875.8	2878.4
7.5°	2813.6	2818.8	2842.1	2852.5	2888.8	2901.7	2888.8	2878.4	2868.0	2860.3	2862.8
10°	2507.6	2525.7	2559.4	2626.9	2702.1	2764.3	2790.2	2818.8	2842.1	2844.7	2849.9
12.5°	2064.2	2090.1	2144.5	2217.1	2383.1	2533.5	2660.6	2759.1	2816.2	2847.3	2842.1
15°	1592.2	1600.0	1667.4	1786.7	1968.2	2232.7	2484.2	2683.9	2787.6	2860.3	2844.7
17.5°	1268.1	1278.4	1332.9	1423.6	1597.4	1890.4	2266.4	2564.6	2753.9	2805.8	2792.8
20°	1073.6	1065.8	1107.3	1182.5	1327.7	1587.0	1978.6	2377.9	2616.5	2689.1	2704.7
22.5°	918.0	925.8	951.7	1011.3	1138.4	1353.6	1711.5	2134.2	2398.7	2479.1	2492.0
25°	814.3	822.0	848.0	889.5	993.2	1172.1	1480.7	1861.9	2121.2	2199.0	2204.2
27.5°	746.8	741.6	759.8	790.9	881.7	1034.7	1288.8	1605.2	1846.3	1924.1	1929.3
30°	666.4	663.8	682.0	715.7	788.3	923.2	1138.4	1395.1	1566.3	1641.5	1657.0
32.5°	593.8	591.2	612.0	640.5	713.1	829.8	1016.5	1216.2	1332.9	1395.1	1410.7
35°	518.6	521.2	536.8	573.1	637.9	741.6	912.8	1052.8	1135.8	1166.9	1182.5
37.5°	446.0	448.6	469.4	505.7	570.5	663.8	801.3	910.2	959.5	982.8	980.2
40°	376.0	381.2	394.2	435.7	500.5	588.6	700.2	780.5	814.3	816.8	824.6
42.5°	313.8	313.8	334.5	368.2	430.5	513.4	612.0	669.0	695.0	692.4	687.2
45°	256.7	259.3	272.3	306.0	363.0	438.2	523.8	575.7	591.2	580.9	588.6
47.5°	210.0	212.6	223.0	254.1	303.4	376.0	443.4	492.7	505.7	497.9	497.9
50°	171.1	173.7	181.5	204.9	246.3	306.0	368.2	409.7	422.7	420.1	425.3
52.5°	140.0	140.0	147.8	166.0	199.7	248.9	298.2	334.5	344.9	342.3	339.7
55°	114.1	114.1	119.3	132.3	158.2	194.5	236.0	264.5	272.3	274.9	277.5
57.5°	90.8	90.8	93.4	103.7	121.9	150.4	181.5	202.3	210.0	212.6	215.2
60°	70.0	70.0	75.2	80.4	95.9	114.1	134.8	150.4	160.8	160.8	163.4
62.5°	54.5	54.5	57.0	62.2	72.6	85.6	98.5	111.5	116.7	121.9	124.5
65°	41.5	41.5	44.1	46.7	54.5	62.2	72.6	83.0	88.2	90.8	93.4
67.5°	31.1	31.1	31.1	36.3	41.5	46.7	51.9	59.6	62.2	67.4	70.0
70°	23.3	23.3	23.3	25.9	28.5	33.7	36.3	41.5	46.7	49.3	49.3
72.5°	18.2	18.2	18.2	18.2	20.7	23.3	25.9	28.5	33.7	36.3	36.3
75°	13.0	13.0	13.0	13.0	15.6	15.6	18.2	20.7	23.3	25.9	25.9
77.5°	10.4	10.4	7.8	10.4	10.4	10.4	13.0	13.0	15.6	18.2	18.2
80°	5.2	5.2	5.2	5.2	7.8	7.8	7.8	10.4	10.4	10.4	13.0
82.5°	2.6	2.6	2.6	2.6	5.2	5.2	5.2	5.2	5.2	7.8	7.8
85°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
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)