

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: P592069

Luminaire Tested: **GRZ-15L-927-10x30-X-UNV-STD-4F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P592069
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2111-457-17)
Test Lab: INNOVATION CENTER
Issue Date: 2/2/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: iO LED
Catalog Number: GRZ-15L-927-10x30-X-UNV-STD-4F
Description: iO LED GRAZER WITH 10x30 OPTIC
1500 LUMENS PER FOOT, 4 FOOT FIXTURE
SUMULATED RESULTS
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

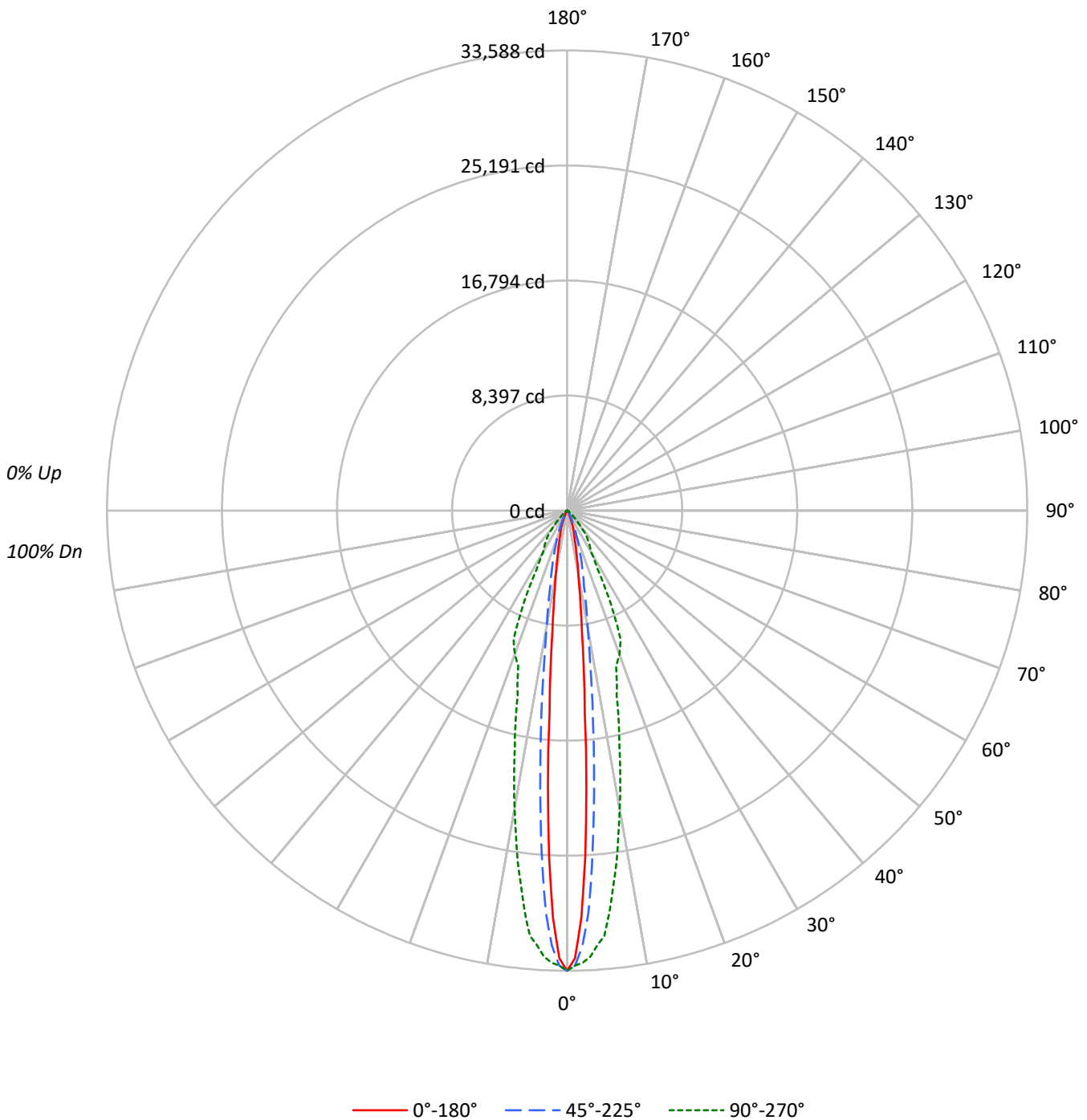
Lumens per Lamp: N/A
Luminaire Lumens: 5324.0 lumens
Efficiency: N/A
Efficacy: 95.1 lumens/watt
Spacing Criteria (0/90/45): 0.16 / 0.44 / 0.26
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 56
Input Voltage (V): 120
Input Current (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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95
2	110	106	102	100	108	104	101	99	101	99	96	98	96	94	95	94	92	91
3	106	100	96	93	104	99	95	92	97	93	91	94	92	90	92	90	88	87
4	102	96	91	88	100	95	91	87	93	89	86	91	88	85	89	86	84	83
5	98	92	87	83	97	91	86	83	89	85	82	87	84	82	86	83	81	80
6	95	88	83	80	94	87	83	79	86	82	79	84	81	78	83	80	78	77
7	92	84	80	76	91	84	79	76	83	79	76	82	78	75	81	77	75	74
8	89	81	77	73	88	81	76	73	80	76	73	79	75	73	78	75	72	71
9	86	79	74	71	85	78	74	71	77	73	71	77	73	70	76	73	70	69
10	84	76	72	69	83	76	71	68	75	71	68	74	71	68	74	70	68	67

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	542315	542315	542315
5°	240194	360656	505177
10°	77932	140703	362203
15°	34004	69513	233518
20°	19151	35555	191686
25°	6857	15761	135704
30°	4193	8108	65603
35°	3152	5221	52609
40°	2529	3792	34764
45°	2169	2283	17689
50°	2512	1382	8287
55°	2674	1126	4082
60°	2260	969	2422
65°	1910	1146	1910
70°	1652	1180	1652
75°	1248	936	1248
80°	930	930	930
85°	926	926	926



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1786.5	33.6
10°-20°	1744.7	32.8
20°-30°	977.8	18.4
30°-40°	441.5	8.3
40°-50°	223.3	4.2
50°-60°	83.3	1.6
60°-70°	41.4	0.8
70°-80°	21.4	0.4
80°-90°	4.2	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°	4509.0	84.7
0°-40°	4950.5	93.0
0°-60°	5257.1	98.7
0°-90°	5324.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5324.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	33588	33588	33588	33588	33588	
5°	14820	16993	22252	28563	31169	1133
15°	2034	2510	4159	9093	13970	629
25°	385	430	885	3303	7617	218
35°	160	109	265	1053	2669	102
45°	95	82	100	475	775	79
55°	95	46	40	146	145	82
65°	50	39	30	44	50	50
75°	20	24	15	16	20	22
85°	5	5	5	1	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°	33588.5	33588.5	33588.5	33588.5	33588.5	33588.5	33588.5	33588.5	33588.5	33588.5	33588.5
1°	32673.8	32678.8	32923.7	32763.8	33153.6	33208.6	33158.6	33248.6	33273.6	33133.6	33208.6
2°	29684.8	29774.8	29919.7	30759.4	31144.3	31769.1	32293.9	32743.8	32938.7	33018.7	33008.7
3°	25271.3	25211.3	25926.1	26730.8	28110.4	29419.9	30709.5	31559.2	32308.9	32548.8	32593.8
4°	20128.1	19893.2	21117.8	21797.5	23661.9	26016.1	28315.3	30149.7	31384.2	31894.1	31774.1
5°	14819.9	15234.8	16089.5	17294.1	19328.4	22252.4	25326.3	28075.4	30024.7	30884.4	31169.3
6°	11546.0	11466.1	12155.8	13625.3	15679.6	18818.5	22332.3	25781.2	28205.3	29240.0	29484.9
7°	8906.9	8857.0	9541.7	10586.4	12310.8	15539.7	19428.3	23456.9	26430.9	27600.5	27590.5
8°	7057.6	7027.6	7502.4	8327.1	9956.6	12685.6	16554.3	20897.8	24306.7	25881.1	25881.1
9°	5703.0	5768.0	6057.9	6787.7	8072.2	10356.4	14150.1	18728.6	22227.4	23766.8	23901.8
10°	4753.4	4788.4	5023.3	5623.1	6692.7	8582.1	11890.9	16204.4	20178.1	22127.4	22092.4
12.5°	3083.9	3158.9	3328.9	3713.7	4493.5	5673.1	7902.3	11361.1	15379.7	17329.1	17658.9
15°	2034.3	2049.3	2259.2	2594.1	3213.9	4158.6	5718.0	8297.2	11481.1	13690.3	13970.2
17.5°	1519.5	1534.5	1584.5	1784.4	2239.2	3044.0	4308.5	6307.8	9331.8	11561.0	11880.9
20°	1114.6	1064.6	1049.6	1164.6	1519.5	2069.3	3143.9	4918.3	7572.4	10581.4	11156.2
22.5°	649.8	639.8	614.8	709.8	979.7	1359.5	2139.3	3673.7	6402.8	9421.8	10216.5
25°	384.9	374.9	369.9	449.8	614.8	884.7	1459.5	2779.0	4873.3	6927.6	7617.4
27.5°	279.9	269.9	244.9	279.9	404.9	609.8	1029.6	2009.3	3343.9	4453.5	4828.3
30°	224.9	214.9	169.9	184.9	279.9	434.9	754.7	1389.5	2374.2	3308.9	3518.8
32.5°	189.9	179.9	130.0	135.0	194.9	329.9	589.8	1069.6	1919.3	2864.0	3098.9
35°	159.9	149.9	105.0	110.0	149.9	264.9	484.8	879.7	1574.5	2464.2	2669.1
37.5°	135.0	125.0	90.0	95.0	130.0	219.9	439.8	759.7	1304.6	2024.3	2224.2
40°	120.0	110.0	80.0	90.0	120.0	179.9	389.9	644.8	1069.6	1564.5	1649.4
42.5°	105.0	95.0	80.0	90.0	110.0	140.0	284.9	514.8	869.7	1124.6	1194.6
45°	95.0	90.0	75.0	85.0	95.0	100.0	179.9	399.9	699.8	774.7	774.7
47.5°	100.0	90.0	70.0	75.0	75.0	75.0	110.0	314.9	544.8	524.8	509.8
50°	100.0	85.0	65.0	60.0	60.0	55.0	75.0	244.9	404.9	334.9	329.9
52.5°	100.0	85.0	60.0	55.0	50.0	45.0	55.0	184.9	284.9	214.9	214.9
55°	95.0	80.0	50.0	45.0	40.0	40.0	45.0	130.0	194.9	149.9	145.0
57.5°	85.0	70.0	45.0	40.0	40.0	35.0	35.0	85.0	149.9	115.0	100.0
60°	70.0	60.0	40.0	40.0	40.0	30.0	30.0	55.0	120.0	85.0	75.0
62.5°	60.0	50.0	40.0	40.0	40.0	30.0	25.0	40.0	100.0	70.0	60.0
65°	50.0	40.0	35.0	40.0	40.0	30.0	20.0	30.0	85.0	55.0	50.0
67.5°	40.0	35.0	30.0	35.0	35.0	25.0	15.0	20.0	70.0	45.0	40.0
70°	35.0	30.0	25.0	30.0	35.0	25.0	15.0	20.0	55.0	35.0	35.0
72.5°	25.0	25.0	25.0	30.0	30.0	20.0	10.0	15.0	45.0	30.0	30.0
75°	20.0	20.0	20.0	25.0	25.0	15.0	10.0	10.0	35.0	25.0	20.0
77.5°	15.0	15.0	15.0	20.0	20.0	10.0	5.0	10.0	25.0	15.0	15.0
80°	10.0	10.0	10.0	15.0	15.0	10.0	5.0	5.0	15.0	10.0	10.0
82.5°	5.0	5.0	5.0	10.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0
85°	5.0	5.0	5.0	5.0	5.0	5.0	0.0	0.0	5.0	5.0	5.0
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)