

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: P592073

Luminaire Tested: **GRZ-15L-927-17x30-X-UNV-STD-4F**

Issue Date: 2/2/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P592073  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2111-457-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/2/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: iO LED  
Catalog Number: GRZ-15L-927-17x30-X-UNV-STD-4F  
Description: iO LED GRAZER WITH 17x30 OPTIC  
1500 LUMENS PER FOOT, 4 FOOT FIXTURE  
SUMULATED RESULTS  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

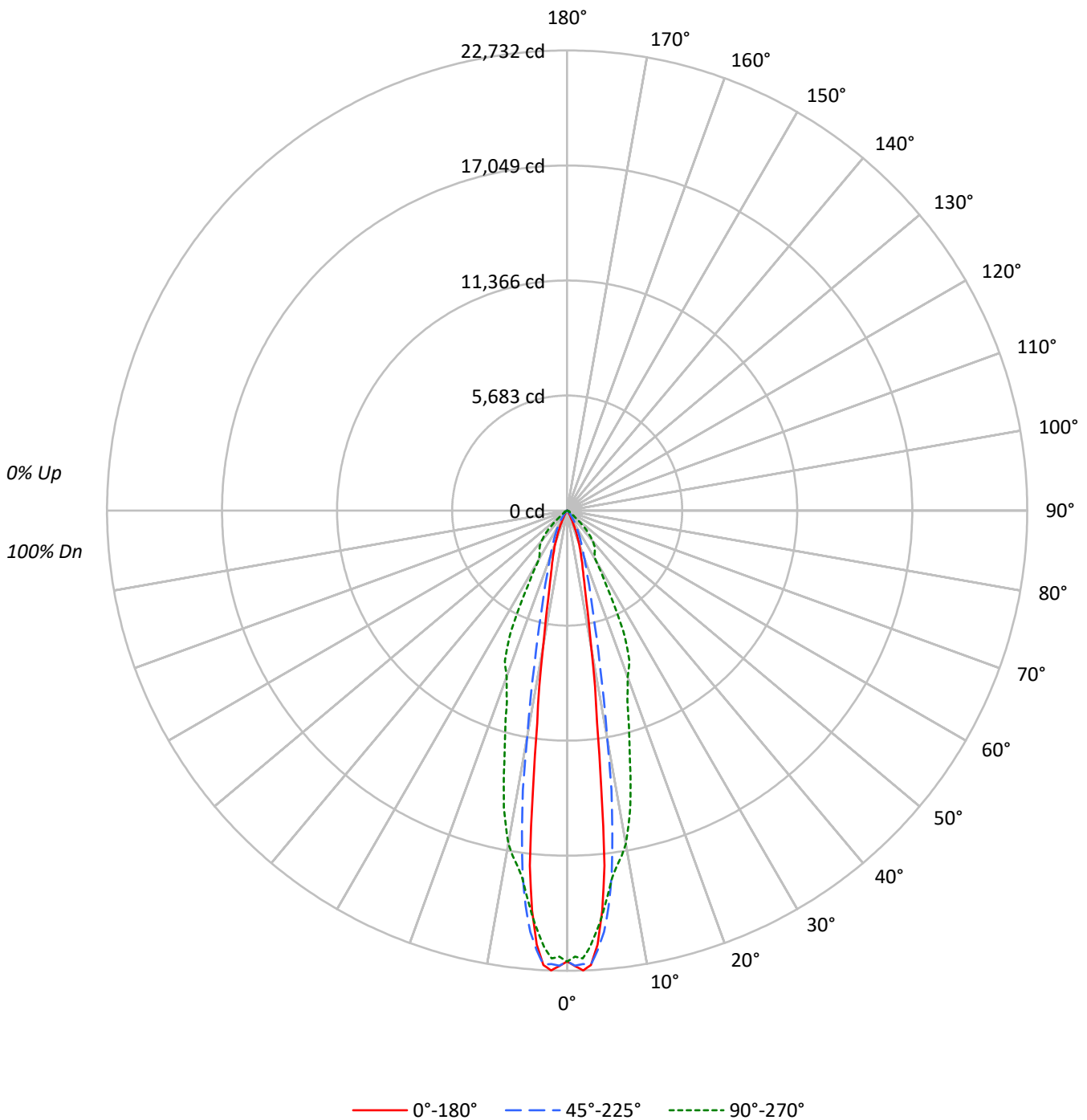
Lumens per Lamp: N/A  
Luminaire Lumens: 5404.0 lumens  
Efficiency: N/A  
Efficacy: 96.5 lumens/watt  
Spacing Criteria (0/90/45): 0.27 / 0.52 / 0.34  
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')  
CIE Type: Direct

Input Watts (W): 56  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	105	102	99	107	104	100	98	100	98	96	98	95	94	95	93	92	90
3	105	100	95	92	103	98	94	91	96	93	90	93	91	88	91	89	87	86
4	101	95	90	86	99	94	89	86	92	88	85	90	86	84	88	85	83	82
5	97	90	85	82	96	89	85	81	88	84	81	86	83	80	85	82	79	78
6	94	86	81	78	92	86	81	77	84	80	77	83	79	76	82	78	76	75
7	90	83	78	74	89	82	77	74	81	77	74	80	76	73	79	75	73	72
8	87	79	75	71	86	79	74	71	78	74	71	77	73	71	76	73	70	69
9	84	77	72	68	83	76	72	68	75	71	68	74	71	68	74	70	68	67
10	82	74	69	66	81	73	69	66	73	69	66	72	68	66	71	68	65	64

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	359681	359681	359681
5°	321667	338606	324666
10°	112069	186263	274148
15°	49817	77399	198597
20°	29041	41498	150185
25°	12472	26457	116966
30°	4195	16408	51648
35°	2562	8475	47013
40°	2213	4848	41315
45°	2398	3768	28887
50°	1884	1758	12685
55°	1689	1689	5067
60°	1615	1776	4682
65°	1719	1719	4393
70°	1652	1416	3305
75°	1248	1248	1560
80°	930	930	930
85°	926	926	926



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1636.1	30.3
10°-20°	1730.1	32.0
20°-30°	1071.2	19.8
30°-40°	542.0	10.0
40°-50°	268.2	5.0
50°-60°	79.9	1.5
60°-70°	49.2	0.9
70°-80°	23.3	0.4
80°-90°	4.1	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°	4437.4	82.1
0°-40°	4979.4	92.1
0°-60°	5327.4	98.6
0°-90°	5404.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5404.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	22277	22277	22277	22277	22277	
5°	19847	20276	20892	20312	20032	1385
15°	2980	3307	4630	8103	11881	886
25°	700	873	1485	3559	6566	354
35°	130	141	430	1591	2385	87
45°	105	94	165	436	1265	76
55°	60	59	60	88	180	54
65°	45	54	45	29	115	43
75°	20	29	20	11	25	23
85°	5	5	5	0	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°	22277.0	22277.0	22277.0	22277.0	22277.0	22277.0	22277.0	22277.0	22277.0	22277.0	22277.0
1°	22502.0	22432.0	22447.0	22537.0	22592.0	22487.0	22337.0	22222.0	22272.0	22117.0	22042.0
2°	22732.1	22677.1	22642.1	22672.1	22552.0	22417.0	22262.0	22177.0	22147.0	22067.0	22142.0
3°	22482.0	22412.0	22432.0	22502.0	22442.0	22452.0	22067.0	21807.0	21782.0	21677.0	21592.0
4°	21491.9	21542.0	21642.0	21652.0	21722.0	21742.0	21607.0	21111.9	21121.9	20926.9	20831.9
5°	19846.8	19881.8	20181.8	20306.8	20756.9	20891.9	20926.9	20326.8	20266.8	19971.8	20031.8
6°	17641.6	16996.5	17801.6	18121.6	19026.7	19641.8	19856.8	19761.8	19461.8	19121.7	19126.7
7°	13766.2	13821.3	14281.3	15166.4	16851.5	18041.6	18926.7	19121.7	18721.7	18481.7	18256.7
8°	10616.0	10846.0	11501.0	12436.1	14111.3	16036.5	17641.6	18081.6	17981.6	17741.6	17706.6
9°	8790.8	8615.8	9140.8	9885.9	11491.0	13966.3	15946.4	16881.5	17171.6	17246.6	17261.6
10°	6835.6	7040.6	7290.7	8065.7	9425.9	11361.0	13961.3	15411.4	16171.5	16596.5	16721.5
11°	5535.5	5610.5	5930.5	6660.6	7685.7	9465.9	12096.1	13731.2	14901.3	15761.4	15871.4
12°	4555.4	4620.4	4835.4	5375.5	6305.6	7720.7	9980.9	12026.1	13786.2	14791.3	15016.4
13°	3870.4	3945.4	4120.4	4540.4	5260.5	6495.6	8060.7	10275.9	12301.1	13726.2	13926.3
14°	3325.3	3410.3	3525.3	3895.4	4480.4	5355.5	6690.6	8805.8	10976.0	12576.1	12841.2
15°	2980.3	2990.3	3115.3	3370.3	3885.4	4630.4	5780.5	7550.7	9760.9	11561.0	11881.1
17.5°	2240.2	2225.2	2240.2	2440.2	2740.2	3285.3	4075.4	5610.5	7965.7	9530.9	9880.9
20°	1690.2	1695.2	1660.2	1775.2	2025.2	2415.2	3070.3	4565.4	6975.6	8540.8	8740.8
22.5°	1175.1	1165.1	1180.1	1290.1	1530.1	1890.2	2405.2	3725.3	6355.6	7880.7	8045.7
25°	700.1	715.1	775.1	905.1	1140.1	1485.1	1965.2	3010.3	5205.5	6220.6	6565.6
27.5°	405.0	410.0	460.0	600.1	825.1	1155.1	1615.1	2345.2	3605.3	4145.4	4235.4
30°	225.0	225.0	260.0	350.0	560.1	880.1	1320.1	1945.2	2615.2	2765.3	2770.3
32.5°	150.0	150.0	160.0	205.0	345.0	640.1	1075.1	1675.2	2270.2	2485.2	2520.2
35°	130.0	125.0	130.0	145.0	215.0	430.0	825.1	1425.1	2090.2	2345.2	2385.2
37.5°	115.0	115.0	120.0	135.0	165.0	280.0	585.1	1130.1	1850.2	2170.2	2215.2
40°	105.0	105.0	110.0	135.0	165.0	230.0	370.0	820.1	1525.1	1910.2	1960.2
42.5°	100.0	100.0	100.0	120.0	155.0	210.0	215.0	525.0	1175.1	1570.1	1645.1
45°	105.0	100.0	90.0	95.0	120.0	165.0	125.0	310.0	815.1	1210.1	1265.1
47.5°	100.0	100.0	95.0	90.0	90.0	110.0	80.0	170.0	510.0	840.1	870.1
50°	75.0	75.0	65.0	80.0	85.0	70.0	60.0	110.0	315.0	475.0	505.0
52.5°	65.0	65.0	60.0	60.0	70.0	65.0	45.0	90.0	200.0	265.0	275.0
55°	60.0	55.0	55.0	60.0	65.0	60.0	40.0	70.0	140.0	175.0	180.0
57.5°	55.0	55.0	55.0	55.0	65.0	60.0	40.0	50.0	110.0	140.0	155.0
60°	50.0	50.0	55.0	55.0	60.0	55.0	35.0	35.0	90.0	125.0	145.0
62.5°	45.0	50.0	50.0	55.0	60.0	50.0	30.0	25.0	70.0	115.0	135.0
65°	45.0	45.0	50.0	55.0	55.0	45.0	25.0	20.0	55.0	95.0	115.0
67.5°	40.0	40.0	45.0	50.0	55.0	40.0	15.0	15.0	45.0	80.0	95.0
70°	35.0	35.0	40.0	45.0	45.0	30.0	15.0	15.0	30.0	65.0	70.0
72.5°	30.0	30.0	35.0	40.0	40.0	25.0	10.0	10.0	20.0	50.0	45.0
75°	20.0	25.0	25.0	30.0	30.0	20.0	10.0	10.0	15.0	30.0	25.0
77.5°	15.0	15.0	20.0	25.0	25.0	15.0	5.0	5.0	10.0	20.0	15.0
80°	10.0	10.0	15.0	15.0	15.0	10.0	5.0	5.0	5.0	10.0	10.0
82.5°	5.0	5.0	10.0	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	0.0	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



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
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)