

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: P592101

Luminaire Tested: **GRZ-15L-935-10x30-X-UNV-STD-4F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P592101
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-935-10x30-X-UNV-STD-4F
Description: iO LED GRAZER WITH 10x30 OPTIC
1500 LUMENS PER FOOT, 4 FOOT FIXTURE
SUMULATED RESULTS
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

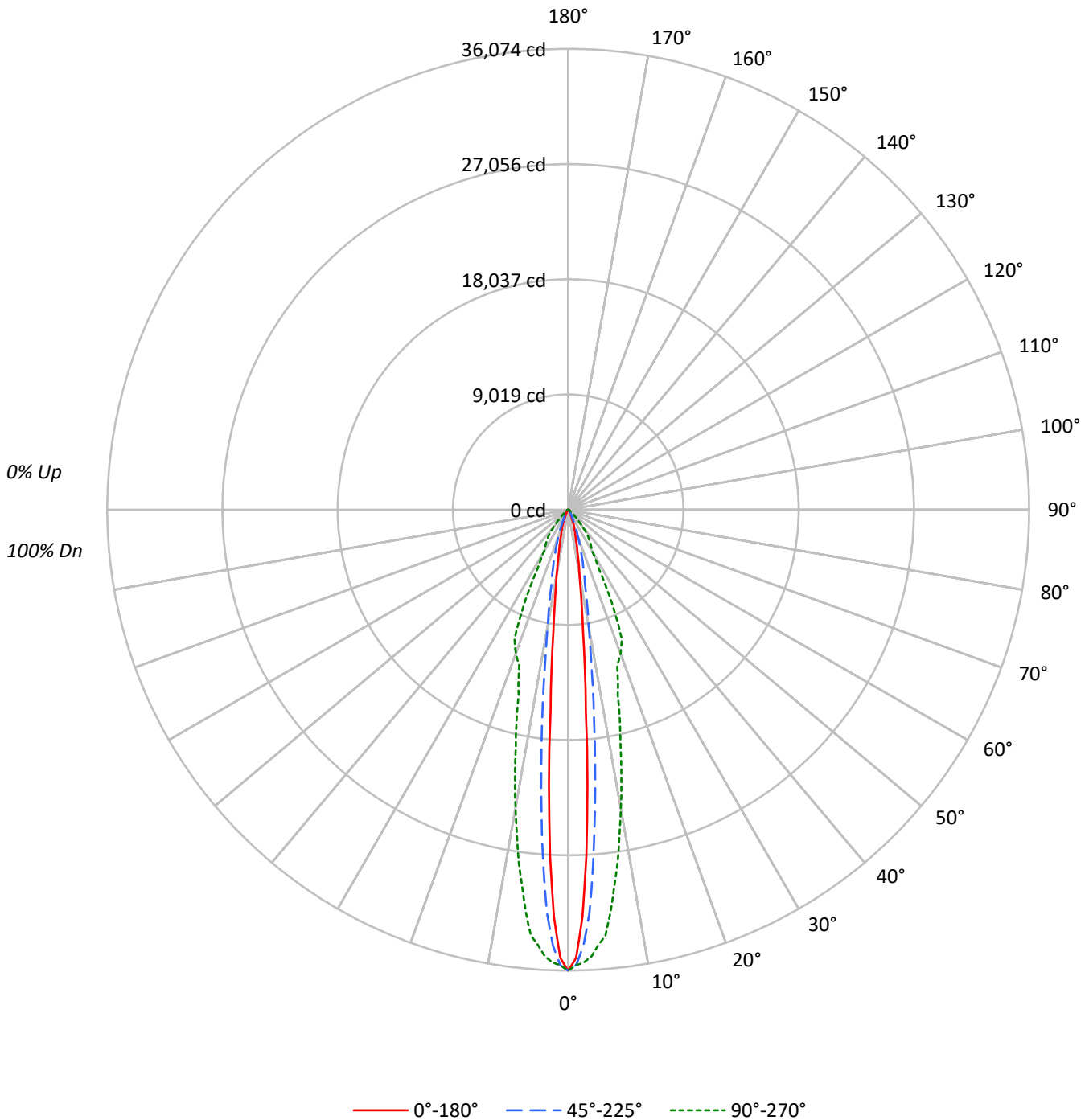
Lumens per Lamp: N/A
Luminaire Lumens: 5718.0 lumens
Efficiency: N/A
Efficacy: 102.1 lumens/watt
Spacing Criteria (0/90/45): 0.16 / 0.44 / 0.26
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	582448	582448	582448
5°	257970	387345	542563
10°	83698	151115	389009
15°	36520	74656	250800
20°	20569	38185	205872
25°	7363	16928	145746
30°	4504	8707	70458
35°	3386	5608	56502
40°	2715	4074	37338
45°	2329	2452	19000
50°	2698	1482	8899
55°	2871	1208	4383
60°	2428	1040	2599
65°	2052	1230	2052
70°	1775	1265	1775
75°	1341	1004	1341
80°	995	995	995
85°	1000	1000	1000



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CATALOG NUMBER: GRZ-15L-935-10x30-X-UNV-STD-4F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1918.7	33.6
10°-20°	1873.8	32.8
20°-30°	1050.1	18.4
30°-40°	474.2	8.3
40°-50°	239.8	4.2
50°-60°	89.4	1.6
60°-70°	44.4	0.8
70°-80°	23.0	0.4
80°-90°	4.5	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°	4842.7	84.7
0°-40°	5316.9	93.0
0°-60°	5646.1	98.7
0°-90°	5718.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5718.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	36074	36074	36074	36074	36074	
5°	15917	18250	23899	30676	33476	1217
15°	2185	2696	4466	9766	15004	675
25°	413	462	950	3547	8181	235
35°	172	117	284	1131	2867	109
45°	102	89	107	510	832	85
55°	102	50	43	157	156	88
65°	54	42	32	47	54	54
75°	22	25	16	17	22	23
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°	36074.2	36074.2	36074.2	36074.2	36074.2	36074.2	36074.2	36074.2	36074.2	36074.2	36074.2
1°	35091.8	35097.2	35360.2	35188.4	35607.1	35666.2	35612.5	35709.1	35736.0	35585.7	35666.2
2°	31881.6	31978.2	32133.9	33035.8	33449.1	34120.2	34683.8	35166.9	35376.3	35462.2	35451.5
3°	27141.5	27077.1	27844.8	28709.0	30190.6	31597.1	32982.1	33894.7	34699.9	34957.6	35005.9
4°	21617.7	21365.4	22680.6	23410.6	25413.0	27941.4	30410.7	32380.9	33706.8	34254.4	34125.5
5°	15916.7	16362.2	17280.2	18573.9	20758.8	23899.1	27200.6	30153.1	32246.7	33170.0	33476.0
6°	12400.5	12314.6	13055.4	14633.7	16840.0	20211.2	23985.0	27689.1	30292.6	31403.9	31666.9
7°	9566.1	9512.4	10247.9	11369.8	13221.8	16689.7	20866.1	25192.9	28386.9	29643.1	29632.4
8°	7579.9	7547.7	8057.6	8943.4	10693.4	13624.4	17779.4	22444.4	26105.5	27796.4	27796.4
9°	6125.1	6194.9	6506.2	7290.0	8669.6	11122.9	15197.3	20114.6	23872.3	25525.7	25670.6
10°	5105.1	5142.7	5395.0	6039.2	7188.0	9217.2	12770.9	17403.6	21671.3	23764.9	23727.4
12.5°	3312.2	3392.7	3575.2	3988.6	4826.0	6092.9	8487.1	12201.9	16517.9	18611.5	18965.8
15°	2184.8	2201.0	2426.4	2786.1	3451.7	4466.3	6141.2	8911.2	12330.7	14703.4	15004.1
17.5°	1631.9	1648.0	1701.7	1916.4	2404.9	3269.2	4627.4	6774.6	10022.4	12416.6	12760.2
20°	1197.1	1143.4	1127.3	1250.8	1631.9	2222.4	3376.6	5282.3	8132.8	11364.4	11981.8
22.5°	697.9	687.1	660.3	762.3	1052.2	1460.1	2297.6	3945.6	6876.6	10119.0	10972.6
25°	413.3	402.6	397.2	483.1	660.3	950.2	1567.5	2984.7	5234.0	7440.3	8181.1
27.5°	300.6	289.9	263.0	300.6	434.8	654.9	1105.8	2158.0	3591.3	4783.0	5185.7
30°	241.6	230.8	182.5	198.6	300.6	467.0	810.6	1492.4	2549.9	3553.7	3779.2
32.5°	204.0	193.3	139.6	144.9	209.4	354.3	633.4	1148.8	2061.4	3076.0	3328.3
35°	171.8	161.0	112.7	118.1	161.0	284.5	520.7	944.8	1691.0	2646.5	2866.6
37.5°	144.9	134.2	96.6	102.0	139.6	236.2	472.4	816.0	1401.1	2174.1	2388.8
40°	128.8	118.1	85.9	96.6	128.8	193.3	418.7	692.5	1148.8	1680.2	1771.5
42.5°	112.7	102.0	85.9	96.6	118.1	150.3	306.0	552.9	934.1	1207.8	1283.0
45°	102.0	96.6	80.5	91.3	102.0	107.4	193.3	429.5	751.5	832.1	832.1
47.5°	107.4	96.6	75.2	80.5	80.5	80.5	118.1	338.2	585.1	563.7	547.6
50°	107.4	91.3	69.8	64.4	64.4	59.0	80.5	263.0	434.8	359.7	354.3
52.5°	107.4	91.3	64.4	59.0	53.7	48.3	59.0	198.6	306.0	230.8	230.8
55°	102.0	85.9	53.7	48.3	42.9	42.9	48.3	139.6	209.4	161.0	155.7
57.5°	91.3	75.2	48.3	42.9	42.9	37.6	37.6	91.3	161.0	123.5	107.4
60°	75.2	64.4	42.9	42.9	42.9	32.2	32.2	59.0	128.8	91.3	80.5
62.5°	64.4	53.7	42.9	42.9	42.9	32.2	26.8	42.9	107.4	75.2	64.4
65°	53.7	42.9	37.6	42.9	42.9	32.2	21.5	32.2	91.3	59.0	53.7
67.5°	42.9	37.6	32.2	37.6	37.6	26.8	16.1	21.5	75.2	48.3	42.9
70°	37.6	32.2	26.8	32.2	37.6	26.8	16.1	21.5	59.0	37.6	37.6
72.5°	26.8	26.8	26.8	32.2	32.2	21.5	10.7	16.1	48.3	32.2	32.2
75°	21.5	21.5	21.5	26.8	26.8	16.1	10.7	10.7	37.6	26.8	21.5
77.5°	16.1	16.1	16.1	21.5	21.5	10.7	5.4	10.7	26.8	16.1	16.1
80°	10.7	10.7	10.7	16.1	16.1	10.7	5.4	5.4	16.1	10.7	10.7
82.5°	5.4	5.4	5.4	10.7	10.7	5.4	5.4	5.4	5.4	5.4	5.4
85°	5.4	5.4	5.4	5.4	5.4	5.4	0.0	0.0	5.4	5.4	5.4
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)