

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: P592100

Luminaire Tested: **GRZ-15L-935-10x30-X-UNV-STD-2F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P592100
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-2F
Description: iO LED GRAZER WITH 10x30 OPTIC
1500 LUMENS PER FOOT, 2 FOOT FIXTURE
SUMULATED RESULTS
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

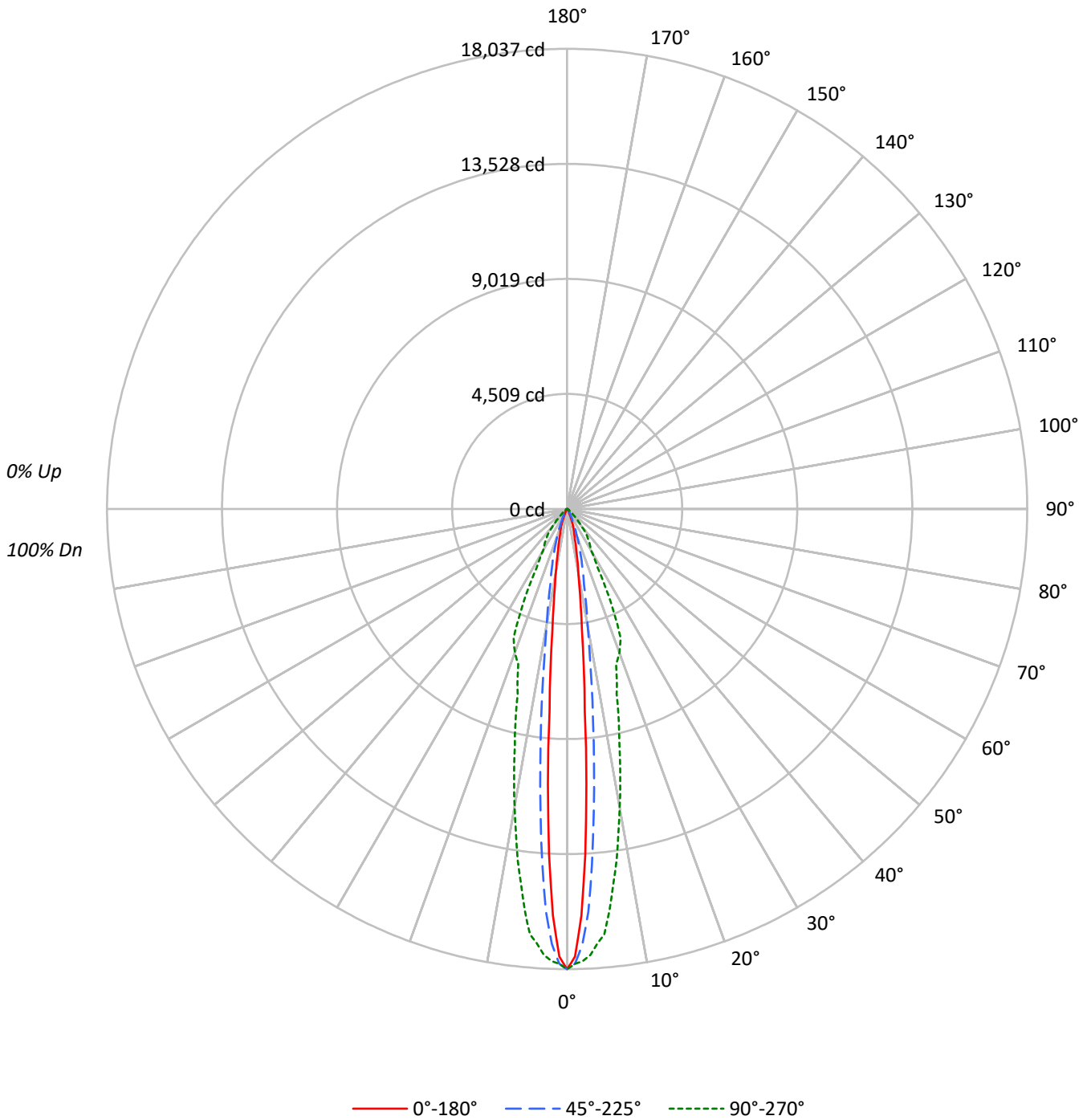
Lumens per Lamp: N/A
Luminaire Lumens: 2859.0 lumens
Efficiency: N/A
Efficacy: 98.6 lumens/watt
Spacing Criteria (0/90/45): 0.16 / 0.44 / 0.26
Luminous Opening: Rectangular (W 2' x L: 0.17' x H: 0')
CIE Type: Direct

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	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°	257969	387347	542563
10°	83699	151115	389009
15°	36520	74658	250798
20°	20570	38185	205872
25°	7365	16928	145748
30°	4504	8707	70458
35°	3386	5610	56502
40°	2715	4072	37336
45°	2329	2452	18998
50°	2698	1482	8897
55°	2871	1210	4380
60°	2428	1040	2603
65°	2048	1230	2048
70°	1775	1265	1775
75°	1335	1011	1335
80°	1004	1004	1004
85°	1000	1000	1000



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CATALOG NUMBER: GRZ-15L-935-10x30-X-UNV-STD-2F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	959.4	33.6
10°-20°	936.9	32.8
20°-30°	525.1	18.4
30°-40°	237.1	8.3
40°-50°	119.9	4.2
50°-60°	44.7	1.6
60°-70°	22.2	0.8
70°-80°	11.5	0.4
80°-90°	2.2	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°	2421.4	84.7
0°-40°	2658.4	93.0
0°-60°	2823.0	98.7
0°-90°	2859.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2859.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	18037	18037	18037	18037	18037	
5°	7958	9125	11950	15338	16738	608
15°	1092	1348	2233	4883	7502	338
25°	207	231	475	1774	4091	117
35°	86	58	142	566	1433	55
45°	51	44	54	255	416	43
55°	51	25	22	79	78	44
65°	27	21	16	23	27	27
75°	11	13	8	9	11	12
85°	3	3	3	1	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°	18037.1	18037.1	18037.1	18037.1	18037.1	18037.1	18037.1	18037.1	18037.1	18037.1	18037.1
1°	17545.9	17548.6	17680.1	17594.2	17803.6	17833.1	17806.3	17854.6	17868.0	17792.8	17833.1
2°	15940.8	15989.1	16067.0	16517.9	16724.6	17060.1	17341.9	17583.5	17688.2	17731.1	17725.7
3°	13570.8	13538.6	13922.4	14354.5	15095.3	15798.6	16491.0	16947.3	17350.0	17478.8	17503.0
4°	10808.8	10682.7	11340.3	11705.3	12706.5	13970.7	15205.4	16190.4	16853.4	17127.2	17062.8
5°	7958.3	8181.1	8640.1	9287.0	10379.4	11949.6	13600.3	15076.5	16123.3	16585.0	16738.0
6°	6200.2	6157.3	6527.7	7316.8	8420.0	10105.6	11992.5	13844.5	15146.3	15701.9	15833.4
7°	4783.0	4756.2	5123.9	5684.9	6610.9	8344.8	10433.1	12596.4	14193.5	14821.5	14816.2
8°	3789.9	3773.8	4028.8	4471.7	5346.7	6812.2	8889.7	11222.2	13052.7	13898.2	13898.2
9°	3062.5	3097.4	3253.1	3645.0	4334.8	5561.4	7598.7	10057.3	11936.1	12762.8	12835.3
10°	2552.6	2571.4	2697.5	3019.6	3594.0	4608.6	6385.5	8701.8	10835.7	11882.5	11863.7
12.5°	1656.1	1696.3	1787.6	1994.3	2413.0	3046.4	4243.5	6100.9	8258.9	9305.7	9482.9
15°	1092.4	1100.5	1213.2	1393.0	1725.9	2233.2	3070.6	4455.6	6165.4	7351.7	7502.0
17.5°	816.0	824.0	850.9	958.2	1202.5	1634.6	2313.7	3387.3	5011.2	6208.3	6380.1
20°	598.6	571.7	563.7	625.4	816.0	1111.2	1688.3	2641.1	4066.4	5682.2	5990.9
22.5°	348.9	343.6	330.1	381.1	526.1	730.1	1148.8	1972.8	3438.3	5059.5	5486.3
25°	206.7	201.3	198.6	241.6	330.1	475.1	783.8	1492.4	2617.0	3720.1	4090.6
27.5°	150.3	144.9	131.5	150.3	217.4	327.5	552.9	1079.0	1795.7	2391.5	2592.8
30°	120.8	115.4	91.3	99.3	150.3	233.5	405.3	746.2	1274.9	1776.9	1889.6
32.5°	102.0	96.6	69.8	72.5	104.7	177.1	316.7	574.4	1030.7	1538.0	1664.1
35°	85.9	80.5	56.4	59.0	80.5	142.3	260.4	472.4	845.5	1323.3	1433.3
37.5°	72.5	67.1	48.3	51.0	69.8	118.1	236.2	408.0	700.5	1087.1	1194.4
40°	64.4	59.0	42.9	48.3	64.4	96.6	209.4	346.2	574.4	840.1	885.7
42.5°	56.4	51.0	42.9	48.3	59.0	75.2	153.0	276.5	467.0	603.9	641.5
45°	51.0	48.3	40.3	45.6	51.0	53.7	96.6	214.7	375.8	416.0	416.0
47.5°	53.7	48.3	37.6	40.3	40.3	40.3	59.0	169.1	292.6	281.8	273.8
50°	53.7	45.6	34.9	32.2	32.2	29.5	40.3	131.5	217.4	179.8	177.1
52.5°	53.7	45.6	32.2	29.5	26.8	24.2	29.5	99.3	153.0	115.4	115.4
55°	51.0	42.9	26.8	24.2	21.5	21.5	24.2	69.8	104.7	80.5	77.8
57.5°	45.6	37.6	24.2	21.5	21.5	18.8	18.8	45.6	80.5	61.7	53.7
60°	37.6	32.2	21.5	21.5	21.5	16.1	16.1	29.5	64.4	45.6	40.3
62.5°	32.2	26.8	21.5	21.5	21.5	16.1	13.4	21.5	53.7	37.6	32.2
65°	26.8	21.5	18.8	21.5	21.5	16.1	10.7	16.1	45.6	29.5	26.8
67.5°	21.5	18.8	16.1	18.8	18.8	13.4	8.1	10.7	37.6	24.2	21.5
70°	18.8	16.1	13.4	16.1	18.8	13.4	8.1	10.7	29.5	18.8	18.8
72.5°	13.4	13.4	13.4	16.1	16.1	10.7	5.4	8.1	24.2	16.1	16.1
75°	10.7	10.7	10.7	13.4	13.4	8.1	5.4	5.4	18.8	13.4	10.7
77.5°	8.1	8.1	8.1	10.7	10.7	5.4	2.7	5.4	13.4	8.1	8.1
80°	5.4	5.4	5.4	8.1	8.1	5.4	2.7	2.7	8.1	5.4	5.4
82.5°	2.7	2.7	2.7	5.4	5.4	2.7	2.7	2.7	2.7	2.7	2.7
85°	2.7	2.7	2.7	2.7	2.7	2.7	0.0	0.0	2.7	2.7	2.7
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)