

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: P592041

Luminaire Tested: **GRZ-10L-935-17x30-X-UNV-STD-4F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P592041
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-10L-935-17x30-X-UNV-STD-4F
Description: iO LED GRAZER WITH 17x30 OPTIC
1000 LUMENS PER FOOT, 4 FOOT FIXTURE
SUMULATED RESULTS
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

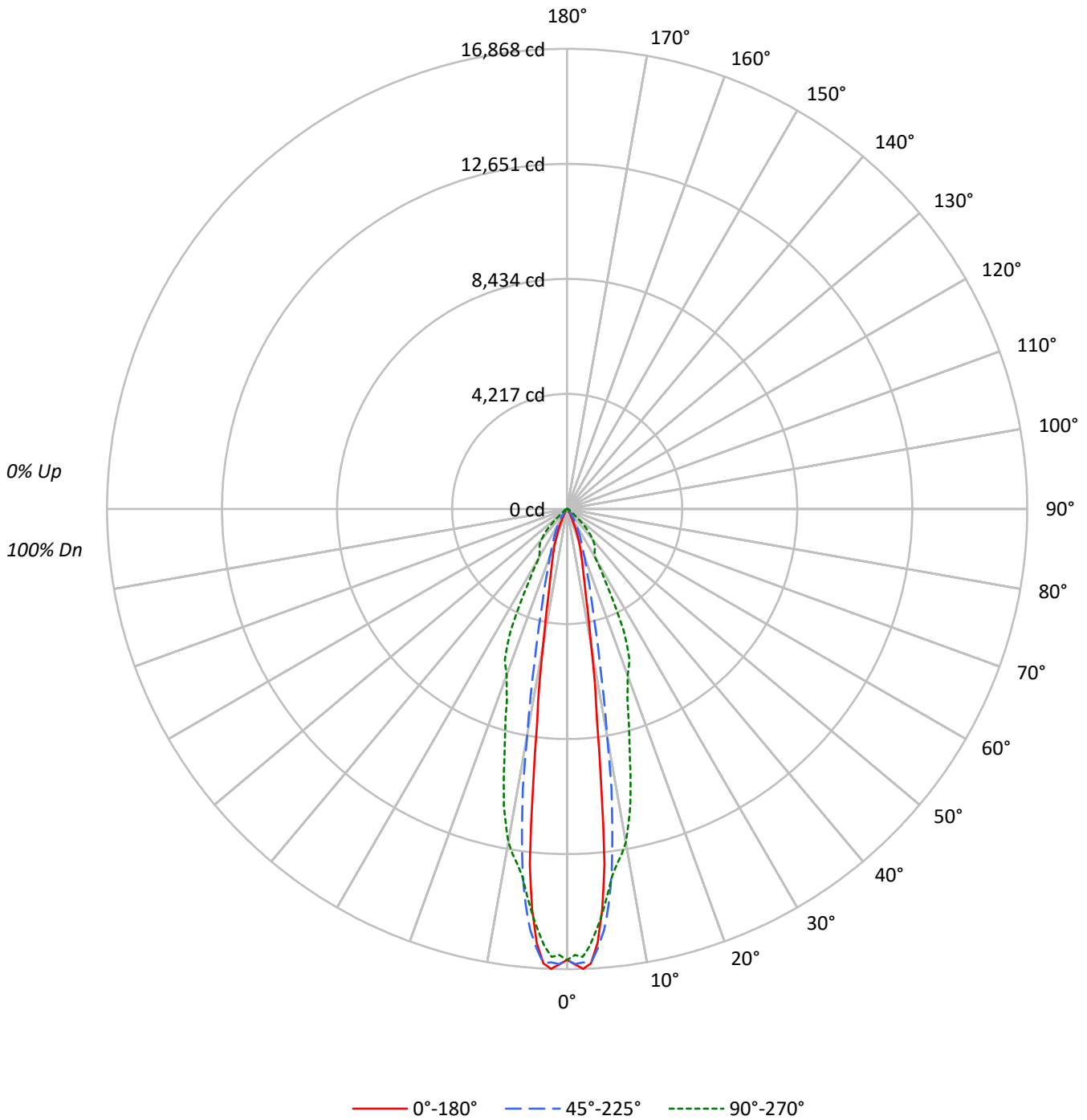
Lumens per Lamp: N/A
Luminaire Lumens: 4010.0 lumens
Efficiency: N/A
Efficacy: 105.5 lumens/watt
Spacing Criteria (0/90/45): 0.27 / 0.52 / 0.34
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 38
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	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°	266899	266899	266899
5°	238691	251260	240917
10°	83160	138216	203430
15°	36966	57434	147368
20°	21550	30794	111443
25°	9255	19632	86795
30°	3113	12176	38324
35°	1902	6290	34885
40°	1642	3598	30656
45°	1779	2795	21436
50°	1399	1304	9414
55°	1253	1253	3761
60°	1198	1318	3475
65°	1276	1276	3259
70°	1227	1053	2450
75°	923	923	1160
80°	688	688	688
85°	685	685	685



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1214.0	30.3
10°-20°	1283.8	32.0
20°-30°	794.9	19.8
30°-40°	402.2	10.0
40°-50°	199.0	5.0
50°-60°	59.3	1.5
60°-70°	36.5	0.9
70°-80°	17.3	0.4
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°	3292.7	82.1
0°-40°	3694.9	92.1
0°-60°	3953.2	98.6
0°-90°	4010.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4010.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	16530	16530	16530	16530	16530	
5°	14727	15045	15503	15072	14864	1027
15°	2212	2454	3436	6013	8816	657
25°	520	647	1102	2641	4872	263
35°	96	105	319	1181	1770	64
45°	78	70	122	324	939	57
55°	44	44	44	65	134	40
65°	33	40	33	21	85	32
75°	15	21	15	8	19	17
85°	4	4	4	0	4	3
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°	16530.5	16530.5	16530.5	16530.5	16530.5	16530.5	16530.5	16530.5	16530.5	16530.5	16530.5
1°	16697.5	16645.5	16656.7	16723.5	16764.3	16686.3	16575.0	16489.7	16526.8	16411.8	16356.1
2°	16868.2	16827.3	16801.4	16823.6	16734.6	16634.4	16519.4	16456.3	16434.0	16374.7	16430.3
3°	16682.6	16630.7	16645.5	16697.5	16653.0	16660.4	16374.7	16181.7	16163.2	16085.2	16022.2
4°	15947.9	15985.1	16059.3	16066.7	16118.6	16133.5	16033.3	15665.9	15673.4	15528.7	15458.2
5°	14727.2	14753.1	14975.8	15068.5	15402.5	15502.7	15528.7	15083.4	15038.9	14819.9	14864.5
6°	13090.8	12612.2	13209.6	13447.0	14118.6	14575.0	14734.6	14664.1	14441.5	14189.1	14192.9
7°	10215.1	10256.0	10597.3	11254.1	12504.6	13387.7	14044.4	14189.1	13892.3	13714.2	13547.2
8°	7877.5	8048.2	8534.3	9228.1	10471.2	11899.7	13090.8	13417.4	13343.1	13165.0	13139.1
9°	6523.1	6393.3	6782.9	7335.8	8526.8	10363.6	11832.9	12526.8	12742.0	12797.7	12808.8
10°	5072.3	5224.5	5410.0	5985.1	6994.4	8430.4	10359.9	11435.9	11999.9	12315.3	12408.1
11°	4107.6	4163.2	4400.7	4942.5	5703.1	7024.1	8975.8	10189.2	11057.4	11695.7	11777.3
12°	3380.3	3428.5	3588.1	3988.8	4679.0	5729.1	7406.3	8923.9	10230.0	10975.8	11142.8
13°	2872.0	2927.6	3057.5	3369.2	3903.5	4820.0	5981.4	7625.2	9128.0	10185.5	10333.9
14°	2467.5	2530.6	2615.9	2890.5	3324.7	3974.0	4964.7	6534.3	8144.7	9332.0	9528.7
15°	2211.5	2218.9	2311.7	2500.9	2883.1	3436.0	4289.4	5602.9	7243.0	8578.8	8816.3
17.5°	1662.3	1651.2	1662.3	1810.7	2033.4	2437.8	3024.1	4163.2	5910.9	7072.3	7332.0
20°	1254.2	1257.9	1231.9	1317.2	1502.8	1792.2	2278.3	3387.7	5176.2	6337.6	6486.0
22.5°	872.0	864.6	875.7	957.3	1135.4	1402.6	1784.8	2764.4	4716.1	5847.8	5970.3
25°	519.5	530.6	575.1	671.6	846.0	1102.0	1458.2	2233.8	3862.7	4615.9	4872.0
27.5°	300.6	304.3	341.4	445.3	612.2	857.1	1198.5	1740.2	2675.3	3076.0	3142.8
30°	167.0	167.0	192.9	259.7	415.6	653.1	979.6	1443.4	1940.6	2051.9	2055.6
32.5°	111.3	111.3	118.7	152.1	256.0	475.0	797.8	1243.0	1684.6	1844.1	1870.1
35°	96.5	92.8	96.5	107.6	159.6	319.1	612.2	1057.5	1551.0	1740.2	1769.9
37.5°	85.3	85.3	89.1	100.2	122.4	207.8	434.1	838.6	1372.9	1610.4	1643.8
40°	77.9	77.9	81.6	100.2	122.4	170.7	274.6	608.5	1131.7	1417.4	1454.5
42.5°	74.2	74.2	74.2	89.1	115.0	155.8	159.6	389.6	872.0	1165.1	1220.8
45°	77.9	74.2	66.8	70.5	89.1	122.4	92.8	230.1	604.8	898.0	938.8
47.5°	74.2	74.2	70.5	66.8	66.8	81.6	59.4	126.2	378.5	623.4	645.6
50°	55.7	55.7	48.2	59.4	63.1	51.9	44.5	81.6	233.8	352.5	374.8
52.5°	48.2	48.2	44.5	44.5	51.9	48.2	33.4	66.8	148.4	196.7	204.1
55°	44.5	40.8	40.8	44.5	48.2	44.5	29.7	51.9	103.9	129.9	133.6
57.5°	40.8	40.8	40.8	40.8	48.2	44.5	29.7	37.1	81.6	103.9	115.0
60°	37.1	37.1	40.8	40.8	44.5	40.8	26.0	26.0	66.8	92.8	107.6
62.5°	33.4	37.1	37.1	40.8	44.5	37.1	22.3	18.6	51.9	85.3	100.2
65°	33.4	33.4	37.1	40.8	40.8	33.4	18.6	14.8	40.8	70.5	85.3
67.5°	29.7	29.7	33.4	37.1	40.8	29.7	11.1	11.1	33.4	59.4	70.5
70°	26.0	26.0	29.7	33.4	33.4	22.3	11.1	11.1	22.3	48.2	51.9
72.5°	22.3	22.3	26.0	29.7	29.7	18.6	7.4	7.4	14.8	37.1	33.4
75°	14.8	18.6	18.6	22.3	22.3	14.8	7.4	7.4	11.1	22.3	18.6
77.5°	11.1	11.1	14.8	18.6	18.6	11.1	3.7	3.7	7.4	14.8	11.1
80°	7.4	7.4	11.1	11.1	11.1	7.4	3.7	3.7	3.7	7.4	7.4
82.5°	3.7	3.7	7.4	7.4	7.4	3.7	3.7	3.7	3.7	3.7	3.7
85°	3.7	3.7	3.7	3.7	3.7	3.7	0.0	0.0	0.0	3.7	3.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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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)