

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: P592040

Luminaire Tested: **GRZ-10L-935-17x30-X-UNV-STD-2F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P592040
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-2F
Description: iO LED GRAZER WITH 17x30 OPTIC
1000 LUMENS PER FOOT, 2 FOOT FIXTURE
SUMULATED RESULTS
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

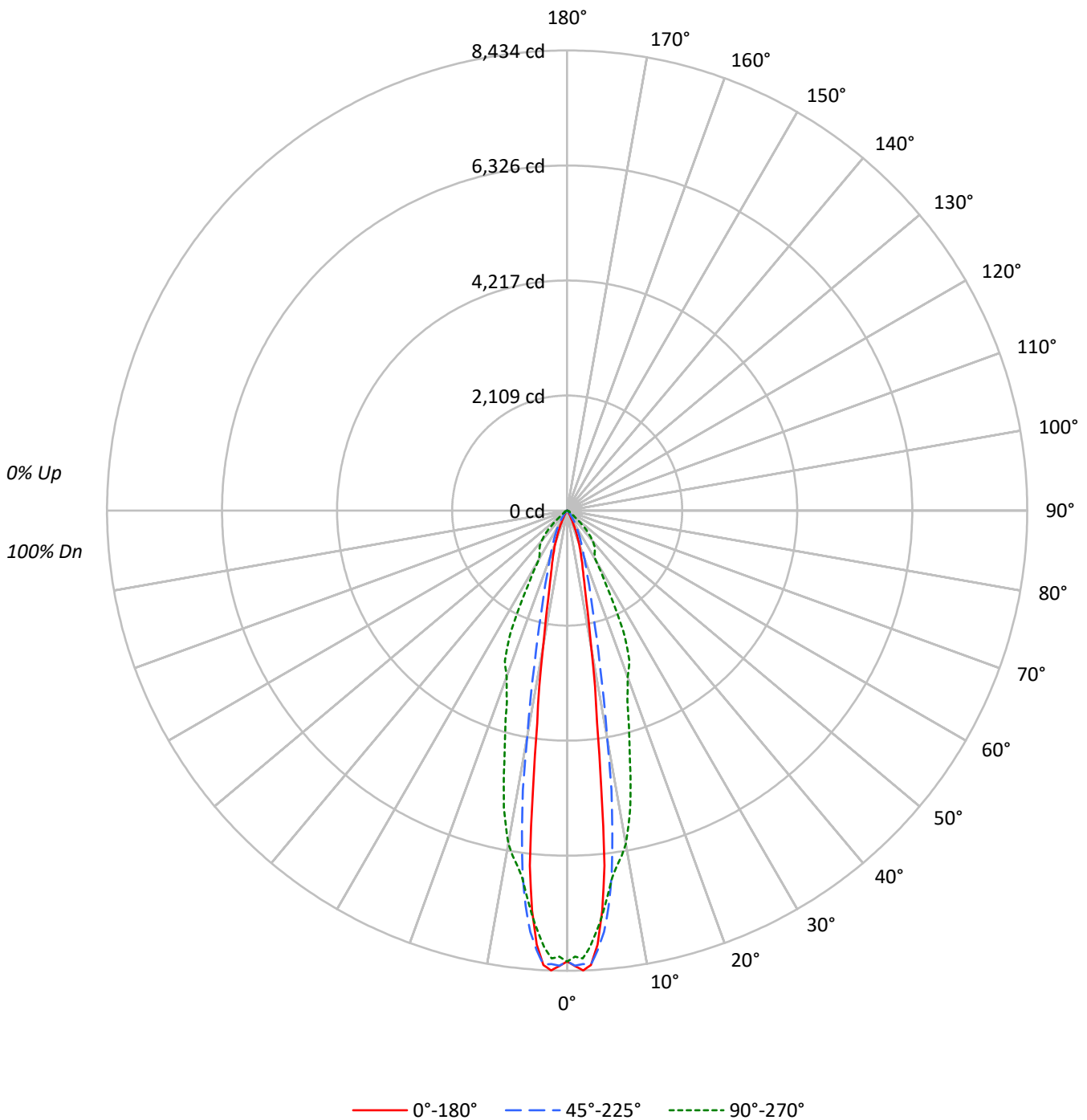
Lumens per Lamp: N/A
Luminaire Lumens: 2005.0 lumens
Efficiency: N/A
Efficacy: 105.0 lumens/watt
Spacing Criteria (0/90/45): 0.27 / 0.52 / 0.34
Luminous Opening: Rectangular (W 2' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
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°	266900	266900	266900
5°	238691	251259	240915
10°	83162	138216	203428
15°	36964	57434	147366
20°	21550	30794	111443
25°	9253	19632	86795
30°	3113	12174	38324
35°	1900	6292	34887
40°	1644	3596	30658
45°	1781	2795	21436
50°	1397	1306	9414
55°	1255	1255	3761
60°	1201	1318	3475
65°	1276	1276	3263
70°	1227	1048	2455
75°	923	923	1160
80°	688	688	688
85°	704	704	704



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	607.0	30.3
10°-20°	641.9	32.0
20°-30°	397.4	19.8
30°-40°	201.1	10.0
40°-50°	99.5	5.0
50°-60°	29.6	1.5
60°-70°	18.3	0.9
70°-80°	8.6	0.4
80°-90°	1.5	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°	1646.4	82.1
0°-40°	1847.5	92.1
0°-60°	1976.6	98.6
0°-90°	2005.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2005.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8265	8265	8265	8265	8265	
5°	7364	7523	7751	7536	7432	514
15°	1106	1227	1718	3006	4408	329
25°	260	324	551	1320	2436	131
35°	48	52	160	590	885	32
45°	39	35	61	162	469	28
55°	22	22	22	32	67	20
65°	17	20	17	11	43	16
75°	7	11	7	4	9	9
85°	2	2	2	0	2	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°	8265.3	8265.3	8265.3	8265.3	8265.3	8265.3	8265.3	8265.3	8265.3	8265.3	8265.3
1°	8348.7	8322.8	8328.3	8361.7	8382.1	8343.2	8287.5	8244.8	8263.4	8205.9	8178.1
2°	8434.1	8413.7	8400.7	8411.8	8367.3	8317.2	8259.7	8228.1	8217.0	8187.3	8215.2
3°	8341.3	8315.3	8322.8	8348.7	8326.5	8330.2	8187.3	8090.9	8081.6	8042.6	8011.1
4°	7974.0	7992.5	8029.6	8033.3	8059.3	8066.7	8016.6	7833.0	7836.7	7764.3	7729.1
5°	7363.6	7376.6	7487.9	7534.3	7701.2	7751.3	7764.3	7541.7	7519.4	7410.0	7432.2
6°	6545.4	6306.1	6604.8	6723.5	7059.3	7287.5	7367.3	7332.0	7220.7	7094.6	7096.4
7°	5107.6	5128.0	5298.7	5627.1	6252.3	6693.8	7022.2	7094.6	6946.2	6857.1	6773.6
8°	3938.7	4024.1	4267.1	4614.1	5235.6	5949.9	6545.4	6708.7	6671.6	6582.5	6569.5
9°	3261.6	3196.6	3391.4	3667.9	4263.4	5181.8	5916.5	6263.4	6371.0	6398.8	6404.4
10°	2536.2	2612.2	2705.0	2992.6	3497.2	4215.2	5179.9	5718.0	6000.0	6157.7	6204.0
11°	2053.8	2081.6	2200.4	2471.2	2851.6	3512.0	4487.9	5094.6	5528.7	5847.8	5888.6
12°	1690.2	1714.3	1794.1	1994.4	2339.5	2864.5	3703.1	4461.9	5115.0	5487.9	5571.4
13°	1436.0	1463.8	1528.7	1684.6	1951.7	2410.0	2990.7	3812.6	4564.0	5092.7	5166.9
14°	1233.8	1265.3	1308.0	1445.3	1662.3	1987.0	2482.4	3267.1	4072.3	4666.0	4764.3
15°	1105.7	1109.5	1155.8	1250.5	1441.5	1718.0	2144.7	2801.5	3621.5	4289.4	4408.1
17.5°	831.2	825.6	831.2	905.4	1016.7	1218.9	1512.0	2081.6	2955.5	3536.2	3666.0
20°	627.1	628.9	616.0	658.6	751.4	896.1	1139.1	1693.9	2588.1	3168.8	3243.0
22.5°	436.0	432.3	437.8	478.7	567.7	701.3	892.4	1382.2	2358.1	2923.9	2985.1
25°	259.7	265.3	287.6	335.8	423.0	551.0	729.1	1116.9	1931.3	2308.0	2436.0
27.5°	150.3	152.1	170.7	222.6	306.1	428.6	599.3	870.1	1337.7	1538.0	1571.4
30°	83.5	83.5	96.5	129.9	207.8	326.5	489.8	721.7	970.3	1026.0	1027.8
32.5°	55.7	55.7	59.4	76.1	128.0	237.5	398.9	621.5	842.3	922.1	935.1
35°	48.2	46.4	48.2	53.8	79.8	159.6	306.1	528.8	775.5	870.1	885.0
37.5°	42.7	42.7	44.5	50.1	61.2	103.9	217.1	419.3	686.5	805.2	821.9
40°	39.0	39.0	40.8	50.1	61.2	85.3	137.3	304.3	565.9	708.7	727.3
42.5°	37.1	37.1	37.1	44.5	57.5	77.9	79.8	194.8	436.0	582.6	610.4
45°	39.0	37.1	33.4	35.3	44.5	61.2	46.4	115.0	302.4	449.0	469.4
47.5°	37.1	37.1	35.3	33.4	33.4	40.8	29.7	63.1	189.2	311.7	322.8
50°	27.8	27.8	24.1	29.7	31.5	26.0	22.3	40.8	116.9	176.3	187.4
52.5°	24.1	24.1	22.3	22.3	26.0	24.1	16.7	33.4	74.2	98.3	102.0
55°	22.3	20.4	20.4	22.3	24.1	22.3	14.8	26.0	51.9	64.9	66.8
57.5°	20.4	20.4	20.4	20.4	24.1	22.3	14.8	18.6	40.8	51.9	57.5
60°	18.6	18.6	20.4	20.4	22.3	20.4	13.0	13.0	33.4	46.4	53.8
62.5°	16.7	18.6	18.6	20.4	22.3	18.6	11.1	9.3	26.0	42.7	50.1
65°	16.7	16.7	18.6	20.4	20.4	16.7	9.3	7.4	20.4	35.3	42.7
67.5°	14.8	14.8	16.7	18.6	20.4	14.8	5.6	5.6	16.7	29.7	35.3
70°	13.0	13.0	14.8	16.7	16.7	11.1	5.6	5.6	11.1	24.1	26.0
72.5°	11.1	11.1	13.0	14.8	14.8	9.3	3.7	3.7	7.4	18.6	16.7
75°	7.4	9.3	9.3	11.1	11.1	7.4	3.7	3.7	5.6	11.1	9.3
77.5°	5.6	5.6	7.4	9.3	9.3	5.6	1.9	1.9	3.7	7.4	5.6
80°	3.7	3.7	5.6	5.6	5.6	3.7	1.9	1.9	1.9	3.7	3.7
82.5°	1.9	1.9	3.7	3.7	3.7	1.9	1.9	1.9	1.9	1.9	1.9
85°	1.9	1.9	1.9	1.9	1.9	1.9	0.0	0.0	0.0	1.9	1.9
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)