

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: P591992

Luminaire Tested: **GRZ-05L-940-17x30-X-UNV-STD-2F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P591992
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-05L-940-17x30-X-UNV-STD-2F
Description: iO LED GRAZER WITH 17x30 OPTIC
500 LUMENS PER FOOT, 2 FOOT FIXTURE
SUMULATED RESULTS
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

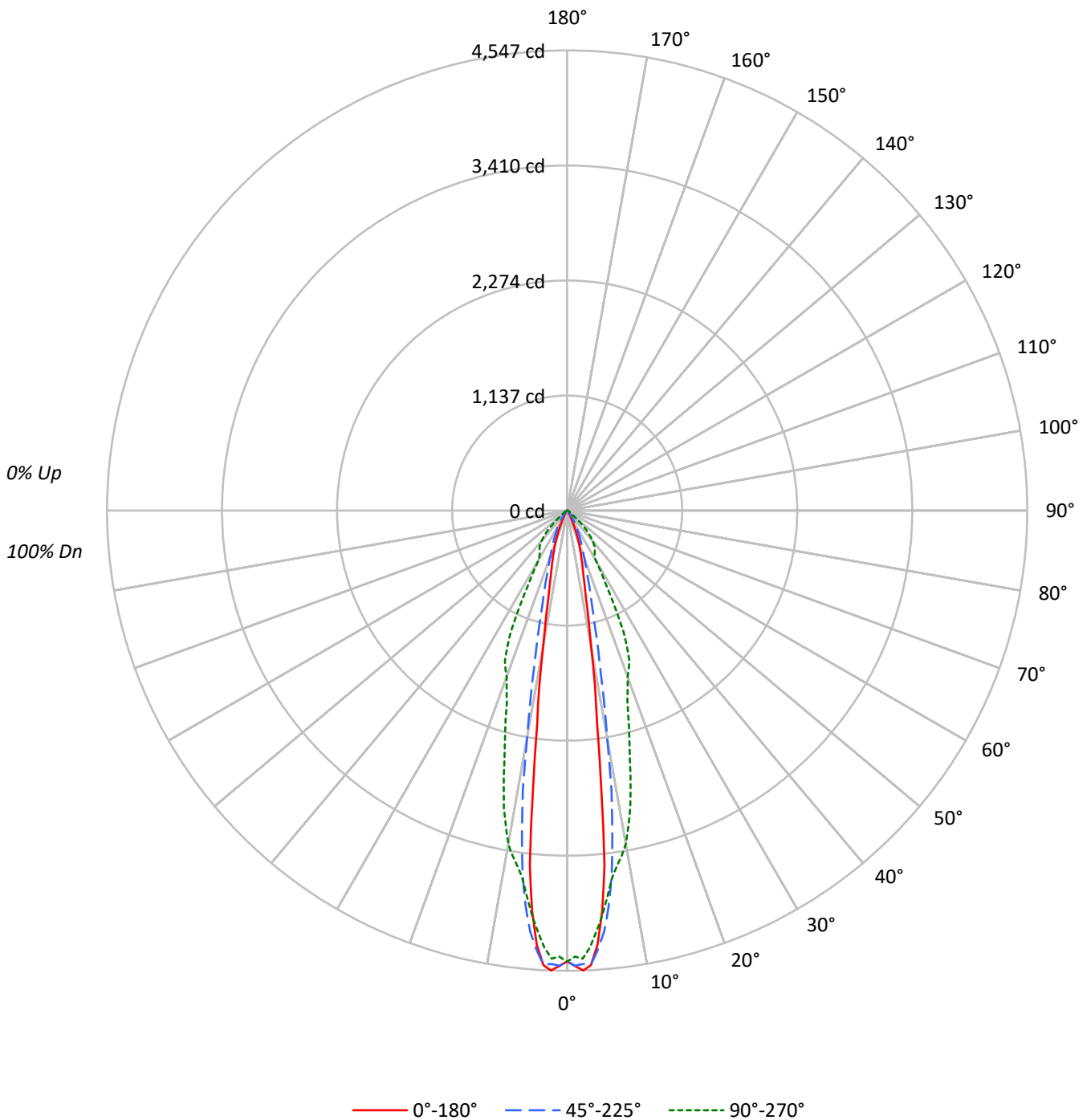
Lumens per Lamp: N/A
Luminaire Lumens: 1081.0 lumens
Efficiency: N/A
Efficacy: 112.6 lumens/watt
Spacing Criteria (0/90/45): 0.27 / 0.52 / 0.34
Luminous Opening: Rectangular (W 2' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 9.6
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°	143898	143898	143898
5°	128691	135469	129890
10°	44837	74518	109679
15°	19931	30967	79455
20°	11618	16601	60086
25°	4988	10586	46796
30°	1678	6563	20665
35°	1025	3390	18808
40°	885	1939	16529
45°	959	1507	11558
50°	754	703	5074
55°	676	676	2027
60°	646	710	1873
65°	688	688	1757
70°	661	566	1322
75°	499	499	624
80°	372	372	372
85°	371	371	371



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	327.3	30.3
10°-20°	346.1	32.0
20°-30°	214.3	19.8
30°-40°	108.4	10.0
40°-50°	53.6	5.0
50°-60°	16.0	1.5
60°-70°	9.8	0.9
70°-80°	4.7	0.4
80°-90°	0.8	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°	887.6	82.1
0°-40°	996.0	92.1
0°-60°	1065.7	98.6
0°-90°	1081.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1081.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4456	4456	4456	4456	4456	
5°	3970	4056	4179	4063	4007	277
15°	596	661	926	1621	2377	177
25°	140	174	297	712	1313	71
35°	26	28	86	318	477	17
45°	21	19	33	87	253	15
55°	12	12	12	18	36	11
65°	9	11	9	6	23	9
75°	4	6	4	2	5	5
85°	1	1	1	0	1	1
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°	4456.2	4456.2	4456.2	4456.2	4456.2	4456.2	4456.2	4456.2	4456.2	4456.2	4456.2
1°	4501.2	4487.2	4490.2	4508.2	4519.2	4498.2	4468.2	4445.2	4455.2	4424.2	4409.2
2°	4547.3	4536.3	4529.2	4535.2	4511.2	4484.2	4453.2	4436.2	4430.2	4414.2	4429.2
3°	4497.2	4483.2	4487.2	4501.2	4489.2	4491.2	4414.2	4362.2	4357.2	4336.2	4319.2
4°	4299.2	4309.2	4329.2	4331.2	4345.2	4349.2	4322.2	4223.2	4225.2	4186.2	4167.1
5°	3970.1	3977.1	4037.1	4062.1	4152.1	4179.2	4186.2	4066.1	4054.1	3995.1	4007.1
6°	3529.0	3399.9	3561.0	3625.0	3806.0	3929.1	3972.1	3953.1	3893.1	3825.1	3826.1
7°	2753.8	2764.8	2856.8	3033.8	3370.9	3609.0	3786.0	3825.1	3745.0	3697.0	3652.0
8°	2123.6	2169.6	2300.6	2487.7	2822.8	3207.9	3529.0	3617.0	3597.0	3549.0	3542.0
9°	1758.5	1723.5	1828.5	1977.5	2298.6	2793.8	3189.9	3376.9	3434.9	3450.0	3453.0
10°	1367.4	1408.4	1458.4	1613.4	1885.5	2272.6	2792.8	3082.8	3234.9	3319.9	3344.9
11°	1107.3	1122.3	1186.3	1332.4	1537.4	1893.5	2419.7	2746.8	2980.8	3152.9	3174.9
12°	911.3	924.3	967.3	1075.3	1261.3	1544.4	1996.6	2405.7	2757.8	2958.8	3003.8
13°	774.2	789.2	824.2	908.3	1052.3	1299.4	1612.4	2055.6	2460.7	2745.8	2785.8
14°	665.2	682.2	705.2	779.2	896.2	1071.3	1338.4	1761.5	2195.6	2515.7	2568.7
15°	596.2	598.2	623.2	674.2	777.2	926.3	1156.3	1510.4	1952.5	2312.6	2376.7
17.5°	448.1	445.1	448.1	488.1	548.2	657.2	815.2	1122.3	1593.4	1906.5	1976.5
20°	338.1	339.1	332.1	355.1	405.1	483.1	614.2	913.3	1395.4	1708.5	1748.5
22.5°	235.1	233.1	236.1	258.1	306.1	378.1	481.1	745.2	1271.4	1576.4	1609.4
25°	140.0	143.0	155.0	181.0	228.1	297.1	393.1	602.2	1041.3	1244.3	1313.4
27.5°	81.0	82.0	92.0	120.0	165.0	231.1	323.1	469.1	721.2	829.2	847.2
30°	45.0	45.0	52.0	70.0	112.0	176.0	264.1	389.1	523.1	553.2	554.2
32.5°	30.0	30.0	32.0	41.0	69.0	128.0	215.1	335.1	454.1	497.1	504.1
35°	26.0	25.0	26.0	29.0	43.0	86.0	165.0	285.1	418.1	469.1	477.1
37.5°	23.0	23.0	24.0	27.0	33.0	56.0	117.0	226.1	370.1	434.1	443.1
40°	21.0	21.0	22.0	27.0	33.0	46.0	74.0	164.0	305.1	382.1	392.1
42.5°	20.0	20.0	20.0	24.0	31.0	42.0	43.0	105.0	235.1	314.1	329.1
45°	21.0	20.0	18.0	19.0	24.0	33.0	25.0	62.0	163.0	242.1	253.1
47.5°	20.0	20.0	19.0	18.0	18.0	22.0	16.0	34.0	102.0	168.0	174.0
50°	15.0	15.0	13.0	16.0	17.0	14.0	12.0	22.0	63.0	95.0	101.0
52.5°	13.0	13.0	12.0	12.0	14.0	13.0	9.0	18.0	40.0	53.0	55.0
55°	12.0	11.0	11.0	12.0	13.0	12.0	8.0	14.0	28.0	35.0	36.0
57.5°	11.0	11.0	11.0	11.0	13.0	12.0	8.0	10.0	22.0	28.0	31.0
60°	10.0	10.0	11.0	11.0	12.0	11.0	7.0	7.0	18.0	25.0	29.0
62.5°	9.0	10.0	10.0	11.0	12.0	10.0	6.0	5.0	14.0	23.0	27.0
65°	9.0	9.0	10.0	11.0	11.0	9.0	5.0	4.0	11.0	19.0	23.0
67.5°	8.0	8.0	9.0	10.0	11.0	8.0	3.0	3.0	9.0	16.0	19.0
70°	7.0	7.0	8.0	9.0	9.0	6.0	3.0	3.0	6.0	13.0	14.0
72.5°	6.0	6.0	7.0	8.0	8.0	5.0	2.0	2.0	4.0	10.0	9.0
75°	4.0	5.0	5.0	6.0	6.0	4.0	2.0	2.0	3.0	6.0	5.0
77.5°	3.0	3.0	4.0	5.0	5.0	3.0	1.0	1.0	2.0	4.0	3.0
80°	2.0	2.0	3.0	3.0	3.0	2.0	1.0	1.0	1.0	2.0	2.0
82.5°	1.0	1.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0
85°	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	1.0	1.0
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)