

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: P592121

Luminaire Tested: **GRZ-15L-940-17x30-X-UNV-STD-4F**

Issue Date: 2/2/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P592121  
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-15L-940-17x30-X-UNV-STD-4F  
Description: iO LED GRAZER WITH 17x30 OPTIC  
1500 LUMENS PER FOOT, 4 FOOT FIXTURE  
SUMULATED RESULTS  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

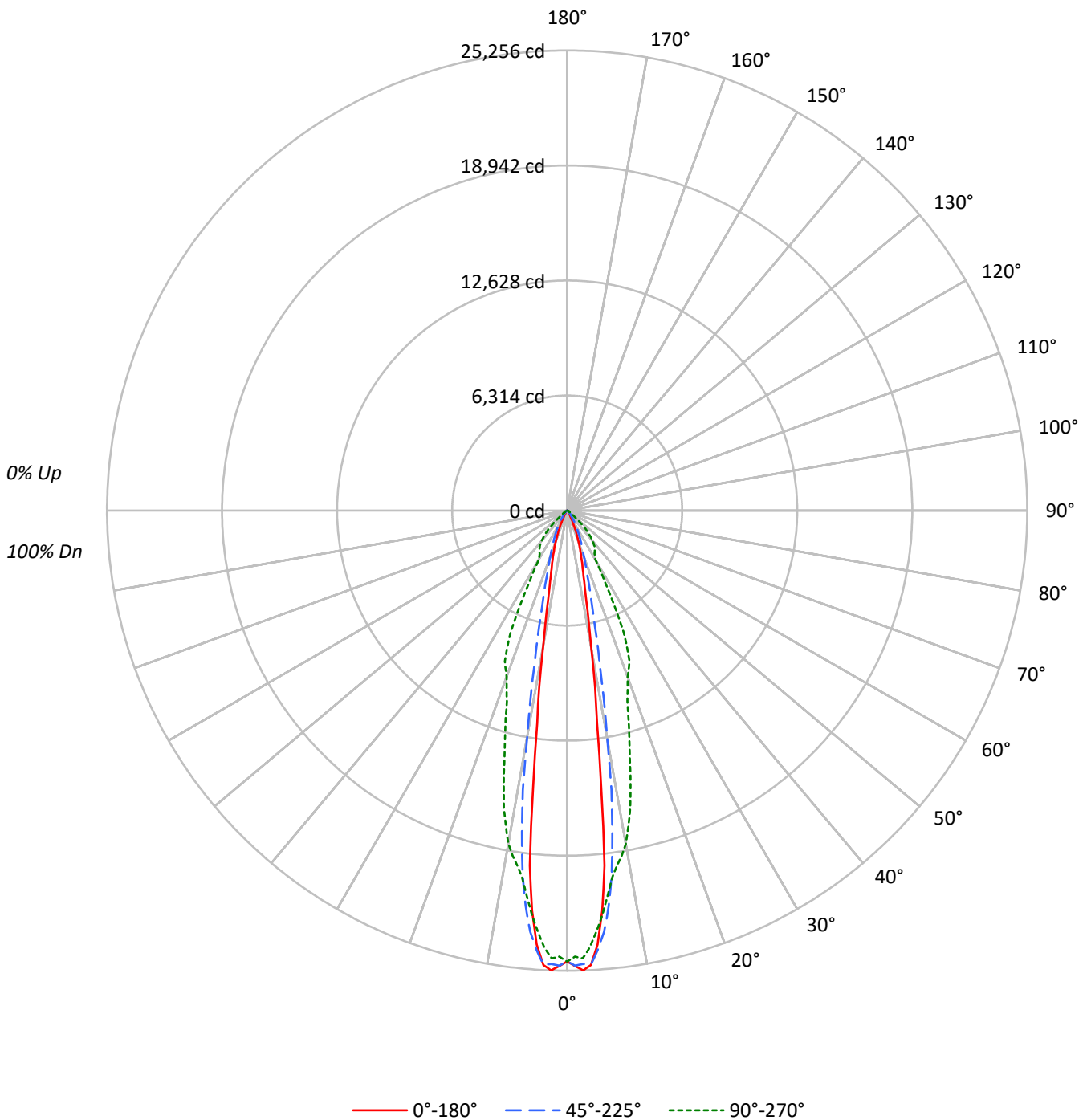
Lumens per Lamp: N/A  
Luminaire Lumens: 6004.0 lumens  
Efficiency: N/A  
Efficacy: 107.2 lumens/watt  
Spacing Criteria (0/90/45): 0.27 / 0.52 / 0.34  
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')  
CIE Type: Direct

Input Watts (W): 56  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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°	399616	399616	399616
5°	357382	376201	360713
10°	124513	206943	304586
15°	55348	85992	220647
20°	32264	46106	166860
25°	13856	29395	129953
30°	4661	18230	57381
35°	2846	9418	52233
40°	2460	5387	45901
45°	2665	4185	32095
50°	2092	1954	14094
55°	1878	1878	5630
60°	1795	1973	5202
65°	1910	1910	4883
70°	1836	1572	3673
75°	1385	1385	1734
80°	1032	1032	1032
85°	1037	1037	1037



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1817.7	30.3
10°-20°	1922.2	32.0
20°-30°	1190.2	19.8
30°-40°	602.1	10.0
40°-50°	297.9	5.0
50°-60°	88.8	1.5
60°-70°	54.7	0.9
70°-80°	25.9	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°	4930.1	82.1
0°-40°	5532.2	92.1
0°-60°	5918.9	98.6
0°-90°	6004.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6004.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	24750	24750	24750	24750	24750	
5°	22050	22527	23212	22567	22256	1538
15°	3311	3674	5144	9003	13200	984
25°	778	969	1650	3954	7295	394
35°	144	157	478	1768	2650	96
45°	117	104	183	485	1406	85
55°	67	65	67	97	200	60
65°	50	60	50	32	128	47
75°	22	32	22	12	28	26
85°	6	6	6	0	6	5
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°	24750.4	24750.4	24750.4	24750.4	24750.4	24750.4	24750.4	24750.4	24750.4	24750.4	24750.4
1°	25000.4	24922.6	24939.3	25039.3	25100.4	24983.7	24817.1	24689.3	24744.9	24572.6	24489.3
2°	25256.0	25194.9	25156.0	25189.3	25056.0	24906.0	24733.7	24639.3	24606.0	24517.1	24600.4
3°	24978.2	24900.4	24922.6	25000.4	24933.7	24944.9	24517.1	24228.2	24200.4	24083.7	23989.3
4°	23878.2	23933.7	24044.8	24056.0	24133.7	24156.0	24006.0	23455.9	23467.1	23250.4	23144.8
5°	22050.4	22089.3	22422.6	22561.5	23061.5	23211.5	23250.4	22583.7	22517.0	22189.3	22255.9
6°	19600.3	18883.6	19778.1	20133.7	21139.2	21822.6	22061.5	21955.9	21622.6	21244.8	21250.4
7°	15294.7	15355.8	15866.9	16850.3	18722.5	20044.8	21028.1	21244.8	20800.3	20533.7	20283.7
8°	11794.6	12050.2	12778.0	13816.9	15678.0	17817.0	19600.3	20089.2	19978.1	19711.4	19672.5
9°	9766.8	9572.4	10155.7	10983.5	12766.9	15516.9	17717.0	18755.9	19078.1	19161.4	19178.1
10°	7594.6	7822.4	8100.1	8961.3	10472.4	12622.4	15511.4	17122.5	17967.0	18439.2	18578.1
11°	6150.1	6233.4	6589.0	7400.1	8539.0	10516.8	13439.1	15255.8	16555.8	17511.4	17633.6
12°	5061.2	5133.4	5372.3	5972.3	7005.7	8577.9	11089.1	13361.3	15316.9	16433.6	16683.6
13°	4300.1	4383.4	4577.9	5044.5	5844.5	7216.8	8955.7	11416.9	13666.9	15250.3	15472.5
14°	3694.5	3789.0	3916.7	4327.8	4977.9	5950.1	7433.5	9783.5	12194.6	13972.5	14266.9
15°	3311.2	3322.3	3461.2	3744.5	4316.7	5144.5	6422.3	8389.0	10844.6	12844.7	13200.2
17.5°	2488.9	2472.3	2488.9	2711.2	3044.5	3650.1	4527.9	6233.4	8850.1	10589.1	10978.0
20°	1877.8	1883.4	1844.5	1972.3	2250.0	2683.4	3411.2	5072.3	7750.1	9489.0	9711.3
22.5°	1305.6	1294.5	1311.1	1433.4	1700.0	2100.0	2672.3	4139.0	7061.2	8755.7	8939.0
25°	777.8	794.5	861.1	1005.6	1266.7	1650.0	2183.4	3344.5	5783.4	6911.2	7294.6
27.5°	450.0	455.6	511.1	666.7	916.7	1283.4	1794.5	2605.6	4005.6	4605.6	4705.6
30°	250.0	250.0	288.9	388.9	622.2	977.8	1466.7	2161.1	2905.6	3072.3	3077.8
32.5°	166.7	166.7	177.8	227.8	383.3	711.1	1194.5	1861.1	2522.3	2761.2	2800.0
35°	144.4	138.9	144.4	161.1	238.9	477.8	916.7	1583.4	2322.3	2605.6	2650.0
37.5°	127.8	127.8	133.3	150.0	183.3	311.1	650.0	1255.6	2055.6	2411.2	2461.2
40°	116.7	116.7	122.2	150.0	183.3	255.6	411.1	911.1	1694.5	2122.3	2177.8
42.5°	111.1	111.1	111.1	133.3	172.2	233.3	238.9	583.3	1305.6	1744.5	1827.8
45°	116.7	111.1	100.0	105.6	133.3	183.3	138.9	344.5	905.6	1344.5	1405.6
47.5°	111.1	111.1	105.6	100.0	100.0	122.2	88.9	188.9	566.7	933.3	966.7
50°	83.3	83.3	72.2	88.9	94.4	77.8	66.7	122.2	350.0	527.8	561.1
52.5°	72.2	72.2	66.7	66.7	77.8	72.2	50.0	100.0	222.2	294.4	305.6
55°	66.7	61.1	61.1	66.7	72.2	66.7	44.4	77.8	155.6	194.4	200.0
57.5°	61.1	61.1	61.1	61.1	72.2	66.7	44.4	55.6	122.2	155.6	172.2
60°	55.6	55.6	61.1	61.1	66.7	61.1	38.9	38.9	100.0	138.9	161.1
62.5°	50.0	55.6	55.6	61.1	66.7	55.6	33.3	27.8	77.8	127.8	150.0
65°	50.0	50.0	55.6	61.1	61.1	50.0	27.8	22.2	61.1	105.6	127.8
67.5°	44.4	44.4	50.0	55.6	61.1	44.4	16.7	16.7	50.0	88.9	105.6
70°	38.9	38.9	44.4	50.0	50.0	33.3	16.7	16.7	33.3	72.2	77.8
72.5°	33.3	33.3	38.9	44.4	44.4	27.8	11.1	11.1	22.2	55.6	50.0
75°	22.2	27.8	27.8	33.3	33.3	22.2	11.1	11.1	16.7	33.3	27.8
77.5°	16.7	16.7	22.2	27.8	27.8	16.7	5.6	5.6	11.1	22.2	16.7
80°	11.1	11.1	16.7	16.7	16.7	11.1	5.6	5.6	5.6	11.1	11.1
82.5°	5.6	5.6	11.1	11.1	11.1	5.6	5.6	5.6	5.6	5.6	5.6
85°	5.6	5.6	5.6	5.6	5.6	5.6	0.0	0.0	0.0	5.6	5.6
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)