

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: P592112

Luminaire Tested: **GRZ-15L-940-10x10-X-UNV-STD-2F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P592112
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2111-457-14)
Test Lab: INNOVATION CENTER
Issue Date: 2/2/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: iO LED
Catalog Number: GRZ-15L-940-10x10-X-UNV-STD-2F
Description: iO LED GRAZER WITH 10x10 OPTIC
1500 LUMENS PER FOOT, 2 FOOT FIXTURE
SCALED BASED ON PHOTOMETRIC TESTING
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

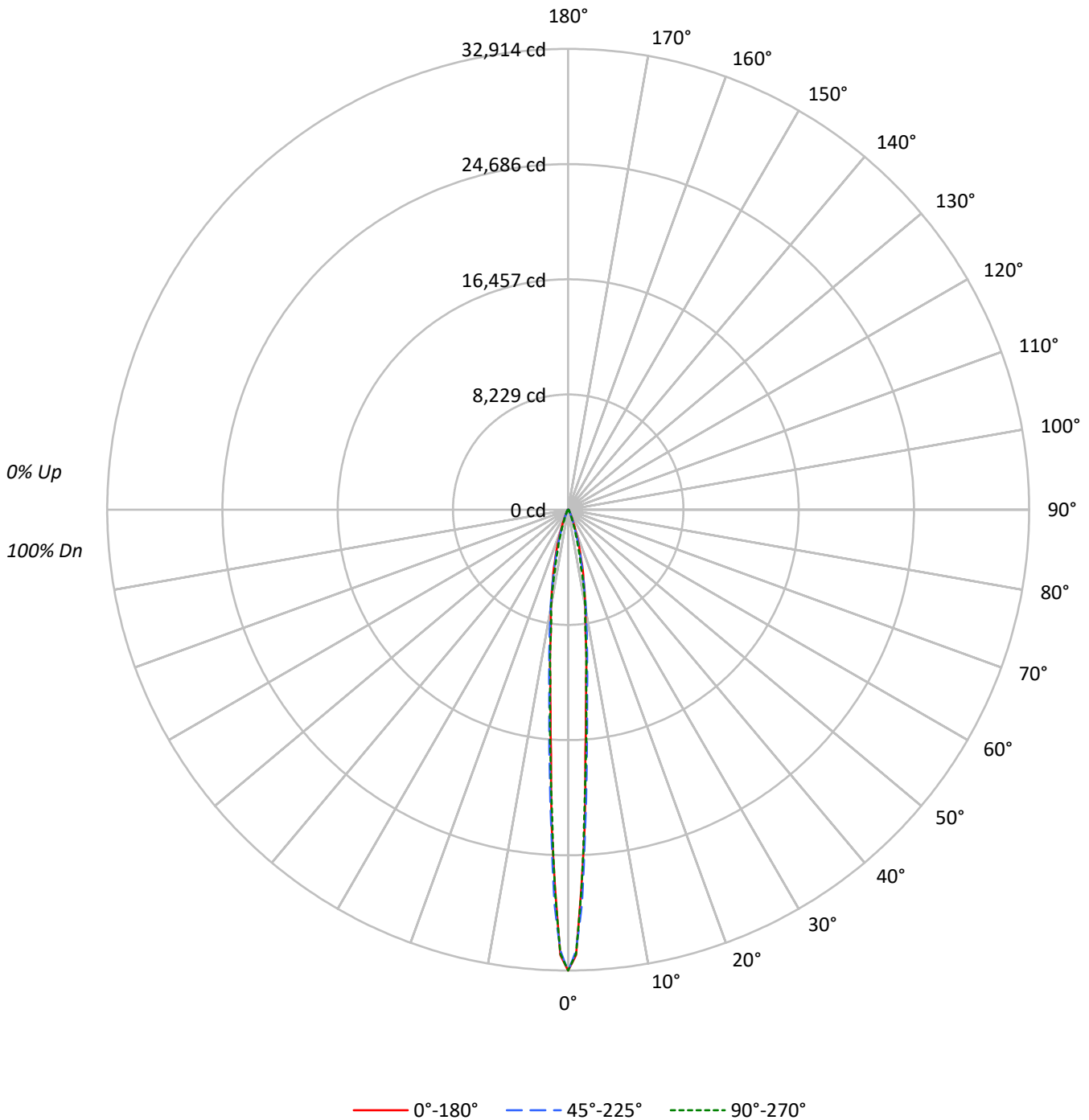
Lumens per Lamp: N/A
Luminaire Lumens: 2634.0 lumens
Efficiency: N/A
Efficacy: 90.8 lumens/watt
Spacing Criteria (0/90/45): 0.15 / 0.16 / 0.22
Luminous Opening: Rectangular (W 2' x L: 0.17' x H: 0')
CIE Type: Direct

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	100	100	100	100	100		
1	115	113	111	109	113	111	109	107	107	105	104	103	102	101	100	99	98	96	96	96	96	96	96	96		
2	111	107	104	102	109	106	103	101	103	100	99	100	98	96	97	96	95	93	93	93	93	93	93	93		
3	108	103	99	96	106	102	98	96	99	96	94	97	95	93	95	93	91	90	90	90	90	90	90	90		
4	104	99	95	92	103	98	94	92	96	93	91	94	92	90	93	90	89	87	87	87	87	87	87	87		
5	102	96	92	89	100	95	91	88	93	90	88	92	89	87	90	88	86	85	85	85	85	85	85	85		
6	99	93	89	86	98	92	88	86	91	88	85	90	87	85	88	86	84	83	83	83	83	83	83	83		
7	96	90	86	83	95	90	86	83	89	85	83	88	85	82	87	84	82	81	81	81	81	81	81	81		
8	94	88	84	81	93	87	84	81	86	83	81	86	83	80	85	82	80	79	79	79	79	79	79	79		
9	92	86	82	79	91	85	82	79	85	81	79	84	81	79	83	80	78	78	78	78	78	78	78	78		
10	90	84	80	77	89	83	80	77	83	79	77	82	79	77	82	79	77	76	76	76	76	76	76	76		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1062848	1062848	1062848
5°	468037	499626	482550
10°	230660	237457	232690
15°	116356	107216	92393
20°	48821	41354	35120
25°	19796	16564	13949
30°	9445	8427	7461
35°	5956	5219	4143
40°	4249	3882	2913
45°	3813	3352	2434
50°	3617	3180	1879
55°	3243	2837	1621
60°	2603	2228	1582
65°	2529	2201	1650
70°	2578	2172	1492
75°	2333	2158	1435
80°	2139	1878	1339
85°	1593	1593	1074



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1237.0	47.0
10°-20°	914.7	34.7
20°-30°	249.6	9.5
30°-40°	88.2	3.3
40°-50°	55.6	2.1
50°-60°	41.2	1.6
60°-70°	27.1	1.0
70°-80°	16.3	0.6
80°-90°	4.3	0.2
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°	2401.2	91.2
0°-40°	2489.4	94.5
0°-60°	2586.3	98.2
0°-90°	2634.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2634.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	32914	32914	32914	32914	32914	
5°	14439	15077	15413	14842	14887	1199
15°	3480	3436	3207	2839	2764	986
25°	556	546	465	412	392	293
35°	151	148	132	121	105	98
45°	84	81	73	62	53	65
55°	58	55	50	37	29	52
65°	33	29	29	24	22	33
75°	19	16	17	14	12	20
85°	4	3	4	3	3	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	32914.0	32914.0	32914.0	32914.0	32914.0
1°	31812.9	31176.6	31546.6	31532.2	31716.4
2°	26914.5	28906.7	28130.8	28045.9	27162.1
3°	22517.0	23398.0	22905.7	23195.0	21810.3
4°	17532.3	18632.0	18800.4	18421.8	17933.9
5°	14438.9	15076.6	15413.4	14842.0	14886.6
6°	12161.8	12969.3	12918.9	12934.7	12294.2
7°	10654.7	11075.0	11135.4	10769.8	10595.7
8°	8930.2	9654.3	9598.1	9323.2	8933.1
9°	7960.1	8404.8	8334.3	7843.5	7701.0
10°	7034.5	7279.2	7241.8	6702.0	7096.4
12.5°	5065.4	5088.4	4840.8	4547.2	4312.5
15°	3480.5	3435.9	3207.1	2838.6	2763.7
17.5°	2285.8	2291.6	1982.1	1704.3	1661.1
20°	1420.7	1429.4	1203.4	1049.3	1022.0
22.5°	893.9	855.0	715.4	650.6	633.3
25°	555.6	545.5	464.9	411.7	391.5
27.5°	375.7	368.5	302.3	277.8	276.4
30°	253.3	263.4	226.0	205.8	200.1
32.5°	191.4	191.4	175.6	161.2	145.4
35°	151.1	148.3	132.4	120.9	105.1
37.5°	115.2	120.9	106.5	97.9	82.0
40°	100.8	100.8	92.1	80.6	69.1
42.5°	89.2	92.1	80.6	69.1	57.6
45°	83.5	80.6	73.4	61.9	53.3
47.5°	76.3	74.9	67.7	54.7	46.1
50°	72.0	69.1	63.3	48.9	37.4
52.5°	67.7	63.3	57.6	43.2	31.7
55°	57.6	54.7	50.4	37.4	28.8
57.5°	50.4	44.6	41.7	31.7	25.9
60°	40.3	36.0	34.5	28.8	24.5
62.5°	36.0	33.1	31.7	27.3	23.0
65°	33.1	28.8	28.8	24.5	21.6
67.5°	30.2	25.9	25.9	21.6	18.7
70°	27.3	23.0	23.0	18.7	15.8
72.5°	23.0	18.7	20.2	15.8	14.4
75°	18.7	15.8	17.3	14.4	11.5
77.5°	15.8	13.0	13.0	11.5	8.6
80°	11.5	10.1	10.1	8.6	7.2
82.5°	7.2	5.8	7.2	5.8	4.3
85°	4.3	2.9	4.3	2.9	2.9
87.5°	1.4	1.4	1.4	1.4	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)