

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: P592032

Luminaire Tested: **GRZ-10L-935-10x10-X-UNV-STD-2F**

Issue Date: 2/2/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P592032  
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-10L-935-10x10-X-UNV-STD-2F  
Description: iO LED GRAZER WITH 10x10 OPTIC  
1000 LUMENS PER FOOT, 2 FOOT FIXTURE  
SCALED BASED ON PHOTOMETRIC TESTING  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

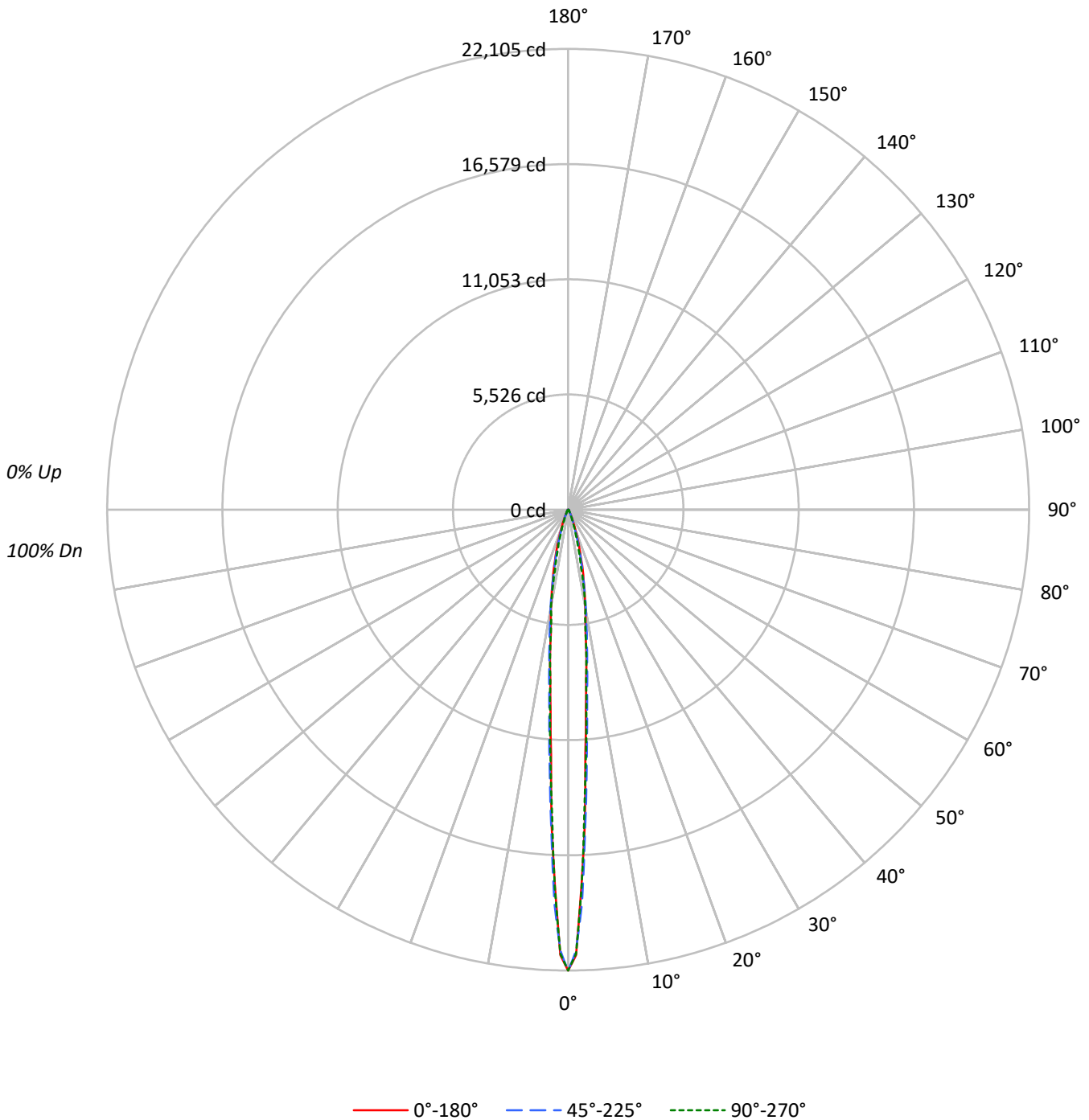
Lumens per Lamp: N/A  
Luminaire Lumens: 1769.0 lumens  
Efficiency: N/A  
Efficacy: 92.6 lumens/watt  
Spacing Criteria (0/90/45): 0.15 / 0.16 / 0.22  
Luminous Opening: Rectangular (W 2' x L: 0.17' x H: 0')  
CIE Type: Direct

Input Watts (W): 19.1  
Input Voltage (V): 120  
Input Current (Ain): 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							
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10				
RCR																								
0	119	119	119	119	116	116	116	116	111	111	111	111	106	106	106	106	102	102	102	102	100	100	100	100
1	115	113	111	109	113	111	109	107	107	105	104	104	103	102	101	101	100	99	98	98	96	96	96	96
2	111	107	104	102	109	106	103	101	103	100	99	99	100	98	96	96	97	96	95	95	93	93	93	93
3	108	103	99	96	106	102	98	96	99	96	94	94	97	95	93	93	95	93	91	91	90	90	90	90
4	104	99	95	92	103	98	94	92	96	93	91	91	94	92	90	90	93	90	89	89	87	87	87	87
5	102	96	92	89	100	95	91	88	93	90	88	88	92	89	87	87	90	88	86	86	85	85	85	85
6	99	93	89	86	98	92	88	86	91	88	85	85	90	87	85	85	88	86	84	84	83	83	83	83
7	96	90	86	83	95	90	86	83	89	85	83	83	88	85	82	82	87	84	82	82	81	81	81	81
8	94	88	84	81	93	87	84	81	86	83	81	81	86	83	80	80	85	82	80	80	79	79	79	79
9	92	86	82	79	91	85	82	79	85	81	79	79	84	81	79	79	83	80	78	78	78	78	78	78
10	90	84	80	77	89	83	80	77	83	79	77	77	82	79	77	77	82	79	77	77	76	76	76	76

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	713811	713811	713811
5°	314335	335551	324082
10°	154912	159477	156276
15°	78145	72007	62051
20°	32790	27773	23588
25°	13297	11127	9367
30°	6343	5660	5011
35°	4001	3505	2783
40°	2854	2609	1956
45°	2562	2251	1635
50°	2426	2135	1261
55°	2179	1903	1087
60°	1750	1498	1059
65°	1696	1475	1108
70°	1737	1463	1001
75°	1572	1447	961
80°	1432	1265	893
85°	1074	1074	704



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	830.8	47.0
10°-20°	614.3	34.7
20°-30°	167.6	9.5
30°-40°	59.2	3.3
40°-50°	37.3	2.1
50°-60°	27.7	1.6
60°-70°	18.2	1.0
70°-80°	11.0	0.6
80°-90°	2.9	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°	1612.7	91.2
0°-40°	1671.9	94.5
0°-60°	1736.9	98.2
0°-90°	1769.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1769.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	22105	22105	22105	22105	22105	
5°	9697	10126	10352	9968	9998	805
15°	2338	2308	2154	1906	1856	663
25°	373	366	312	276	263	197
35°	102	100	89	81	71	66
45°	56	54	49	42	36	43
55°	39	37	34	25	19	35
65°	22	19	19	16	14	22
75°	13	11	12	10	8	14
85°	3	2	3	2	2	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	22105.1	22105.1	22105.1	22105.1	22105.1
1°	21365.6	20938.3	21186.7	21177.1	21300.8
2°	18075.8	19413.8	18892.7	18835.7	18242.1
3°	15122.5	15714.1	15383.5	15577.8	14647.8
4°	11774.7	12513.3	12626.4	12372.1	12044.4
5°	9697.2	10125.5	10351.7	9967.9	9997.9
6°	8167.9	8710.2	8676.4	8687.0	8256.8
7°	7155.7	7438.0	7478.6	7233.0	7116.1
8°	5997.6	6483.8	6446.1	6261.5	5999.5
9°	5346.0	5644.7	5597.3	5267.7	5172.0
10°	4724.4	4888.7	4863.6	4501.1	4766.0
12.5°	3401.9	3417.4	3251.1	3053.9	2896.3
15°	2337.5	2307.6	2153.9	1906.4	1856.1
17.5°	1535.2	1539.0	1331.2	1144.6	1115.6
20°	954.2	960.0	808.2	704.7	686.4
22.5°	600.3	574.2	480.5	437.0	425.4
25°	373.2	366.4	312.3	276.5	262.9
27.5°	252.3	247.5	203.0	186.6	185.6
30°	170.1	176.9	151.8	138.2	134.4
32.5°	128.6	128.6	117.9	108.3	97.6
35°	101.5	99.6	88.9	81.2	70.6
37.5°	77.3	81.2	71.5	65.7	55.1
40°	67.7	67.7	61.9	54.1	46.4
42.5°	59.9	61.9	54.1	46.4	38.7
45°	56.1	54.1	49.3	41.6	35.8
47.5°	51.2	50.3	45.4	36.7	30.9
50°	48.3	46.4	42.5	32.9	25.1
52.5°	45.4	42.5	38.7	29.0	21.3
55°	38.7	36.7	33.8	25.1	19.3
57.5°	33.8	30.0	28.0	21.3	17.4
60°	27.1	24.2	23.2	19.3	16.4
62.5°	24.2	22.2	21.3	18.4	15.5
65°	22.2	19.3	19.3	16.4	14.5
67.5°	20.3	17.4	17.4	14.5	12.6
70°	18.4	15.5	15.5	12.6	10.6
72.5°	15.5	12.6	13.5	10.6	9.7
75°	12.6	10.6	11.6	9.7	7.7
77.5°	10.6	8.7	8.7	7.7	5.8
80°	7.7	6.8	6.8	5.8	4.8
82.5°	4.8	3.9	4.8	3.9	2.9
85°	2.9	1.9	2.9	1.9	1.9
87.5°	1.0	1.0	1.0	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)