

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: P591936

Luminaire Tested: **GRZ-05L-927-10x10-X-UNV-STD-2F**

Issue Date: 2/2/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P591936  
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-05L-927-10x10-X-UNV-STD-2F  
Description: iO LED GRAZER WITH 10x10 OPTIC  
500 LUMENS PER FOOT, 2 FOOT FIXTURE  
SCALED BASED ON PHOTOMETRIC TESTING  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

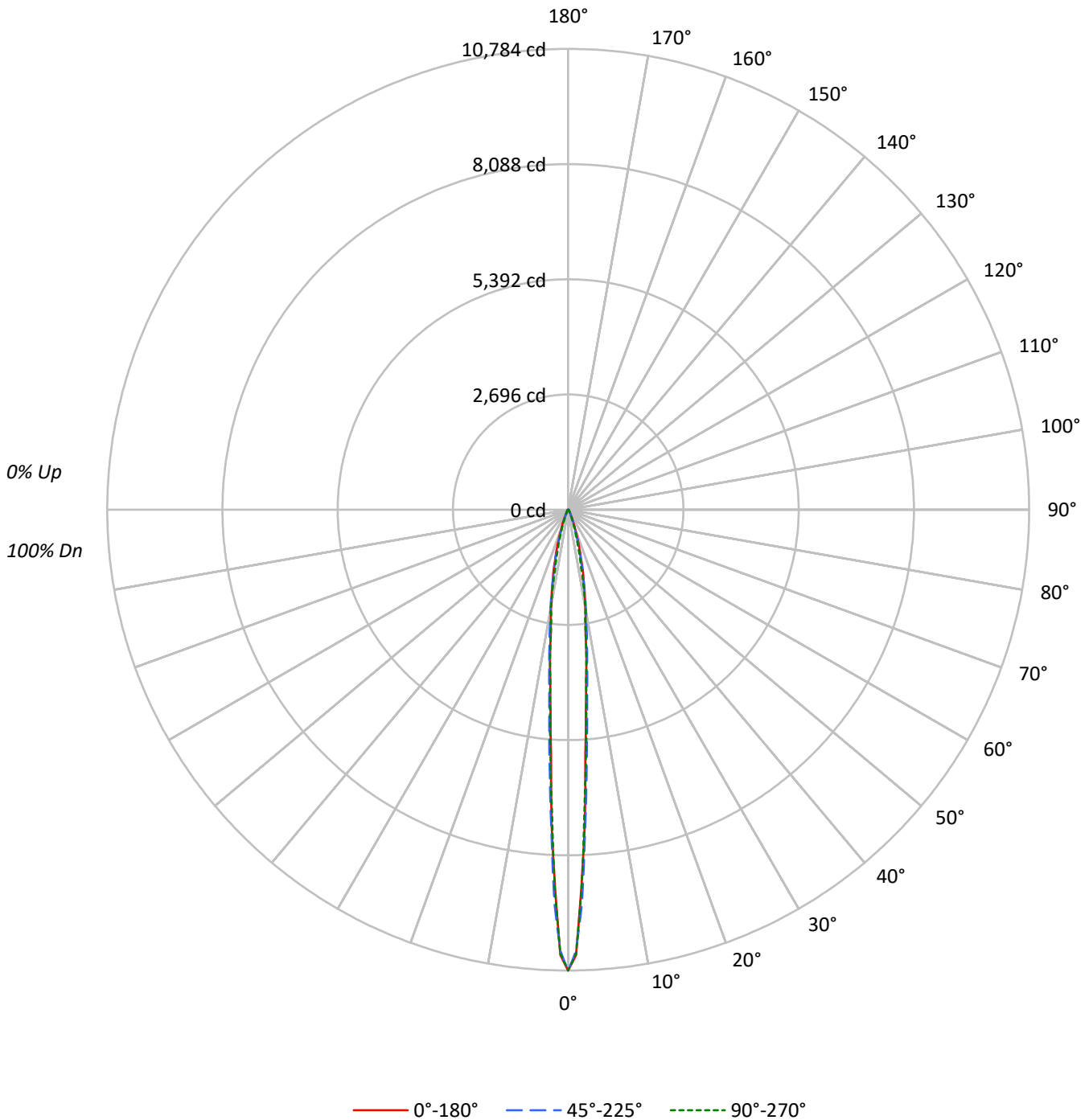
Lumens per Lamp: N/A  
Luminaire Lumens: 863.0 lumens  
Efficiency: N/A  
Efficacy: 89.9 lumens/watt  
Spacing Criteria (0/90/45): 0.15 / 0.16 / 0.22  
Luminous Opening: Rectangular (W 2' x L: 0.17' x H: 0')  
CIE Type: Direct

Input Watts (W): 9.6  
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							
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°	348230	348230	348230
5°	153349	163696	158101
10°	75574	77800	76240
15°	38124	35129	30272
20°	15996	13550	11505
25°	6485	5426	4571
30°	3095	2759	2446
35°	1951	1711	1356
40°	1391	1273	953
45°	1251	1101	795
50°	1186	1045	618
55°	1064	929	529
60°	853	730	517
65°	825	718	543
70°	850	708	491
75°	761	711	474
80°	707	614	446
85°	519	519	333



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	405.3	47.0
10°-20°	299.7	34.7
20°-30°	81.8	9.5
30°-40°	28.9	3.3
40°-50°	18.2	2.1
50°-60°	13.5	1.6
60°-70°	8.9	1.0
70°-80°	5.3	0.6
80°-90°	1.4	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°	786.7	91.2
0°-40°	815.6	94.5
0°-60°	847.4	98.2
0°-90°	863.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	863.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	10784	10784	10784	10784	10784	
5°	4731	4940	5050	4863	4877	393
15°	1140	1126	1051	930	906	323
25°	182	179	152	135	128	96
35°	50	49	43	40	34	32
45°	27	26	24	20	17	21
55°	19	18	16	12	9	17
65°	11	9	9	8	7	11
75°	6	5	6	5	4	7
85°	1	1	1	1	1	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	10783.9	10783.9	10783.9	10783.9	10783.9
1°	10423.1	10214.7	10335.9	10331.2	10391.5
2°	8818.2	9470.9	9216.7	9188.9	8899.3
3°	7377.4	7666.1	7504.8	7599.6	7145.9
4°	5744.2	6104.6	6159.7	6035.7	5875.8
5°	4730.8	4939.7	5050.0	4862.8	4877.4
6°	3984.7	4249.2	4232.7	4237.9	4028.0
7°	3490.9	3628.6	3648.4	3528.6	3471.5
8°	2925.9	3163.1	3144.7	3054.6	2926.8
9°	2608.0	2753.7	2730.6	2569.8	2523.1
10°	2304.8	2384.9	2372.7	2195.8	2325.1
12.5°	1659.6	1667.2	1586.0	1489.8	1413.0
15°	1140.4	1125.7	1050.8	930.0	905.5
17.5°	748.9	750.8	649.4	558.4	544.2
20°	465.5	468.3	394.3	343.8	334.8
22.5°	292.9	280.1	234.4	213.2	207.5
25°	182.0	178.7	152.3	134.9	128.3
27.5°	123.1	120.7	99.0	91.0	90.5
30°	83.0	86.3	74.0	67.4	65.6
32.5°	62.7	62.7	57.5	52.8	47.6
35°	49.5	48.6	43.4	39.6	34.4
37.5°	37.7	39.6	34.9	32.1	26.9
40°	33.0	33.0	30.2	26.4	22.6
42.5°	29.2	30.2	26.4	22.6	18.9
45°	27.4	26.4	24.1	20.3	17.4
47.5°	25.0	24.5	22.2	17.9	15.1
50°	23.6	22.6	20.8	16.0	12.3
52.5°	22.2	20.8	18.9	14.1	10.4
55°	18.9	17.9	16.5	12.3	9.4
57.5°	16.5	14.6	13.7	10.4	8.5
60°	13.2	11.8	11.3	9.4	8.0
62.5°	11.8	10.8	10.4	9.0	7.5
65°	10.8	9.4	9.4	8.0	7.1
67.5°	9.9	8.5	8.5	7.1	6.1
70°	9.0	7.5	7.5	6.1	5.2
72.5°	7.5	6.1	6.6	5.2	4.7
75°	6.1	5.2	5.7	4.7	3.8
77.5°	5.2	4.2	4.2	3.8	2.8
80°	3.8	3.3	3.3	2.8	2.4
82.5°	2.4	1.9	2.4	1.9	1.4
85°	1.4	0.9	1.4	0.9	0.9
87.5°	0.5	0.5	0.5	0.5	0.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)