

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

Brand: iO LED

Report Number: P977155

Luminaire Tested: GRZ-05L-940-17x75-X-UNV-STD-1F

Issue Date: 3/21/2025

**Test Information**

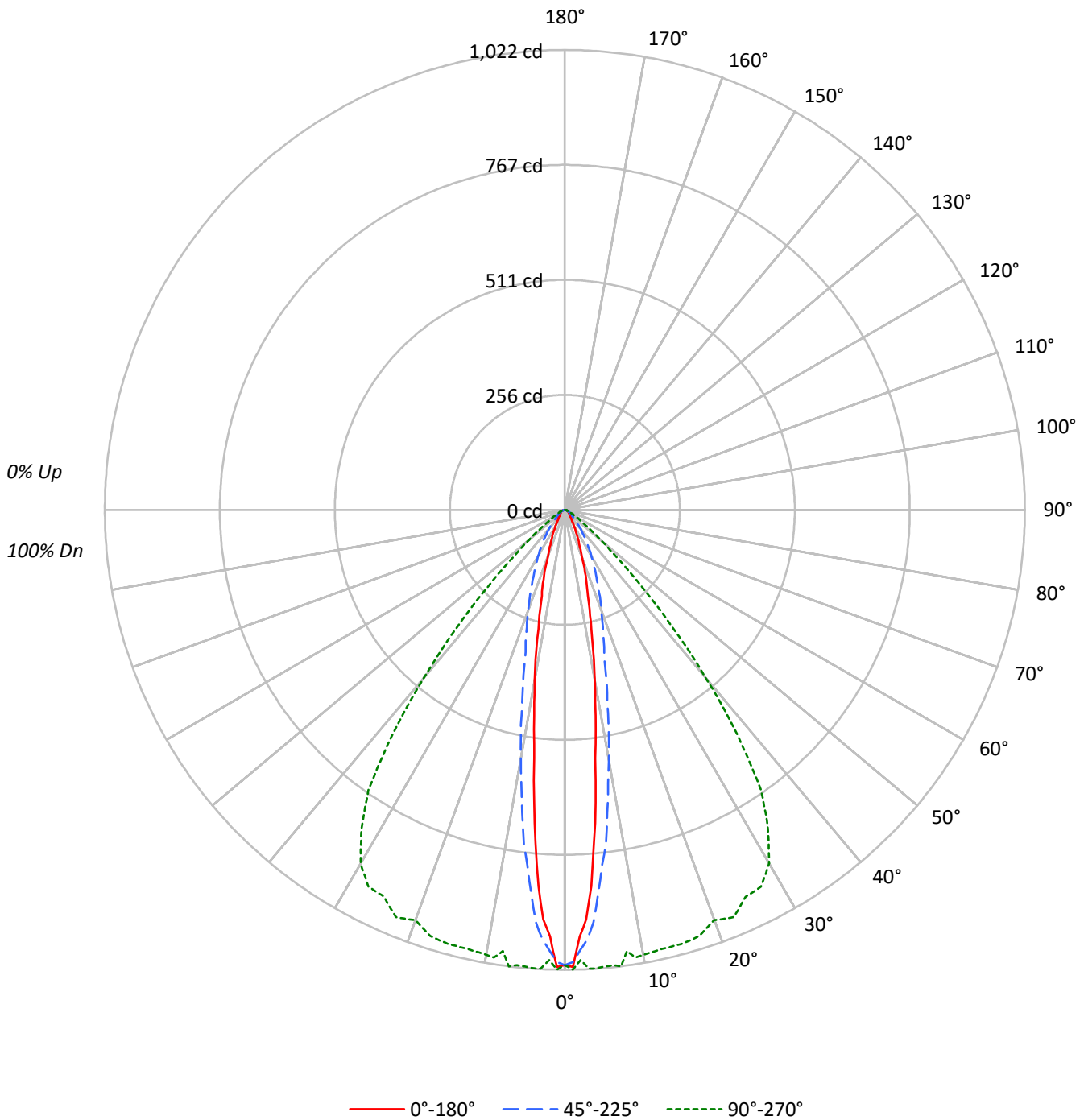
Test Method: LM-79-2019  
Report Number: P977155  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-147-6)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 3/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: iO LED  
Catalog Number: GRZ-05L-940-17x75-X-UNV-STD-1F  
Description: iO COVIO LED GRAZER WITH 17X75 DEGREE OPTIC.  
500 LUMENS PER FOOT, 1 FOOT FIXTURE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 547.7 lumens  
Efficiency: N/A  
Efficacy: 103.3 lumens/watt  
Spacing Criteria (0/90/45): 0.27 / 1.27 / 0.47  
Luminous Opening: Rectangular (W 1' x L: 0.17' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 5.3  
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	0
RW	70	50	30	10	70	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
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94				92	
2	107	101	97	93	105	100	96	92	96	93	90	93	91	88	91	88	87				85	
3	101	94	89	84	99	93	88	84	90	86	82	87	84	81	85	82	80				78	
4	95	87	81	77	93	86	81	76	84	79	75	82	78	74	80	76	74				72	
5	90	81	75	70	89	80	75	70	79	73	70	77	72	69	75	71	68				67	
6	86	76	70	65	84	75	69	65	74	68	64	72	68	64	71	67	64				62	
7	81	71	65	61	80	71	65	60	69	64	60	68	63	60	67	63	59				58	
8	77	67	61	57	76	67	61	56	65	60	56	64	59	56	63	59	56				54	
9	73	63	57	53	72	63	57	53	62	57	53	61	56	53	60	56	52				51	
10	70	60	54	50	69	60	54	50	59	53	50	58	53	50	57	53	49				48	

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

	0°	45°	90°
0°	65365	65365	65365
5°	48175	55436	66068
10°	25248	36921	65849
15°	13239	22666	66801
20°	7629	16289	66673
25°	4774	11829	67633
30°	2983	8800	67646
35°	2050	6465	59928
40°	1686	4553	41058
45°	1461	3197	22012
50°	1306	2311	10449
55°	1239	1914	5067
60°	1292	1679	2971
65°	1223	1375	1987
70°	1133	1133	1511
75°	998	998	1248
80°	744	744	744
85°	741	741	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 22012 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.8	13.7
10°-20°	130.1	23.8
20°-30°	135.3	24.7
30°-40°	113.0	20.6
40°-50°	55.7	10.2
50°-60°	22.6	4.1
60°-70°	10.6	1.9
70°-80°	4.7	0.9
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°	340.3	62.1
0°-40°	453.2	82.8
0°-60°	531.6	97.1
0°-90°	547.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	547.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1012	1012	1012	1012	1012	
5°	743	786	855	973	1019	58
15°	198	228	339	666	999	58
25°	67	83	166	411	949	31
35°	26	36	82	228	760	17
45°	16	19	35	93	241	13
55°	11	13	17	38	45	10
65°	8	8	9	14	13	8
75°	4	4	4	5	5	4
85°	1	1	1	1	0	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1012.1	1012.1	1012.1	1012.1	1012.1
1°	1016.1	1014.1	1005.1	1019.1	1022.1
2°	948.1	974.1	979.1	996.1	1001.1
3°	911.1	929.1	955.1	997.1	1021.1
4°	838.1	858.1	919.1	987.1	1021.1
5°	743.1	786.1	855.1	973.1	1019.1
6°	655.0	705.1	794.1	954.1	1017.1
7°	556.0	621.0	748.1	919.1	1022.1
8°	493.0	541.0	680.1	892.1	990.1
9°	433.0	479.0	615.0	852.1	1007.1
10°	385.0	418.0	563.0	830.1	1004.1
12.5°	271.0	304.0	437.0	752.1	999.1
15°	198.0	228.0	339.0	666.0	999.1
17.5°	153.0	176.0	283.0	593.0	993.1
20°	111.0	137.0	237.0	526.0	970.1
22.5°	84.0	107.0	200.0	466.0	980.1
25°	67.0	83.0	166.0	411.0	949.1
27.5°	52.0	66.0	140.0	359.0	944.1
30°	40.0	52.0	118.0	312.0	907.1
32.5°	32.0	42.0	98.0	268.0	840.1
35°	26.0	36.0	82.0	228.0	760.1
37.5°	23.0	30.0	66.0	191.0	629.0
40°	20.0	25.0	54.0	148.0	487.0
42.5°	18.0	22.0	42.0	118.0	356.0
45°	16.0	19.0	35.0	93.0	241.0
47.5°	15.0	18.0	28.0	75.0	156.0
50°	13.0	16.0	23.0	59.0	104.0
52.5°	12.0	14.0	20.0	49.0	67.0
55°	11.0	13.0	17.0	38.0	45.0
57.5°	11.0	12.0	15.0	30.0	32.0
60°	10.0	10.0	13.0	23.0	23.0
62.5°	9.0	9.0	11.0	18.0	18.0
65°	8.0	8.0	9.0	14.0	13.0
67.5°	7.0	7.0	7.0	11.0	11.0
70°	6.0	6.0	6.0	9.0	8.0
72.5°	5.0	5.0	5.0	7.0	6.0
75°	4.0	4.0	4.0	5.0	5.0
77.5°	3.0	3.0	3.0	4.0	3.0
80°	2.0	2.0	2.0	2.0	2.0
82.5°	1.0	1.0	1.0	1.0	1.0
85°	1.0	1.0	1.0	1.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)