

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: P591949

Luminaire Tested: **GRZ-05L-927-50x60-X-UNV-STD-4F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P591949
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2111-457-22)
Test Lab: INNOVATION CENTER
Issue Date: 2/2/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: iO LED
Catalog Number: GRZ-05L-927-50x60-X-UNV-STD-4F
Description: iO LED GRAZER WITH 50x60 OPTIC
500 LUMENS PER FOOT, 4 FOOT FIXTURE
SUMULATED RESULTS
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

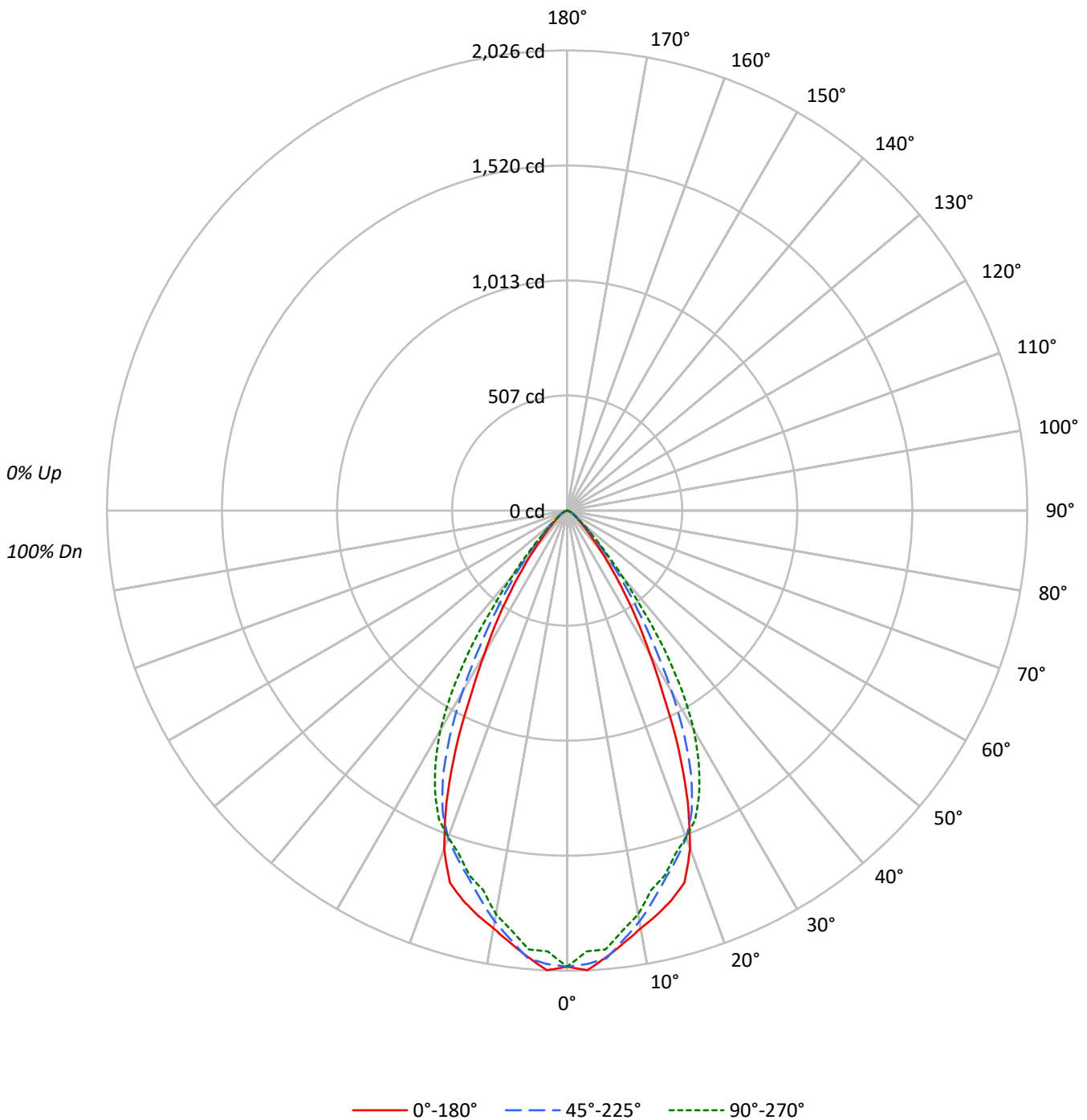
Lumens per Lamp: N/A
Luminaire Lumens: 1852.0 lumens
Efficiency: N/A
Efficacy: 96.0 lumens/watt
Spacing Criteria (0/90/45): 0.87 / 0.95 / 0.87
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 19.3
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			
1	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93					93			
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	86					86			
3	101	95	89	85	99	93	88	85	91	87	83	88	85	82	86	83	81	79					79			
4	96	88	82	78	94	87	81	77	85	80	76	83	79	75	81	77	75	73					73			
5	91	82	76	71	89	81	75	71	79	74	70	78	73	70	76	72	69	68					68			
6	86	77	70	66	84	76	70	66	74	69	65	73	68	65	72	68	64	63					63			
7	82	72	66	61	80	71	65	61	70	65	61	69	64	60	68	63	60	59					59			
8	77	67	61	57	76	67	61	57	66	60	57	65	60	56	64	59	56	55					55			
9	74	64	57	53	72	63	57	53	62	57	53	61	56	53	60	56	53	51					51			
10	70	60	54	50	69	60	54	50	59	53	50	58	53	50	57	53	49	48					48			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32414	32414	32414
5°	31984	32071	31430
10°	30613	30111	29578
15°	29675	27990	27779
20°	27194	26328	26297
25°	20721	23063	24506
30°	13561	17188	20812
35°	8481	11002	14657
40°	4820	6528	7893
45°	2672	3740	3907
50°	1718	2170	2125
55°	1267	1469	1317
60°	930	1046	930
65°	756	825	688
70°	510	595	595
75°	337	449	449
80°	335	335	335
85°	333	333	333



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	182.8	9.9
10°-20°	473.3	25.6
20°-30°	570.8	30.8
30°-40°	389.7	21.0
40°-50°	155.3	8.4
50°-60°	50.4	2.7
60°-70°	20.3	1.1
70°-80°	7.8	0.4
80°-90°	1.6	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°	1226.9	66.2
0°-40°	1616.6	87.3
0°-60°	1822.2	98.4
0°-90°	1852.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1852.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2008	2008	2008	2008	2008	
5°	1973	1972	1979	1945	1939	185
15°	1775	1714	1674	1649	1662	495
25°	1163	1156	1295	1336	1376	523
35°	430	542	558	796	744	276
45°	117	225	164	222	171	98
55°	45	61	52	50	47	41
65°	20	20	22	20	18	19
75°	5	7	7	7	7	7
85°	2	2	2	2	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2007.6	2007.6	2007.6	2007.6	2007.6
2.5°	2025.6	2005.8	1998.6	1989.6	1942.8
5°	1973.4	1971.6	1978.8	1944.6	1939.2
7.5°	1919.4	1910.4	1905.0	1881.6	1865.4
10°	1867.2	1847.4	1836.6	1804.1	1804.1
12.5°	1823.9	1791.5	1755.5	1723.1	1710.5
15°	1775.3	1714.1	1674.5	1649.3	1661.9
17.5°	1717.7	1622.3	1606.1	1571.9	1584.5
20°	1582.7	1517.9	1532.3	1499.8	1530.5
22.5°	1388.2	1352.2	1433.2	1426.0	1472.8
25°	1163.1	1155.9	1294.6	1336.0	1375.6
27.5°	920.1	957.9	1118.1	1231.6	1255.0
30°	727.4	786.8	921.9	1105.5	1116.3
32.5°	570.8	655.4	727.4	957.9	941.7
35°	430.3	542.0	558.2	795.8	743.6
37.5°	316.9	455.5	424.9	626.6	534.8
40°	228.7	372.7	309.7	462.7	374.5
42.5°	162.0	297.1	225.1	334.9	253.9
45°	117.0	225.1	163.8	221.5	171.1
47.5°	88.2	165.6	118.8	145.8	120.6
50°	68.4	117.0	86.4	99.0	84.6
52.5°	55.8	84.6	66.6	70.2	63.0
55°	45.0	61.2	52.2	50.4	46.8
57.5°	36.0	46.8	41.4	39.6	37.8
60°	28.8	34.2	32.4	30.6	28.8
62.5°	23.4	27.0	27.0	23.4	23.4
65°	19.8	19.8	21.6	19.8	18.0
67.5°	14.4	16.2	16.2	14.4	14.4
70°	10.8	12.6	12.6	12.6	12.6
72.5°	9.0	9.0	10.8	9.0	9.0
75°	5.4	7.2	7.2	7.2	7.2
77.5°	3.6	5.4	5.4	5.4	5.4
80°	3.6	3.6	3.6	3.6	3.6
82.5°	1.8	1.8	3.6	1.8	1.8
85°	1.8	1.8	1.8	1.8	1.8
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)