

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: P591997

Luminaire Tested: **GRZ-05L-940-50x60-X-UNV-STD-4F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P591997
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-940-50x60-X-UNV-STD-4F
Description: iO LED GRAZER WITH 50x60 OPTIC
500 LUMENS PER FOOT, 4 FOOT FIXTURE
SUMULATED RESULTS
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

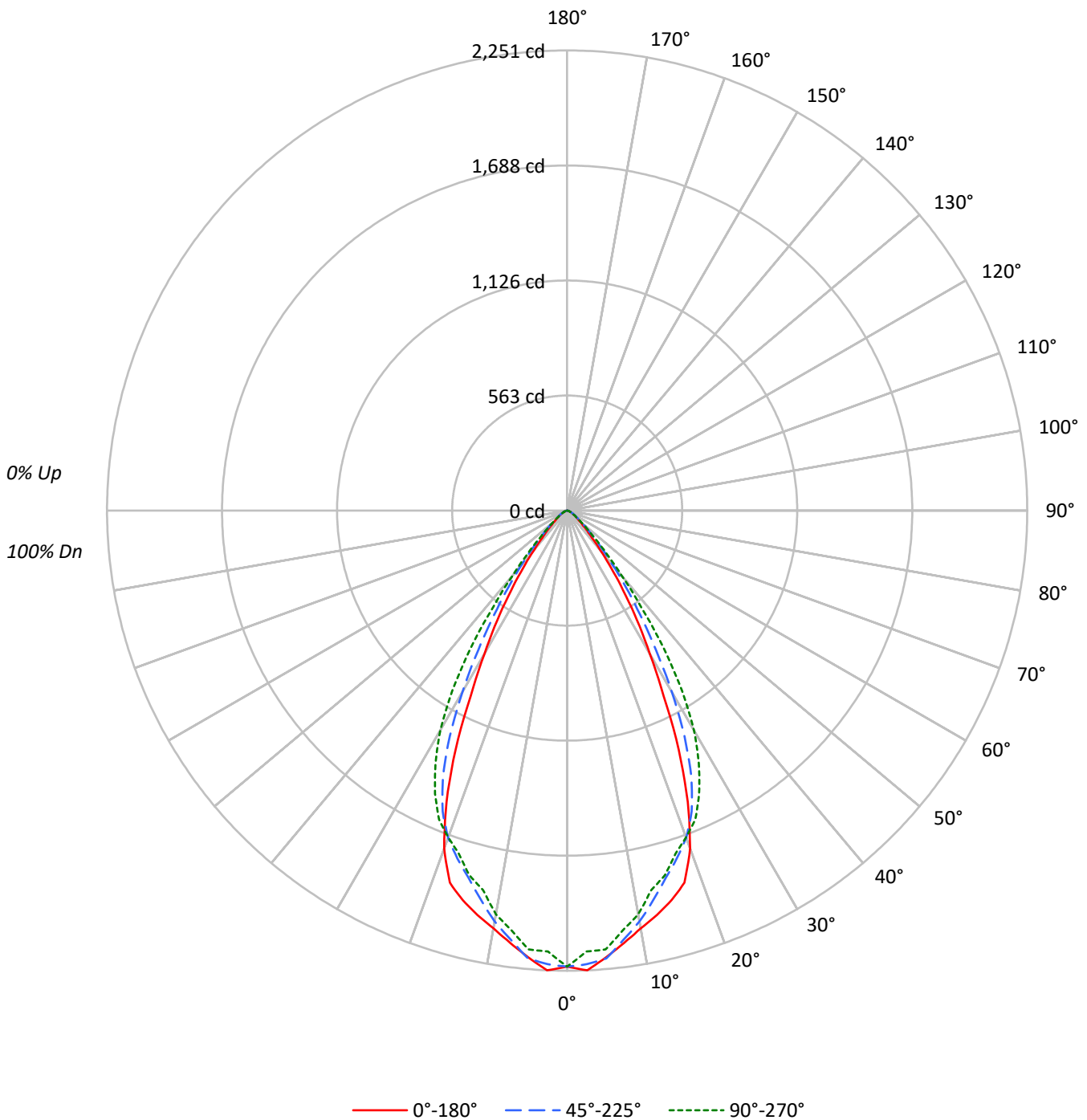
Lumens per Lamp: N/A
Luminaire Lumens: 2058.0 lumens
Efficiency: N/A
Efficacy: 106.6 lumens/watt
Spacing Criteria (0/90/45): 0.87 / 0.95 / 0.87
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')
CIE Type: Direct

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



TEST NUMBER: P591997
CATALOG NUMBER: GRZ-05L-940-50x60-X-UNV-STD-4F

Luminous Intensity Polar Plot





TEST NUMBER: P591997

CATALOG NUMBER: GRZ-05L-940-50x60-X-UNV-STD-4F

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°	36020	36020	36020
5°	35541	35639	34926
10°	34016	33459	32869
15°	32976	31104	30870
20°	30218	29256	29222
25°	23026	25629	27232
30°	15070	19099	23127
35°	9426	12226	16287
40°	5356	7253	8772
45°	2971	4158	4341
50°	1909	2411	2361
55°	1407	1633	1464
60°	1033	1163	1033
65°	840	917	764
70°	566	661	661
75°	374	499	499
80°	372	372	372
85°	371	371	371



TEST NUMBER: P591997

CATALOG NUMBER: GRZ-05L-940-50x60-X-UNV-STD-4F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.1	9.9
10°-20°	526.0	25.6
20°-30°	634.3	30.8
30°-40°	433.0	21.0
40°-50°	172.6	8.4
50°-60°	56.0	2.7
60°-70°	22.6	1.1
70°-80°	8.7	0.4
80°-90°	1.8	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°	1363.4	66.2
0°-40°	1796.4	87.3
0°-60°	2024.9	98.4
0°-90°	2058.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2058.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2231	2231	2231	2231	2231	
5°	2193	2191	2199	2161	2155	206
15°	1973	1905	1861	1833	1847	550
25°	1292	1284	1439	1485	1529	582
35°	478	602	620	884	826	307
45°	130	250	182	246	190	109
55°	50	68	58	56	52	46
65°	22	22	24	22	20	21
75°	6	8	8	8	8	7
85°	2	2	2	2	2	2
90°	0	0	0	0	0	



TEST NUMBER: P591997

CATALOG NUMBER: GRZ-05L-940-50x60-X-UNV-STD-4F

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2230.9	2230.9	2230.9	2230.9	2230.9
2.5°	2250.9	2228.9	2220.9	2210.9	2158.9
5°	2192.9	2190.9	2198.9	2160.9	2154.9
7.5°	2132.9	2122.9	2116.9	2090.9	2072.8
10°	2074.8	2052.8	2040.8	2004.8	2004.8
12.5°	2026.8	1990.8	1950.8	1914.8	1900.8
15°	1972.8	1904.8	1860.8	1832.7	1846.8
17.5°	1908.8	1802.7	1784.7	1746.7	1760.7
20°	1758.7	1686.7	1702.7	1666.7	1700.7
22.5°	1542.6	1502.6	1592.6	1584.6	1636.7
25°	1292.5	1284.5	1438.6	1484.6	1528.6
27.5°	1022.4	1064.4	1242.5	1368.6	1394.6
30°	808.3	874.4	1024.4	1228.5	1240.5
32.5°	634.3	728.3	808.3	1064.4	1046.4
35°	478.2	602.2	620.3	884.4	826.3
37.5°	352.1	506.2	472.2	696.3	594.2
40°	254.1	414.2	344.1	514.2	416.2
42.5°	180.1	330.1	250.1	372.2	282.1
45°	130.1	250.1	182.1	246.1	190.1
47.5°	98.0	184.1	132.1	162.1	134.1
50°	76.0	130.1	96.0	110.0	94.0
52.5°	62.0	94.0	74.0	78.0	70.0
55°	50.0	68.0	58.0	56.0	52.0
57.5°	40.0	52.0	46.0	44.0	42.0
60°	32.0	38.0	36.0	34.0	32.0
62.5°	26.0	30.0	30.0	26.0	26.0
65°	22.0	22.0	24.0	22.0	20.0
67.5°	16.0	18.0	18.0	16.0	16.0
70°	12.0	14.0	14.0	14.0	14.0
72.5°	10.0	10.0	12.0	10.0	10.0
75°	6.0	8.0	8.0	8.0	8.0
77.5°	4.0	6.0	6.0	6.0	6.0
80°	4.0	4.0	4.0	4.0	4.0
82.5°	2.0	2.0	4.0	2.0	2.0
85°	2.0	2.0	2.0	2.0	2.0
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)