

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: P591944

Luminaire Tested: **GRZ-05L-927-17x30-X-UNV-STD-2F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P591944
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2111-457-19)
Test Lab: INNOVATION CENTER
Issue Date: 2/2/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: iO LED
Catalog Number: GRZ-05L-927-17x30-X-UNV-STD-2F
Description: iO LED GRAZER WITH 17x30 OPTIC
500 LUMENS PER FOOT, 2 FOOT FIXTURE
SUMULATED RESULTS
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

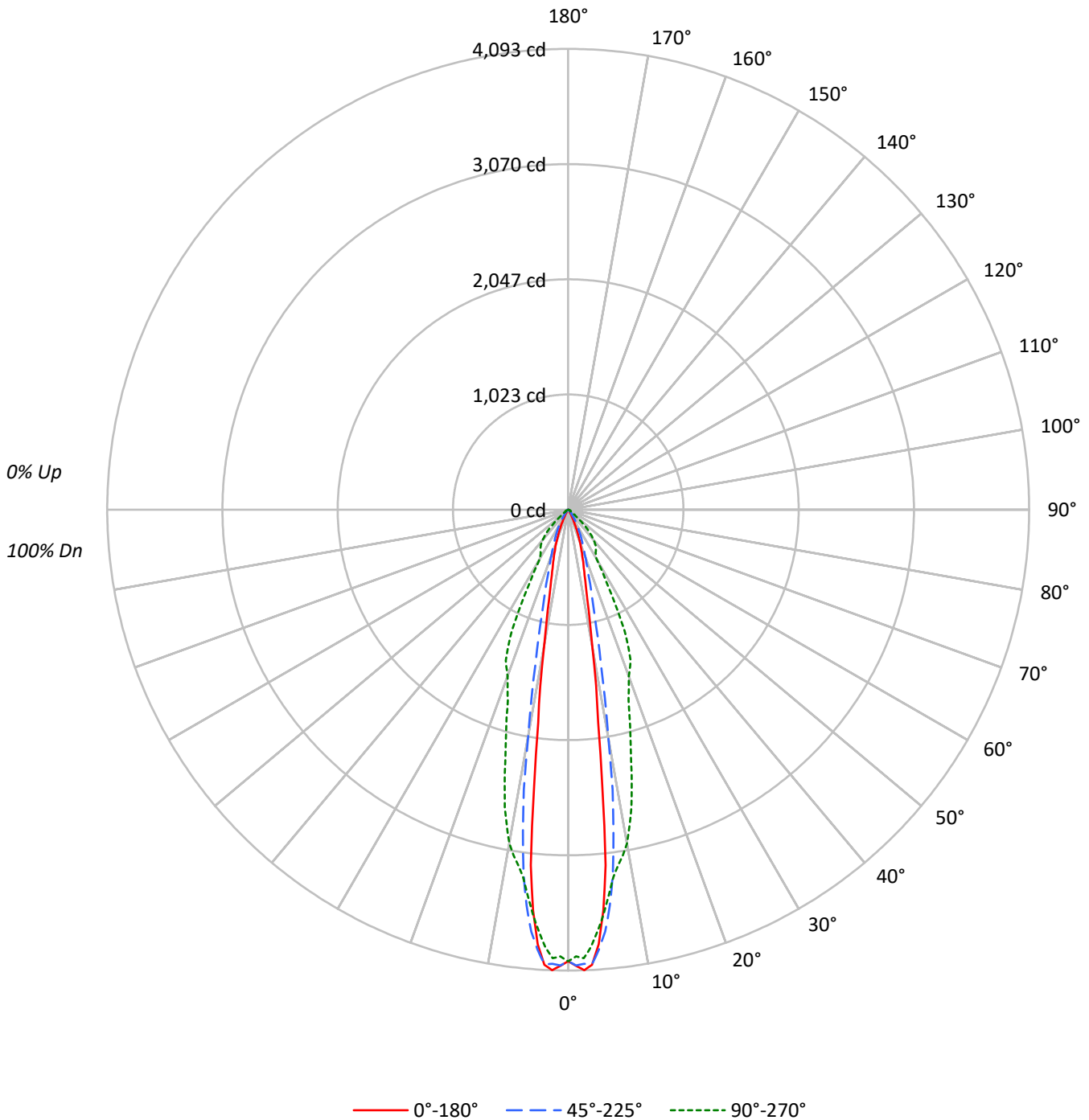
Lumens per Lamp: N/A
Luminaire Lumens: 973.0 lumens
Efficiency: N/A
Efficacy: 101.4 lumens/watt
Spacing Criteria (0/90/45): 0.27 / 0.52 / 0.34
Luminous Opening: Rectangular (W 2' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 9.6
Input Voltage (V): 120
Input Current (A_{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: P591944
CATALOG NUMBER: GRZ-05L-927-17x30-X-UNV-STD-2F

Luminous Intensity Polar Plot





TEST NUMBER: P591944

CATALOG NUMBER: GRZ-05L-927-17x30-X-UNV-STD-2F

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	114	112	110	108	112	110	108	106	106	104	103	103	102	101	100	100	99	98	97	97	95	95	95	95
2	110	105	102	99	107	104	100	98	100	98	96	96	98	95	94	94	95	93	92	92	90	90	90	90
3	105	100	95	92	103	98	94	91	96	93	90	90	93	91	88	88	91	89	87	87	86	86	86	86
4	101	95	90	86	99	94	89	86	92	88	85	85	90	86	84	84	88	85	83	83	82	82	82	82
5	97	90	85	82	96	89	85	81	88	84	81	81	86	83	80	80	85	82	79	79	78	78	78	78
6	94	86	81	78	92	86	81	77	84	80	77	77	83	79	76	76	82	78	76	76	75	75	75	75
7	90	83	78	74	89	82	77	74	81	77	74	74	80	76	73	73	79	75	73	73	72	72	72	72
8	87	79	75	71	86	79	74	71	78	74	71	71	77	73	71	71	76	73	70	70	69	69	69	69
9	84	77	72	68	83	76	72	68	75	71	68	68	74	71	68	68	74	70	68	68	67	67	67	67
10	82	74	69	66	81	73	69	66	73	69	66	66	72	68	66	66	71	68	65	65	64	64	64	64

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	129522	129522	129522
5°	115835	121932	116915
10°	40358	67075	98720
15°	17939	27871	71515
20°	10457	14945	54082
25°	4489	9527	42118
30°	1510	5910	18599
35°	922	3051	16931
40°	797	1745	14876
45°	863	1356	10403
50°	678	633	4567
55°	608	608	1824
60°	581	639	1686
65°	619	619	1582
70°	595	510	1190
75°	449	449	561
80°	335	335	335
85°	333	333	333



TEST NUMBER: P591944

CATALOG NUMBER: GRZ-05L-927-17x30-X-UNV-STD-2F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	294.6	30.3
10°-20°	311.5	32.0
20°-30°	192.9	19.8
30°-40°	97.6	10.0
40°-50°	48.3	5.0
50°-60°	14.4	1.5
60°-70°	8.9	0.9
70°-80°	4.2	0.4
80°-90°	0.7	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°	799.0	82.1
0°-40°	896.5	92.1
0°-60°	959.2	98.6
0°-90°	973.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	973.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4011	4011	4011	4011	4011	
5°	3574	3651	3762	3657	3607	249
15°	537	595	834	1459	2139	160
25°	126	157	267	641	1182	64
35°	23	25	77	287	430	16
45°	19	17	30	79	228	14
55°	11	11	11	16	32	10
65°	8	10	8	5	21	8
75°	4	5	4	2	4	4
85°	1	1	1	0	1	1
90°	0	0	0	0	0	



TEST NUMBER: P591944

CATALOG NUMBER: GRZ-05L-927-17x30-X-UNV-STD-2F

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4011.0	4011.0	4011.0	4011.0	4011.0	4011.0	4011.0	4011.0	4011.0	4011.0	4011.0
1°	4051.5	4038.9	4041.6	4057.8	4067.7	4048.8	4021.8	4001.1	4010.1	3982.2	3968.7
2°	4092.9	4083.0	4076.7	4082.1	4060.5	4036.2	4008.3	3993.0	3987.6	3973.2	3986.7
3°	4047.9	4035.3	4038.9	4051.5	4040.7	4042.5	3973.2	3926.4	3921.9	3903.0	3887.7
4°	3869.7	3878.7	3896.7	3898.5	3911.1	3914.7	3890.4	3801.2	3803.0	3767.9	3750.8
5°	3573.5	3579.8	3633.8	3656.3	3737.3	3761.6	3767.9	3659.9	3649.1	3596.0	3606.8
6°	3176.4	3060.3	3205.2	3262.8	3425.8	3536.5	3575.3	3558.1	3504.1	3442.9	3443.8
7°	2478.6	2488.5	2571.4	2730.7	3034.1	3248.4	3407.8	3442.9	3370.9	3327.7	3287.1
8°	1911.4	1952.8	2070.8	2239.1	2540.8	2887.4	3176.4	3255.6	3237.6	3194.4	3188.1
9°	1582.8	1551.3	1645.8	1780.0	2069.0	2514.7	2871.2	3039.5	3091.8	3105.3	3108.0
10°	1230.8	1267.7	1312.7	1452.2	1697.1	2045.6	2513.8	2774.8	2911.7	2988.2	3010.7
11°	996.7	1010.2	1067.8	1199.3	1383.8	1704.3	2177.9	2472.3	2683.0	2837.9	2857.7
12°	820.2	831.9	870.6	967.9	1135.3	1390.1	1797.1	2165.3	2482.2	2663.2	2703.7
13°	696.9	710.4	741.9	817.5	947.2	1169.5	1451.3	1850.2	2214.8	2471.4	2507.4
14°	598.7	614.0	634.7	701.4	806.7	964.3	1204.7	1585.5	1976.2	2264.4	2312.1
15°	536.6	538.4	560.9	606.8	699.6	833.7	1040.8	1359.5	1757.5	2081.6	2139.2
17.5°	403.4	400.7	403.4	439.4	493.4	591.5	733.8	1010.2	1434.2	1716.0	1779.1
20°	304.3	305.2	298.9	319.6	364.6	434.9	552.8	822.0	1256.0	1537.8	1573.8
22.5°	211.6	209.8	212.5	232.3	275.5	340.3	433.1	670.8	1144.3	1418.9	1448.6
25°	126.0	128.7	139.6	163.0	205.3	267.4	353.8	542.0	937.3	1120.0	1182.1
27.5°	72.9	73.8	82.8	108.0	148.6	208.0	290.8	422.3	649.1	746.4	762.6
30°	40.5	40.5	46.8	63.0	100.8	158.5	237.7	350.2	470.9	497.9	498.8
32.5°	27.0	27.0	28.8	36.9	62.1	115.2	193.6	301.6	408.8	447.5	453.8
35°	23.4	22.5	23.4	26.1	38.7	77.4	148.6	256.6	376.3	422.3	429.5
37.5°	20.7	20.7	21.6	24.3	29.7	50.4	105.3	203.5	333.1	390.7	398.9
40°	18.9	18.9	19.8	24.3	29.7	41.4	66.6	147.7	274.6	343.9	352.9
42.5°	18.0	18.0	18.0	21.6	27.9	37.8	38.7	94.5	211.6	282.7	296.2
45°	18.9	18.0	16.2	17.1	21.6	29.7	22.5	55.8	146.8	217.9	227.8
47.5°	18.0	18.0	17.1	16.2	16.2	19.8	14.4	30.6	91.8	151.3	156.7
50°	13.5	13.5	11.7	14.4	15.3	12.6	10.8	19.8	56.7	85.5	90.9
52.5°	11.7	11.7	10.8	10.8	12.6	11.7	8.1	16.2	36.0	47.7	49.5
55°	10.8	9.9	9.9	10.8	11.7	10.8	7.2	12.6	25.2	31.5	32.4
57.5°	9.9	9.9	9.9	9.9	11.7	10.8	7.2	9.0	19.8	25.2	27.9
60°	9.0	9.0	9.9	9.9	10.8	9.9	6.3	6.3	16.2	22.5	26.1
62.5°	8.1	9.0	9.0	9.9	10.8	9.0	5.4	4.5	12.6	20.7	24.3
65°	8.1	8.1	9.0	9.9	9.9	8.1	4.5	3.6	9.9	17.1	20.7
67.5°	7.2	7.2	8.1	9.0	9.9	7.2	2.7	2.7	8.1	14.4	17.1
70°	6.3	6.3	7.2	8.1	8.1	5.4	2.7	2.7	5.4	11.7	12.6
72.5°	5.4	5.4	6.3	7.2	7.2	4.5	1.8	1.8	3.6	9.0	8.1
75°	3.6	4.5	4.5	5.4	5.4	3.6	1.8	1.8	2.7	5.4	4.5
77.5°	2.7	2.7	3.6	4.5	4.5	2.7	0.9	0.9	1.8	3.6	2.7
80°	1.8	1.8	2.7	2.7	2.7	1.8	0.9	0.9	0.9	1.8	1.8
82.5°	0.9	0.9	1.8	1.8	1.8	0.9	0.9	0.9	0.9	0.9	0.9
85°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.9	0.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P591944
CATALOG NUMBER: GRZ-05L-927-17x30-X-UNV-STD-2F

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)