Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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: P591958

Luminaire Tested: **GRZ-05L-930-10x60-X-UNV-STD-2F**

Issue Date: 2/2/2022

Report Generated By 670245626 / DESKTOP-25HFRC3

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P591958
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2111-457-18)
Test Lab:	INNOVATION CENTER
Issue Date:	2/2/2022
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	iO LED
Catalog Number:	GRZ-05L-930-10x60-X-UNV-STD-2F
Description:	iO LED GRAZER WITH 10x60 OPTIC
	500 LUMENS PER FOOT, 2 FOOT FIXTURE
	SUMULATED RESULTS
Light Source:	3000K CCT, 90 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	979.0 lumens
Efficiency:	N/A
Efficacy:	102.0 lumens/watt
Spacing Criteria (0/90/45):	0.18 / 0.97 / 0.31
Luminous Opening:	Rectangular (W 2' x L: 0.17' x H: 0')
CIE Type:	Direct

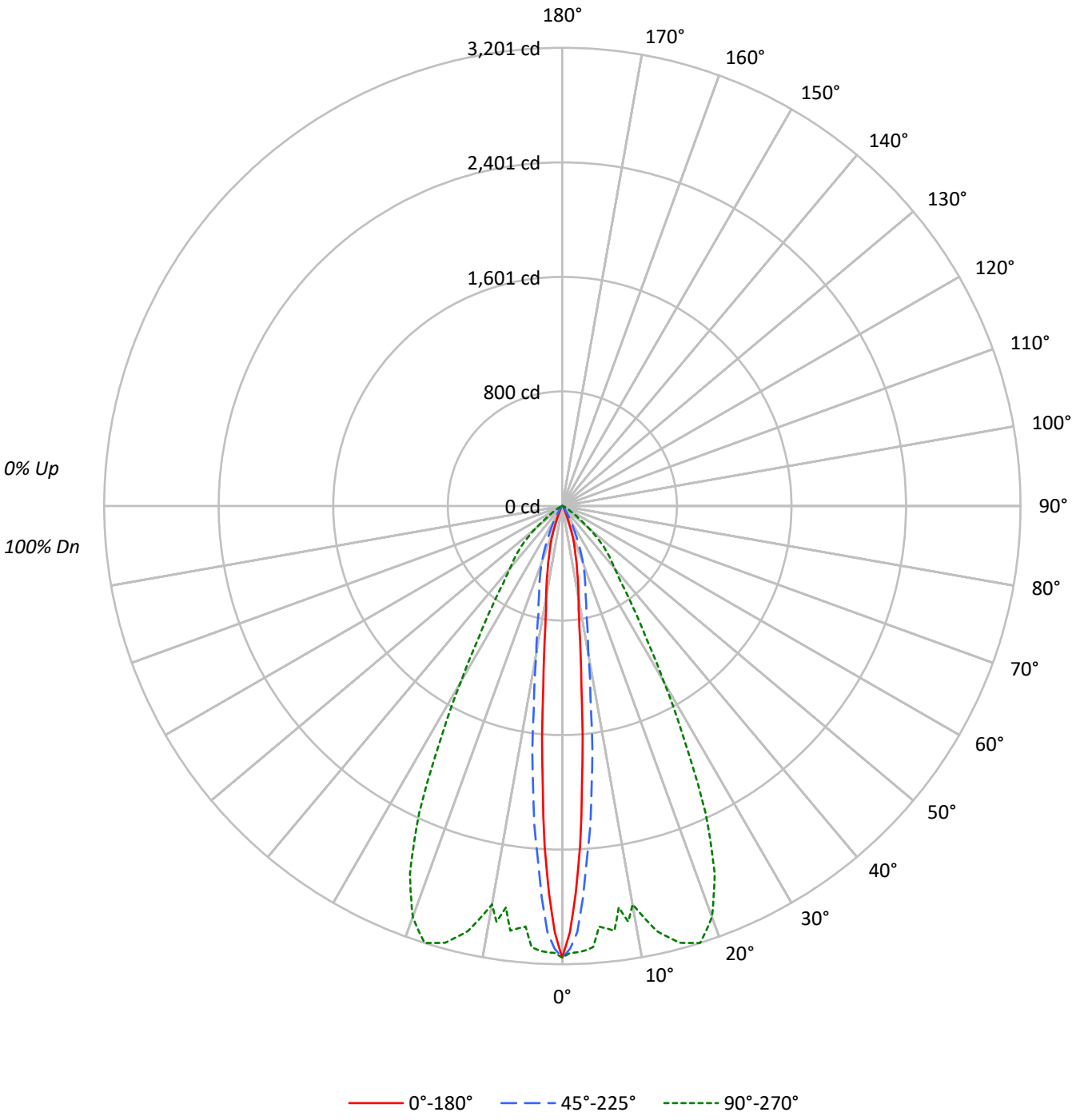
Input Watts (W):	9.6
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	24 FT

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

TEST NUMBER: P591958
CATALOG NUMBER: GRZ-05L-930-10x60-X-UNV-STD-2F

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

TEST NUMBER: P591958
CATALOG NUMBER: GRZ-05L-930-10x60-X-UNV-STD-2F

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	114	111	109	106	111	109	107	105	105	103	102	101	100	99	98	97	96	94
2	108	104	100	97	106	102	98	95	99	96	93	96	93	91	93	91	89	88
3	103	97	92	89	101	96	91	88	93	90	86	91	88	85	89	86	84	82
4	98	91	86	82	97	90	85	82	88	84	81	86	83	80	84	81	79	77
5	94	86	81	77	92	85	80	76	83	79	76	82	78	75	80	77	74	73
6	90	82	76	72	88	81	75	72	79	75	71	78	74	71	77	73	70	69
7	86	77	72	68	85	77	71	68	75	71	67	74	70	67	73	69	67	65
8	82	74	68	64	81	73	68	64	72	67	64	71	67	64	70	66	63	62
9	79	70	65	61	78	70	64	61	69	64	61	68	64	60	67	63	60	59
10	76	67	62	58	75	67	61	58	66	61	58	65	61	58	64	60	58	56

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	101893	101893	101893
5°	52775	72555	95598
10°	21353	34265	92635
15°	11945	20928	105611
20°	5835	14426	105034
25°	2095	7814	84268
30°	1115	3617	52843
35°	773	1691	33764
40°	670	1024	23914
45°	598	895	19089
50°	563	939	12137
55°	473	895	5883
60°	484	665	3010
65°	497	428	1498
70°	529	349	878
75°	462	349	586
80°	353	353	353
85°	333	333	0

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

TEST NUMBER: P591958
CATALOG NUMBER: GRZ-05L-930-10x60-X-UNV-STD-2F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.7	19.3
10°-20°	300.8	30.7
20°-30°	253.2	25.9
30°-40°	127.9	13.1
40°-50°	64.9	6.6
50°-60°	29.3	3.0
60°-70°	9.8	1.0
70°-80°	3.7	0.4
80°-90°	0.6	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°	742.7	75.9
0°-40°	870.7	88.9
0°-60°	964.9	98.6
0°-90°	979.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	979.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3155	3155	3155	3155	3155	
5°	1628	1767	2238	2733	2949	122
15°	357	422	626	1498	3159	101
25°	59	80	219	774	2365	33
35°	20	23	43	324	856	13
45°	13	15	20	101	418	10
55°	8	11	16	38	104	8
65°	6	6	6	11	20	6
75°	4	4	3	4	5	4
85°	1	1	1	0	0	1
90°	0	0	0	0	0	

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

TEST NUMBER: P591958
CATALOG NUMBER: GRZ-05L-930-10x60-X-UNV-STD-2F

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3155.4	3155.4	3155.4	3155.4	3155.4	3155.4	3155.4	3155.4	3155.4	3155.4	*3155.4*
1°	2978.1	3094.7	3176.8	3056.5	3149.8	3092.9	3132.1	3068.6	3112.5	3147.9	*3122.7*
2°	2702.9	2851.2	2846.6	2832.6	2856.8	2977.2	3086.3	3076.1	3124.6	3104.1	*3119.0*
3°	2372.6	2451.9	2478.0	2518.2	2622.6	2741.1	2875.5	2994.0	3114.3	3138.6	*3108.7*
4°	1964.9	1993.8	2082.4	2093.6	2292.4	2461.2	2688.0	2822.3	3060.2	3099.4	*3089.1*
5°	1628.1	1619.7	1703.6	1787.6	2035.8	2238.3	2516.3	2656.2	2962.3	3068.6	*2949.2*
6°	1266.1	1334.2	1415.4	1493.7	1708.3	1964.0	2262.5	2581.6	2930.5	3025.7	*2967.9*
7°	1053.4	1067.3	1127.1	1188.6	1421.0	1724.2	1980.7	2384.7	2767.3	2962.3	*2989.3*
8°	854.6	854.6	932.1	988.0	1209.2	1426.5	1833.3	2200.9	2675.8	2960.4	*2832.6*
9°	727.7	744.5	780.9	869.6	999.2	1234.4	1584.2	2033.0	2605.9	2906.3	*2939.9*
10°	651.2	673.6	693.2	726.8	865.8	1045.0	1406.0	1869.7	2546.1	2909.1	*2825.1*
12.5°	483.3	495.4	518.7	557.9	663.4	772.5	1058.0	1547.8	2256.9	2959.5	*3040.6*
15°	357.3	361.1	393.7	432.0	520.6	626.0	817.3	1284.7	2136.6	3048.1	*3159.1*
17.5°	*264.0*	*268.7*	*290.2*	*325.6*	*386.3*	*519.7*	*703.5*	*1060.8*	*1996.6*	*3041.6*	*3201.1*
20°	169.8	175.4	196.9	224.9	297.6	419.8	591.5	875.1	1791.4	2823.2	*3056.5*
22.5°	100.8	106.4	113.8	140.9	209.0	314.4	487.0	752.9	1426.5	2532.1	*2782.2*
25°	58.8	57.8	66.2	84.9	127.8	219.3	397.5	643.8	1165.3	2184.1	*2365.1*
27.5°	38.3	39.2	42.9	52.2	79.3	147.4	313.5	553.3	915.3	1663.5	*1847.3*
30°	29.9	29.9	31.7	36.4	51.3	97.0	236.0	460.9	754.8	1269.8	*1417.2*
32.5°	23.3	24.3	25.2	28.0	36.4	63.4	169.8	368.5	614.8	958.2	*1078.5*
35°	19.6	20.5	21.5	23.3	28.9	42.9	115.7	270.6	486.1	726.8	*856.5*
37.5°	17.7	17.7	18.7	19.6	24.3	30.8	75.6	184.7	371.3	598.0	*674.6*
40°	15.9	15.9	16.8	17.7	21.5	24.3	46.6	121.3	289.2	493.6	*567.3*
42.5°	14.0	14.9	15.9	15.9	18.7	21.5	32.7	90.5	235.1	441.3	*492.6*
45°	13.1	13.1	14.0	14.9	17.7	19.6	25.2	70.0	194.1	371.3	*418.0*
47.5°	12.1	12.1	13.1	14.0	16.8	18.7	20.5	54.1	162.3	300.4	*333.1*
50°	11.2	11.2	12.1	14.0	15.9	18.7	16.8	41.1	129.7	224.9	*241.6*
52.5°	9.3	10.3	11.2	12.1	14.0	17.7	14.0	31.7	107.3	157.7	*158.6*
55°	8.4	8.4	9.3	11.2	12.1	15.9	11.2	23.3	84.0	108.2	*104.5*
57.5°	8.4	7.5	8.4	9.3	10.3	14.0	8.4	17.7	62.5	72.8	*67.2*
60°	7.5	7.5	7.5	7.5	8.4	10.3	6.5	14.0	45.7	48.5	*46.6*
62.5°	6.5	6.5	6.5	6.5	6.5	8.4	5.6	10.3	30.8	30.8	*28.9*
65°	6.5	6.5	5.6	5.6	5.6	5.6	4.7	8.4	19.6	19.6	*19.6*
67.5°	6.5	5.6	5.6	4.7	4.7	4.7	3.7	6.5	12.1	14.0	*13.1*
70°	5.6	5.6	4.7	4.7	3.7	3.7	3.7	5.6	8.4	9.3	*9.3*
72.5°	4.7	4.7	4.7	3.7	3.7	2.8	2.8	4.7	6.5	6.5	*6.5*
75°	3.7	3.7	3.7	3.7	2.8	2.8	1.9	3.7	3.7	4.7	*4.7*
77.5°	2.8	2.8	2.8	2.8	2.8	1.9	1.9	2.8	2.8	2.8	*2.8*
80°	1.9	1.9	1.9	1.9	1.9	1.9	0.9	1.9	1.9	1.9	*1.9*
82.5°	0.9	0.9	0.9	0.9	0.9	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	0.0	*0.0*
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*
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)