

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: P592081

Luminaire Tested: **GRZ-15L-930-10x10-X-UNV-STD-4F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P592081
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2111-457-14)
Test Lab: INNOVATION CENTER
Issue Date: 2/2/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: iO LED
Catalog Number: GRZ-15L-930-10x10-X-UNV-STD-4F
Description: iO LED GRAZER WITH 10x10 OPTIC
1500 LUMENS PER FOOT, 4 FOOT FIXTURE
SCALED BASED ON PHOTOMETRIC TESTING
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

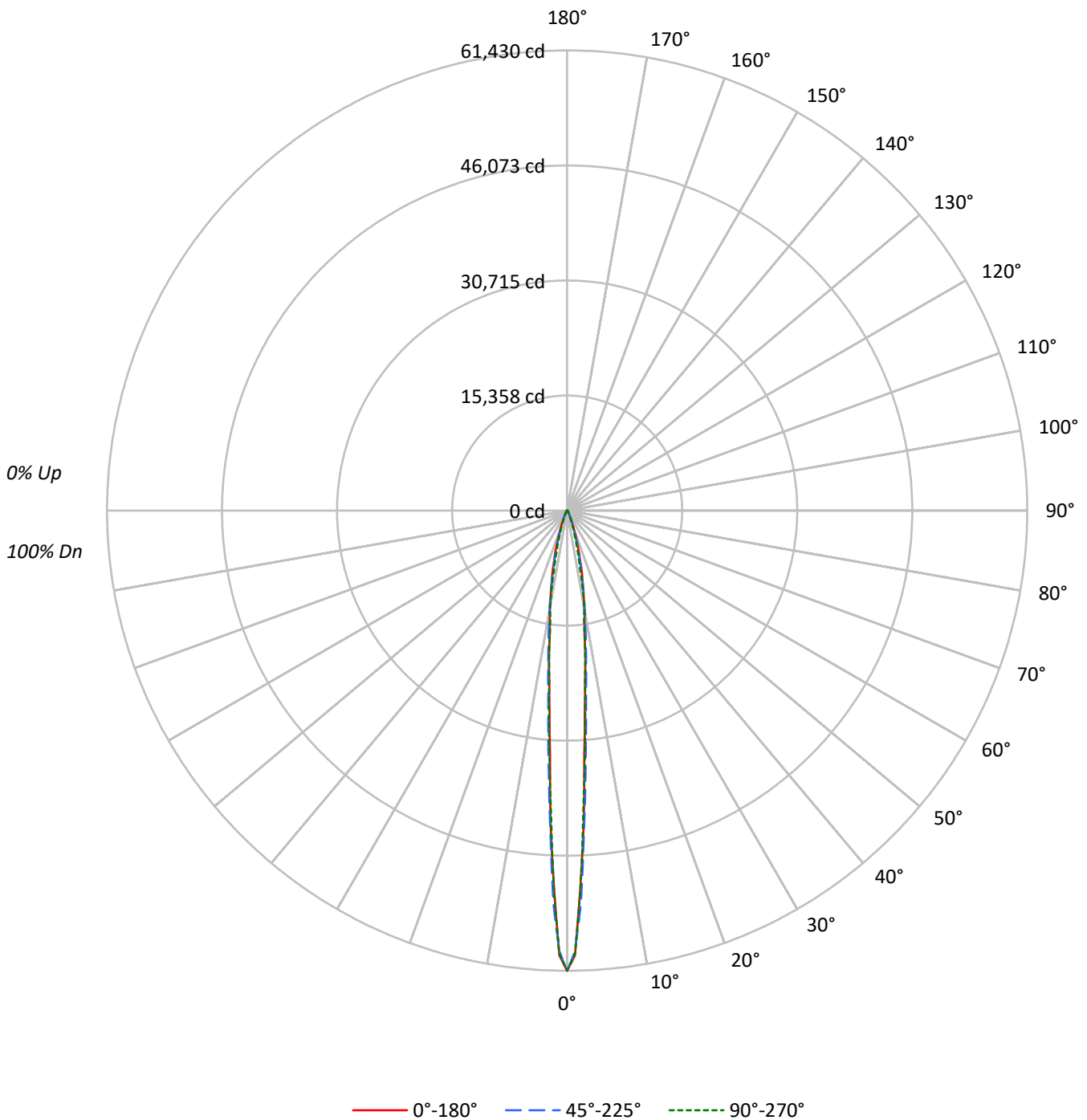
Lumens per Lamp: N/A
Luminaire Lumens: 4916.0 lumens
Efficiency: N/A
Efficacy: 87.8 lumens/watt
Spacing Criteria (0/90/45): 0.15 / 0.16 / 0.22
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 56
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: P592081
CATALOG NUMBER: GRZ-15L-930-10x10-X-UNV-STD-4F

Luminous Intensity Polar Plot





TEST NUMBER: P592081

CATALOG NUMBER: GRZ-15L-930-10x10-X-UNV-STD-4F

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	115	113	111	109	113	111	109	107	107	105	104	104	103	102	101	101	100	99	98	98	96	96	96	96
2	111	107	104	102	109	106	103	101	103	100	99	99	100	98	96	96	97	96	95	95	93	93	93	93
3	108	103	99	96	106	102	98	96	99	96	94	94	97	95	93	93	95	93	91	91	90	90	90	90
4	104	99	95	92	103	98	94	92	96	93	91	91	94	92	90	90	93	90	89	89	87	87	87	87
5	102	96	92	89	100	95	91	88	93	90	88	88	92	89	87	87	90	88	86	86	85	85	85	85
6	99	93	89	86	98	92	88	86	91	88	85	85	90	87	85	85	88	86	84	84	83	83	83	83
7	96	90	86	83	95	90	86	83	89	85	83	83	88	85	82	82	87	84	82	82	81	81	81	81
8	94	88	84	81	93	87	84	81	86	83	81	81	86	83	80	80	85	82	80	80	79	79	79	79
9	92	86	82	79	91	85	82	79	85	81	79	79	84	81	79	79	83	80	78	78	78	78	78	78
10	90	84	80	77	89	83	80	77	83	79	77	77	82	79	77	77	82	79	77	77	76	76	76	76

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	991831	991831	991831
5°	436765	466243	450306
10°	215247	221590	217141
15°	108583	100050	86220
20°	45560	38589	32773
25°	18474	15458	13017
30°	8815	7864	6962
35°	5560	4872	3865
40°	3965	3623	2719
45°	3557	3128	2270
50°	3373	2969	1753
55°	3026	2646	1512
60°	2428	2083	1476
65°	2361	2052	1540
70°	2408	2030	1397
75°	2177	2009	1341
80°	1999	1748	1246
85°	1501	1501	1000



TEST NUMBER: P592081

CATALOG NUMBER: GRZ-15L-930-10x10-X-UNV-STD-4F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2308.6	47.0
10°-20°	1707.1	34.7
20°-30°	465.8	9.5
30°-40°	164.7	3.3
40°-50°	103.8	2.1
50°-60°	77.0	1.6
60°-70°	50.6	1.0
70°-80°	30.5	0.6
80°-90°	8.0	0.2
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°	4481.5	91.2
0°-40°	4646.2	94.5
0°-60°	4826.9	98.2
0°-90°	4916.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4916.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	61430	61430	61430	61430	61430	
5°	26948	28138	28767	27700	27784	2238
15°	6496	6413	5986	5298	5158	1841
25°	1037	1018	868	768	731	547
35°	282	277	247	226	196	183
45°	156	150	137	116	99	121
55°	108	102	94	70	54	96
65°	62	54	54	46	40	62
75°	35	30	32	27	22	38
85°	8	5	8	5	5	10
90°	0	0	0	0	0	



TEST NUMBER: P592081

CATALOG NUMBER: GRZ-15L-930-10x10-X-UNV-STD-4F

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	61429.5	61429.5	61429.5	61429.5	61429.5
1°	59374.4	58186.9	58877.4	58850.5	59194.4
2°	50232.2	53950.3	52502.3	52343.8	50694.3
3°	42024.9	43669.1	42750.3	43290.3	40705.9
4°	32721.6	34774.1	35088.4	34381.8	33471.1
5°	26948.3	28138.4	28767.1	27700.5	27783.8
6°	22698.2	24205.4	24111.3	24140.9	22945.4
7°	19885.5	20669.9	20782.8	20100.4	19775.3
8°	16667.1	18018.4	17913.6	17400.5	16672.4
9°	14856.4	15686.5	15554.8	14638.7	14372.8
10°	13128.9	13585.6	13515.8	12508.3	13244.4
12.5°	9453.8	9496.8	9034.7	8486.7	8048.8
15°	6496.0	6412.7	5985.5	5297.8	5158.1
17.5°	4266.2	4276.9	3699.3	3180.8	3100.2
20°	2651.6	2667.7	2245.9	1958.5	1907.4
22.5°	1668.3	1595.8	1335.2	1214.3	1182.1
25°	1037.0	1018.2	867.7	768.3	730.7
27.5°	701.2	687.7	564.2	518.5	515.8
30°	472.8	491.6	421.8	384.2	373.4
32.5°	357.3	357.3	327.8	300.9	271.3
35°	282.1	276.7	247.2	225.7	196.1
37.5°	214.9	225.7	198.8	182.7	153.1
40°	188.1	188.1	171.9	150.4	129.0
42.5°	166.6	171.9	150.4	129.0	107.5
45°	155.8	150.4	137.0	115.5	99.4
47.5°	142.4	139.7	126.3	102.1	86.0
50°	134.3	129.0	118.2	91.3	69.8
52.5°	126.3	118.2	107.5	80.6	59.1
55°	107.5	102.1	94.0	69.8	53.7
57.5°	94.0	83.3	77.9	59.1	48.4
60°	75.2	67.2	64.5	53.7	45.7
62.5°	67.2	61.8	59.1	51.0	43.0
65°	61.8	53.7	53.7	45.7	40.3
67.5°	56.4	48.4	48.4	40.3	34.9
70°	51.0	43.0	43.0	34.9	29.6
72.5°	43.0	34.9	37.6	29.6	26.9
75°	34.9	29.6	32.2	26.9	21.5
77.5°	29.6	24.2	24.2	21.5	16.1
80°	21.5	18.8	18.8	16.1	13.4
82.5°	13.4	10.7	13.4	10.7	8.1
85°	8.1	5.4	8.1	5.4	5.4
87.5°	2.7	2.7	2.7	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)