

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: P592070

Luminaire Tested: **GRZ-15L-927-10x60-X-UNV-STD-2F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P592070
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-15L-927-10x60-X-UNV-STD-2F
Description: iO LED GRAZER WITH 10x60 OPTIC
1500 LUMENS PER FOOT, 2 FOOT FIXTURE
SUMULATED RESULTS
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

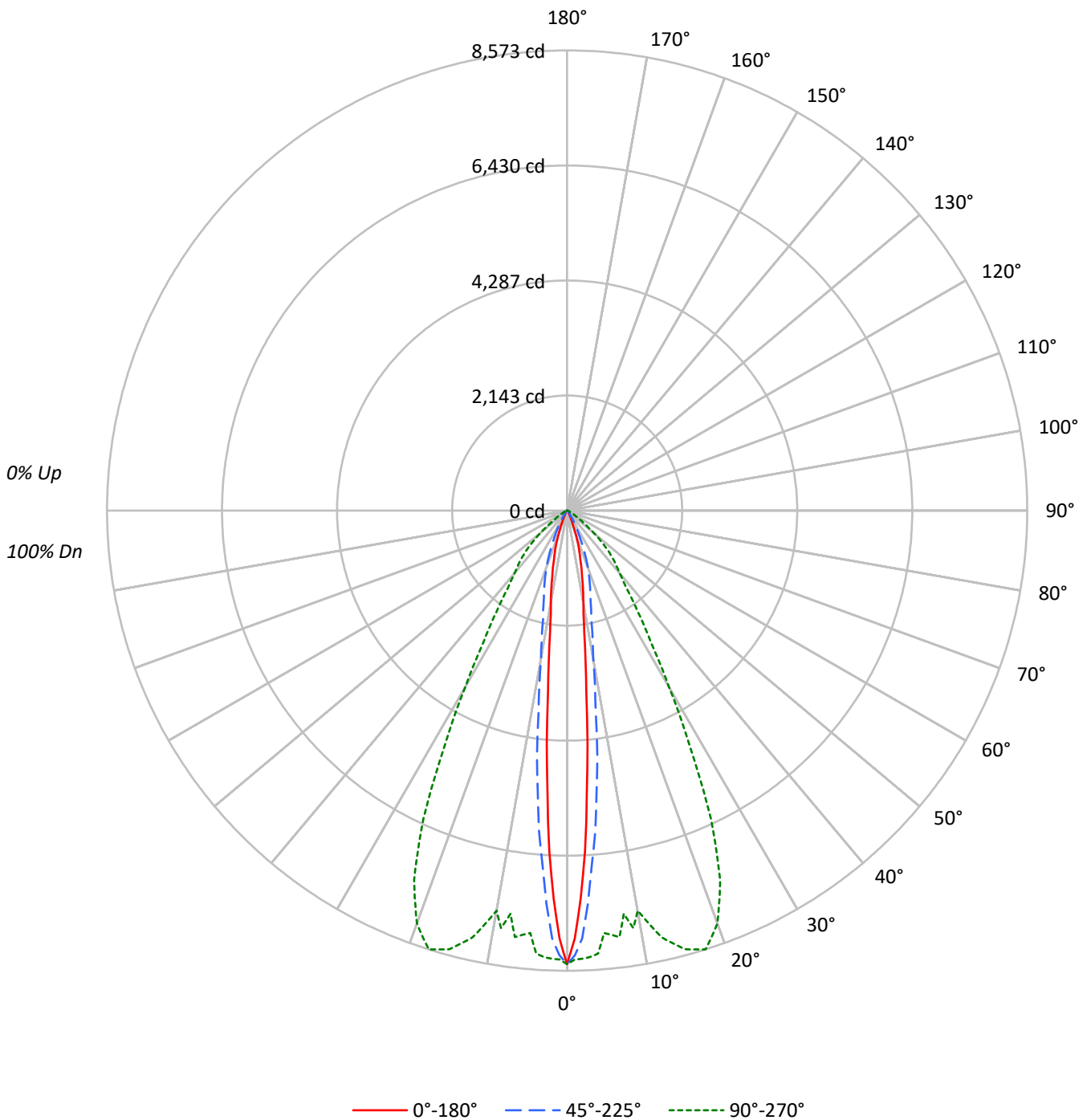
Lumens per Lamp: N/A
Luminaire Lumens: 2622.0 lumens
Efficiency: N/A
Efficacy: 90.4 lumens/watt
Spacing Criteria (0/90/45): 0.18 / 0.97 / 0.31
Luminous Opening: Rectangular (W 2' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 29
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	114	111	109	106	111	109	107	105	105	103	102	101	100	99	98	97	96	94					94			
2	108	104	100	97	106	102	98	95	99	96	93	96	93	91	93	91	89	88					88			
3	103	97	92	89	101	96	91	88	93	90	86	91	88	85	89	86	84	82					82			
4	98	91	86	82	97	90	85	82	88	84	81	86	83	80	84	81	79	77					77			
5	94	86	81	77	92	85	80	76	83	79	76	82	78	75	80	77	74	73					73			
6	90	82	76	72	88	81	75	72	79	75	71	78	74	71	77	73	70	69					69			
7	86	77	72	68	85	77	71	68	75	71	67	74	70	67	73	69	67	65					65			
8	82	74	68	64	81	73	68	64	72	67	64	71	67	64	70	66	63	62					62			
9	79	70	65	61	78	70	64	61	69	64	61	68	64	60	67	63	60	59					59			
10	76	67	62	58	75	67	61	58	66	61	58	65	61	58	64	60	58	56					56			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	272894	272894	272894
5°	141342	194315	256037
10°	57192	91766	248098
15°	31993	56053	282855
20°	15629	38642	281304
25°	5608	20922	225694
30°	2983	9691	141531
35°	2070	4529	90428
40°	1792	2740	64044
45°	1598	2398	51125
50°	1507	2512	32513
55°	1267	2393	15758
60°	1292	1776	8066
65°	1337	1146	4011
70°	1416	944	2360
75°	1248	936	1560
80°	930	930	930
85°	926	926	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	505.5	19.3
10°-20°	805.7	30.7
20°-30°	678.0	25.9
30°-40°	342.6	13.1
40°-50°	173.8	6.6
50°-60°	78.6	3.0
60°-70°	26.2	1.0
70°-80°	10.0	0.4
80°-90°	1.7	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°	1989.2	75.9
0°-40°	2331.8	88.9
0°-60°	2584.2	98.6
0°-90°	2622.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2622.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8451	8451	8451	8451	8451	
5°	4360	4731	5995	7319	7899	326
15°	957	1131	1677	4011	8461	270
25°	157	215	587	2073	6334	87
35°	52	61	115	869	2294	35
45°	35	39	52	270	1120	27
55°	22	29	42	103	280	21
65°	18	15	15	30	52	17
75°	10	10	8	10	12	11
85°	2	2	2	0	0	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	8450.9	8450.9	8450.9	8450.9	8450.9	8450.9	8450.9	8450.9	8450.9	8450.9	8450.9
1°	7976.1	8288.5	8508.4	8186.0	8435.9	8283.5	8388.4	8218.5	8336.0	8430.9	8363.4
2°	7239.0	7636.3	7623.8	7586.3	7651.3	7973.6	8266.0	8238.5	8368.4	8313.5	8353.4
3°	6354.4	6566.8	6636.8	6744.2	7024.1	7341.4	7701.3	8018.6	8341.0	8405.9	8326.0
4°	5262.4	5339.9	5577.3	5607.3	6139.5	6591.8	7199.0	7558.8	8196.0	8301.0	8273.5
5°	4360.4	4337.9	4562.8	4787.7	5452.4	5994.6	6739.2	7114.0	7933.7	8218.5	7898.7
6°	3390.9	3573.3	3790.7	4000.6	4575.3	5259.9	6059.6	6914.1	7848.7	8103.6	7948.6
7°	2821.1	2858.6	3018.5	3183.5	3805.7	4617.8	5304.9	6386.9	7411.4	7933.7	8006.1
8°	2288.9	2288.9	2496.3	2646.2	3238.4	3820.6	4910.1	5894.6	7166.5	7928.7	7586.3
9°	1949.1	1994.0	2091.5	2328.9	2676.2	3305.9	4242.9	5444.9	6979.1	7783.7	7873.7
10°	1744.2	1804.1	1856.6	1946.6	2318.9	2798.6	3765.7	5007.6	6819.2	7791.2	7566.3
12.5°	1294.4	1326.9	1389.3	1494.3	1776.6	2069.0	2833.6	4145.5	6044.6	7926.2	8143.5
15°	957.0	967.0	1054.5	1156.9	1394.3	1676.7	2188.9	3440.8	5722.2	8163.5	8460.9
17.5°	707.2	719.7	777.1	872.1	1034.5	1391.8	1884.1	2841.1	5347.4	8146.0	8573.3
20°	454.8	469.8	527.2	602.2	797.1	1124.5	1584.2	2343.9	4797.7	7561.3	8186.0
22.5°	269.9	284.9	304.9	377.3	559.7	842.1	1304.4	2016.5	3820.6	6781.7	7451.4
25°	157.4	154.9	177.4	227.4	342.3	587.2	1064.5	1724.2	3121.0	5849.7	6334.4
27.5°	102.5	104.9	114.9	139.9	212.4	394.8	839.6	1481.8	2451.3	4455.3	4947.6
30°	80.0	80.0	85.0	97.5	137.4	259.9	632.2	1234.4	2021.5	3400.9	3795.7
32.5°	62.5	65.0	67.5	75.0	97.5	169.9	454.8	987.0	1646.7	2566.3	2888.6
35°	52.5	55.0	57.5	62.5	77.5	114.9	309.8	724.6	1301.9	1946.6	2293.9
37.5°	47.5	47.5	50.0	52.5	65.0	82.5	202.4	494.8	994.5	1601.7	1806.6
40°	42.5	42.5	45.0	47.5	57.5	65.0	124.9	324.8	774.6	1321.9	1519.3
42.5°	37.5	40.0	42.5	42.5	50.0	57.5	87.5	242.4	629.7	1181.9	1319.4
45°	35.0	35.0	37.5	40.0	47.5	52.5	67.5	187.4	519.7	994.5	1119.5
47.5°	32.5	32.5	35.0	37.5	45.0	50.0	55.0	144.9	434.8	804.6	892.1
50°	30.0	30.0	32.5	37.5	42.5	50.0	45.0	109.9	347.3	602.2	647.2
52.5°	25.0	27.5	30.0	32.5	37.5	47.5	37.5	85.0	287.4	422.3	424.8
55°	22.5	22.5	25.0	30.0	32.5	42.5	30.0	62.5	224.9	289.9	279.9
57.5°	22.5	20.0	22.5	25.0	27.5	37.5	22.5	47.5	167.4	194.9	179.9
60°	20.0	20.0	20.0	20.0	22.5	27.5	17.5	37.5	122.4	129.9	124.9
62.5°	17.5	17.5	17.5	17.5	17.5	22.5	15.0	27.5	82.5	82.5	77.5
65°	17.5	17.5	15.0	15.0	15.0	15.0	12.5	22.5	52.5	52.5	52.5
67.5°	17.5	15.0	15.0	12.5	12.5	12.5	10.0	17.5	32.5	37.5	35.0
70°	15.0	15.0	12.5	12.5	10.0	10.0	10.0	15.0	22.5	25.0	25.0
72.5°	12.5	12.5	12.5	10.0	10.0	7.5	7.5	12.5	17.5	17.5	17.5
75°	10.0	10.0	10.0	10.0	7.5	7.5	5.0	10.0	10.0	12.5	12.5
77.5°	7.5	7.5	7.5	7.5	7.5	5.0	5.0	7.5	7.5	7.5	7.5
80°	5.0	5.0	5.0	5.0	5.0	5.0	2.5	5.0	5.0	5.0	5.0
82.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
85°	2.5	2.5	2.5	2.5	2.5	2.5	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)