

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: P592000

Luminaire Tested: **GRZ-10L-927-10x10-X-UNV-STD-2F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P592000
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-10L-927-10x10-X-UNV-STD-2F
Description: iO LED GRAZER WITH 10x10 OPTIC
1000 LUMENS PER FOOT, 2 FOOT FIXTURE
TESTED DATA
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

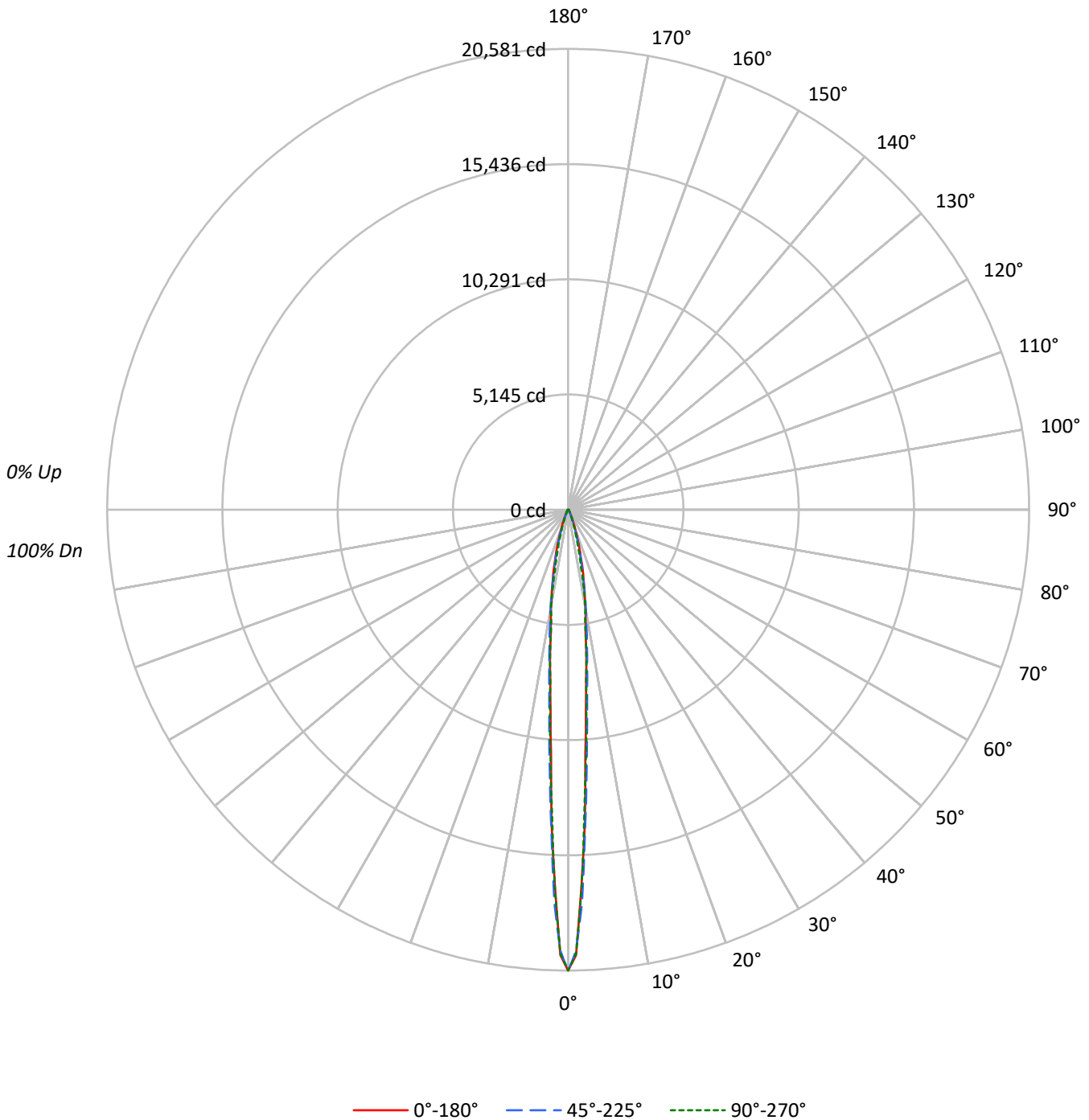
Lumens per Lamp: N/A
Luminaire Lumens: 1647.0 lumens
Efficiency: N/A
Efficacy: 86.2 lumens/watt
Spacing Criteria (0/90/45): 0.15 / 0.16 / 0.22
Luminous Opening: Rectangular (W 2' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
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	100	100	100	100	100		
1	115	113	111	109	113	111	109	107	107	105	104	103	102	101	100	99	98	96	96	96	96	96	96	96		
2	111	107	104	102	109	106	103	101	103	100	99	100	98	96	97	96	95	93	93	93	93	93	93	93		
3	108	103	99	96	106	102	98	96	99	96	94	97	95	93	95	93	91	90	90	90	90	90	90	90		
4	104	99	95	92	103	98	94	92	96	93	91	94	92	90	93	90	89	87	87	87	87	87	87	87		
5	102	96	92	89	100	95	91	88	93	90	88	92	89	87	90	88	86	85	85	85	85	85	85	85		
6	99	93	89	86	98	92	88	86	91	88	85	90	87	85	88	86	84	83	83	83	83	83	83	83		
7	96	90	86	83	95	90	86	83	89	85	83	88	85	82	87	84	82	81	81	81	81	81	81	81		
8	94	88	84	81	93	87	84	81	86	83	81	86	83	80	85	82	80	79	79	79	79	79	79	79		
9	92	86	82	79	91	85	82	79	85	81	79	84	81	79	83	80	78	78	78	78	78	78	78	78		
10	90	84	80	77	89	83	80	77	83	79	77	82	79	77	82	79	77	76	76	76	76	76	76	76		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	664582	664582	664582
5°	292656	312410	301732
10°	144229	148479	145498
15°	72755	67039	57772
20°	30529	25856	21959
25°	12378	10358	8722
30°	5906	5269	4665
35°	3725	3264	2590
40°	2656	2428	1821
45°	2384	2096	1521
50°	2261	1989	1176
55°	2027	1773	1013
60°	1628	1395	988
65°	1582	1375	1032
70°	1614	1360	935
75°	1460	1347	898
80°	1339	1172	837
85°	1000	1000	667



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	773.5	47.0
10°-20°	571.9	34.7
20°-30°	156.0	9.5
30°-40°	55.2	3.3
40°-50°	34.8	2.1
50°-60°	25.8	1.6
60°-70°	16.9	1.0
70°-80°	10.2	0.6
80°-90°	2.7	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°	1501.4	91.2
0°-40°	1556.6	94.5
0°-60°	1617.1	98.2
0°-90°	1647.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1647.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	20581	20581	20581	20581	20581	
5°	9028	9427	9638	9280	9308	750
15°	2176	2148	2005	1775	1728	617
25°	347	341	291	257	245	183
35°	94	93	83	76	66	61
45°	52	50	46	39	33	40
55°	36	34	32	23	18	32
65°	21	18	18	15	14	21
75°	12	10	11	9	7	13
85°	3	2	3	2	2	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	20580.6	20580.6	20580.6	20580.6	20580.6
1°	19892.1	19494.3	19725.6	19716.6	19831.8
2°	16829.2	18074.9	17589.8	17536.7	16984.0
3°	14079.6	14630.4	14322.6	14503.5	13637.6
4°	10962.7	11650.3	11755.6	11518.9	11213.8
5°	9028.4	9427.2	9637.8	9280.5	9308.4
6°	7604.6	8109.5	8078.0	8087.9	7687.4
7°	6662.2	6925.0	6962.8	6734.2	6625.3
8°	5583.9	6036.7	6001.6	5829.7	5585.7
9°	4977.3	5255.4	5211.3	4904.4	4815.3
10°	4398.6	4551.6	4528.2	4190.7	4437.3
12.5°	3167.3	3181.7	3026.9	2843.3	2696.6
15°	2176.3	2148.4	2005.3	1774.9	1728.1
17.5°	1429.3	1432.9	1239.4	1065.7	1038.7
20°	888.4	893.8	752.4	656.1	639.0
22.5°	558.9	534.6	447.3	406.8	396.0
25°	347.4	341.1	290.7	257.4	244.8
27.5°	234.9	230.4	189.0	173.7	172.8
30°	158.4	164.7	141.3	128.7	125.1
32.5°	119.7	119.7	109.8	100.8	90.9
35°	94.5	92.7	82.8	75.6	65.7
37.5°	72.0	75.6	66.6	61.2	51.3
40°	63.0	63.0	57.6	50.4	43.2
42.5°	55.8	57.6	50.4	43.2	36.0
45°	52.2	50.4	45.9	38.7	33.3
47.5°	47.7	46.8	42.3	34.2	28.8
50°	45.0	43.2	39.6	30.6	23.4
52.5°	42.3	39.6	36.0	27.0	19.8
55°	36.0	34.2	31.5	23.4	18.0
57.5°	31.5	27.9	26.1	19.8	16.2
60°	25.2	22.5	21.6	18.0	15.3
62.5°	22.5	20.7	19.8	17.1	14.4
65°	20.7	18.0	18.0	15.3	13.5
67.5°	18.9	16.2	16.2	13.5	11.7
70°	17.1	14.4	14.4	11.7	9.9
72.5°	14.4	11.7	12.6	9.9	9.0
75°	11.7	9.9	10.8	9.0	7.2
77.5°	9.9	8.1	8.1	7.2	5.4
80°	7.2	6.3	6.3	5.4	4.5
82.5°	4.5	3.6	4.5	3.6	2.7
85°	2.7	1.8	2.7	1.8	1.8
87.5°	0.9	0.9	0.9	0.9	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)