

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: P592006

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

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P592006
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-10L-927-10x60-X-UNV-STD-2F
Description: iO LED GRAZER WITH 10x60 OPTIC
1000 LUMENS PER FOOT, 2 FOOT FIXTURE
SUMULATED RESULTS
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

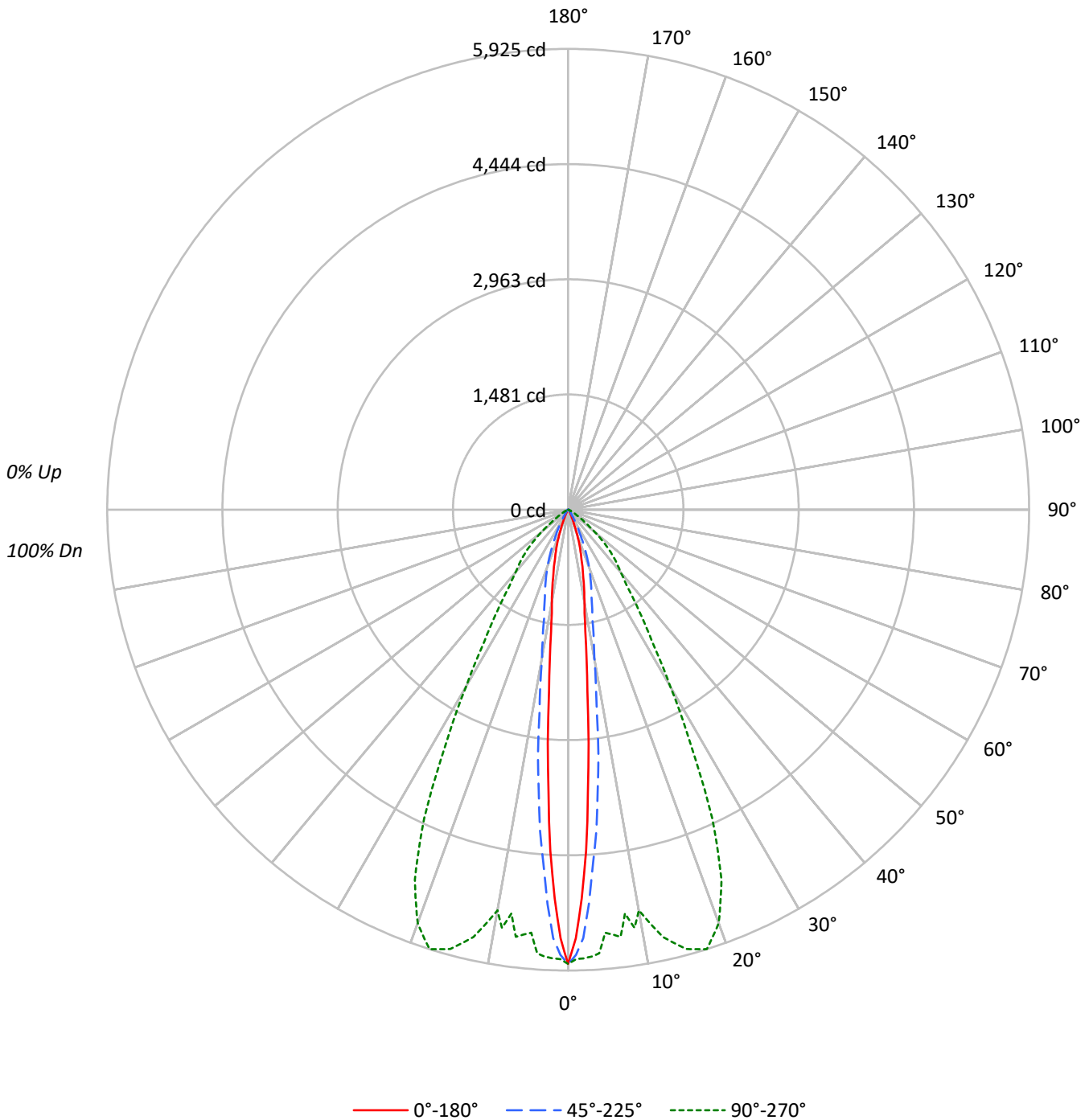
Lumens per Lamp: N/A
Luminaire Lumens: 1812.0 lumens
Efficiency: N/A
Efficacy: 94.9 lumens/watt
Spacing Criteria (0/90/45): 0.18 / 0.97 / 0.31
Luminous Opening: Rectangular (W 2' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 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			
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°	188590	188590	188590
5°	97679	134286	176941
10°	39522	63419	171455
15°	22111	38736	195473
20°	10801	26704	194405
25°	3877	14459	155974
30°	2062	6697	97808
35°	1431	3130	62490
40°	1239	1893	44257
45°	1105	1658	35328
50°	1040	1733	22471
55°	873	1655	10888
60°	891	1227	5574
65°	925	795	2774
70°	982	651	1633
75°	861	649	1073
80°	651	651	651
85°	630	630	0



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CATALOG NUMBER: GRZ-10L-927-10x60-X-UNV-STD-2F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	349.3	19.3
10°-20°	556.8	30.7
20°-30°	468.6	25.9
30°-40°	236.8	13.1
40°-50°	120.1	6.6
50°-60°	54.3	3.0
60°-70°	18.1	1.0
70°-80°	6.9	0.4
80°-90°	1.2	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°	1374.7	75.9
0°-40°	1611.5	88.9
0°-60°	1785.9	98.6
0°-90°	1812.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1812.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5840	5840	5840	5840	5840	
5°	3013	3270	4143	5058	5459	225
15°	661	782	1159	2772	5847	186
25°	109	148	406	1433	4378	60
35°	36	42	79	601	1585	24
45°	24	27	36	187	774	19
55°	16	20	29	71	193	15
65°	12	10	10	21	36	12
75°	7	7	5	7	9	7
85°	2	2	2	0	0	1
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°	5840.2	5840.2	5840.2	5840.2	5840.2	5840.2	5840.2	5840.2	5840.2	5840.2	5840.2
1°	5512.1	5728.0	5879.9	5657.2	5829.8	5724.5	5797.0	5679.6	5760.8	5826.4	5779.8
2°	5002.7	5277.3	5268.6	5242.7	5287.6	5510.4	5712.4	5693.4	5783.2	5745.2	5772.9
3°	4391.4	4538.2	4586.5	4660.8	4854.2	5073.5	5322.2	5541.5	5764.2	5809.1	5753.9
4°	3636.7	3690.3	3854.3	3875.1	4242.9	4555.4	4975.1	5223.7	5664.1	5736.6	5717.6
5°	3013.4	2997.8	3153.2	3308.6	3768.0	4142.7	4657.3	4916.3	5482.8	5679.6	5458.6
6°	2343.3	2469.4	2619.6	2764.7	3161.9	3635.0	4187.6	4778.2	5424.0	5600.2	5493.1
7°	1949.6	1975.5	2086.0	2200.0	2630.0	3191.2	3666.1	4413.8	5121.8	5482.8	5532.8
8°	1581.8	1581.8	1725.1	1828.7	2238.0	2640.4	3393.3	4073.6	4952.6	5479.3	5242.7
9°	1346.9	1378.0	1445.4	1609.4	1849.5	2284.6	2932.2	3762.8	4823.1	5379.1	5441.3
10°	1205.3	1246.8	1283.1	1345.2	1602.5	1934.1	2602.4	3460.6	4712.6	5384.3	5228.9
12.5°	894.5	917.0	960.1	1032.7	1227.8	1429.8	1958.2	2864.8	4177.3	5477.6	5627.8
15°	661.4	668.3	728.7	799.5	963.6	1158.7	1512.7	2377.9	3954.5	5641.6	5847.1
17.5°	488.7	497.3	537.1	602.7	714.9	961.9	1302.0	1963.4	3695.5	5629.5	5924.8
20°	314.3	324.6	364.4	416.2	550.9	777.1	1094.8	1619.8	3315.6	5225.5	5657.2
22.5°	186.5	196.9	210.7	260.8	386.8	581.9	901.4	1393.6	2640.4	4686.7	5149.5
25°	108.8	107.1	122.6	157.1	236.6	405.8	735.6	1191.5	2156.8	4042.6	4377.6
27.5°	70.8	72.5	79.4	96.7	146.8	272.8	580.2	1024.0	1694.0	3079.0	3419.2
30°	55.3	55.3	58.7	67.3	95.0	179.6	436.9	853.1	1397.0	2350.2	2623.1
32.5°	43.2	44.9	46.6	51.8	67.3	117.4	314.3	682.1	1138.0	1773.5	1996.2
35°	36.3	38.0	39.7	43.2	53.5	79.4	214.1	500.8	899.7	1345.2	1585.2
37.5°	32.8	32.8	34.5	36.3	44.9	57.0	139.9	341.9	687.3	1106.9	1248.5
40°	29.4	29.4	31.1	32.8	39.7	44.9	86.3	224.5	535.3	913.5	1049.9
42.5°	25.9	27.6	29.4	29.4	34.5	39.7	60.4	167.5	435.2	816.8	911.8
45°	24.2	24.2	25.9	27.6	32.8	36.3	46.6	129.5	359.2	687.3	773.6
47.5°	22.4	22.4	24.2	25.9	31.1	34.5	38.0	100.2	300.5	556.0	616.5
50°	20.7	20.7	22.4	25.9	29.4	34.5	31.1	76.0	240.0	416.2	447.3
52.5°	17.3	19.0	20.7	22.4	25.9	32.8	25.9	58.7	198.6	291.8	293.6
55°	15.5	15.5	17.3	20.7	22.4	29.4	20.7	43.2	155.4	200.3	193.4
57.5°	15.5	13.8	15.5	17.3	19.0	25.9	15.5	32.8	115.7	134.7	124.3
60°	13.8	13.8	13.8	13.8	15.5	19.0	12.1	25.9	84.6	89.8	86.3
62.5°	12.1	12.1	12.1	12.1	12.1	15.5	10.4	19.0	57.0	57.0	53.5
65°	12.1	12.1	10.4	10.4	10.4	10.4	8.6	15.5	36.3	36.3	36.3
67.5°	12.1	10.4	10.4	8.6	8.6	8.6	6.9	12.1	22.4	25.9	24.2
70°	10.4	10.4	8.6	8.6	6.9	6.9	6.9	10.4	15.5	17.3	17.3
72.5°	8.6	8.6	8.6	6.9	6.9	5.2	5.2	8.6	12.1	12.1	12.1
75°	6.9	6.9	6.9	6.9	5.2	5.2	3.5	6.9	6.9	8.6	8.6
77.5°	5.2	5.2	5.2	5.2	5.2	3.5	3.5	5.2	5.2	5.2	5.2
80°	3.5	3.5	3.5	3.5	3.5	3.5	1.7	3.5	3.5	3.5	3.5
82.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
85°	1.7	1.7	1.7	1.7	1.7	1.7	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)