

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: P592048

Luminaire Tested: **GRZ-10L-940-10x10-X-UNV-STD-2F**

Issue Date: 2/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P592048
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-940-10x10-X-UNV-STD-2F
Description: iO LED GRAZER WITH 10x10 OPTIC
1000 LUMENS PER FOOT, 2 FOOT FIXTURE
SCALED BASED ON PHOTOMETRIC TESTING
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

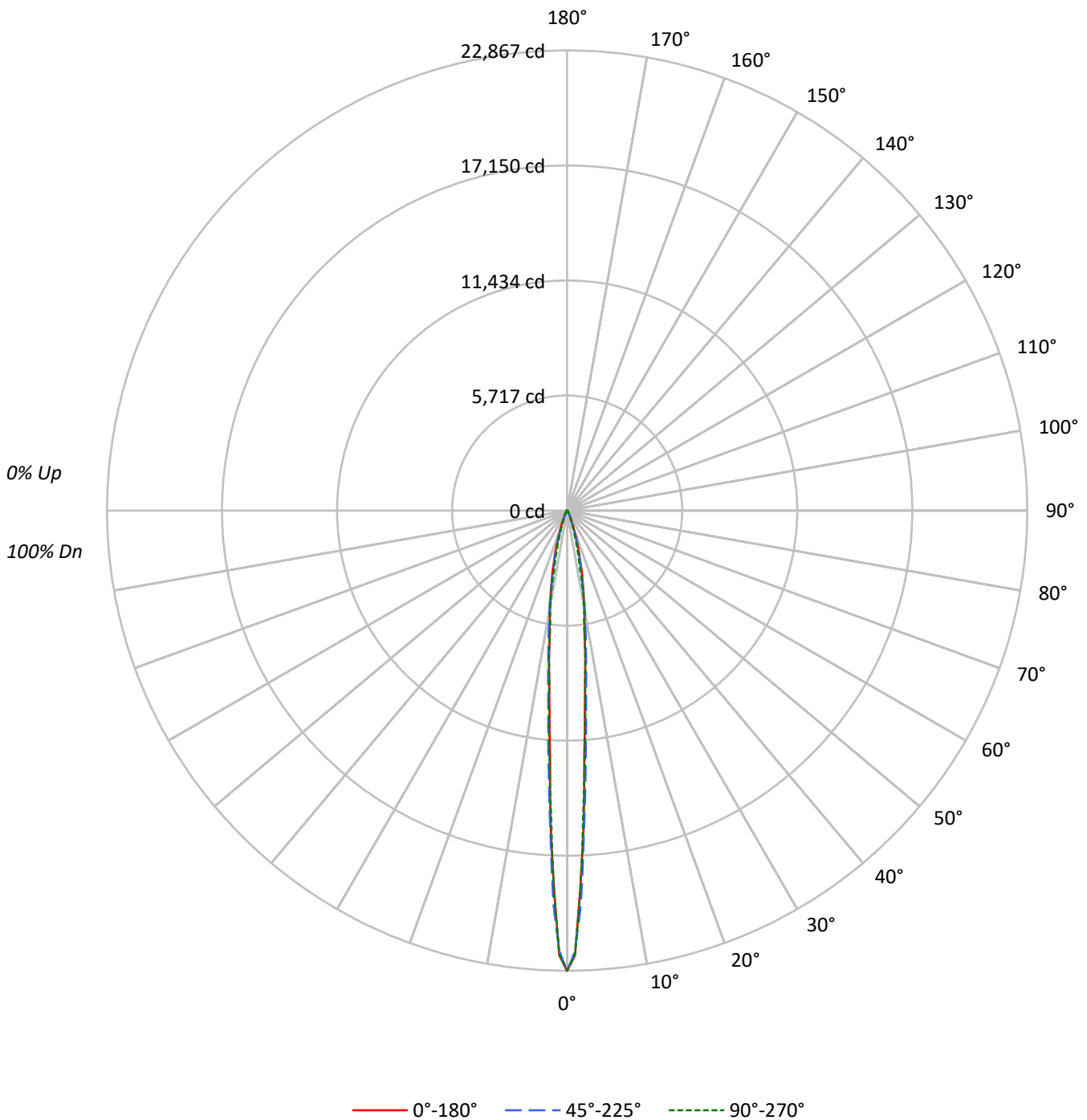
Lumens per Lamp: N/A
Luminaire Lumens: 1830.0 lumens
Efficiency: N/A
Efficacy: 95.8 lumens/watt
Spacing Criteria (0/90/45): 0.15 / 0.16 / 0.22
Luminous Opening: Rectangular (W 2' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
Input Voltage (V): 120
Input Current (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



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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°	738427	738427	738427
5°	325175	347120	335256
10°	160254	164975	161664
15°	80839	74487	64190
20°	33921	28732	24399
25°	13753	11508	9691
30°	6563	5854	5183
35°	4139	3627	2878
40°	2951	2698	2023
45°	2649	2329	1690
50°	2512	2210	1306
55°	2252	1970	1126
60°	1808	1550	1098
65°	1757	1528	1146
70°	1794	1511	1039
75°	1622	1497	998
80°	1488	1302	930
85°	1112	1112	741



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	859.4	47.0
10°-20°	635.5	34.7
20°-30°	173.4	9.5
30°-40°	61.3	3.3
40°-50°	38.6	2.1
50°-60°	28.6	1.6
60°-70°	18.8	1.0
70°-80°	11.4	0.6
80°-90°	3.0	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°	1668.3	91.2
0°-40°	1729.6	94.5
0°-60°	1796.8	98.2
0°-90°	1830.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1830.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	22867	22867	22867	22867	22867	
5°	10032	10475	10709	10312	10343	833
15°	2418	2387	2228	1972	1920	685
25°	386	379	323	286	272	204
35°	105	103	92	84	73	68
45°	58	56	51	43	37	45
55°	40	38	35	26	20	36
65°	23	20	20	17	15	23
75°	13	11	12	10	8	14
85°	3	2	3	2	2	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	22867.4	22867.4	22867.4	22867.4	22867.4
1°	22102.3	21660.3	21917.3	21907.3	22035.3
2°	18699.1	20083.2	19544.2	19485.2	18871.1
3°	15643.9	16256.0	15914.0	16115.0	15152.9
4°	12180.7	12944.8	13061.8	12798.8	12459.8
5°	10031.6	10474.6	10708.6	10311.6	10342.6
6°	8449.5	9010.5	8975.5	8986.5	8541.5
7°	7402.4	7694.5	7736.5	7482.5	7361.4
8°	6204.4	6707.4	6668.4	6477.4	6206.4
9°	5530.3	5839.4	5790.3	5449.3	5350.3
10°	4887.3	5057.3	5031.3	4656.3	4930.3
12.5°	3519.2	3535.2	3363.2	3159.2	2996.2
15°	2418.1	2387.1	2228.1	1972.1	1920.1
17.5°	1588.1	1592.1	1377.1	1184.1	1154.1
20°	987.1	993.1	836.1	729.0	710.0
22.5°	621.0	594.0	497.0	452.0	440.0
25°	386.0	379.0	323.0	286.0	272.0
27.5°	261.0	256.0	210.0	193.0	192.0
30°	176.0	183.0	157.0	143.0	139.0
32.5°	133.0	133.0	122.0	112.0	101.0
35°	105.0	103.0	92.0	84.0	73.0
37.5°	80.0	84.0	74.0	68.0	57.0
40°	70.0	70.0	64.0	56.0	48.0
42.5°	62.0	64.0	56.0	48.0	40.0
45°	58.0	56.0	51.0	43.0	37.0
47.5°	53.0	52.0	47.0	38.0	32.0
50°	50.0	48.0	44.0	34.0	26.0
52.5°	47.0	44.0	40.0	30.0	22.0
55°	40.0	38.0	35.0	26.0	20.0
57.5°	35.0	31.0	29.0	22.0	18.0
60°	28.0	25.0	24.0	20.0	17.0
62.5°	25.0	23.0	22.0	19.0	16.0
65°	23.0	20.0	20.0	17.0	15.0
67.5°	21.0	18.0	18.0	15.0	13.0
70°	19.0	16.0	16.0	13.0	11.0
72.5°	16.0	13.0	14.0	11.0	10.0
75°	13.0	11.0	12.0	10.0	8.0
77.5°	11.0	9.0	9.0	8.0	6.0
80°	8.0	7.0	7.0	6.0	5.0
82.5°	5.0	4.0	5.0	4.0	3.0
85°	3.0	2.0	3.0	2.0	2.0
87.5°	1.0	1.0	1.0	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)