

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P412016

Luminaire Tested: **MRI-14ATR-50-L850-OPL**

Issue Date: 10/5/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P412016  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2008-915-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/5/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: MRI-14ATR-50-L850-OPL  
Description: 1X4 TROFFER, 5000LM, OPAL LENS  
Light Source: (376) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5459.0 lumens  
Efficiency: N/A  
Efficacy: 64.7 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.38  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

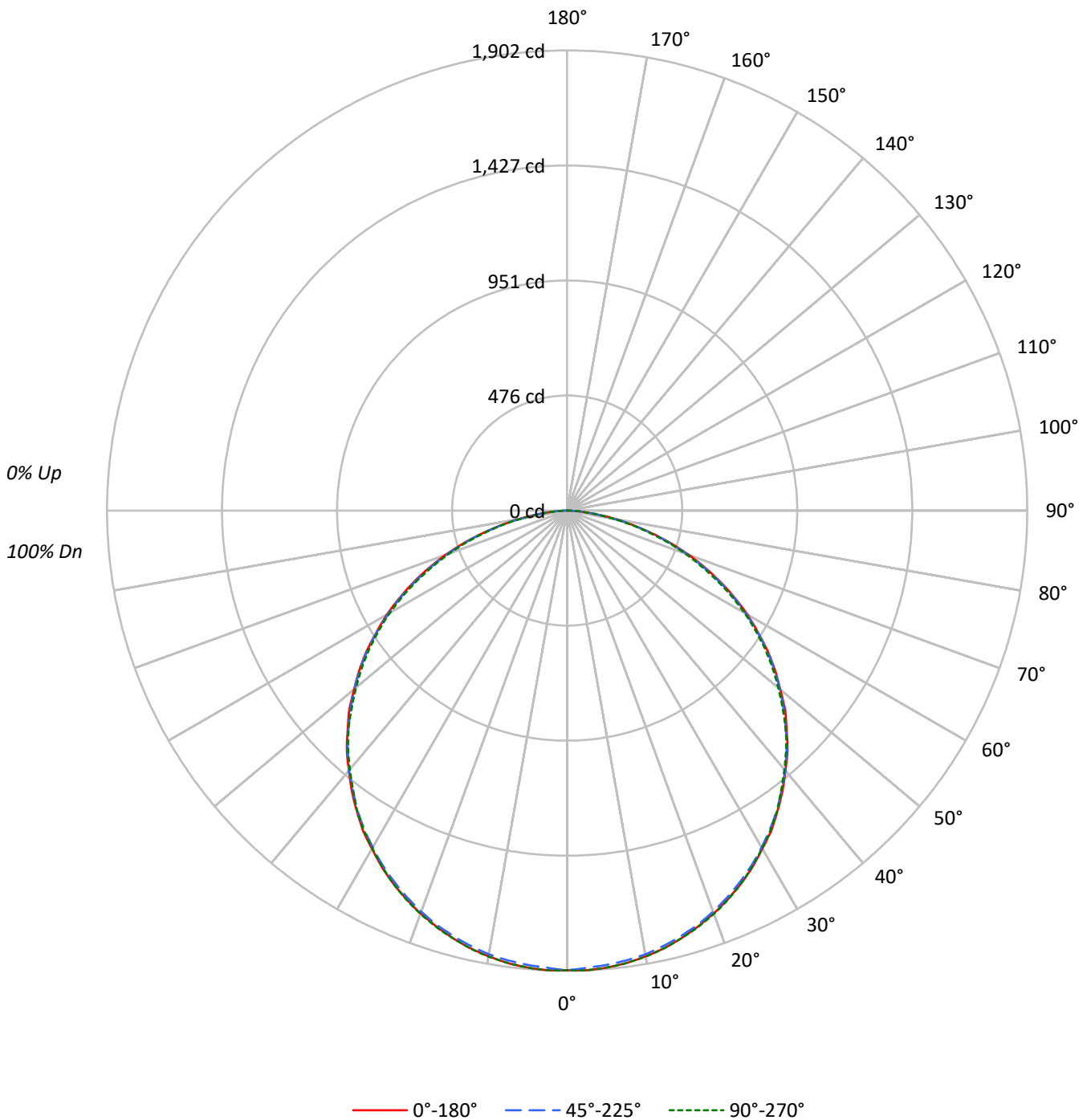
Input Watts (W): 84.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	88	78	70	64	75	68	63	72	66	62	69	65	61	59
4	82	70	61	55	80	69	61	54	66	59	54	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	34	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5113	5113	5113
5°	5121	5092	5121
10°	5112	5089	5115
15°	5095	5071	5095
20°	5074	5053	5080
25°	5051	5025	5051
30°	5015	4995	5008
35°	4980	4966	4973
40°	4932	4925	4906
45°	4885	4864	4864
50°	4815	4810	4765
55°	4745	4730	4684
60°	4638	4597	4557
65°	4460	4412	4350
70°	4207	4139	4080
75°	3759	3747	3624
80°	3150	3084	3002
85°	2059	2093	2025



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	179.9	3.3
10°-20°	515.6	9.4
20°-30°	782.5	14.3
30°-40°	946.4	17.3
40°-50°	986.8	18.1
50°-60°	898.0	16.5
60°-70°	683.8	12.5
70°-80°	378.8	6.9
80°-90°	87.2	1.6
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°	1478.0	27.1
0°-40°	2424.3	44.4
0°-60°	4309.2	78.9
0°-90°	5459.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5459.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1900	1900	1900	1900	1900	
5°	1896	1895	1885	1895	1896	180
15°	1829	1827	1820	1828	1829	516
25°	1701	1699	1692	1700	1701	784
35°	1516	1515	1512	1510	1514	949
45°	1284	1284	1278	1278	1278	991
55°	1011	1014	1008	998	998	902
65°	700	697	693	685	683	692
75°	362	364	360	350	349	385
85°	67	68	68	67	66	87
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1900.0	1900.0	1900.0	1900.0	1900.0
2.5°	1902.1	1901.1	1891.4	1900.0	1902.1
5°	1895.7	1894.6	1884.9	1894.6	1895.7
7.5°	1886.0	1884.9	1875.3	1884.9	1886.0
10°	1870.9	1869.9	1862.3	1869.9	1872.0
12.5°	1852.7	1851.6	1843.0	1851.6	1853.7
15°	1829.0	1826.8	1820.4	1827.9	1829.0
17.5°	1802.1	1802.1	1794.6	1802.1	1804.2
20°	1772.0	1770.9	1764.4	1772.0	1774.1
22.5°	1737.5	1735.4	1730.0	1737.5	1739.7
25°	1701.0	1698.8	1692.4	1699.9	1701.0
27.5°	1660.1	1656.8	1652.5	1657.9	1657.9
30°	1613.8	1612.7	1607.4	1611.7	1611.7
32.5°	1569.7	1566.5	1561.1	1565.4	1565.4
35°	1515.9	1514.8	1511.6	1510.5	1513.8
37.5°	1462.1	1460.0	1455.7	1458.9	1453.5
40°	1404.0	1404.0	1401.9	1399.7	1396.5
42.5°	1348.1	1342.7	1342.7	1338.4	1339.5
45°	1283.5	1283.5	1278.1	1278.1	1278.1
47.5°	1222.2	1217.9	1213.6	1211.4	1208.2
50°	1150.1	1152.3	1149.0	1141.5	1138.3
52.5°	1082.3	1082.3	1079.1	1077.0	1070.5
55°	1011.3	1013.5	1008.1	998.4	998.4
57.5°	933.9	937.1	930.6	923.1	923.1
60°	861.8	859.6	854.2	847.8	846.7
62.5°	780.0	778.9	774.6	766.0	766.0
65°	700.4	697.2	692.9	685.3	683.2
67.5°	617.6	614.3	610.0	604.6	598.2
70°	534.7	531.5	526.1	518.6	518.6
72.5°	450.8	447.6	442.2	434.7	434.7
75°	361.5	363.6	360.4	349.7	348.6
77.5°	279.7	280.8	277.6	272.2	270.0
80°	203.3	200.1	199.0	194.7	193.7
82.5°	128.0	130.2	129.1	125.9	123.7
85°	66.7	67.8	67.8	66.7	65.6
87.5°	24.7	26.9	26.9	26.9	26.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)