

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: P412053

Luminaire Tested: **MRI-24ATR-70-L935-OPL**

Issue Date: 10/5/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P412053  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2008-915-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/5/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: MRI-24ATR-70-L935-OPL  
Description: 2X4 TROFFER, 7000LM, OPAL LENS  
Light Source: (1008) 3500K CCT, 90 CRI LED'S  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5924.0 lumens  
Efficiency: N/A  
Efficacy: 65.0 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

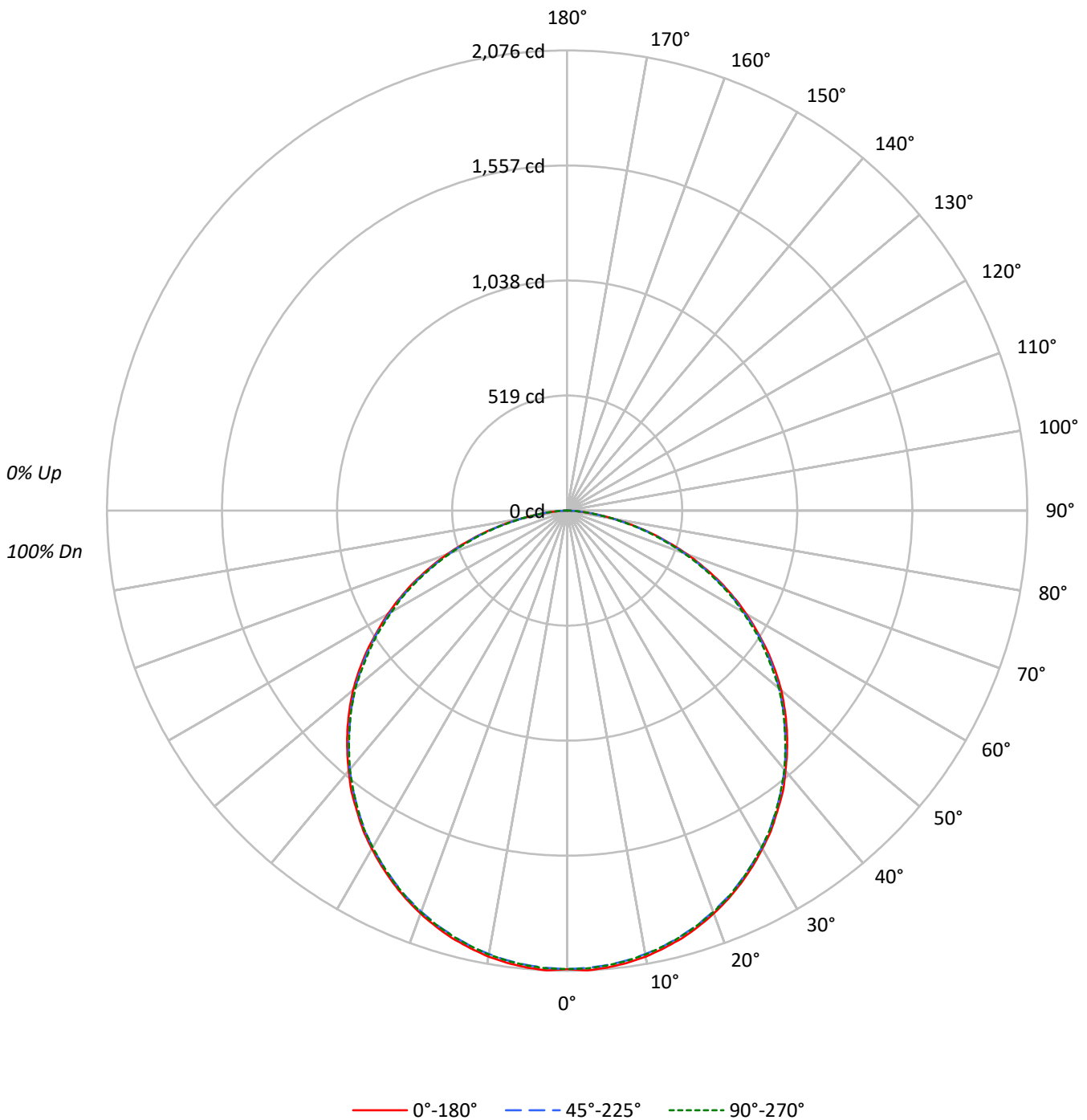
Input Watts (W): 91.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	74	79	75	72	70
3	90	80	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	57	48	41	68	56	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	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	2783	2783	2783
5°	2795	2780	2783
10°	2792	2776	2779
15°	2783	2767	2770
20°	2770	2756	2761
25°	2755	2742	2745
30°	2737	2728	2725
35°	2716	2704	2704
40°	2692	2680	2679
45°	2667	2645	2641
50°	2638	2612	2610
55°	2584	2562	2542
60°	2514	2480	2461
65°	2422	2379	2366
70°	2268	2222	2195
75°	2026	2000	1965
80°	1631	1625	1618
85°	1070	1070	1017



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	195.8	3.3
10°-20°	561.4	9.5
20°-30°	852.2	14.4
30°-40°	1030.7	17.4
40°-50°	1074.5	18.1
50°-60°	975.1	16.5
60°-70°	739.7	12.5
70°-80°	405.0	6.8
80°-90°	89.6	1.5
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°	1609.5	27.2
0°-40°	2640.2	44.6
0°-60°	4689.7	79.2
0°-90°	5924.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5924.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2069	2069	2069	2069	2069	
5°	2070	2062	2059	2056	2060	197
15°	1998	1992	1987	1984	1988	564
25°	1856	1851	1847	1845	1849	855
35°	1654	1649	1646	1643	1646	1036
45°	1402	1396	1390	1390	1388	1081
55°	1102	1096	1092	1087	1084	984
65°	761	755	747	745	743	750
75°	390	385	385	377	378	412
85°	69	68	69	69	66	90
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2068.7	2068.7	2068.7	2068.7	2068.7
2.5°	2076.3	2068.7	2065.4	2062.8	2067.0
5°	2069.6	2062.0	2058.6	2056.1	2060.3
7.5°	2058.6	2051.8	2047.6	2045.1	2049.3
10°	2043.4	2035.8	2031.5	2029.8	2034.1
12.5°	2021.4	2015.5	2012.1	2010.4	2012.9
15°	1997.7	1991.8	1986.7	1984.2	1988.4
17.5°	1968.1	1962.2	1958.8	1956.3	1960.5
20°	1934.3	1929.2	1925.0	1923.3	1928.4
22.5°	1897.1	1892.9	1889.5	1887.0	1892.0
25°	1855.7	1850.6	1847.2	1844.7	1848.9
27.5°	1810.0	1805.8	1802.4	1799.9	1803.3
30°	1761.9	1758.5	1755.9	1751.7	1754.2
32.5°	1712.0	1705.2	1702.7	1701.8	1704.4
35°	1653.6	1649.4	1646.0	1642.6	1646.0
37.5°	1598.7	1590.2	1586.9	1585.2	1586.0
40°	1532.7	1528.5	1526.0	1520.1	1525.1
42.5°	1468.5	1465.1	1459.2	1456.7	1456.7
45°	1401.7	1395.8	1389.9	1389.9	1388.2
47.5°	1332.4	1328.2	1321.4	1318.9	1319.7
50°	1260.5	1252.9	1247.8	1241.9	1247.0
52.5°	1182.7	1176.8	1171.7	1166.7	1163.3
55°	1101.6	1095.7	1092.3	1087.2	1083.8
57.5°	1016.2	1015.3	1009.4	1003.5	1001.0
60°	934.2	928.3	921.5	921.5	914.7
62.5°	848.0	842.9	839.5	831.9	833.6
65°	760.9	755.0	747.3	744.8	743.1
67.5°	666.2	662.8	656.0	650.1	651.0
70°	576.6	569.8	564.7	559.7	558.0
72.5°	481.0	476.8	473.4	468.4	464.1
75°	389.7	384.7	384.7	377.1	377.9
77.5°	300.1	297.6	293.4	290.8	288.3
80°	210.5	211.4	209.7	204.6	208.8
82.5°	136.1	133.6	131.9	131.9	131.0
85°	69.3	67.6	69.3	69.3	65.9
87.5°	21.1	23.7	24.5	24.5	23.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)