

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: P412054

Luminaire Tested: **MRI-24ATR-70-L940-OPL**

Issue Date: 10/5/2020

Test Information

Test Method: LM-79-08
Report Number: P412054
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-L940-OPL
Description: 2X4 TROFFER, 7000LM, OPAL LENS
Light Source: (1008) 4000K CCT, 90 CRI LED'S
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5986.0 lumens
Efficiency: N/A
Efficacy: 65.7 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

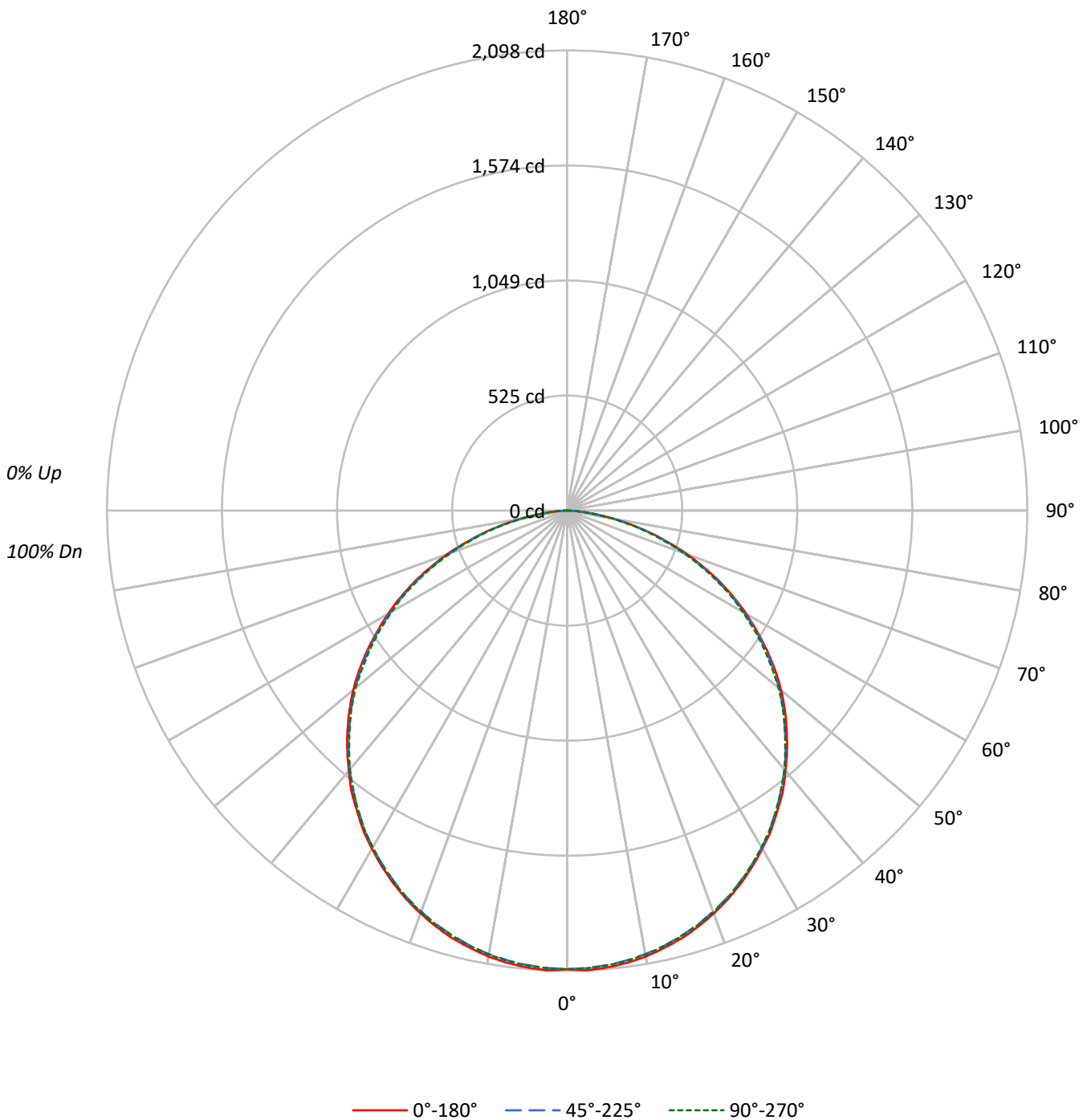
Input Watts (W): 91.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P412054

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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°	2813	2813	2813
5°	2824	2809	2812
10°	2821	2805	2808
15°	2812	2796	2799
20°	2799	2785	2790
25°	2784	2771	2774
30°	2766	2757	2754
35°	2745	2732	2732
40°	2720	2708	2707
45°	2695	2672	2669
50°	2666	2639	2637
55°	2611	2589	2569
60°	2540	2506	2487
65°	2448	2404	2391
70°	2292	2245	2218
75°	2047	2021	1985
80°	1648	1642	1635
85°	1081	1081	1028



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	197.9	3.3
10°-20°	567.3	9.5
20°-30°	861.2	14.4
30°-40°	1041.5	17.4
40°-50°	1085.7	18.1
50°-60°	985.3	16.5
60°-70°	747.5	12.5
70°-80°	409.2	6.8
80°-90°	90.5	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°	1626.3	27.2
0°-40°	2667.9	44.6
0°-60°	4738.8	79.2
0°-90°	5986.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5986.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2090	2090	2090	2090	2090	
5°	2091	2084	2080	2078	2082	199
15°	2019	2013	2008	2005	2009	570
25°	1875	1870	1867	1864	1868	864
35°	1671	1667	1663	1660	1663	1046
45°	1416	1410	1404	1404	1403	1093
55°	1113	1107	1104	1099	1095	994
65°	769	763	755	753	751	758
75°	394	389	389	381	382	417
85°	70	68	70	70	67	91
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2090.4	2090.4	2090.4	2090.4	2090.4
2.5°	2098.1	2090.4	2087.0	2084.4	2088.7
5°	2091.2	2083.6	2080.1	2077.6	2081.8
7.5°	2080.1	2073.3	2069.0	2066.5	2070.7
10°	2064.8	2057.1	2052.8	2051.1	2055.4
12.5°	2042.6	2036.6	2033.2	2031.4	2034.0
15°	2018.6	2012.7	2007.5	2005.0	2009.2
17.5°	1988.7	1982.8	1979.3	1976.8	1981.0
20°	1954.6	1949.4	1945.2	1943.5	1948.6
22.5°	1917.0	1912.7	1909.3	1906.7	1911.8
25°	1875.1	1870.0	1866.6	1864.0	1868.3
27.5°	1829.0	1824.7	1821.3	1818.7	1822.2
30°	1780.3	1776.9	1774.3	1770.0	1772.6
32.5°	1729.9	1723.1	1720.5	1719.6	1722.2
35°	1670.9	1666.7	1663.3	1659.8	1663.3
37.5°	1615.4	1606.9	1603.5	1601.7	1602.6
40°	1548.8	1544.5	1542.0	1536.0	1541.1
42.5°	1483.9	1480.4	1474.5	1471.9	1471.9
45°	1416.4	1410.4	1404.4	1404.4	1402.7
47.5°	1346.3	1342.1	1335.2	1332.7	1333.5
50°	1273.7	1266.0	1260.9	1254.9	1260.0
52.5°	1195.1	1189.1	1184.0	1178.9	1175.5
55°	1113.1	1107.1	1103.7	1098.6	1095.2
57.5°	1026.8	1026.0	1020.0	1014.0	1011.5
60°	944.0	938.0	931.2	931.2	924.3
62.5°	856.8	851.7	848.3	840.6	842.3
65°	768.8	762.9	755.2	752.6	750.9
67.5°	673.2	669.7	662.9	656.9	657.8
70°	582.6	575.8	570.6	565.5	563.8
72.5°	486.1	481.8	478.4	473.3	469.0
75°	393.8	388.7	388.7	381.0	381.9
77.5°	303.3	300.7	296.4	293.9	291.3
80°	212.7	213.6	211.9	206.7	211.0
82.5°	137.5	135.0	133.3	133.3	132.4
85°	70.0	68.3	70.0	70.0	66.6
87.5°	21.4	23.9	24.8	24.8	23.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)