

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: P412046

Luminaire Tested: **MRI-24ATR-40-L850-OPL**

Issue Date: 10/5/2020

Test Information

Test Method: LM-79-08
Report Number: P412046
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-40-L850-OPL
Description: 2X4 TROFFER, 4000LM, OPAL LENS
Light Source: (1008) 5000K CCT, 80 CRI LED'S
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4347.0 lumens
Efficiency: N/A
Efficacy: 85.2 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

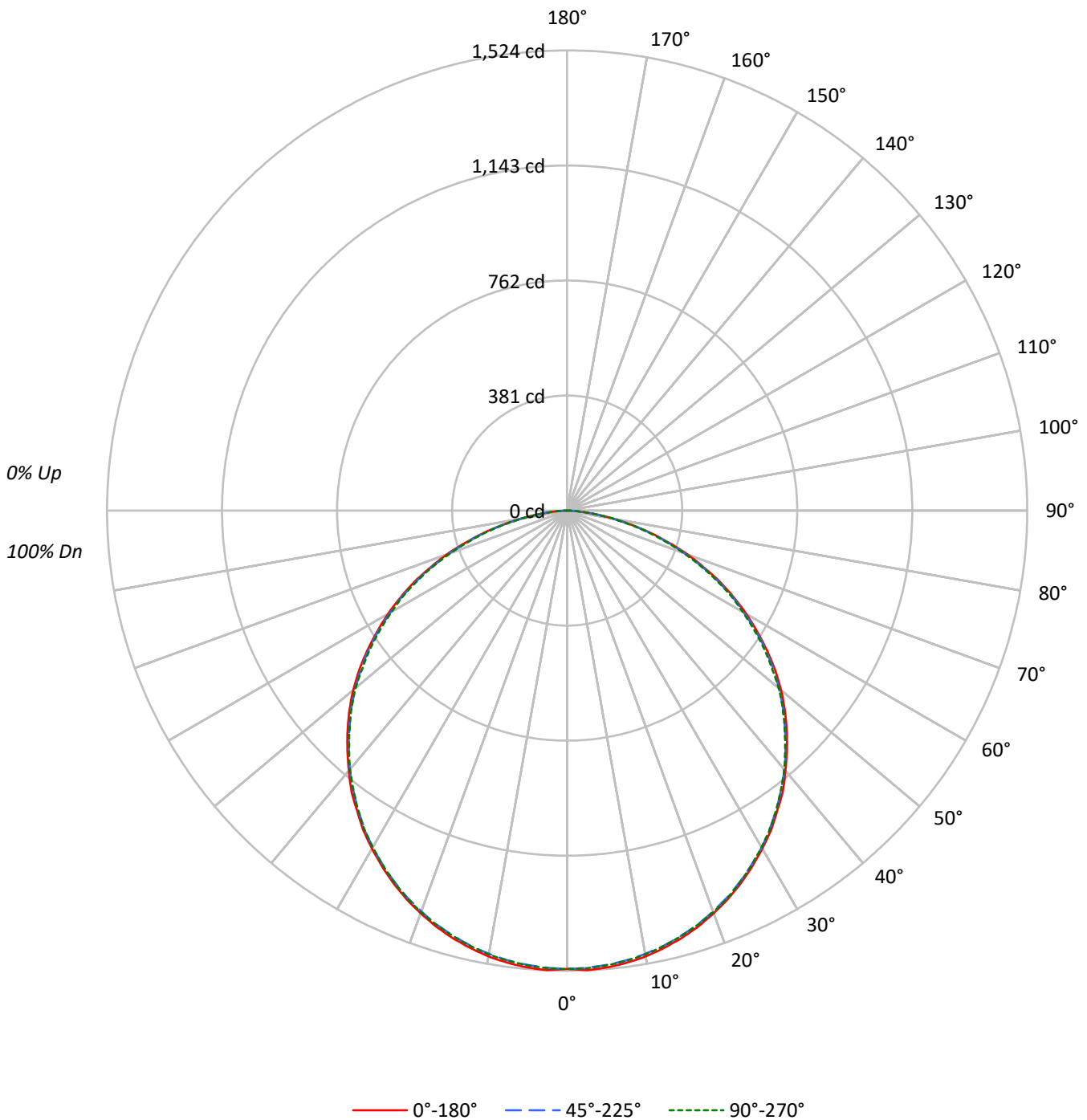
Input Watts (W): 51
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2042	2042	2042
5°	2051	2040	2042
10°	2049	2037	2039
15°	2042	2031	2032
20°	2032	2023	2026
25°	2022	2012	2014
30°	2009	2002	2000
35°	1993	1984	1984
40°	1975	1967	1966
45°	1957	1941	1938
50°	1936	1917	1915
55°	1896	1880	1866
60°	1845	1820	1806
65°	1777	1746	1736
70°	1664	1630	1611
75°	1487	1468	1442
80°	1197	1192	1187
85°	786	786	747



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.7	3.3
10°-20°	412.0	9.5
20°-30°	625.4	14.4
30°-40°	756.3	17.4
40°-50°	788.4	18.1
50°-60°	715.5	16.5
60°-70°	542.8	12.5
70°-80°	297.2	6.8
80°-90°	65.7	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°	1181.0	27.2
0°-40°	1937.4	44.6
0°-60°	3441.3	79.2
0°-90°	4347.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4347.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1518	1518	1518	1518	1518	
5°	1519	1513	1511	1509	1512	144
15°	1466	1462	1458	1456	1459	414
25°	1362	1358	1356	1354	1357	628
35°	1213	1210	1208	1205	1208	760
45°	1029	1024	1020	1020	1019	793
55°	808	804	802	798	795	722
65°	558	554	548	546	545	550
75°	286	282	282	277	277	303
85°	51	50	51	51	48	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1518.0	1518.0	1518.0	1518.0	1518.0
2.5°	1523.6	1518.0	1515.5	1513.7	1516.8
5°	1518.6	1513.1	1510.6	1508.7	1511.8
7.5°	1510.6	1505.6	1502.5	1500.7	1503.8
10°	1499.4	1493.8	1490.7	1489.5	1492.6
12.5°	1483.3	1478.9	1476.5	1475.2	1477.1
15°	1465.9	1461.6	1457.9	1456.0	1459.1
17.5°	1444.2	1439.9	1437.4	1435.5	1438.6
20°	1419.4	1415.7	1412.6	1411.3	1415.0
22.5°	1392.1	1389.0	1386.5	1384.7	1388.4
25°	1361.7	1358.0	1355.5	1353.6	1356.7
27.5°	1328.2	1325.1	1322.6	1320.8	1323.2
30°	1292.8	1290.4	1288.5	1285.4	1287.3
32.5°	1256.2	1251.3	1249.4	1248.8	1250.7
35°	1213.4	1210.3	1207.8	1205.4	1207.8
37.5°	1173.1	1166.9	1164.4	1163.2	1163.8
40°	1124.7	1121.6	1119.8	1115.4	1119.1
42.5°	1077.6	1075.1	1070.7	1068.9	1068.9
45°	1028.6	1024.2	1019.9	1019.9	1018.6
47.5°	977.7	974.6	969.6	967.8	968.4
50°	925.0	919.4	915.7	911.3	915.0
52.5°	867.9	863.5	859.8	856.1	853.6
55°	808.3	804.0	801.5	797.8	795.3
57.5°	745.7	745.1	740.7	736.4	734.5
60°	685.5	681.2	676.2	676.2	671.2
62.5°	622.2	618.5	616.0	610.4	611.7
65°	558.3	554.0	548.4	546.5	545.3
67.5°	488.8	486.4	481.4	477.1	477.7
70°	423.1	418.1	414.4	410.7	409.4
72.5°	353.0	349.9	347.4	343.7	340.6
75°	286.0	282.3	282.3	276.7	277.3
77.5°	220.2	218.4	215.3	213.4	211.5
80°	154.5	155.1	153.9	150.1	153.2
82.5°	99.9	98.0	96.8	96.8	96.2
85°	50.9	49.6	50.9	50.9	48.4
87.5°	15.5	17.4	18.0	18.0	17.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)