

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: P589512

Luminaire Tested: **FMR-24-2-LD4-3STD-40-UNV-82-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589512
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-24-2-LD4-3STD-40-UNV-82-87-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

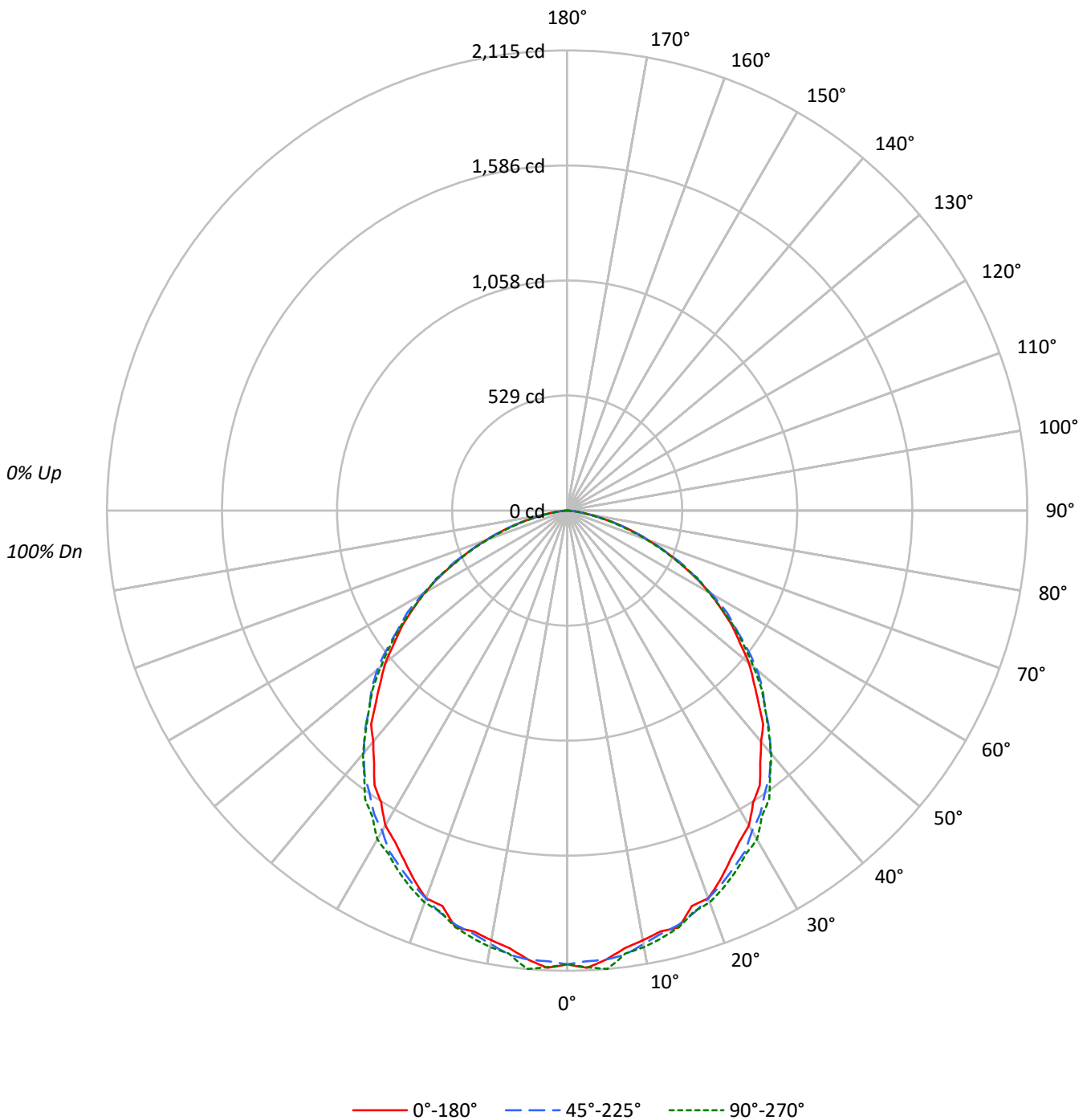
Lumens per Lamp: N/A
Luminaire Lumens: 5256.0 lumens
Efficiency: N/A
Efficacy: 105.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5612	5612	5612
5°	5593	5595	5713
10°	5480	5528	5567
15°	5523	5493	5524
20°	5430	5430	5488
25°	5263	5378	5437
30°	5191	5282	5423
35°	5069	5201	5318
40°	4871	5106	5128
45°	4724	4892	4899
50°	4569	4775	4684
55°	4353	4438	4406
60°	4071	4111	4038
65°	3629	3722	3604
70°	3114	3125	3038
75°	2466	2461	2365
80°	1652	1607	1543
85°	898	889	831



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.2	3.7
10°-20°	556.0	10.6
20°-30°	833.0	15.8
30°-40°	987.2	18.8
40°-50°	989.0	18.8
50°-60°	839.5	16.0
60°-70°	566.0	10.8
70°-80°	248.7	4.7
80°-90°	40.4	0.8
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°	1585.1	30.2
0°-40°	2572.3	48.9
0°-60°	4400.9	83.7
0°-90°	5256.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5256.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2085	2085	2085	2085	2085	
5°	2071	2066	2071	2065	2115	195
15°	1983	1960	1972	1982	1983	552
25°	1773	1782	1811	1835	1831	819
35°	1543	1548	1583	1620	1619	958
45°	1241	1264	1286	1319	1287	960
55°	928	922	946	940	939	825
65°	570	562	585	562	566	567
75°	237	232	237	220	228	254
85°	29	28	29	28	27	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2085.4	2085.4	2085.4	2085.4	2085.4
2.5°	2103.5	2087.6	2072.8	2090.0	2100.5
5°	2070.6	2065.8	2071.4	2065.3	2115.1
7.5°	2028.1	2046.7	2057.4	2050.7	2053.7
10°	2005.5	1999.0	2023.0	2039.7	2037.2
12.5°	1981.2	1990.9	1992.3	2010.3	2011.9
15°	1982.6	1959.7	1971.8	1982.1	1982.9
17.5°	1905.6	1930.4	1938.7	1962.1	1933.0
20°	1896.2	1878.1	1896.2	1920.1	1916.4
22.5°	1838.3	1818.1	1856.8	1878.1	1876.8
25°	1772.6	1782.3	1811.3	1835.0	1831.3
27.5°	1714.9	1726.3	1767.7	1800.3	1779.3
30°	1670.5	1664.9	1699.9	1728.9	1745.1
32.5°	1591.1	1611.5	1652.5	1681.3	1665.9
35°	1542.9	1547.5	1583.3	1619.9	1618.8
37.5°	1458.6	1479.9	1530.2	1540.5	1531.0
40°	1386.7	1408.0	1453.5	1464.5	1459.9
42.5°	1333.7	1337.4	1376.5	1389.1	1368.9
45°	1241.3	1264.5	1285.5	1318.6	1287.4
47.5°	1162.7	1173.5	1218.7	1227.6	1211.1
50°	1091.3	1095.1	1140.6	1129.6	1118.8
52.5°	1001.7	1017.5	1043.1	1041.0	1028.3
55°	927.9	921.7	945.9	939.5	939.2
57.5°	839.3	850.1	870.0	859.8	843.3
60°	756.4	756.6	763.9	752.3	750.2
62.5°	664.0	667.2	668.9	654.6	677.7
65°	570.0	562.5	584.6	562.2	566.0
67.5°	483.6	487.4	485.2	471.2	476.6
70°	395.8	400.7	397.2	381.3	386.1
72.5°	315.6	309.7	313.4	293.5	302.7
75°	237.2	232.4	236.7	220.0	227.5
77.5°	161.6	165.3	162.6	153.7	158.9
80°	106.6	103.7	103.7	98.6	99.6
82.5°	62.2	59.2	58.4	56.8	59.2
85°	29.1	28.3	28.8	28.0	26.9
87.5°	10.5	10.8	10.8	10.2	9.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)