

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: P588984

Luminaire Tested: **FMR-24-2-LD4-2HI-35-UNV-80-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588984
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-LD4-2HI-35-UNV-80-87-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

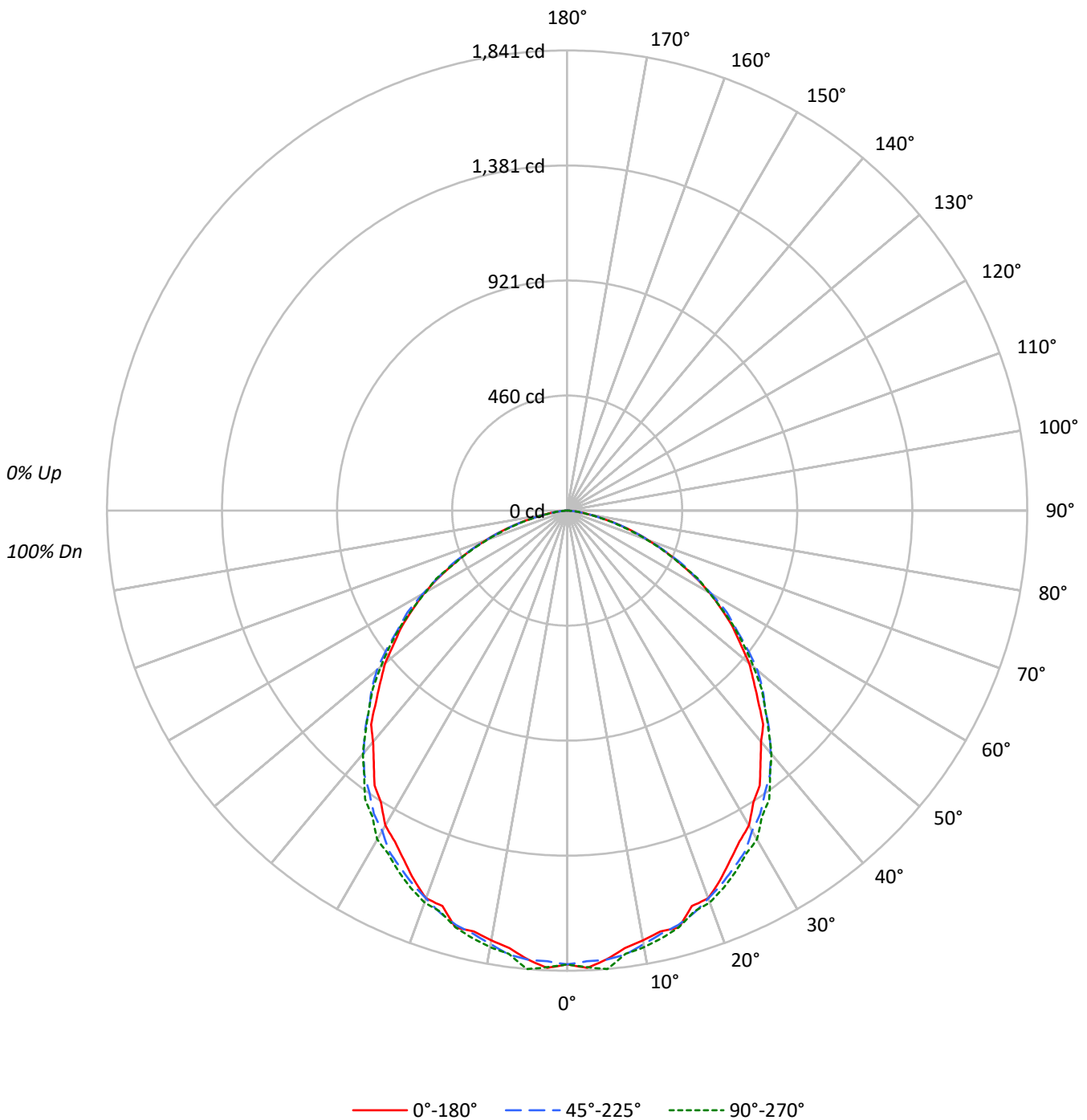
Lumens per Lamp: N/A
Luminaire Lumens: 4576.0 lumens
Efficiency: N/A
Efficacy: 105.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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°	4886	4886	4886
5°	4870	4872	4974
10°	4771	4813	4847
15°	4809	4783	4809
20°	4727	4727	4778
25°	4582	4682	4734
30°	4519	4598	4721
35°	4413	4528	4630
40°	4241	4445	4465
45°	4113	4259	4265
50°	3978	4157	4078
55°	3790	3864	3836
60°	3544	3580	3515
65°	3160	3240	3138
70°	2711	2721	2645
75°	2147	2143	2060
80°	1438	1399	1344
85°	781	775	722



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.8	3.7
10°-20°	484.0	10.6
20°-30°	725.2	15.8
30°-40°	859.5	18.8
40°-50°	861.1	18.8
50°-60°	730.9	16.0
60°-70°	492.8	10.8
70°-80°	216.5	4.7
80°-90°	35.2	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°	1380.0	30.2
0°-40°	2239.5	48.9
0°-60°	3831.5	83.7
0°-90°	4576.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4576.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1816	1816	1816	1816	1816	
5°	1803	1798	1804	1798	1841	170
15°	1726	1706	1717	1726	1726	481
25°	1543	1552	1577	1598	1594	713
35°	1343	1347	1378	1410	1409	834
45°	1081	1101	1119	1148	1121	836
55°	808	802	824	818	818	719
65°	496	490	509	490	493	494
75°	206	202	206	192	198	221
85°	25	25	25	24	23	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1815.6	1815.6	1815.6	1815.6	1815.6
2.5°	1831.3	1817.5	1804.6	1819.6	1828.8
5°	1802.7	1798.5	1803.5	1798.1	1841.4
7.5°	1765.7	1781.9	1791.3	1785.4	1788.0
10°	1746.0	1740.4	1761.3	1775.8	1773.7
12.5°	1724.9	1733.4	1734.5	1750.2	1751.6
15°	1726.1	1706.2	1716.7	1725.6	1726.3
17.5°	1659.0	1680.6	1687.9	1708.3	1683.0
20°	1650.8	1635.1	1650.8	1671.7	1668.4
22.5°	1600.4	1582.9	1616.6	1635.1	1634.0
25°	1543.2	1551.7	1577.0	1597.6	1594.3
27.5°	1493.1	1502.9	1539.0	1567.4	1549.1
30°	1454.4	1449.5	1479.9	1505.3	1519.3
32.5°	1385.2	1403.0	1438.7	1463.8	1450.4
35°	1343.3	1347.3	1378.4	1410.3	1409.4
37.5°	1269.9	1288.4	1332.3	1341.2	1333.0
40°	1207.3	1225.8	1265.4	1275.1	1271.1
42.5°	1161.1	1164.4	1198.4	1209.4	1191.8
45°	1080.7	1100.9	1119.2	1148.0	1120.8
47.5°	1012.3	1021.6	1061.0	1068.8	1054.5
50°	950.1	953.4	993.0	983.4	974.0
52.5°	872.1	885.9	908.2	906.3	895.3
55°	807.8	802.4	823.5	817.9	817.7
57.5°	730.7	740.1	757.4	748.5	734.2
60°	658.5	658.7	665.1	655.0	653.1
62.5°	578.1	580.9	582.3	569.9	590.1
65°	496.3	489.7	508.9	489.5	492.8
67.5°	421.0	424.3	422.4	410.2	414.9
70°	344.6	348.8	345.8	331.9	336.2
72.5°	274.7	269.6	272.9	255.5	263.5
75°	206.5	202.3	206.1	191.5	198.1
77.5°	140.7	143.9	141.6	133.9	138.3
80°	92.8	90.3	90.3	85.8	86.7
82.5°	54.2	51.6	50.9	49.5	51.6
85°	25.3	24.6	25.1	24.4	23.4
87.5°	9.1	9.4	9.4	8.9	8.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)