

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: P588981

Luminaire Tested: **FMR-24-2-LD4-2HI-35-UNV-80-84-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588981  
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-80-84-EDD  
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

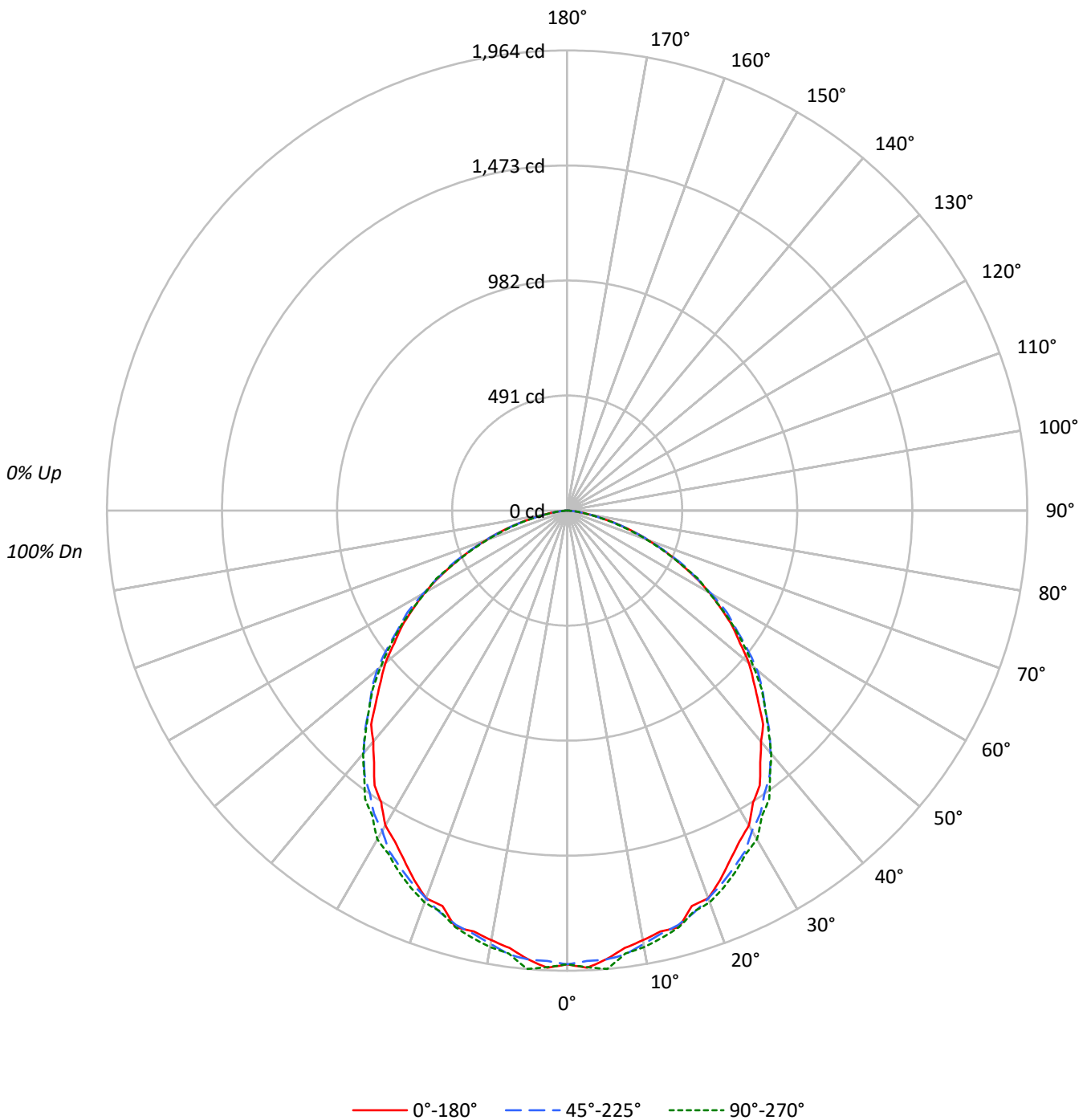
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4880.1 lumens  
Efficiency: N/A  
Efficacy: 113.0 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°	5211	5211	5211
5°	5193	5195	5305
10°	5088	5132	5169
15°	5128	5100	5129
20°	5042	5042	5095
25°	4887	4994	5048
30°	4819	4904	5035
35°	4706	4829	4937
40°	4523	4741	4762
45°	4386	4542	4549
50°	4242	4433	4349
55°	4042	4121	4091
60°	3780	3817	3749
65°	3370	3456	3346
70°	2891	2902	2821
75°	2290	2285	2197
80°	1534	1492	1433
85°	834	827	772



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	182.1	3.7
10°-20°	516.2	10.6
20°-30°	773.4	15.8
30°-40°	916.6	18.8
40°-50°	918.3	18.8
50°-60°	779.5	16.0
60°-70°	525.5	10.8
70°-80°	230.9	4.7
80°-90°	37.5	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°	1471.7	30.2
0°-40°	2388.3	48.9
0°-60°	4086.1	83.7
0°-90°	4880.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4880.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1936	1936	1936	1936	1936	
5°	1922	1918	1923	1918	1964	181
15°	1841	1820	1831	1840	1841	513
25°	1646	1655	1682	1704	1700	761
35°	1432	1437	1470	1504	1503	889
45°	1152	1174	1194	1224	1195	892
55°	862	856	878	872	872	766
65°	529	522	543	522	526	526
75°	220	216	220	204	211	236
85°	27	26	27	26	25	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1936.3	1936.3	1936.3	1936.3	1936.3
2.5°	1953.0	1938.3	1924.5	1940.5	1950.3
5°	1922.5	1918.0	1923.3	1917.5	1963.8
7.5°	1883.0	1900.3	1910.3	1904.0	1906.8
10°	1862.0	1856.0	1878.3	1893.8	1891.5
12.5°	1839.5	1848.5	1849.8	1866.5	1868.0
15°	1840.8	1819.5	1830.8	1840.3	1841.0
17.5°	1769.3	1792.3	1800.0	1821.8	1794.8
20°	1760.5	1743.8	1760.5	1782.8	1779.3
22.5°	1706.8	1688.0	1724.0	1743.8	1742.5
25°	1645.8	1654.8	1681.8	1703.8	1700.3
27.5°	1592.3	1602.8	1641.3	1671.5	1652.0
30°	1551.0	1545.8	1578.3	1605.3	1620.3
32.5°	1477.3	1496.3	1534.3	1561.0	1546.8
35°	1432.5	1436.8	1470.0	1504.0	1503.0
37.5°	1354.3	1374.0	1420.8	1430.3	1421.5
40°	1287.5	1307.3	1349.5	1359.8	1355.5
42.5°	1238.3	1241.8	1278.0	1289.8	1271.0
45°	1152.5	1174.0	1193.5	1224.3	1195.3
47.5°	1079.5	1089.5	1131.5	1139.8	1124.5
50°	1013.3	1016.8	1059.0	1048.8	1038.8
52.5°	930.0	944.8	968.5	966.5	954.8
55°	861.5	855.8	878.3	872.3	872.0
57.5°	779.3	789.3	807.8	798.3	783.0
60°	702.3	702.5	709.3	698.5	696.5
62.5°	616.5	619.5	621.0	607.8	629.3
65°	529.3	522.3	542.8	522.0	525.5
67.5°	449.0	452.5	450.5	437.5	442.5
70°	367.5	372.0	368.8	354.0	358.5
72.5°	293.0	287.5	291.0	272.5	281.0
75°	220.3	215.8	219.8	204.3	211.3
77.5°	150.0	153.5	151.0	142.8	147.5
80°	99.0	96.3	96.3	91.5	92.5
82.5°	57.8	55.0	54.3	52.8	55.0
85°	27.0	26.3	26.8	26.0	25.0
87.5°	9.8	10.0	10.0	9.5	9.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)