

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: P588954

Luminaire Tested: **FMR-24-2-LD4-1STD-50-UNV-80-94-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588954  
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-LD4-1STD-50-UNV-80-94-EDD  
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

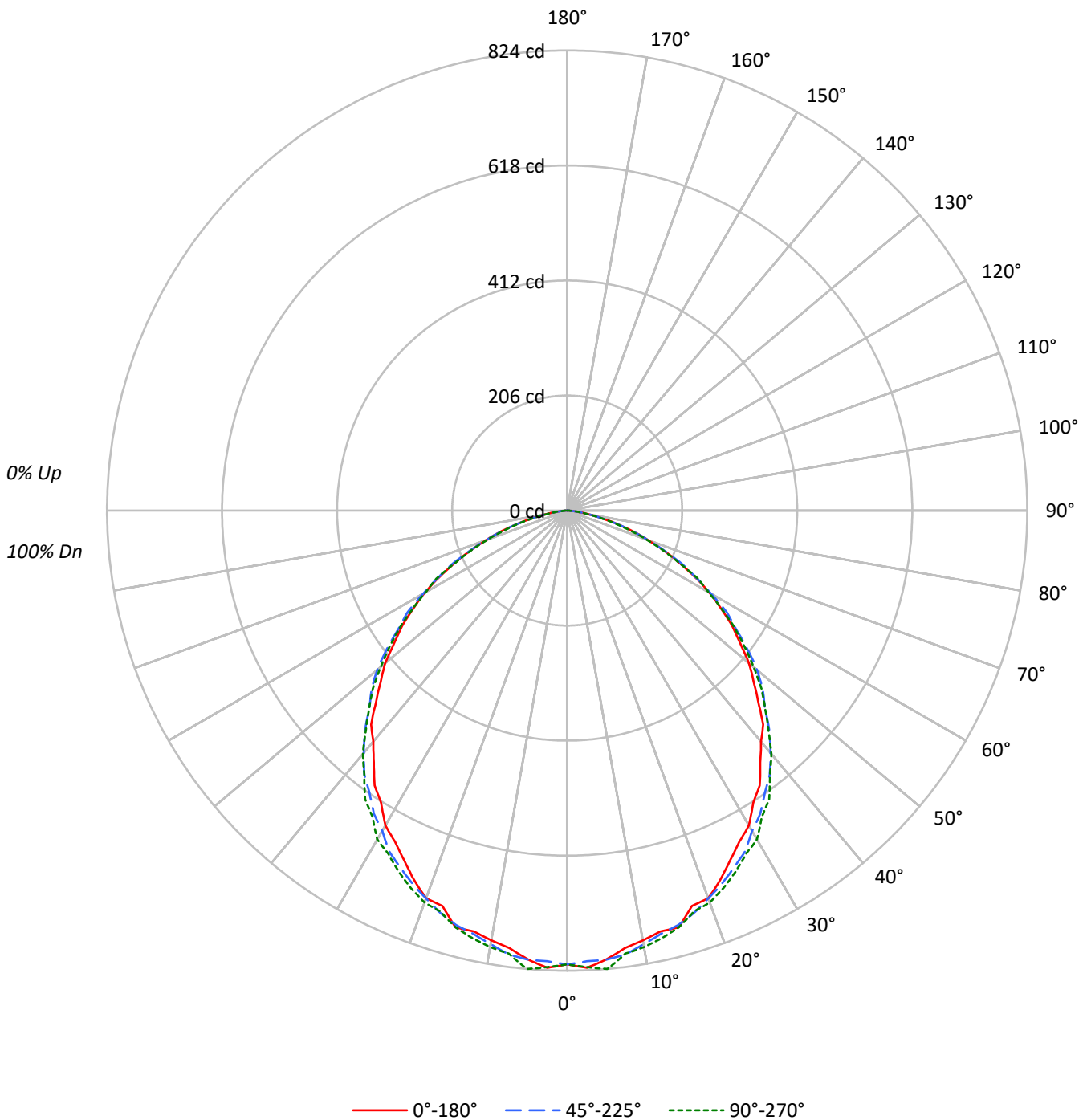
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2048.0 lumens  
Efficiency: N/A  
Efficacy: 123.4 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): 16.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	2187	2187	2187
5°	2179	2180	2226
10°	2135	2154	2169
15°	2152	2140	2152
20°	2116	2116	2138
25°	2051	2096	2119
30°	2023	2058	2113
35°	1975	2027	2072
40°	1898	1990	1998
45°	1841	1906	1909
50°	1780	1860	1825
55°	1696	1729	1717
60°	1586	1602	1573
65°	1414	1450	1404
70°	1213	1218	1184
75°	961	959	922
80°	643	626	601
85°	349	346	324



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.4	3.7
10°-20°	216.6	10.6
20°-30°	324.6	15.8
30°-40°	384.7	18.8
40°-50°	385.4	18.8
50°-60°	327.1	16.0
60°-70°	220.6	10.8
70°-80°	96.9	4.7
80°-90°	15.7	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°	617.6	30.2
0°-40°	1002.3	48.9
0°-60°	1714.8	83.7
0°-90°	2048.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2048.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	813	813	813	813	813	
5°	807	805	807	805	824	76
15°	772	764	768	772	773	215
25°	691	694	706	715	714	319
35°	601	603	617	631	631	373
45°	484	493	501	514	502	374
55°	362	359	369	366	366	322
65°	222	219	228	219	220	221
75°	92	90	92	86	89	99
85°	11	11	11	11	10	16
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	812.6	812.6	812.6	812.6	812.6
2.5°	819.6	813.4	807.7	814.4	818.5
5°	806.8	804.9	807.1	804.7	824.1
7.5°	790.2	797.5	801.7	799.1	800.2
10°	781.4	778.9	788.3	794.8	793.8
12.5°	772.0	775.8	776.3	783.3	784.0
15°	772.5	763.6	768.3	772.3	772.6
17.5°	742.5	752.2	755.4	764.5	753.2
20°	738.8	731.8	738.8	748.2	746.7
22.5°	716.3	708.4	723.5	731.8	731.3
25°	690.7	694.5	705.8	715.0	713.6
27.5°	668.2	672.6	688.8	701.5	693.3
30°	650.9	648.7	662.4	673.7	680.0
32.5°	620.0	627.9	643.9	655.1	649.1
35°	601.2	603.0	616.9	631.2	630.8
37.5°	568.3	576.6	596.3	600.2	596.6
40°	540.3	548.6	566.4	570.7	568.9
42.5°	519.7	521.1	536.3	541.3	533.4
45°	483.7	492.7	500.9	513.8	501.6
47.5°	453.0	457.2	474.9	478.3	471.9
50°	425.2	426.7	444.4	440.1	435.9
52.5°	390.3	396.5	406.5	405.6	400.7
55°	361.5	359.1	368.6	366.1	366.0
57.5°	327.0	331.2	339.0	335.0	328.6
60°	294.7	294.8	297.7	293.1	292.3
62.5°	258.7	260.0	260.6	255.1	264.1
65°	222.1	219.2	227.8	219.1	220.5
67.5°	188.4	189.9	189.1	183.6	185.7
70°	154.2	156.1	154.8	148.6	150.5
72.5°	123.0	120.7	122.1	114.4	117.9
75°	92.4	90.5	92.2	85.7	88.7
77.5°	63.0	64.4	63.4	59.9	61.9
80°	41.5	40.4	40.4	38.4	38.8
82.5°	24.2	23.1	22.8	22.1	23.1
85°	11.3	11.0	11.2	10.9	10.5
87.5°	4.1	4.2	4.2	4.0	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)