

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: P589525

Luminaire Tested: **FMR-24-2-LD4-3STD-50-UNV-80-84-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P589525  
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-50-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 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

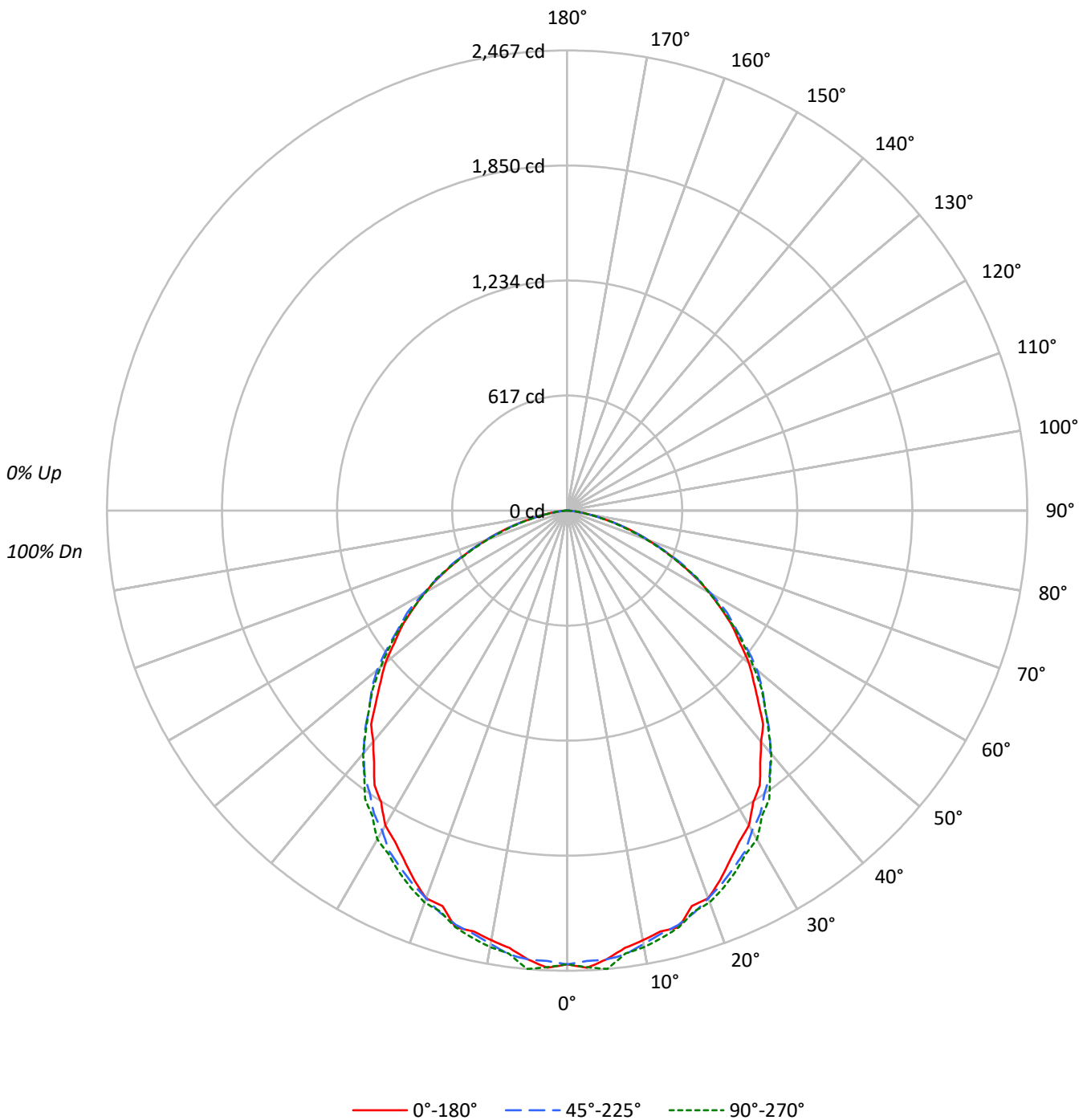
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6130.0 lumens  
Efficiency: N/A  
Efficacy: 122.6 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	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					100			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	6545	6545	6545
5°	6524	6526	6663
10°	6391	6447	6492
15°	6442	6407	6443
20°	6333	6333	6400
25°	6138	6272	6342
30°	6054	6160	6324
35°	5911	6066	6202
40°	5681	5955	5981
45°	5509	5705	5714
50°	5328	5569	5462
55°	5077	5176	5139
60°	4747	4795	4709
65°	4233	4341	4203
70°	3632	3644	3543
75°	2877	2870	2759
80°	1928	1874	1801
85°	1047	1037	969



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	228.8	3.7
10°-20°	648.4	10.6
20°-30°	971.5	15.8
30°-40°	1151.4	18.8
40°-50°	1153.5	18.8
50°-60°	979.1	16.0
60°-70°	660.1	10.8
70°-80°	290.1	4.7
80°-90°	47.1	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°	1848.7	30.2
0°-40°	3000.0	48.9
0°-60°	5132.7	83.7
0°-90°	6130.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6130.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2432	2432	2432	2432	2432	
5°	2415	2409	2416	2409	2467	228
15°	2312	2286	2300	2312	2313	644
25°	2067	2079	2112	2140	2136	956
35°	1799	1805	1846	1889	1888	1117
45°	1448	1475	1499	1538	1501	1120
55°	1082	1075	1103	1096	1095	963
65°	665	656	682	656	660	661
75°	277	271	276	257	265	297
85°	34	33	34	33	31	49
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2432.2	2432.2	2432.2	2432.2	2432.2
2.5°	2453.3	2434.7	2417.5	2437.6	2449.8
5°	2415.0	2409.3	2415.9	2408.7	2466.8
7.5°	2365.3	2387.0	2399.6	2391.7	2395.2
10°	2339.0	2331.4	2359.4	2378.8	2376.0
12.5°	2310.7	2322.0	2323.6	2344.6	2346.5
15°	2312.3	2285.6	2299.7	2311.6	2312.6
17.5°	2222.5	2251.3	2261.1	2288.4	2254.5
20°	2211.5	2190.4	2211.5	2239.4	2235.0
22.5°	2143.9	2120.4	2165.6	2190.4	2188.8
25°	2067.3	2078.6	2112.5	2140.2	2135.8
27.5°	2000.1	2013.3	2061.7	2099.7	2075.2
30°	1948.3	1941.7	1982.5	2016.4	2035.3
32.5°	1855.7	1879.5	1927.3	1960.9	1943.0
35°	1799.4	1804.8	1846.5	1889.3	1888.0
37.5°	1701.1	1726.0	1784.7	1796.6	1785.6
40°	1617.3	1642.1	1695.2	1708.1	1702.7
42.5°	1555.4	1559.8	1605.4	1620.1	1596.6
45°	1447.7	1474.7	1499.2	1537.8	1501.4
47.5°	1356.0	1368.6	1421.3	1431.7	1412.5
50°	1272.8	1277.2	1330.3	1317.4	1304.8
52.5°	1168.2	1186.8	1216.6	1214.1	1199.3
55°	1082.2	1075.0	1103.2	1095.7	1095.4
57.5°	978.9	991.4	1014.7	1002.7	983.6
60°	882.1	882.4	890.9	877.4	874.9
62.5°	774.4	778.2	780.1	763.4	790.4
65°	664.8	656.0	681.8	655.7	660.1
67.5°	564.0	568.4	565.9	549.6	555.8
70°	461.6	467.3	463.2	444.7	450.3
72.5°	368.1	361.1	365.5	342.3	353.0
75°	276.7	271.0	276.0	256.6	265.4
77.5°	188.4	192.8	189.7	179.3	185.3
80°	124.4	120.9	120.9	114.9	116.2
82.5°	72.5	69.1	68.1	66.3	69.1
85°	33.9	33.0	33.6	32.7	31.4
87.5°	12.2	12.6	12.6	11.9	11.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)