

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: P588967

Luminaire Tested: **FMR-24-2-LD4-1STD-50-UNV-82-86-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588967  
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-82-86-EDD  
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

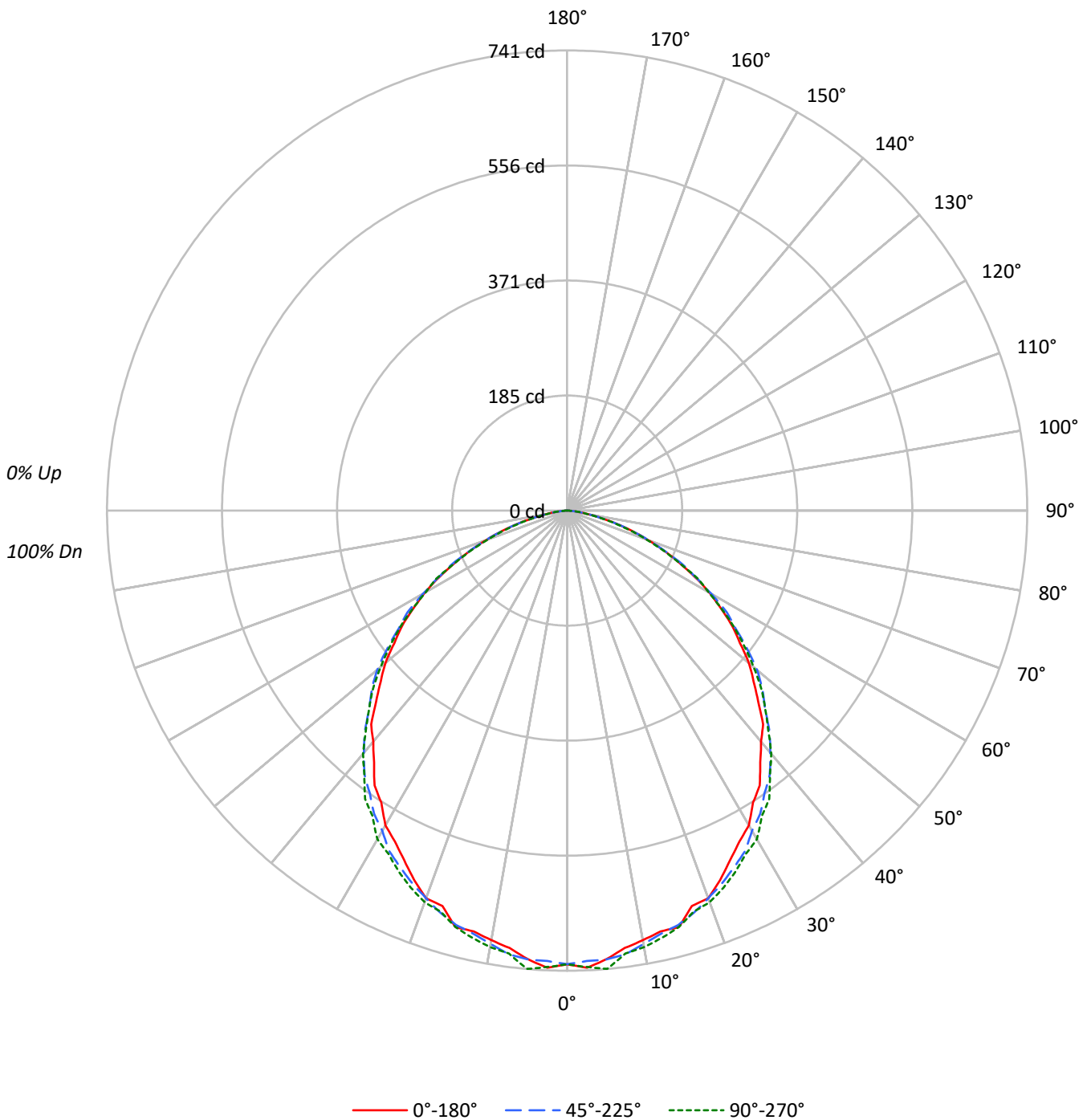
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1841.0 lumens  
Efficiency: N/A  
Efficacy: 110.9 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): 16.6  
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°	1966	1966	1966
5°	1959	1960	2001
10°	1920	1936	1950
15°	1935	1924	1935
20°	1902	1902	1922
25°	1844	1884	1904
30°	1818	1850	1899
35°	1775	1822	1863
40°	1706	1788	1796
45°	1655	1714	1716
50°	1600	1672	1641
55°	1525	1554	1544
60°	1426	1440	1414
65°	1272	1304	1262
70°	1090	1094	1064
75°	864	862	829
80°	578	563	541
85°	315	312	290



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.7	3.7
10°-20°	194.7	10.6
20°-30°	291.8	15.8
30°-40°	345.8	18.8
40°-50°	346.4	18.8
50°-60°	294.1	16.0
60°-70°	198.3	10.8
70°-80°	87.1	4.7
80°-90°	14.2	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°	555.2	30.2
0°-40°	901.0	48.9
0°-60°	1541.5	83.7
0°-90°	1841.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1841.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	730	730	730	730	730	
5°	725	724	726	723	741	68
15°	694	686	691	694	694	193
25°	621	624	634	643	641	287
35°	540	542	555	567	567	336
45°	435	443	450	462	451	336
55°	325	323	331	329	329	289
65°	200	197	205	197	198	199
75°	83	81	83	77	80	89
85°	10	10	10	10	9	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	730.5	730.5	730.5	730.5	730.5
2.5°	736.8	731.2	726.0	732.1	735.7
5°	725.3	723.6	725.6	723.4	740.8
7.5°	710.4	716.9	720.7	718.3	719.3
10°	702.5	700.2	708.6	714.4	713.6
12.5°	694.0	697.4	697.8	704.1	704.7
15°	694.4	686.4	690.7	694.2	694.5
17.5°	667.5	676.1	679.1	687.3	677.1
20°	664.2	657.8	664.2	672.6	671.2
22.5°	643.9	636.8	650.4	657.8	657.4
25°	620.9	624.3	634.5	642.8	641.4
27.5°	600.7	604.6	619.2	630.6	623.2
30°	585.1	583.1	595.4	605.6	611.2
32.5°	557.3	564.5	578.8	588.9	583.5
35°	540.4	542.0	554.6	567.4	567.0
37.5°	510.9	518.4	536.0	539.6	536.3
40°	485.7	493.2	509.1	513.0	511.4
42.5°	467.1	468.5	482.1	486.6	479.5
45°	434.8	442.9	450.3	461.9	450.9
47.5°	407.2	411.0	426.9	430.0	424.2
50°	382.3	383.6	399.5	395.6	391.9
52.5°	350.8	356.4	365.4	364.6	360.2
55°	325.0	322.8	331.3	329.1	329.0
57.5°	294.0	297.7	304.7	301.1	295.4
60°	264.9	265.0	267.6	263.5	262.8
62.5°	232.6	233.7	234.3	229.3	237.4
65°	199.7	197.0	204.8	196.9	198.2
67.5°	169.4	170.7	170.0	165.0	166.9
70°	138.6	140.3	139.1	133.5	135.2
72.5°	110.5	108.5	109.8	102.8	106.0
75°	83.1	81.4	82.9	77.1	79.7
77.5°	56.6	57.9	57.0	53.9	55.6
80°	37.3	36.3	36.3	34.5	34.9
82.5°	21.8	20.7	20.5	19.9	20.7
85°	10.2	9.9	10.1	9.8	9.4
87.5°	3.7	3.8	3.8	3.6	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)