

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: P588953

Luminaire Tested: **FMR-24-2-LD4-1STD-50-UNV-80-88-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588953  
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-80-88-EDD  
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

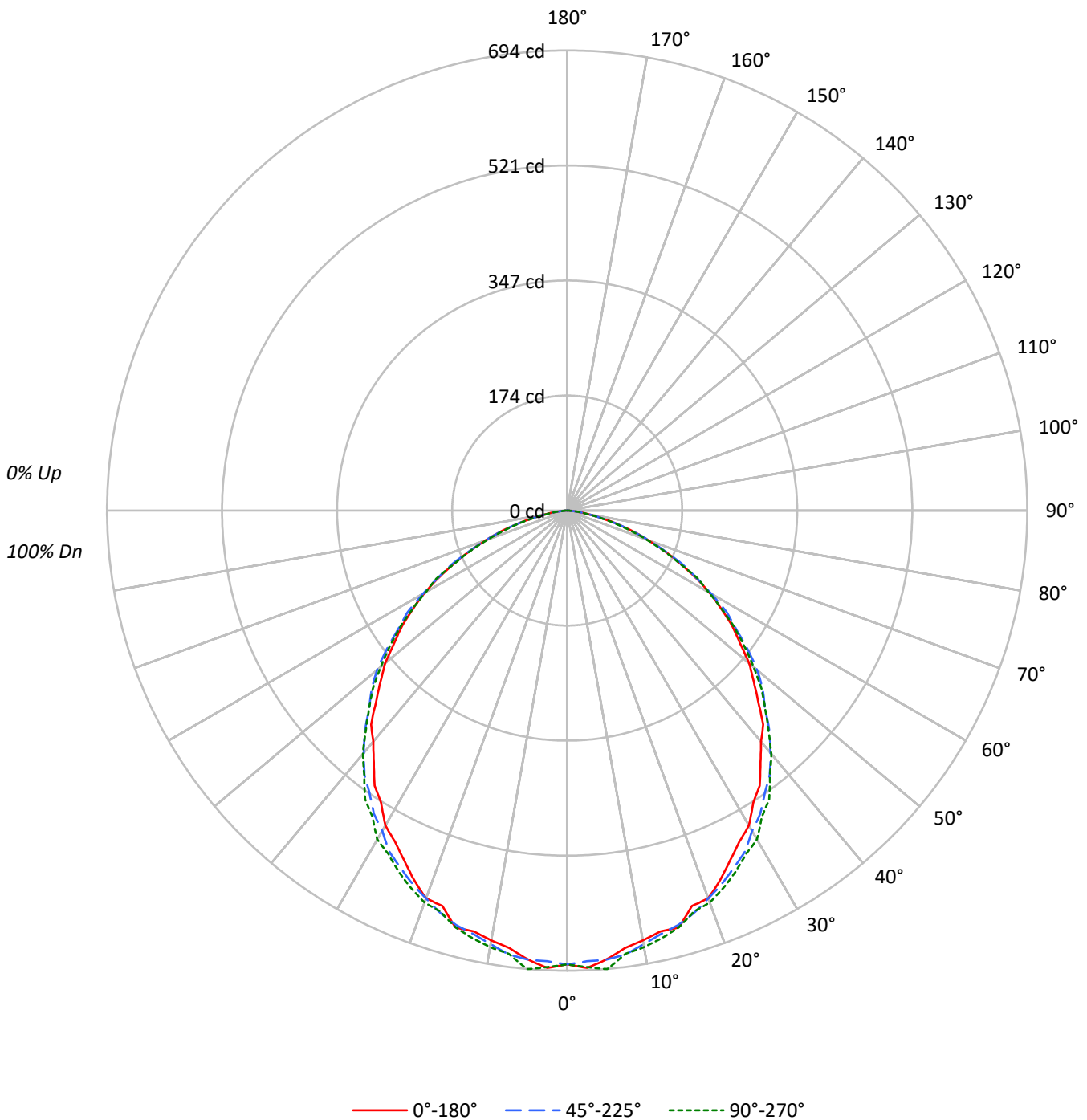
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1725.0 lumens  
Efficiency: N/A  
Efficacy: 103.9 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°	1842	1842	1842
5°	1836	1836	1875
10°	1799	1814	1827
15°	1813	1803	1813
20°	1782	1782	1801
25°	1727	1765	1784
30°	1704	1734	1780
35°	1664	1707	1745
40°	1599	1676	1683
45°	1550	1606	1608
50°	1500	1567	1537
55°	1429	1456	1446
60°	1336	1349	1325
65°	1191	1222	1183
70°	1022	1025	997
75°	810	808	777
80°	542	527	507
85°	293	293	272



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.4	3.7
10°-20°	182.5	10.6
20°-30°	273.4	15.8
30°-40°	324.0	18.8
40°-50°	324.6	18.8
50°-60°	275.5	16.0
60°-70°	185.8	10.8
70°-80°	81.6	4.7
80°-90°	13.3	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°	520.2	30.2
0°-40°	844.2	48.9
0°-60°	1444.3	83.7
0°-90°	1725.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1725.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	684	684	684	684	684	
5°	680	678	680	678	694	64
15°	651	643	647	650	651	181
25°	582	585	594	602	601	269
35°	506	508	520	532	531	314
45°	407	415	422	433	422	315
55°	304	302	310	308	308	271
65°	187	185	192	184	186	186
75°	78	76	78	72	75	83
85°	10	9	10	9	9	14
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	684.4	684.4	684.4	684.4	684.4
2.5°	690.4	685.1	680.3	685.9	689.4
5°	679.6	678.0	679.8	677.8	694.2
7.5°	665.6	671.7	675.2	673.0	674.0
10°	658.2	656.1	663.9	669.4	668.6
12.5°	650.2	653.4	653.9	659.8	660.3
15°	650.7	643.2	647.1	650.5	650.8
17.5°	625.4	633.5	636.3	644.0	634.4
20°	622.3	616.4	622.3	630.2	628.9
22.5°	603.3	596.7	609.4	616.4	615.9
25°	581.7	584.9	594.5	602.3	601.0
27.5°	562.8	566.5	580.2	590.9	584.0
30°	548.3	546.4	557.9	567.4	572.7
32.5°	522.2	528.9	542.3	551.8	546.8
35°	506.4	507.9	519.6	531.6	531.3
37.5°	478.7	485.7	502.2	505.6	502.5
40°	455.1	462.1	477.0	480.7	479.1
42.5°	437.7	438.9	451.8	455.9	449.3
45°	407.4	415.0	421.9	432.8	422.5
47.5°	381.6	385.1	400.0	402.9	397.5
50°	358.2	359.4	374.3	370.7	367.2
52.5°	328.7	334.0	342.4	341.6	337.5
55°	304.5	302.5	310.4	308.3	308.2
57.5°	275.5	279.0	285.5	282.2	276.8
60°	248.2	248.3	250.7	246.9	246.2
62.5°	217.9	219.0	219.5	214.8	222.4
65°	187.1	184.6	191.9	184.5	185.8
67.5°	158.7	160.0	159.2	154.6	156.4
70°	129.9	131.5	130.3	125.1	126.7
72.5°	103.6	101.6	102.9	96.3	99.3
75°	77.9	76.3	77.7	72.2	74.7
77.5°	53.0	54.3	53.4	50.5	52.1
80°	35.0	34.0	34.0	32.3	32.7
82.5°	20.4	19.4	19.2	18.6	19.4
85°	9.5	9.3	9.5	9.2	8.8
87.5°	3.4	3.5	3.5	3.4	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)