

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: P588885

Luminaire Tested: **FMR-24-2-LD4-1STD-35-UNV-80-84-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588885  
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-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: -

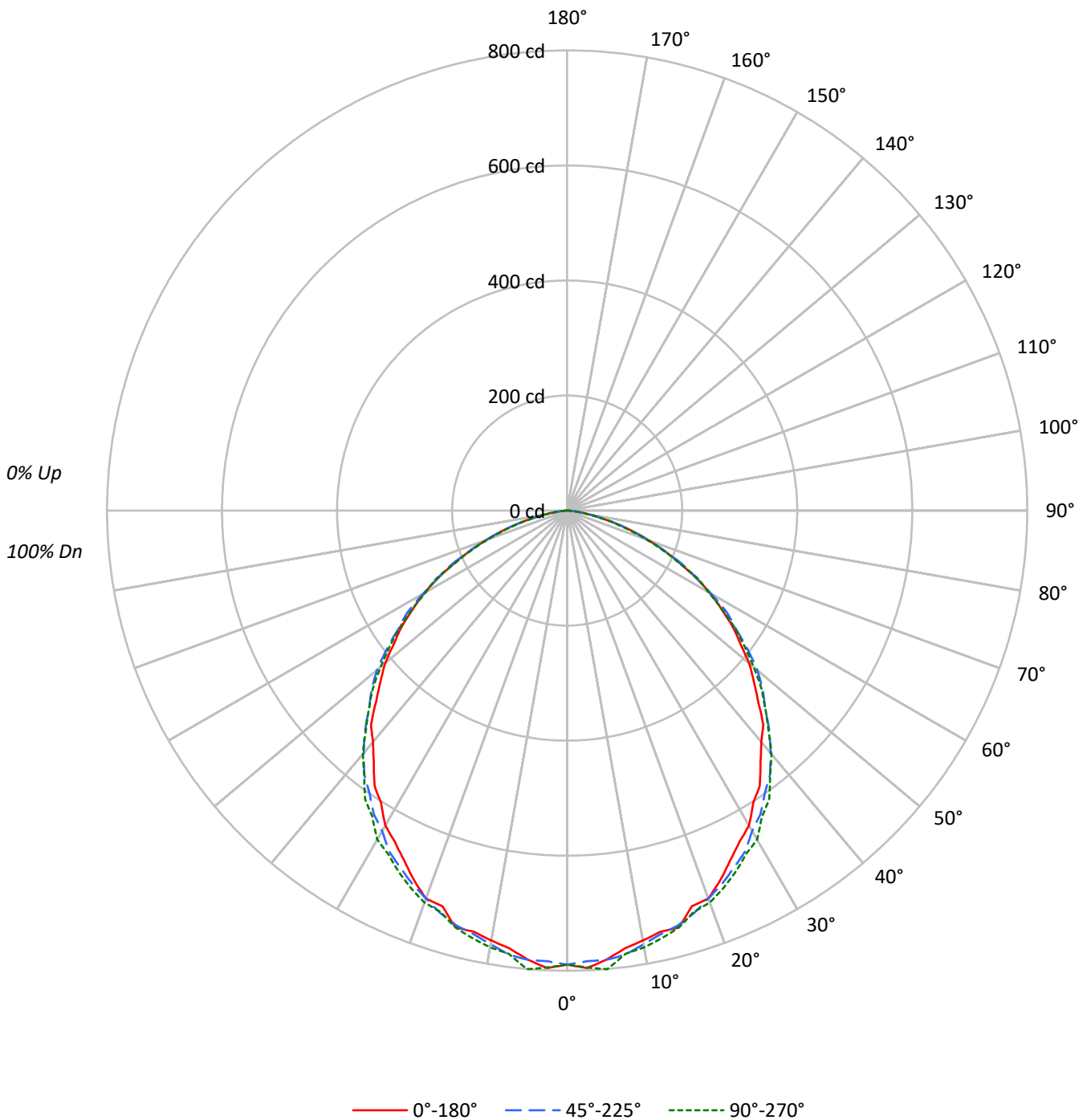
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1989.0 lumens  
Efficiency: N/A  
Efficacy: 119.8 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°	2124	2124	2124
5°	2117	2118	2162
10°	2074	2092	2106
15°	2090	2079	2091
20°	2055	2055	2077
25°	1992	2035	2058
30°	1964	1999	2052
35°	1918	1968	2012
40°	1844	1932	1941
45°	1787	1851	1854
50°	1729	1807	1773
55°	1647	1680	1667
60°	1540	1556	1528
65°	1373	1408	1364
70°	1179	1183	1149
75°	934	932	895
80°	626	607	584
85°	340	337	315



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.2	3.7
10°-20°	210.4	10.6
20°-30°	315.2	15.8
30°-40°	373.6	18.8
40°-50°	374.3	18.8
50°-60°	317.7	16.0
60°-70°	214.2	10.8
70°-80°	94.1	4.7
80°-90°	15.3	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°	599.8	30.2
0°-40°	973.4	48.9
0°-60°	1665.4	83.7
0°-90°	1989.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1989.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	789	789	789	789	789	
5°	784	782	784	782	800	74
15°	750	742	746	750	750	209
25°	671	674	686	694	693	310
35°	584	586	599	613	613	363
45°	470	478	486	499	487	363
55°	351	349	358	356	355	312
65°	216	213	221	213	214	215
75°	90	88	90	83	86	96
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°	789.2	789.2	789.2	789.2	789.2
2.5°	796.0	790.0	784.4	790.9	794.9
5°	783.6	781.7	783.9	781.5	800.4
7.5°	767.5	774.5	778.6	776.0	777.2
10°	758.9	756.5	765.5	771.9	770.9
12.5°	749.8	753.4	753.9	760.8	761.4
15°	750.3	741.6	746.2	750.1	750.4
17.5°	721.1	730.5	733.7	742.5	731.5
20°	717.6	710.7	717.6	726.6	725.2
22.5°	695.6	688.0	702.7	710.7	710.2
25°	670.8	674.4	685.5	694.4	693.0
27.5°	649.0	653.3	668.9	681.3	673.3
30°	632.2	630.0	643.3	654.3	660.4
32.5°	602.1	609.8	625.3	636.2	630.4
35°	583.9	585.6	599.1	613.0	612.6
37.5°	552.0	560.0	579.1	582.9	579.4
40°	524.8	532.8	550.0	554.2	552.5
42.5°	504.7	506.1	520.9	525.7	518.0
45°	469.7	478.5	486.5	499.0	487.2
47.5°	440.0	444.1	461.2	464.5	458.3
50°	413.0	414.4	431.6	427.5	423.4
52.5°	379.1	385.1	394.7	393.9	389.1
55°	351.1	348.8	358.0	355.5	355.4
57.5°	317.6	321.7	329.2	325.4	319.1
60°	286.2	286.3	289.1	284.7	283.9
62.5°	251.3	252.5	253.1	247.7	256.5
65°	215.7	212.9	221.2	212.8	214.2
67.5°	183.0	184.4	183.6	178.3	180.4
70°	149.8	151.6	150.3	144.3	146.1
72.5°	119.4	117.2	118.6	111.1	114.5
75°	89.8	87.9	89.6	83.2	86.1
77.5°	61.1	62.6	61.5	58.2	60.1
80°	40.4	39.2	39.2	37.3	37.7
82.5°	23.5	22.4	22.1	21.5	22.4
85°	11.0	10.7	10.9	10.6	10.2
87.5°	4.0	4.1	4.1	3.9	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)