

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: P589269

Luminaire Tested: **FMR-24-2-LD4-3HI-35-UNV-80-84-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P589269  
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-LD4-3HI-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: -

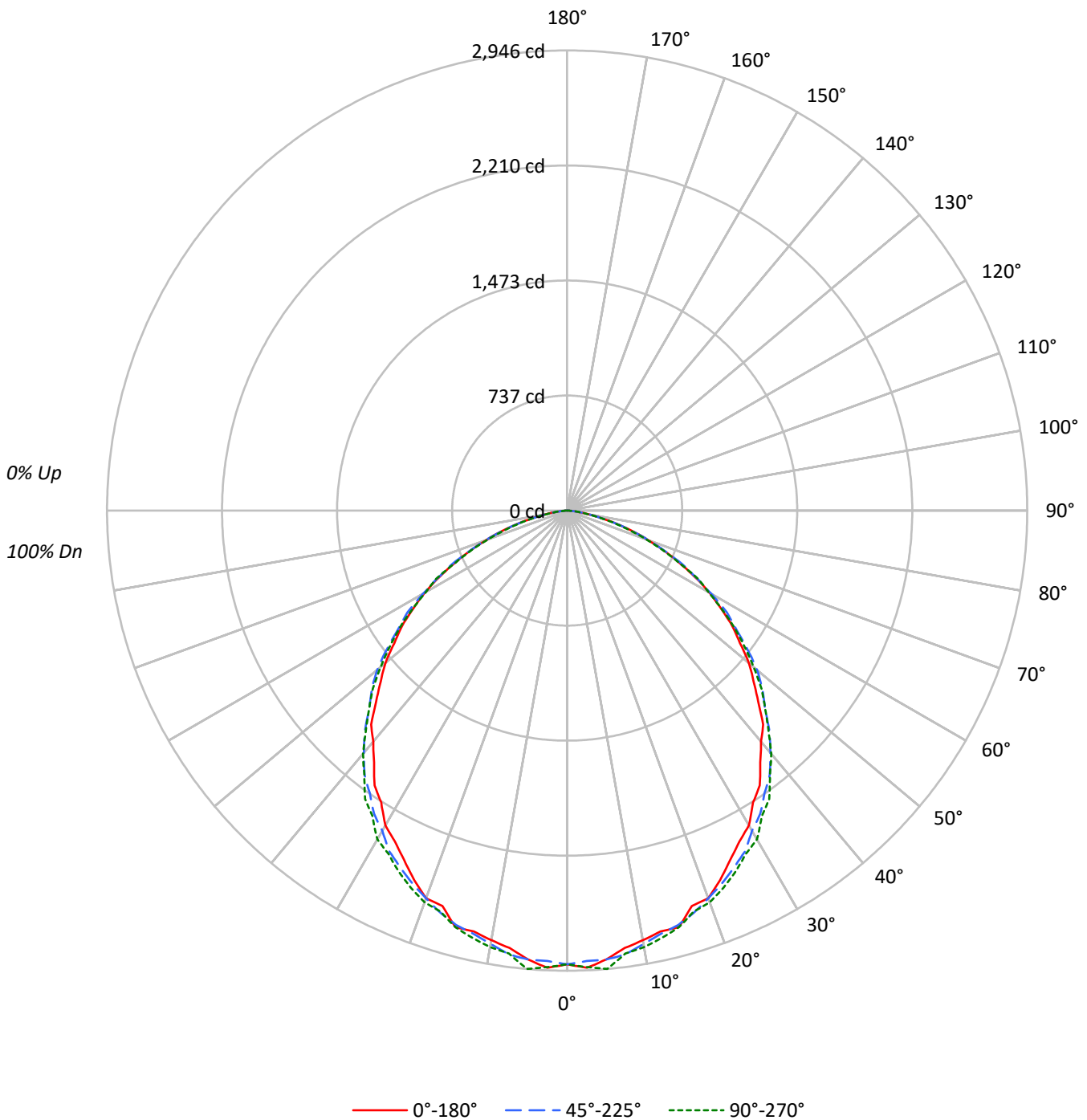
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7320.0 lumens  
Efficiency: N/A  
Efficacy: 113.0 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): 64.8  
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°	7816	7816	7816
5°	7790	7793	7957
10°	7632	7699	7753
15°	7692	7650	7693
20°	7562	7562	7643
25°	7330	7490	7573
30°	7229	7356	7552
35°	7059	7244	7406
40°	6784	7111	7143
45°	6579	6813	6823
50°	6363	6650	6523
55°	6063	6181	6137
60°	5669	5726	5623
65°	5055	5184	5019
70°	4338	4352	4231
75°	3435	3427	3295
80°	2301	2238	2151
85°	1250	1238	1158



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	273.2	3.7
10°-20°	774.3	10.6
20°-30°	1160.0	15.8
30°-40°	1374.9	18.8
40°-50°	1377.4	18.8
50°-60°	1169.2	16.0
60°-70°	788.3	10.8
70°-80°	346.4	4.7
80°-90°	56.3	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°	2207.5	30.2
0°-40°	3582.4	48.9
0°-60°	6129.1	83.7
0°-90°	7320.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7320.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2904	2904	2904	2904	2904	
5°	2884	2877	2885	2876	2946	272
15°	2761	2729	2746	2760	2762	769
25°	2469	2482	2523	2556	2550	1141
35°	2149	2155	2205	2256	2254	1334
45°	1729	1761	1790	1836	1793	1337
55°	1292	1284	1317	1308	1308	1150
65°	794	783	814	783	788	790
75°	330	324	330	306	317	354
85°	40	39	40	39	38	59
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2904.4	2904.4	2904.4	2904.4	2904.4
2.5°	2929.5	2907.4	2886.8	2910.8	2925.4
5°	2883.8	2877.0	2884.9	2876.3	2945.6
7.5°	2824.5	2850.4	2865.4	2856.0	2860.1
10°	2793.0	2784.0	2817.4	2840.6	2837.3
12.5°	2759.3	2772.8	2774.6	2799.8	2802.0
15°	2761.1	2729.3	2746.1	2760.4	2761.5
17.5°	2653.9	2688.4	2700.0	2732.6	2692.1
20°	2640.8	2615.6	2640.8	2674.1	2668.9
22.5°	2560.1	2532.0	2586.0	2615.6	2613.8
25°	2468.6	2482.1	2522.6	2555.6	2550.4
27.5°	2388.4	2404.1	2461.9	2507.3	2478.0
30°	2326.5	2318.6	2367.4	2407.9	2430.4
32.5°	2215.9	2244.4	2301.4	2341.5	2320.1
35°	2148.8	2155.1	2205.0	2256.0	2254.5
37.5°	2031.4	2061.0	2131.1	2145.4	2132.3
40°	1931.3	1960.9	2024.3	2039.6	2033.3
42.5°	1857.4	1862.6	1917.0	1934.6	1906.5
45°	1728.8	1761.0	1790.3	1836.4	1792.9
47.5°	1619.3	1634.3	1697.3	1709.6	1686.8
50°	1519.9	1525.1	1588.5	1573.1	1558.1
52.5°	1395.0	1417.1	1452.8	1449.8	1432.1
55°	1292.3	1283.6	1317.4	1308.4	1308.0
57.5°	1168.9	1183.9	1211.6	1197.4	1174.5
60°	1053.4	1053.8	1063.9	1047.8	1044.8
62.5°	924.8	929.3	931.5	911.6	943.9
65°	793.9	783.4	814.1	783.0	788.3
67.5°	673.5	678.8	675.8	656.3	663.8
70°	551.3	558.0	553.1	531.0	537.8
72.5°	439.5	431.3	436.5	408.8	421.5
75°	330.4	323.6	329.6	306.4	316.9
77.5°	225.0	230.3	226.5	214.1	221.3
80°	148.5	144.4	144.4	137.3	138.8
82.5°	86.6	82.5	81.4	79.1	82.5
85°	40.5	39.4	40.1	39.0	37.5
87.5°	14.6	15.0	15.0	14.3	13.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)