

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: P589558

Luminaire Tested: **FMR-24-2-LD4-4HI-35-UNV-80-85-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P589558  
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-LD4-4HI-35-UNV-80-85-EDD  
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

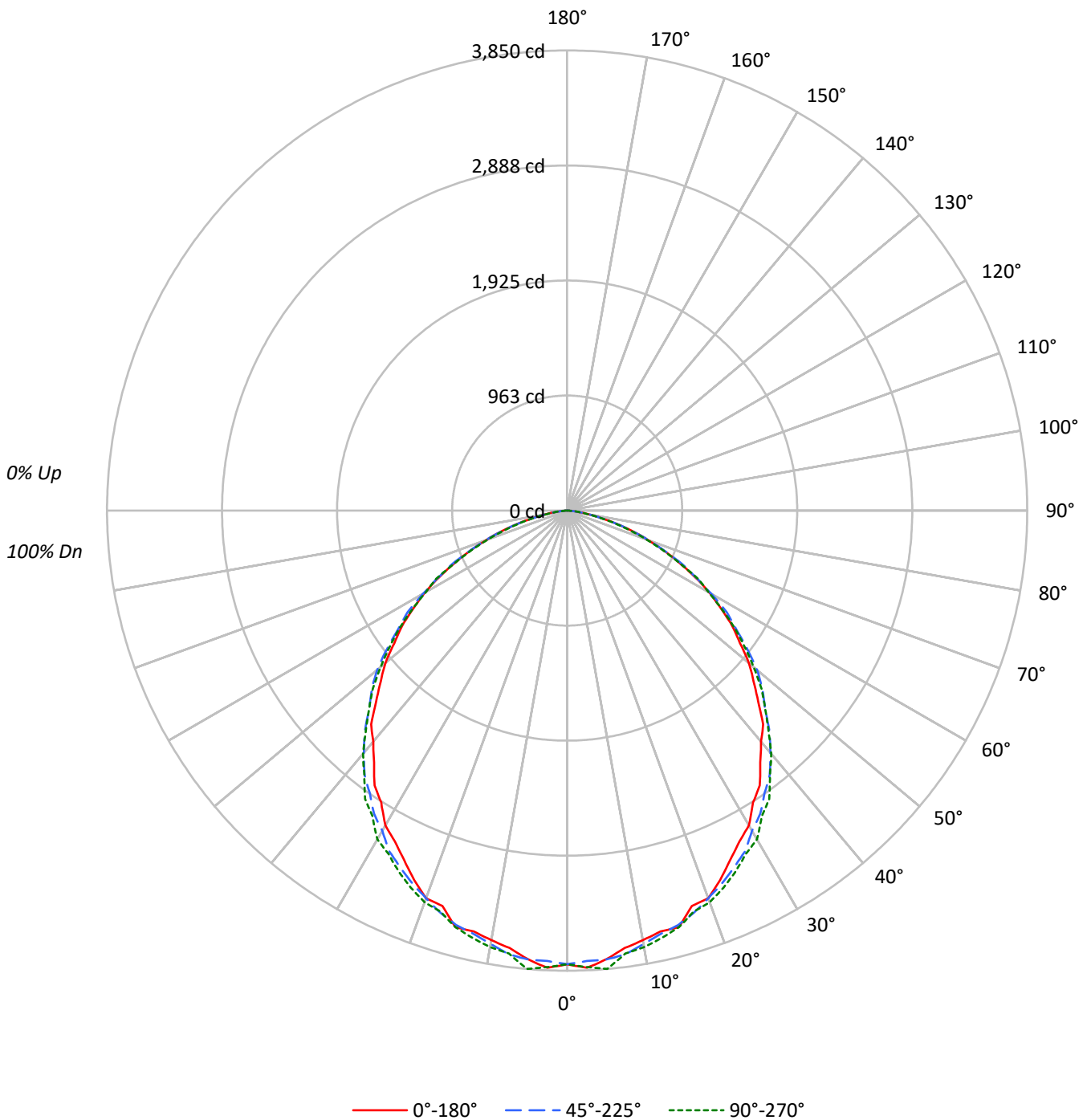
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9566.0 lumens  
Efficiency: N/A  
Efficacy: 110.7 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): 86.4  
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°	10214	10214	10214
5°	10180	10184	10398
10°	9974	10061	10132
15°	10052	9998	10054
20°	9883	9883	9988
25°	9579	9788	9896
30°	9447	9613	9869
35°	9225	9466	9679
40°	8866	9293	9334
45°	8598	8904	8917
50°	8315	8691	8524
55°	7923	8077	8019
60°	7409	7483	7348
65°	6606	6774	6559
70°	5668	5687	5530
75°	4488	4479	4305
80°	3008	2924	2810
85°	1633	1618	1513



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	357.0	3.7
10°-20°	1011.9	10.6
20°-30°	1516.0	15.8
30°-40°	1796.7	18.8
40°-50°	1800.1	18.8
50°-60°	1528.0	16.0
60°-70°	1030.1	10.8
70°-80°	452.7	4.7
80°-90°	73.6	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°	2884.9	30.2
0°-40°	4681.6	48.9
0°-60°	8009.6	83.7
0°-90°	9566.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9566.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3796	3796	3796	3796	3796	
5°	3769	3760	3770	3759	3850	355
15°	3608	3567	3589	3607	3609	1005
25°	3226	3244	3297	3340	3333	1491
35°	2808	2816	2882	2948	2946	1743
45°	2259	2301	2340	2400	2343	1748
55°	1689	1678	1722	1710	1709	1502
65°	1038	1024	1064	1023	1030	1032
75°	432	423	431	400	414	463
85°	53	52	52	51	49	77
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3795.5	3795.5	3795.5	3795.5	3795.5
2.5°	3828.4	3799.5	3772.5	3803.9	3823.0
5°	3768.6	3759.8	3770.1	3758.8	3849.5
7.5°	3691.2	3725.0	3744.6	3732.3	3737.7
10°	3650.0	3638.2	3681.9	3712.2	3707.8
12.5°	3605.9	3623.5	3626.0	3658.8	3661.8
15°	3608.3	3566.7	3588.7	3607.4	3608.8
17.5°	3468.2	3513.3	3528.5	3571.1	3518.2
20°	3451.0	3418.2	3451.0	3494.6	3487.8
22.5°	3345.7	3308.9	3379.5	3418.2	3415.7
25°	3226.1	3243.7	3296.7	3339.8	3332.9
27.5°	3121.2	3141.8	3217.3	3276.6	3238.3
30°	3040.4	3030.1	3093.8	3146.7	3176.1
32.5°	2895.8	2933.0	3007.5	3060.0	3032.0
35°	2808.1	2816.4	2881.6	2948.2	2946.3
37.5°	2654.7	2693.4	2785.0	2803.7	2786.5
40°	2523.8	2562.5	2645.4	2665.5	2657.1
42.5°	2427.3	2434.1	2505.2	2528.2	2491.5
45°	2259.2	2301.3	2339.6	2399.8	2343.0
47.5°	2116.1	2135.7	2218.0	2234.2	2204.3
50°	1986.2	1993.1	2075.9	2055.8	2036.2
52.5°	1823.0	1852.0	1898.5	1894.6	1871.6
55°	1688.8	1677.5	1721.6	1709.8	1709.3
57.5°	1527.5	1547.1	1583.4	1564.8	1534.9
60°	1376.6	1377.1	1390.3	1369.2	1365.3
62.5°	1208.5	1214.4	1217.3	1191.3	1233.5
65°	1037.5	1023.7	1063.9	1023.3	1030.1
67.5°	880.2	887.0	883.1	857.6	867.4
70°	720.4	729.2	722.8	693.9	702.8
72.5°	574.4	563.6	570.4	534.2	550.8
75°	431.7	422.9	430.8	400.4	414.1
77.5°	294.0	300.9	296.0	279.8	289.1
80°	194.1	188.7	188.7	179.4	181.3
82.5°	113.2	107.8	106.3	103.4	107.8
85°	52.9	51.5	52.4	51.0	49.0
87.5°	19.1	19.6	19.6	18.6	17.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)