

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: P589275

Luminaire Tested: **FMR-24-2-LD4-3HI-35-UNV-80-96-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P589275  
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-80-96-EDD  
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

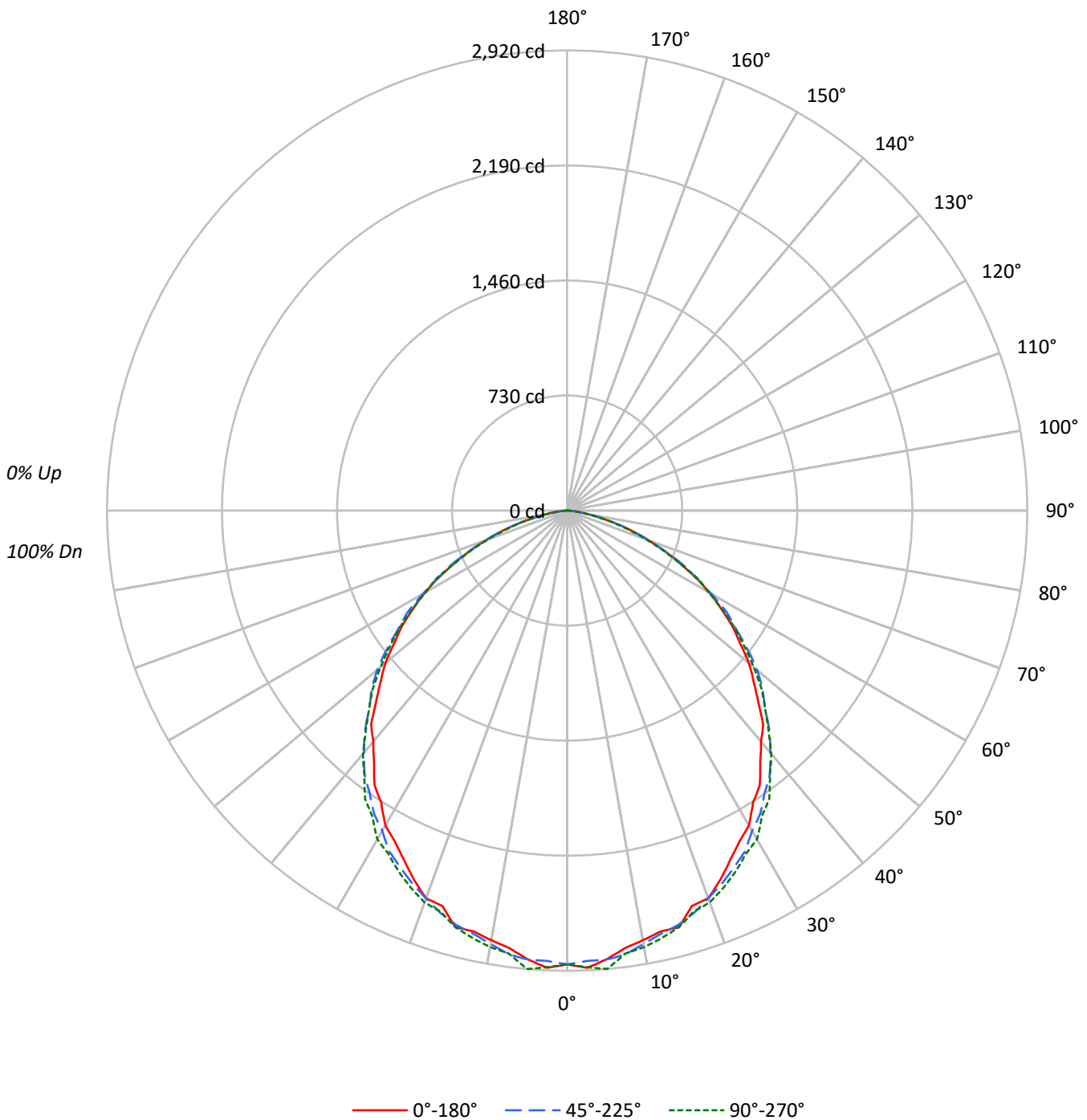
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7256.0 lumens  
Efficiency: N/A  
Efficacy: 112.0 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 (A<sub>in</sub>): 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°	7747	7747	7747
5°	7722	7725	7887
10°	7565	7631	7685
15°	7625	7584	7626
20°	7496	7496	7576
25°	7266	7425	7506
30°	7166	7292	7486
35°	6997	7180	7341
40°	6725	7049	7080
45°	6521	6753	6763
50°	6307	6592	6466
55°	6010	6127	6083
60°	5620	5676	5574
65°	5011	5138	4975
70°	4299	4314	4194
75°	3405	3397	3266
80°	2281	2218	2131
85°	1238	1229	1149



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	270.8	3.7
10°-20°	767.5	10.6
20°-30°	1149.9	15.8
30°-40°	1362.9	18.8
40°-50°	1365.4	18.8
50°-60°	1159.0	16.0
60°-70°	781.4	10.8
70°-80°	343.3	4.7
80°-90°	55.8	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°	2188.2	30.2
0°-40°	3551.1	48.9
0°-60°	6075.5	83.7
0°-90°	7256.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7256.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2879	2879	2879	2879	2879	
5°	2859	2852	2860	2851	2920	269
15°	2737	2705	2722	2736	2737	763
25°	2447	2460	2501	2533	2528	1131
35°	2130	2136	2186	2236	2235	1322
45°	1714	1746	1775	1820	1777	1326
55°	1281	1272	1306	1297	1297	1139
65°	787	776	807	776	781	783
75°	328	321	327	304	314	351
85°	40	39	40	39	37	58
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2879.0	2879.0	2879.0	2879.0	2879.0
2.5°	2903.9	2882.0	2861.5	2885.3	2899.8
5°	2858.6	2851.9	2859.7	2851.1	2919.9
7.5°	2799.8	2825.5	2840.3	2831.0	2835.1
10°	2768.6	2759.7	2792.8	2815.8	2812.5
12.5°	2735.1	2748.5	2750.4	2775.3	2777.5
15°	2737.0	2705.4	2722.1	2736.3	2737.4
17.5°	2630.7	2664.9	2676.4	2708.7	2668.6
20°	2617.7	2592.8	2617.7	2650.8	2645.6
22.5°	2537.8	2509.9	2563.4	2592.8	2590.9
25°	2447.1	2460.4	2500.6	2533.3	2528.1
27.5°	2367.5	2383.1	2440.4	2485.3	2456.3
30°	2306.2	2298.4	2346.7	2386.8	2409.1
32.5°	2196.5	2224.8	2281.3	2321.0	2299.9
35°	2130.0	2136.3	2185.7	2236.3	2234.8
37.5°	2013.6	2043.0	2112.5	2126.6	2113.6
40°	1914.4	1943.7	2006.6	2021.8	2015.5
42.5°	1841.1	1846.3	1900.2	1917.7	1889.8
45°	1713.6	1745.6	1774.6	1820.3	1777.2
47.5°	1605.1	1620.0	1682.4	1694.7	1672.0
50°	1506.6	1511.8	1574.6	1559.4	1544.5
52.5°	1382.8	1404.7	1440.1	1437.1	1419.6
55°	1281.0	1272.4	1305.9	1296.9	1296.6
57.5°	1158.7	1173.5	1201.0	1186.9	1164.2
60°	1044.2	1044.5	1054.6	1038.6	1035.6
62.5°	916.7	921.1	923.4	903.7	935.6
65°	786.9	776.5	807.0	776.2	781.4
67.5°	667.6	672.8	669.8	650.5	658.0
70°	546.4	553.1	548.3	526.4	533.1
72.5°	435.7	427.5	432.7	405.2	417.8
75°	327.5	320.8	326.7	303.7	314.1
77.5°	223.0	228.2	224.5	212.3	219.3
80°	147.2	143.1	143.1	136.1	137.5
82.5°	85.9	81.8	80.7	78.4	81.8
85°	40.1	39.0	39.8	38.7	37.2
87.5°	14.5	14.9	14.9	14.1	13.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)