

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: P589765

Luminaire Tested: **FMR-24-2-LD4-4STD-35-UNV-82-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589765
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-LD4-4STD-35-UNV-82-84-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

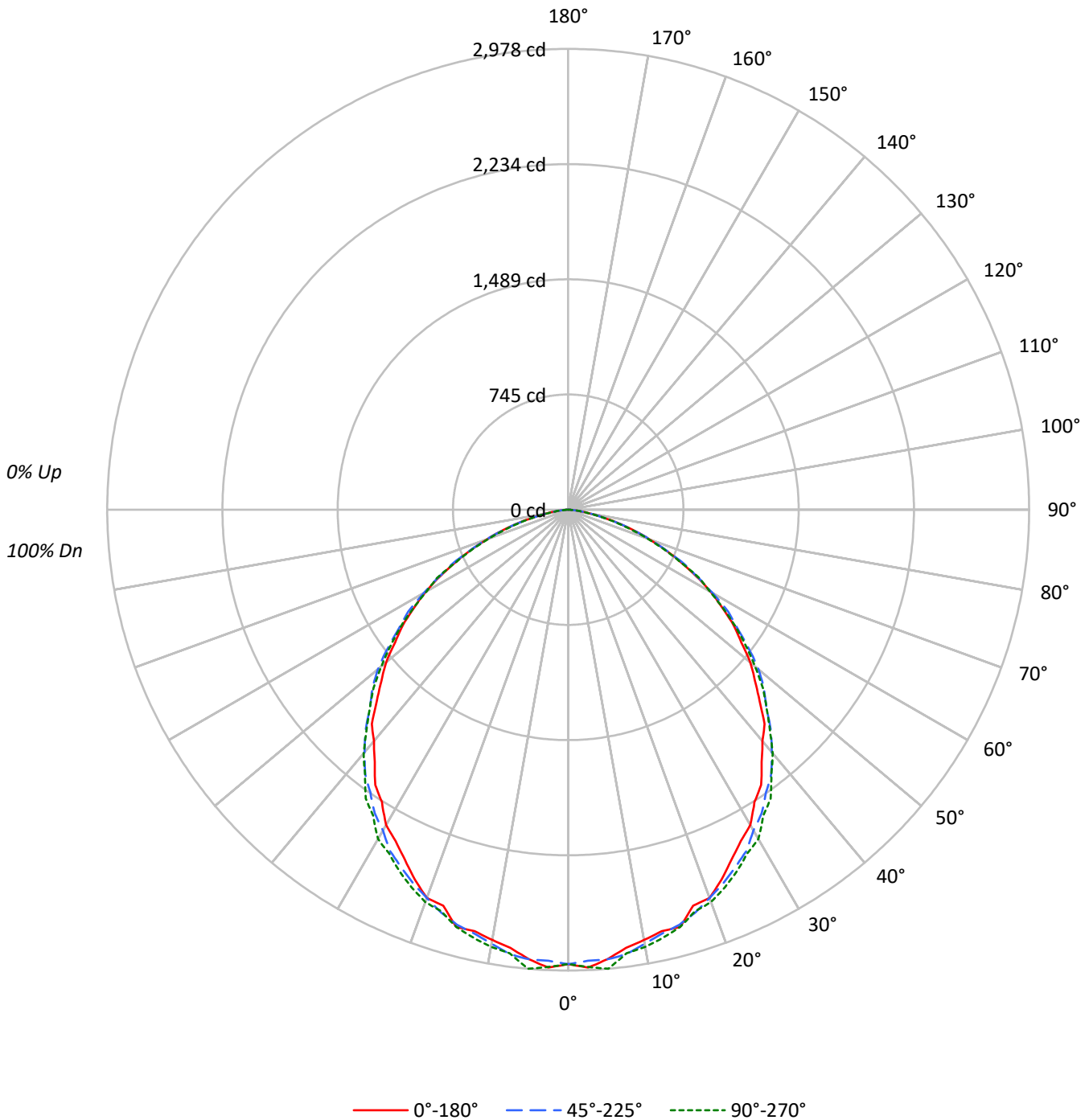
Lumens per Lamp: N/A
Luminaire Lumens: 7400.0 lumens
Efficiency: N/A
Efficacy: 111.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	7901	7901	7901
5°	7875	7878	8044
10°	7715	7783	7838
15°	7776	7734	7777
20°	7645	7645	7726
25°	7410	7572	7655
30°	7308	7437	7635
35°	7136	7323	7487
40°	6858	7189	7221
45°	6651	6887	6898
50°	6432	6723	6594
55°	6129	6248	6204
60°	5731	5788	5684
65°	5110	5240	5074
70°	4385	4400	4277
75°	3473	3464	3330
80°	2326	2263	2174
85°	1263	1254	1170



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	276.2	3.7
10°-20°	782.8	10.6
20°-30°	1172.7	15.8
30°-40°	1389.9	18.8
40°-50°	1392.5	18.8
50°-60°	1182.0	16.0
60°-70°	796.9	10.8
70°-80°	350.2	4.7
80°-90°	56.9	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°	2231.7	30.2
0°-40°	3621.6	48.9
0°-60°	6196.1	83.7
0°-90°	7400.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7400.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2936	2936	2936	2936	2936	
5°	2915	2908	2916	2908	2978	275
15°	2791	2759	2776	2791	2792	778
25°	2496	2509	2550	2584	2578	1154
35°	2172	2179	2229	2281	2279	1349
45°	1748	1780	1810	1856	1812	1352
55°	1306	1298	1332	1323	1322	1162
65°	803	792	823	792	797	798
75°	334	327	333	310	320	358
85°	41	40	41	39	38	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2936.1	2936.1	2936.1	2936.1	2936.1
2.5°	2961.5	2939.2	2918.3	2942.6	2957.4
5°	2915.3	2908.5	2916.4	2907.7	2977.8
7.5°	2855.4	2881.5	2896.7	2887.2	2891.4
10°	2823.5	2814.4	2848.2	2871.7	2868.3
12.5°	2789.4	2803.1	2805.0	2830.4	2832.6
15°	2791.3	2759.1	2776.2	2790.6	2791.7
17.5°	2682.9	2717.8	2729.5	2762.5	2721.6
20°	2669.6	2644.2	2669.6	2703.4	2698.1
22.5°	2588.1	2559.7	2614.3	2644.2	2642.3
25°	2495.6	2509.3	2550.2	2583.6	2578.3
27.5°	2414.5	2430.4	2488.8	2534.7	2505.1
30°	2351.9	2344.0	2393.3	2434.2	2457.0
32.5°	2240.1	2268.9	2326.5	2367.1	2345.5
35°	2172.2	2178.7	2229.1	2280.7	2279.2
37.5°	2053.6	2083.5	2154.4	2168.8	2155.6
40°	1952.4	1982.3	2046.4	2061.9	2055.5
42.5°	1877.7	1883.0	1938.0	1955.8	1927.3
45°	1747.7	1780.3	1809.8	1856.5	1812.5
47.5°	1637.0	1652.1	1715.8	1728.3	1705.2
50°	1536.5	1541.8	1605.9	1590.3	1575.2
52.5°	1410.3	1432.6	1468.6	1465.6	1447.8
55°	1306.4	1297.7	1331.8	1322.7	1322.3
57.5°	1181.7	1196.8	1224.9	1210.5	1187.3
60°	1064.9	1065.3	1075.5	1059.2	1056.2
62.5°	934.9	939.4	941.7	921.6	954.2
65°	802.6	791.9	823.0	791.6	796.9
67.5°	680.9	686.2	683.1	663.4	671.0
70°	557.3	564.1	559.2	536.8	543.6
72.5°	444.3	436.0	441.3	413.2	426.1
75°	334.0	327.2	333.2	309.7	320.3
77.5°	227.5	232.8	229.0	216.5	223.7
80°	150.1	146.0	146.0	138.8	140.3
82.5°	87.6	83.4	82.3	80.0	83.4
85°	40.9	39.8	40.6	39.4	37.9
87.5°	14.8	15.2	15.2	14.4	13.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)