

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: P589760

Luminaire Tested: **FMR-24-2-LD4-4STD-35-UNV-81-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589760
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-81-87-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

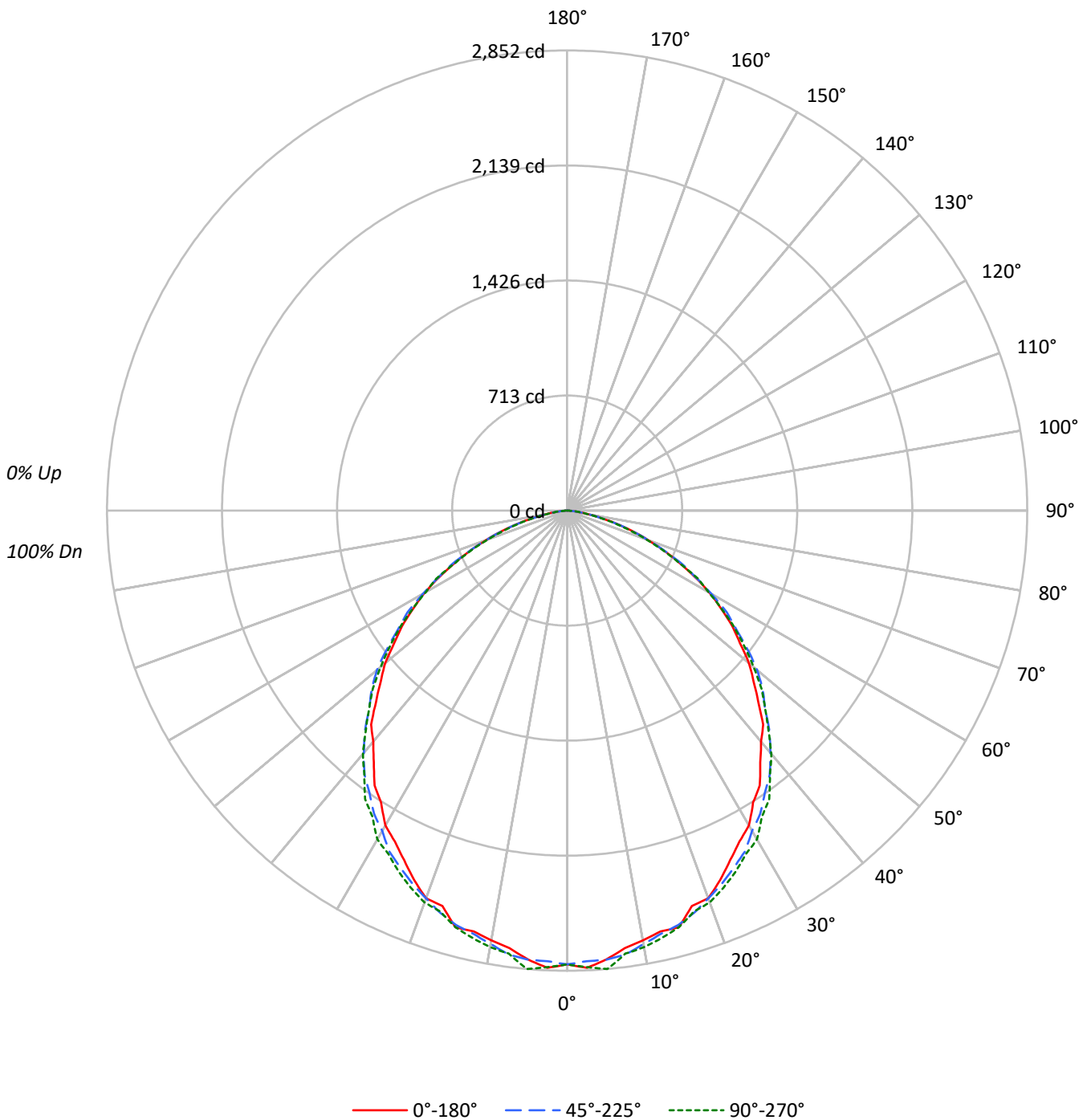
Lumens per Lamp: N/A
Luminaire Lumens: 7088.0 lumens
Efficiency: N/A
Efficacy: 106.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	7568	7568	7568
5°	7543	7546	7705
10°	7390	7455	7507
15°	7448	7408	7450
20°	7323	7323	7401
25°	7097	7253	7333
30°	7000	7123	7313
35°	6835	7014	7172
40°	6569	6885	6916
45°	6371	6597	6607
50°	6161	6440	6316
55°	5871	5985	5942
60°	5490	5544	5444
65°	4895	5019	4860
70°	4200	4214	4097
75°	3326	3319	3190
80°	2228	2166	2083
85°	1210	1201	1121



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.5	3.7
10°-20°	749.7	10.6
20°-30°	1123.3	15.8
30°-40°	1331.3	18.8
40°-50°	1333.8	18.8
50°-60°	1132.1	16.0
60°-70°	763.3	10.8
70°-80°	335.4	4.7
80°-90°	54.5	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°	2137.6	30.2
0°-40°	3468.9	48.9
0°-60°	5934.8	83.7
0°-90°	7088.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7088.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2812	2812	2812	2812	2812	
5°	2792	2786	2794	2785	2852	263
15°	2674	2643	2659	2673	2674	745
25°	2390	2404	2443	2475	2470	1105
35°	2081	2087	2135	2184	2183	1292
45°	1674	1705	1734	1778	1736	1295
55°	1251	1243	1276	1267	1267	1113
65°	769	759	788	758	763	765
75°	320	313	319	297	307	343
85°	39	38	39	38	36	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2812.3	2812.3	2812.3	2812.3	2812.3
2.5°	2836.7	2815.2	2795.3	2818.5	2832.7
5°	2792.4	2785.8	2793.5	2785.1	2852.3
7.5°	2735.0	2760.1	2774.6	2765.5	2769.5
10°	2704.5	2695.8	2728.1	2750.6	2747.3
12.5°	2671.8	2684.9	2686.7	2711.0	2713.2
15°	2673.6	2642.8	2659.1	2672.9	2674.0
17.5°	2569.8	2603.2	2614.4	2646.0	2606.8
20°	2557.1	2532.7	2557.1	2589.4	2584.3
22.5°	2479.0	2451.8	2504.1	2532.7	2530.9
25°	2390.4	2403.5	2442.7	2474.6	2469.6
27.5°	2312.7	2327.9	2383.9	2427.8	2399.5
30°	2252.8	2245.2	2292.4	2331.6	2353.4
32.5°	2145.7	2173.3	2228.4	2267.3	2246.6
35°	2080.7	2086.8	2135.1	2184.5	2183.1
37.5°	1967.0	1995.7	2063.6	2077.4	2064.7
40°	1870.1	1898.7	1960.1	1975.0	1968.8
42.5°	1798.5	1803.6	1856.3	1873.3	1846.1
45°	1674.0	1705.2	1733.5	1778.2	1736.1
47.5°	1567.9	1582.5	1643.5	1655.4	1633.3
50°	1471.7	1476.8	1538.2	1523.3	1508.8
52.5°	1350.8	1372.2	1406.7	1403.8	1386.7
55°	1251.3	1242.9	1275.6	1266.9	1266.6
57.5°	1131.8	1146.4	1173.2	1159.4	1137.3
60°	1020.0	1020.4	1030.2	1014.5	1011.6
62.5°	895.4	899.8	902.0	882.7	914.0
65°	768.7	758.6	788.3	758.2	763.3
67.5°	652.2	657.2	654.3	635.5	642.7
70°	533.8	540.3	535.6	514.2	520.7
72.5°	425.6	417.6	422.7	395.8	408.1
75°	319.9	313.4	319.2	296.7	306.8
77.5°	217.9	223.0	219.3	207.3	214.2
80°	143.8	139.8	139.8	132.9	134.4
82.5°	83.9	79.9	78.8	76.6	79.9
85°	39.2	38.1	38.9	37.8	36.3
87.5°	14.2	14.5	14.5	13.8	13.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)