

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: P589270

Luminaire Tested: **FMR-24-2-LD4-3HI-35-UNV-80-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589270
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-80-85-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

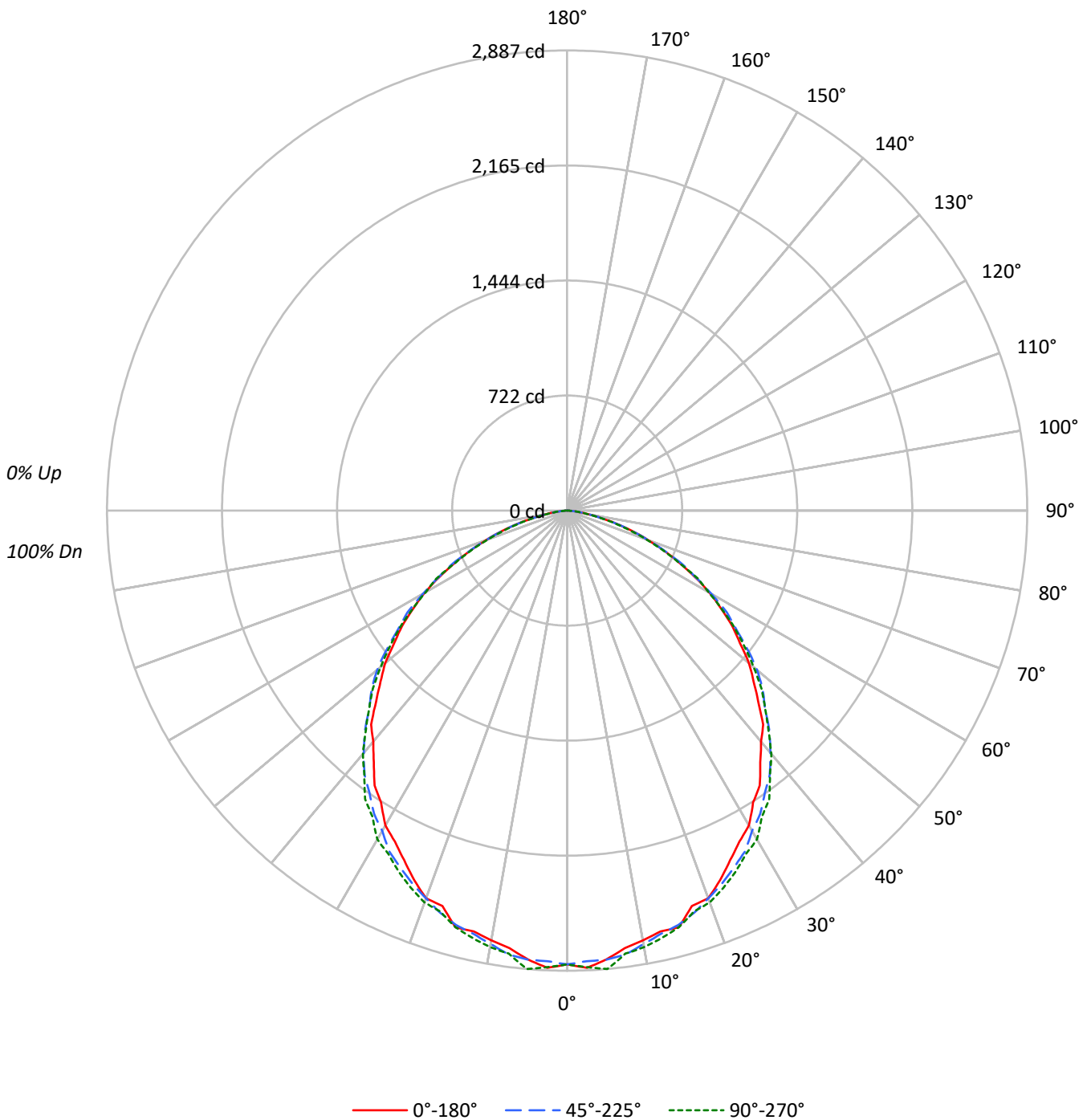
Lumens per Lamp: N/A
Luminaire Lumens: 7175.0 lumens
Efficiency: N/A
Efficacy: 110.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	7661	7661	7661
5°	7635	7638	7799
10°	7481	7546	7599
15°	7540	7499	7541
20°	7413	7413	7491
25°	7184	7342	7423
30°	7086	7210	7402
35°	6919	7100	7260
40°	6650	6970	7001
45°	6449	6678	6688
50°	6237	6518	6394
55°	5943	6058	6015
60°	5557	5612	5512
65°	4955	5081	4919
70°	4251	4266	4147
75°	3367	3359	3229
80°	2256	2193	2108
85°	1226	1213	1136



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	267.8	3.7
10°-20°	758.9	10.6
20°-30°	1137.1	15.8
30°-40°	1347.6	18.8
40°-50°	1350.1	18.8
50°-60°	1146.1	16.0
60°-70°	772.7	10.8
70°-80°	339.5	4.7
80°-90°	55.2	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°	2163.8	30.2
0°-40°	3511.4	48.9
0°-60°	6007.6	83.7
0°-90°	7175.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7175.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2847	2847	2847	2847	2847	
5°	2827	2820	2828	2819	2887	266
15°	2706	2675	2692	2706	2707	754
25°	2420	2433	2473	2505	2500	1119
35°	2106	2112	2161	2211	2210	1308
45°	1694	1726	1755	1800	1757	1311
55°	1267	1258	1291	1282	1282	1127
65°	778	768	798	768	773	774
75°	324	317	323	300	311	347
85°	40	39	39	38	37	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2846.9	2846.9	2846.9	2846.9	2846.9
2.5°	2871.5	2849.8	2829.6	2853.1	2867.4
5°	2826.6	2820.0	2827.7	2819.3	2887.3
7.5°	2768.6	2793.9	2808.6	2799.4	2803.5
10°	2737.7	2728.9	2761.6	2784.4	2781.1
12.5°	2704.6	2717.8	2719.7	2744.3	2746.5
15°	2706.4	2675.2	2691.7	2705.7	2706.8
17.5°	2601.3	2635.1	2646.5	2678.5	2638.8
20°	2588.5	2563.8	2588.5	2621.2	2616.0
22.5°	2509.4	2481.9	2534.8	2563.8	2562.0
25°	2419.7	2433.0	2472.7	2505.0	2499.9
27.5°	2341.1	2356.5	2413.1	2457.6	2428.9
30°	2280.4	2272.7	2320.5	2360.2	2382.2
32.5°	2172.0	2199.9	2255.8	2295.1	2274.2
35°	2106.2	2112.4	2161.3	2211.3	2209.9
37.5°	1991.1	2020.2	2088.9	2102.9	2090.0
40°	1893.0	1922.0	1984.2	1999.2	1993.0
42.5°	1820.6	1825.7	1879.0	1896.3	1868.7
45°	1694.5	1726.1	1754.8	1800.0	1757.4
47.5°	1587.2	1601.9	1663.6	1675.8	1653.3
50°	1489.8	1494.9	1557.0	1542.0	1527.3
52.5°	1367.4	1389.1	1424.0	1421.0	1403.8
55°	1266.7	1258.2	1291.3	1282.5	1282.1
57.5°	1145.7	1160.4	1187.6	1173.7	1151.2
60°	1032.5	1032.9	1042.8	1027.0	1024.1
62.5°	906.4	910.8	913.1	893.6	925.2
65°	778.2	767.9	798.0	767.5	772.6
67.5°	660.2	665.3	662.4	643.3	650.6
70°	540.3	546.9	542.2	520.5	527.1
72.5°	430.8	422.7	427.9	400.7	413.2
75°	323.8	317.2	323.1	300.3	310.6
77.5°	220.5	225.7	222.0	209.9	216.9
80°	145.6	141.5	141.5	134.5	136.0
82.5°	84.9	80.9	79.8	77.6	80.9
85°	39.7	38.6	39.3	38.2	36.8
87.5°	14.3	14.7	14.7	14.0	13.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)