

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: P589813

Luminaire Tested: **FMR-24-2-LD4-4STD-50-UNV-80-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589813
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-50-UNV-80-84-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

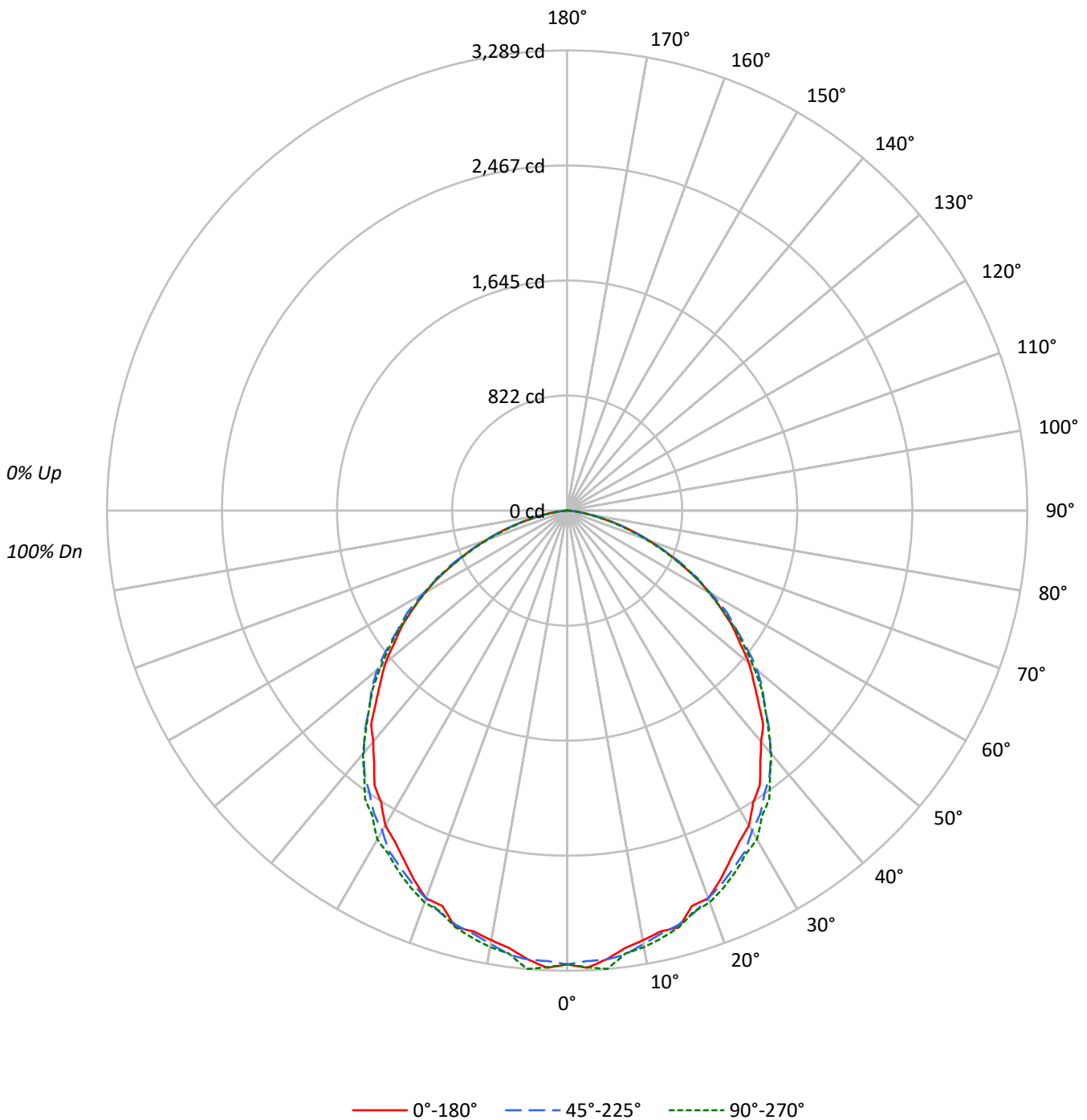
Lumens per Lamp: N/A
Luminaire Lumens: 8173.0 lumens
Efficiency: N/A
Efficacy: 122.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	8726	8726	8726
5°	8698	8701	8884
10°	8521	8596	8656
15°	8589	8542	8590
20°	8444	8444	8533
25°	8184	8363	8455
30°	8071	8213	8432
35°	7882	8088	8269
40°	7575	7939	7975
45°	7346	7607	7618
50°	7104	7425	7283
55°	6769	6901	6852
60°	6330	6393	6278
65°	5644	5788	5604
70°	4843	4859	4724
75°	3836	3826	3679
80°	2569	2498	2400
85°	1396	1383	1294



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	305.0	3.7
10°-20°	864.5	10.6
20°-30°	1295.2	15.8
30°-40°	1535.1	18.8
40°-50°	1537.9	18.8
50°-60°	1305.5	16.0
60°-70°	880.1	10.8
70°-80°	386.7	4.7
80°-90°	62.8	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°	2464.8	30.2
0°-40°	3999.9	48.9
0°-60°	6843.3	83.7
0°-90°	8173.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8173.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3243	3243	3243	3243	3243	
5°	3220	3212	3221	3211	3289	304
15°	3083	3047	3066	3082	3083	859
25°	2756	2771	2817	2853	2848	1274
35°	2399	2406	2462	2519	2517	1490
45°	1930	1966	1999	2050	2002	1493
55°	1443	1433	1471	1461	1460	1283
65°	886	875	909	874	880	882
75°	369	361	368	342	354	395
85°	45	44	45	44	42	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3242.8	3242.8	3242.8	3242.8	3242.8
2.5°	3270.9	3246.2	3223.2	3250.0	3266.3
5°	3219.8	3212.3	3221.1	3211.4	3288.9
7.5°	3153.7	3182.5	3199.3	3188.8	3193.4
10°	3118.5	3108.4	3145.7	3171.7	3167.9
12.5°	3080.8	3095.9	3098.0	3126.0	3128.5
15°	3082.9	3047.3	3066.1	3082.1	3083.3
17.5°	2963.1	3001.7	3014.6	3051.1	3005.9
20°	2948.5	2920.4	2948.5	2985.8	2979.9
22.5°	2858.5	2827.1	2887.4	2920.4	2918.3
25°	2756.3	2771.4	2816.6	2853.4	2847.6
27.5°	2666.7	2684.3	2748.8	2799.4	2766.8
30°	2597.6	2588.8	2643.3	2688.5	2713.6
32.5°	2474.1	2505.9	2569.6	2614.4	2590.5
35°	2399.2	2406.3	2462.0	2518.9	2517.2
37.5°	2268.1	2301.2	2379.5	2395.4	2380.7
40°	2156.3	2189.4	2260.1	2277.3	2270.2
42.5°	2073.8	2079.7	2140.4	2160.1	2128.7
45°	1930.2	1966.2	1998.9	2050.4	2001.8
47.5°	1808.0	1824.7	1895.0	1908.9	1883.3
50°	1697.0	1702.9	1773.6	1756.5	1739.7
52.5°	1557.6	1582.3	1622.0	1618.7	1599.0
55°	1442.8	1433.2	1470.9	1460.8	1460.4
57.5°	1305.1	1321.8	1352.8	1336.9	1311.4
60°	1176.1	1176.6	1187.9	1169.9	1166.5
62.5°	1032.5	1037.5	1040.1	1017.9	1053.9
65°	886.4	874.7	909.0	874.2	880.1
67.5°	752.0	757.8	754.5	732.7	741.1
70°	615.5	623.0	617.6	592.9	600.4
72.5°	490.7	481.5	487.4	456.4	470.6
75°	368.9	361.3	368.0	342.1	353.8
77.5°	251.2	257.1	252.9	239.1	247.0
80°	165.8	161.2	161.2	153.2	154.9
82.5°	96.7	92.1	90.9	88.3	92.1
85°	45.2	44.0	44.8	43.5	41.9
87.5°	16.3	16.7	16.7	15.9	15.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)