

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: P589778

Luminaire Tested: **FMR-24-2-LD4-4STD-35-UNV-93-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589778
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-93-94-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

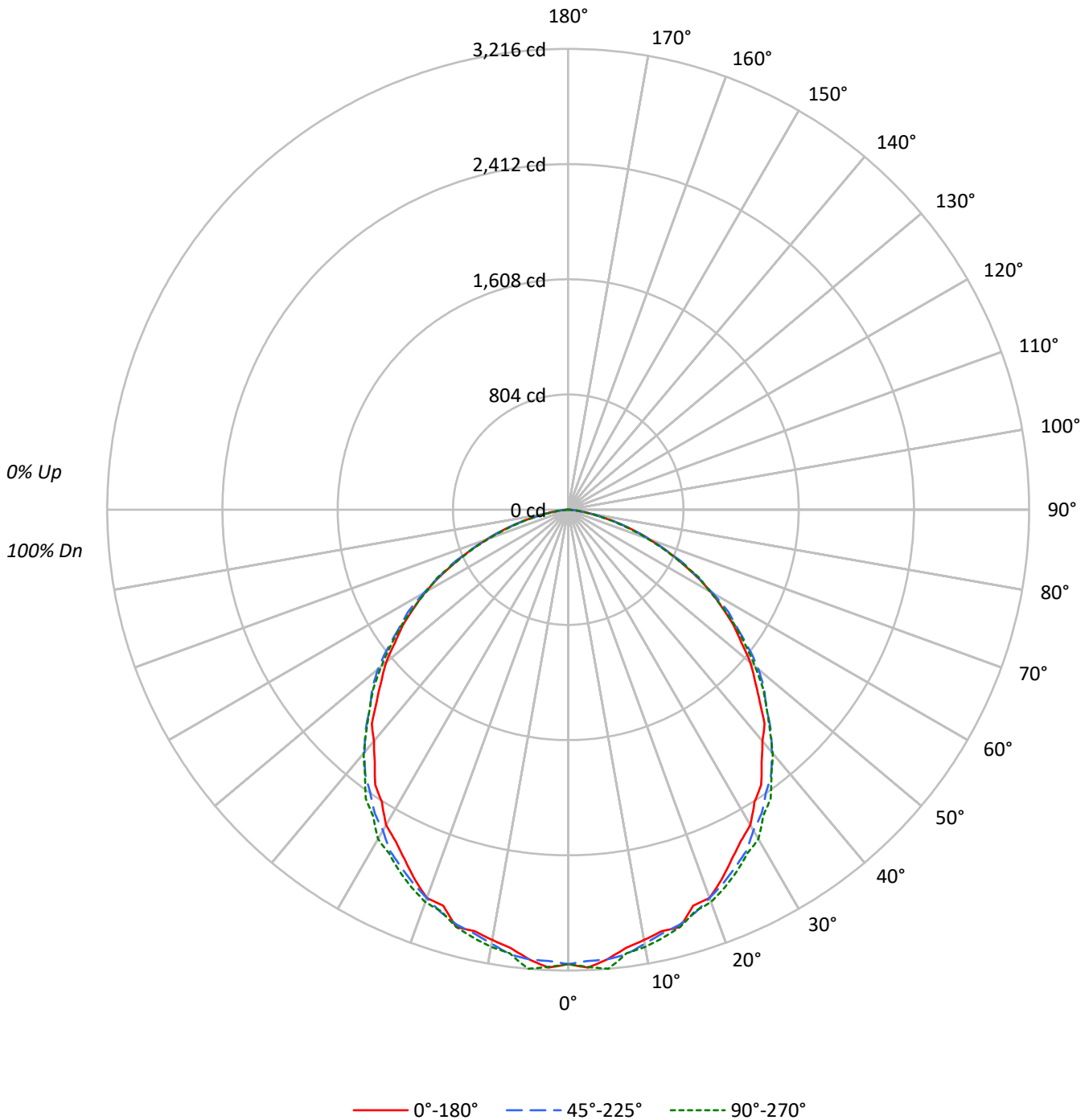
Lumens per Lamp: N/A
Luminaire Lumens: 7992.0 lumens
Efficiency: N/A
Efficacy: 120.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
Input Voltage (V): NR
Input Current (A_{in}): 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°	8533	8533	8533
5°	8505	8508	8688
10°	8332	8405	8464
15°	8398	8353	8400
20°	8257	8257	8344
25°	8003	8178	8268
30°	7893	8031	8245
35°	7707	7908	8086
40°	7407	7764	7798
45°	7183	7438	7449
50°	6947	7261	7122
55°	6619	6748	6700
60°	6190	6251	6139
65°	5519	5660	5480
70°	4736	4751	4619
75°	3750	3742	3597
80°	2512	2442	2348
85°	1365	1352	1263



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	298.3	3.7
10°-20°	845.4	10.6
20°-30°	1266.5	15.8
30°-40°	1501.1	18.8
40°-50°	1503.9	18.8
50°-60°	1276.5	16.0
60°-70°	860.7	10.8
70°-80°	378.2	4.7
80°-90°	61.5	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°	2410.2	30.2
0°-40°	3911.3	48.9
0°-60°	6691.7	83.7
0°-90°	7992.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7992.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3171	3171	3171	3171	3171	
5°	3148	3141	3150	3140	3216	297
15°	3015	2980	2998	3014	3015	840
25°	2695	2710	2754	2790	2784	1246
35°	2346	2353	2407	2463	2462	1457
45°	1888	1923	1955	2005	1958	1460
55°	1411	1402	1438	1428	1428	1255
65°	867	855	889	855	861	862
75°	361	353	360	334	346	387
85°	44	43	44	43	41	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3171.0	3171.0	3171.0	3171.0	3171.0
2.5°	3198.5	3174.3	3151.8	3178.0	3194.0
5°	3148.5	3141.1	3149.7	3140.3	3216.1
7.5°	3083.8	3112.1	3128.4	3118.2	3122.7
10°	3049.4	3039.6	3076.0	3101.4	3097.7
12.5°	3012.6	3027.3	3029.4	3056.8	3059.2
15°	3014.6	2979.8	2998.2	3013.8	3015.0
17.5°	2897.5	2935.2	2947.9	2983.5	2939.3
20°	2883.2	2855.8	2883.2	2919.6	2913.9
22.5°	2795.2	2764.5	2823.4	2855.8	2853.7
25°	2695.3	2710.0	2754.2	2790.3	2784.5
27.5°	2607.7	2624.8	2687.9	2737.4	2705.5
30°	2540.1	2531.5	2584.7	2628.9	2653.5
32.5°	2419.3	2450.4	2512.7	2556.5	2533.1
35°	2346.0	2353.0	2407.4	2463.1	2461.5
37.5°	2217.9	2250.2	2326.8	2342.3	2328.0
40°	2108.6	2140.9	2210.1	2226.9	2219.9
42.5°	2027.9	2033.6	2093.0	2112.2	2081.5
45°	1887.5	1922.7	1954.6	2005.0	1957.5
47.5°	1767.9	1784.3	1853.1	1866.6	1841.6
50°	1659.4	1665.1	1734.3	1717.6	1701.2
52.5°	1523.1	1547.2	1586.1	1582.9	1563.6
55°	1410.9	1401.5	1438.3	1428.5	1428.1
57.5°	1276.2	1292.6	1322.9	1307.3	1282.3
60°	1150.1	1150.5	1161.5	1143.9	1140.7
62.5°	1009.7	1014.6	1017.0	995.3	1030.5
65°	866.8	855.3	888.9	854.9	860.6
67.5°	735.3	741.1	737.8	716.5	724.7
70°	601.9	609.2	603.9	579.8	587.1
72.5°	479.9	470.8	476.6	446.3	460.2
75°	360.7	353.3	359.9	334.5	346.0
77.5°	245.7	251.4	247.3	233.8	241.6
80°	162.1	157.6	157.6	149.9	151.5
82.5°	94.6	90.1	88.8	86.4	90.1
85°	44.2	43.0	43.8	42.6	40.9
87.5°	16.0	16.4	16.4	15.6	14.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)