

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: P589360

Luminaire Tested: **FMR-24-2-LD4-3HI-50-UNV-93-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589360
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-50-UNV-93-87-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

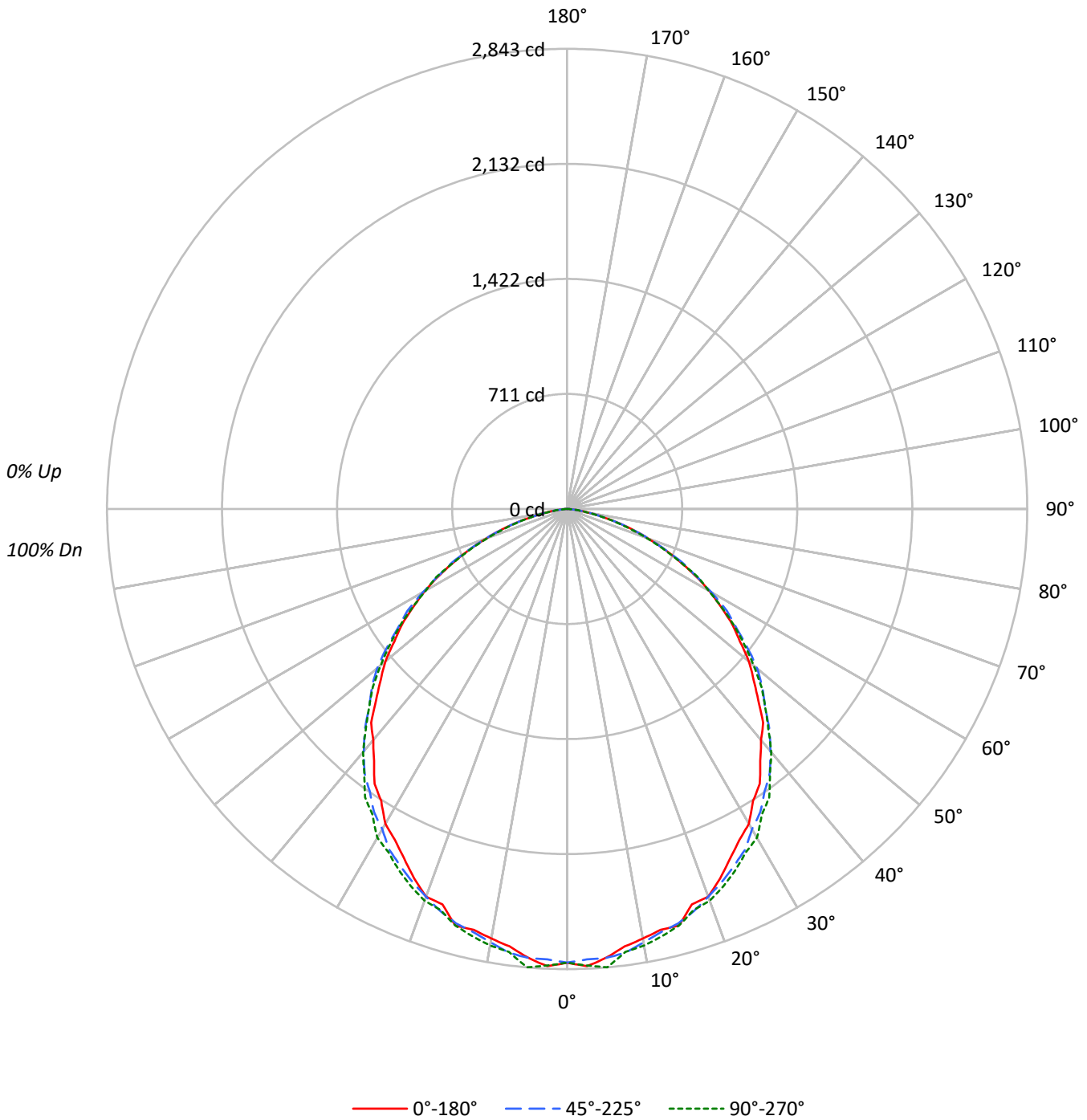
Lumens per Lamp: N/A
Luminaire Lumens: 7064.0 lumens
Efficiency: N/A
Efficacy: 109.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	7542	7542	7542
5°	7517	7520	7679
10°	7365	7429	7482
15°	7423	7383	7424
20°	7298	7298	7376
25°	7073	7228	7308
30°	6976	7099	7288
35°	6812	6990	7147
40°	6547	6862	6893
45°	6349	6575	6584
50°	6140	6418	6295
55°	5851	5964	5922
60°	5471	5526	5426
65°	4878	5003	4844
70°	4186	4200	4083
75°	3315	3307	3179
80°	2221	2159	2075
85°	1207	1195	1118



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	263.6	3.7
10°-20°	747.2	10.6
20°-30°	1119.5	15.8
30°-40°	1326.8	18.8
40°-50°	1329.3	18.8
50°-60°	1128.3	16.0
60°-70°	760.7	10.8
70°-80°	334.3	4.7
80°-90°	54.3	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°	2130.3	30.2
0°-40°	3457.1	48.9
0°-60°	5914.7	83.7
0°-90°	7064.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7064.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2803	2803	2803	2803	2803	
5°	2783	2776	2784	2776	2843	262
15°	2665	2634	2650	2664	2665	742
25°	2382	2395	2434	2466	2461	1101
35°	2074	2080	2128	2177	2176	1287
45°	1668	1699	1728	1772	1730	1291
55°	1247	1239	1271	1263	1262	1109
65°	766	756	786	756	761	762
75°	319	312	318	296	306	342
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°	2802.8	2802.8	2802.8	2802.8	2802.8
2.5°	2827.1	2805.7	2785.8	2809.0	2823.1
5°	2782.9	2776.4	2784.0	2775.7	2842.6
7.5°	2725.7	2750.7	2765.2	2756.1	2760.1
10°	2695.3	2686.7	2718.9	2741.3	2738.0
12.5°	2662.8	2675.8	2677.6	2701.9	2704.0
15°	2664.6	2633.8	2650.1	2663.9	2664.9
17.5°	2561.1	2594.4	2605.6	2637.1	2598.0
20°	2548.4	2524.2	2548.4	2580.6	2575.6
22.5°	2470.6	2443.5	2495.6	2524.2	2522.4
25°	2382.3	2395.3	2434.4	2466.3	2461.2
27.5°	2304.9	2320.1	2375.8	2419.6	2391.4
30°	2245.1	2237.5	2284.6	2323.7	2345.4
32.5°	2138.4	2165.9	2220.9	2259.6	2239.0
35°	2073.6	2079.8	2127.9	2177.1	2175.7
37.5°	1960.3	1988.9	2056.6	2070.4	2057.7
40°	1863.7	1892.3	1953.5	1968.3	1962.2
42.5°	1792.4	1797.5	1850.0	1867.0	1839.8
45°	1668.3	1699.4	1727.6	1772.2	1730.2
47.5°	1562.6	1577.1	1637.9	1649.8	1627.8
50°	1466.7	1471.8	1533.0	1518.1	1503.6
52.5°	1346.2	1367.6	1402.0	1399.1	1382.0
55°	1247.1	1238.7	1271.3	1262.6	1262.3
57.5°	1128.0	1142.5	1169.3	1155.5	1133.4
60°	1016.5	1016.9	1026.7	1011.1	1008.2
62.5°	892.4	896.8	898.9	879.7	910.9
65°	766.1	756.0	785.7	755.6	760.7
67.5°	649.9	655.0	652.1	633.3	640.5
70°	532.0	538.5	533.8	512.4	518.9
72.5°	424.1	416.2	421.2	394.5	406.8
75°	318.8	312.3	318.1	295.7	305.8
77.5°	217.1	222.2	218.6	206.6	213.5
80°	143.3	139.3	139.3	132.5	133.9
82.5°	83.6	79.6	78.5	76.4	79.6
85°	39.1	38.0	38.7	37.6	36.2
87.5°	14.1	14.5	14.5	13.8	13.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)