

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: P589294

Luminaire Tested: **FMR-24-2-LD4-3HI-35-UNV-93-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589294
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-93-85-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

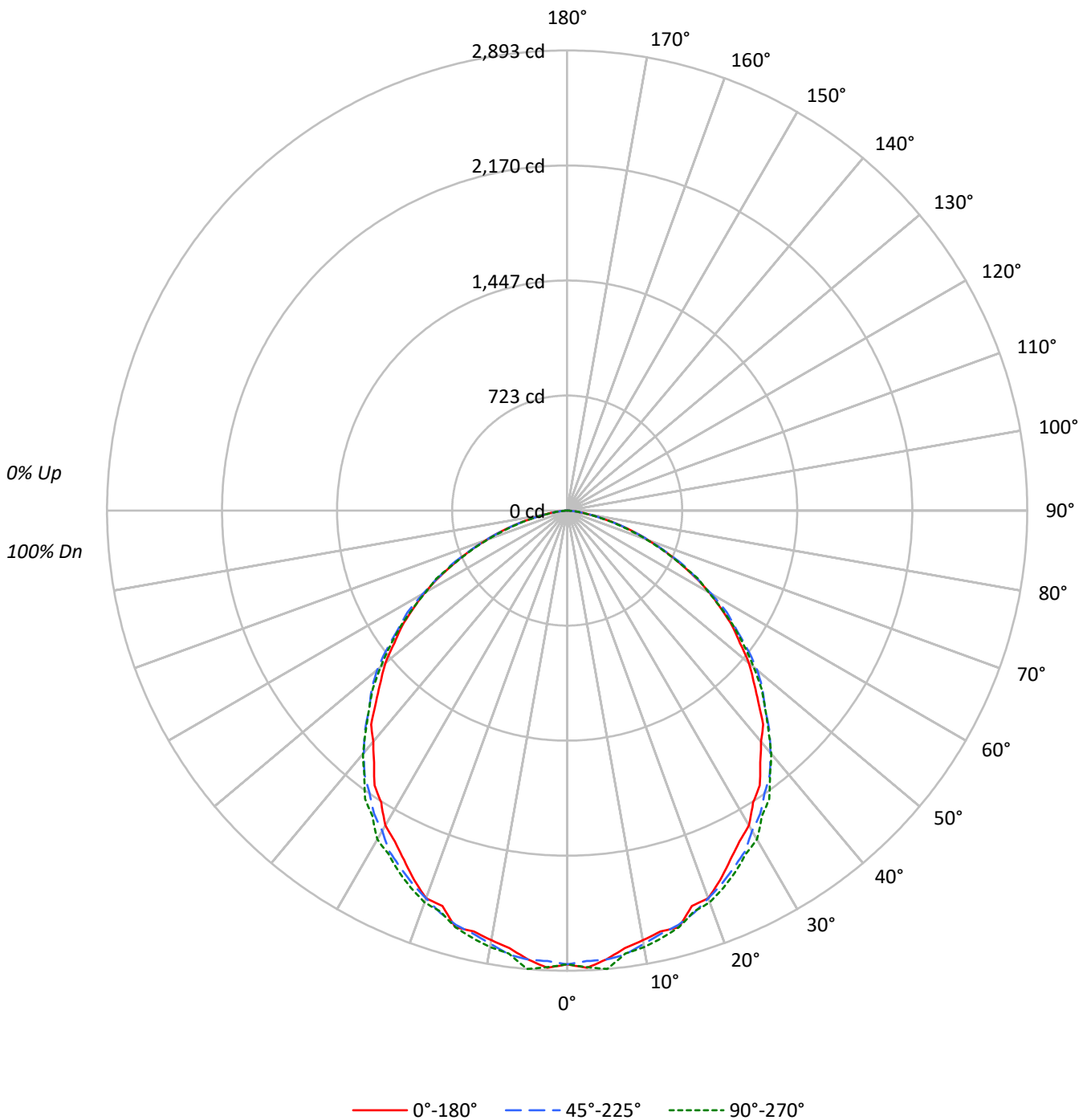
Lumens per Lamp: N/A
Luminaire Lumens: 7189.0 lumens
Efficiency: N/A
Efficacy: 110.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	7676	7676	7676
5°	7651	7653	7814
10°	7495	7561	7614
15°	7555	7514	7556
20°	7427	7427	7506
25°	7199	7356	7437
30°	7100	7224	7417
35°	6933	7114	7274
40°	6663	6983	7015
45°	6461	6691	6701
50°	6249	6531	6406
55°	5954	6070	6027
60°	5568	5623	5522
65°	4965	5091	4929
70°	4260	4274	4155
75°	3374	3366	3236
80°	2259	2197	2112
85°	1229	1216	1136



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	268.3	3.7
10°-20°	760.4	10.6
20°-30°	1139.3	15.8
30°-40°	1350.3	18.8
40°-50°	1352.8	18.8
50°-60°	1148.3	16.0
60°-70°	774.2	10.8
70°-80°	340.2	4.7
80°-90°	55.3	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°	2168.0	30.2
0°-40°	3518.3	48.9
0°-60°	6019.4	83.7
0°-90°	7189.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7189.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2852	2852	2852	2852	2852	
5°	2832	2826	2833	2825	2893	267
15°	2712	2680	2697	2711	2712	756
25°	2424	2438	2478	2510	2505	1121
35°	2110	2117	2166	2216	2214	1310
45°	1698	1730	1758	1804	1761	1313
55°	1269	1261	1294	1285	1285	1129
65°	780	769	800	769	774	775
75°	324	318	324	301	311	348
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°	2852.4	2852.4	2852.4	2852.4	2852.4
2.5°	2877.1	2855.4	2835.1	2858.7	2873.0
5°	2832.2	2825.5	2833.3	2824.8	2892.9
7.5°	2774.0	2799.4	2814.1	2804.9	2809.0
10°	2743.0	2734.2	2767.0	2789.8	2786.5
12.5°	2709.9	2723.1	2725.0	2749.7	2751.9
15°	2711.7	2680.4	2697.0	2711.0	2712.1
17.5°	2606.4	2640.3	2651.7	2683.7	2644.0
20°	2593.5	2568.8	2593.5	2626.3	2621.1
22.5°	2514.3	2486.7	2539.7	2568.8	2567.0
25°	2424.5	2437.7	2477.5	2509.9	2504.7
27.5°	2345.6	2361.1	2417.8	2462.4	2433.7
30°	2284.9	2277.1	2325.0	2364.8	2386.9
32.5°	2176.2	2204.2	2260.2	2299.6	2278.6
35°	2110.3	2116.6	2165.6	2215.6	2214.2
37.5°	1995.0	2024.1	2093.0	2107.0	2094.1
40°	1896.7	1925.8	1988.0	2003.1	1996.9
42.5°	1824.1	1829.3	1882.7	1900.0	1872.4
45°	1697.8	1729.5	1758.2	1803.5	1760.8
47.5°	1590.3	1605.0	1666.9	1679.0	1656.6
50°	1492.7	1497.8	1560.1	1545.0	1530.2
52.5°	1370.0	1391.8	1426.8	1423.8	1406.5
55°	1269.1	1260.7	1293.8	1285.0	1284.6
57.5°	1148.0	1162.7	1189.9	1176.0	1153.5
60°	1034.5	1034.9	1044.8	1029.0	1026.1
62.5°	908.2	912.6	914.8	895.3	927.0
65°	779.7	769.4	799.6	769.0	774.1
67.5°	661.5	666.6	663.7	644.5	651.9
70°	541.4	548.0	543.2	521.5	528.1
72.5°	431.6	423.5	428.7	401.4	414.0
75°	324.5	317.8	323.7	300.9	311.2
77.5°	221.0	226.1	222.4	210.3	217.3
80°	145.8	141.8	141.8	134.8	136.3
82.5°	85.1	81.0	79.9	77.7	81.0
85°	39.8	38.7	39.4	38.3	36.8
87.5°	14.4	14.7	14.7	14.0	13.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)