

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: P589334

Luminaire Tested: **FMR-24-2-LD4-3HI-50-UNV-80-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589334
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-80-85-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

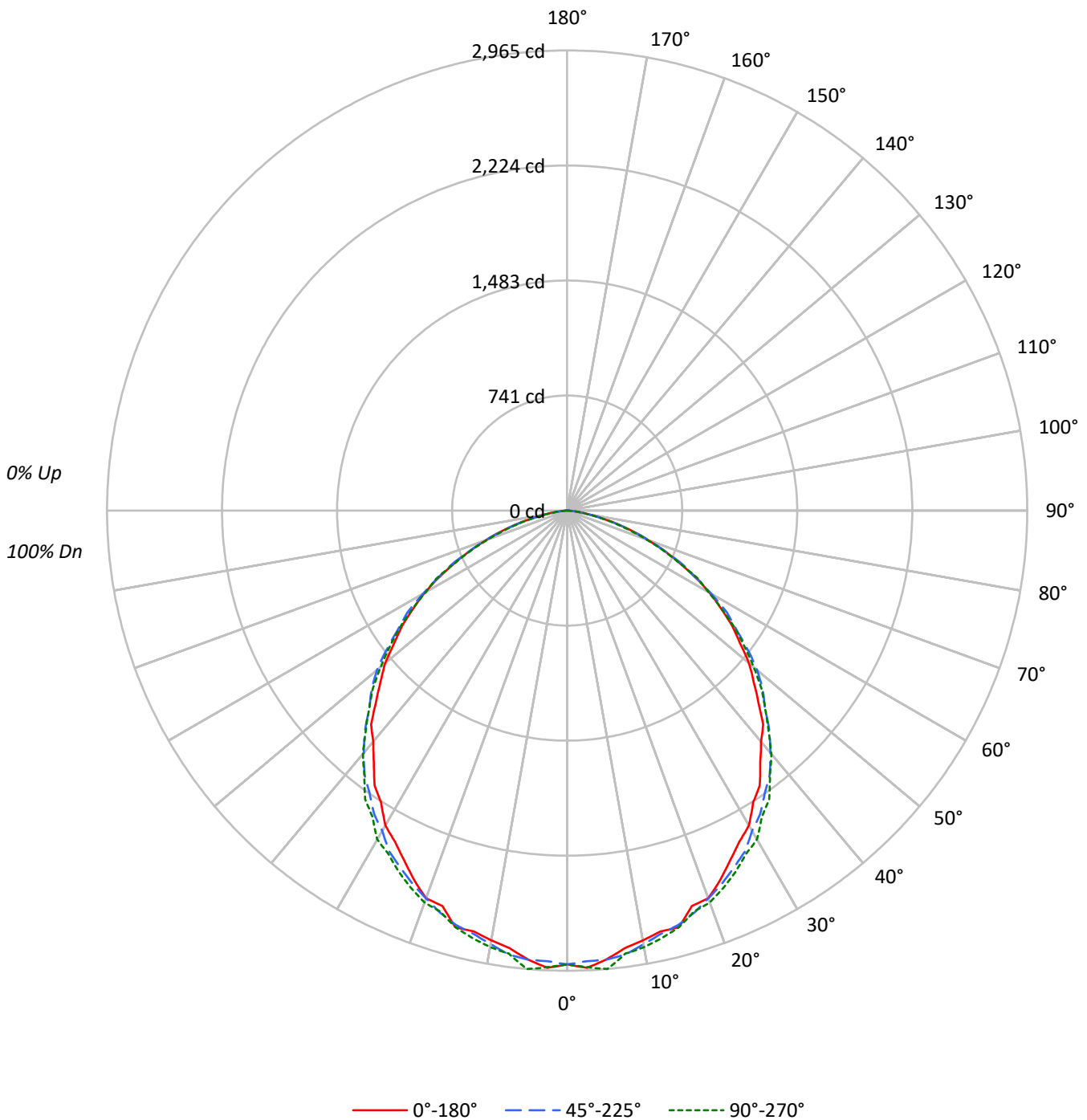
Lumens per Lamp: N/A
Luminaire Lumens: 7369.0 lumens
Efficiency: N/A
Efficacy: 113.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	7868	7868	7868
5°	7842	7845	8010
10°	7683	7750	7805
15°	7744	7702	7745
20°	7613	7613	7694
25°	7379	7540	7623
30°	7278	7405	7603
35°	7106	7292	7456
40°	6830	7158	7190
45°	6623	6858	6869
50°	6406	6695	6567
55°	6103	6222	6178
60°	5707	5764	5660
65°	5089	5219	5053
70°	4366	4381	4260
75°	3458	3450	3317
80°	2317	2252	2165
85°	1260	1247	1167



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	275.0	3.7
10°-20°	779.5	10.6
20°-30°	1167.8	15.8
30°-40°	1384.1	18.8
40°-50°	1386.6	18.8
50°-60°	1177.0	16.0
60°-70°	793.5	10.8
70°-80°	348.7	4.7
80°-90°	56.7	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°	2222.3	30.2
0°-40°	3606.4	48.9
0°-60°	6170.1	83.7
0°-90°	7369.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7369.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2924	2924	2924	2924	2924	
5°	2903	2896	2904	2896	2965	274
15°	2780	2748	2764	2779	2780	774
25°	2485	2499	2540	2573	2568	1149
35°	2163	2170	2220	2271	2270	1343
45°	1740	1773	1802	1849	1805	1346
55°	1301	1292	1326	1317	1317	1157
65°	799	789	820	788	794	795
75°	333	326	332	308	319	356
85°	41	40	40	39	38	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2923.8	2923.8	2923.8	2923.8	2923.8
2.5°	2949.1	2926.9	2906.1	2930.3	2945.0
5°	2903.1	2896.3	2904.2	2895.5	2965.4
7.5°	2843.4	2869.5	2884.6	2875.1	2879.3
10°	2811.7	2802.7	2836.3	2859.7	2856.3
12.5°	2777.7	2791.3	2793.2	2818.5	2820.8
15°	2779.6	2747.5	2764.5	2778.9	2780.0
17.5°	2671.7	2706.4	2718.1	2750.9	2710.2
20°	2658.4	2633.1	2658.4	2692.0	2686.8
22.5°	2577.3	2549.0	2603.3	2633.1	2631.3
25°	2485.2	2498.8	2539.5	2572.7	2567.5
27.5°	2404.4	2420.2	2478.4	2524.0	2494.6
30°	2342.1	2334.2	2383.2	2424.0	2446.7
32.5°	2230.7	2259.4	2316.8	2357.2	2335.7
35°	2163.1	2169.6	2219.8	2271.1	2269.6
37.5°	2045.0	2074.8	2145.4	2159.7	2146.5
40°	1944.2	1974.0	2037.8	2053.3	2046.9
42.5°	1869.8	1875.1	1929.8	1947.6	1919.3
45°	1740.3	1772.8	1802.2	1848.7	1804.9
47.5°	1630.1	1645.2	1708.6	1721.1	1698.1
50°	1530.1	1535.3	1599.1	1583.7	1568.6
52.5°	1404.3	1426.6	1462.5	1459.5	1441.7
55°	1300.9	1292.2	1326.2	1317.1	1316.8
57.5°	1176.7	1191.8	1219.7	1205.4	1182.4
60°	1060.4	1060.8	1071.0	1054.8	1051.7
62.5°	930.9	935.5	937.7	917.7	950.2
65°	799.2	788.6	819.6	788.2	793.5
67.5°	678.0	683.3	680.3	660.6	668.2
70°	554.9	561.7	556.8	534.6	541.4
72.5°	442.4	434.1	439.4	411.5	424.3
75°	332.6	325.8	331.8	308.4	319.0
77.5°	226.5	231.8	228.0	215.6	222.7
80°	149.5	145.3	145.3	138.2	139.7
82.5°	87.2	83.1	81.9	79.7	83.1
85°	40.8	39.6	40.4	39.3	37.8
87.5°	14.7	15.1	15.1	14.3	13.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)