

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: P589802

Luminaire Tested: **FMR-24-2-LD4-4STD-40-UNV-82-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589802
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-40-UNV-82-94-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

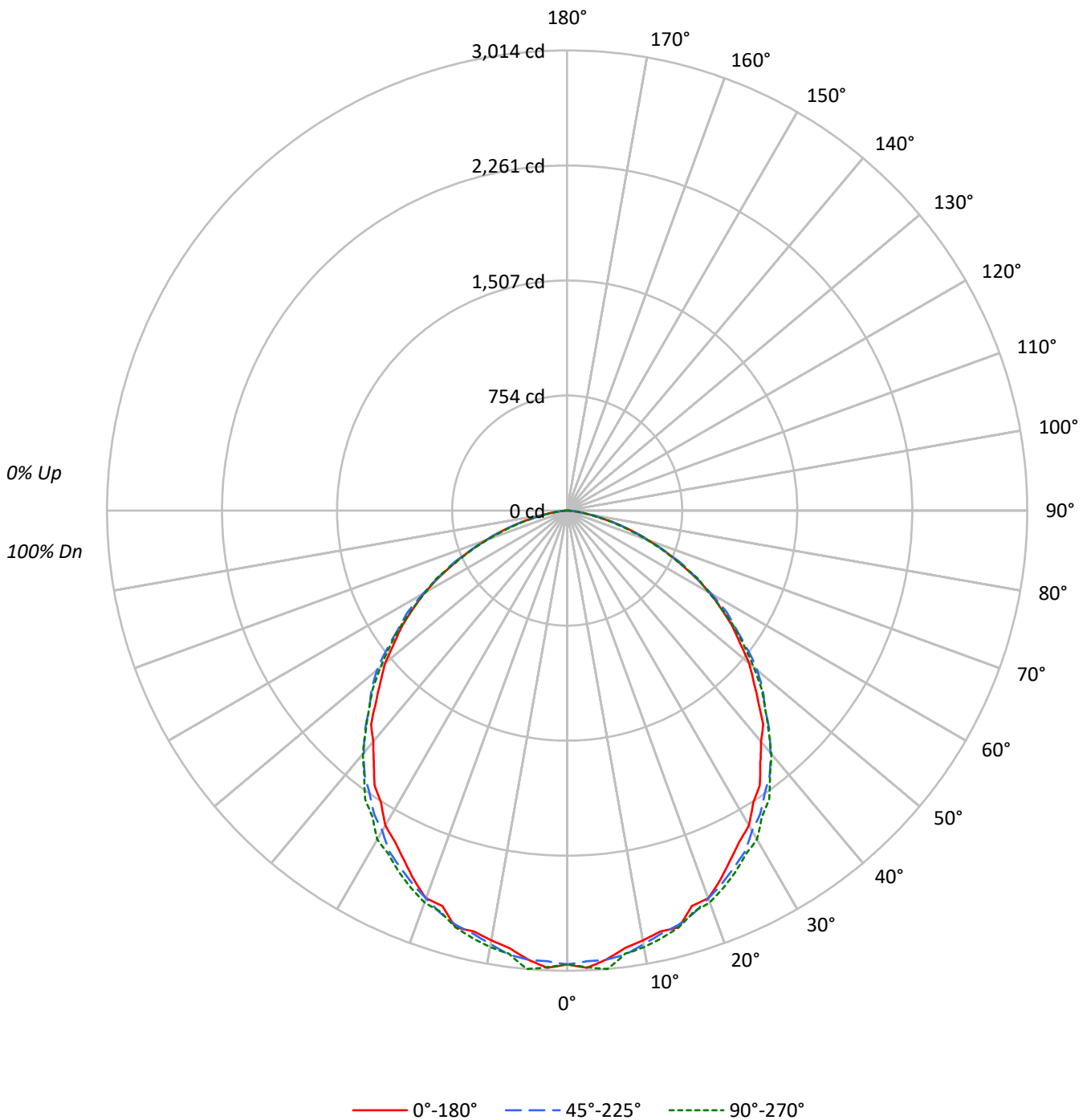
Lumens per Lamp: N/A
Luminaire Lumens: 7491.0 lumens
Efficiency: N/A
Efficacy: 112.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	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°	7998	7998	7998
5°	7972	7975	8143
10°	7810	7878	7934
15°	7872	7829	7873
20°	7739	7739	7821
25°	7501	7665	7750
30°	7398	7528	7728
35°	7224	7413	7579
40°	6943	7277	7309
45°	6733	6972	6983
50°	6512	6805	6675
55°	6204	6325	6280
60°	5802	5859	5754
65°	5173	5305	5137
70°	4438	4453	4330
75°	3515	3507	3372
80°	2356	2289	2201
85°	1278	1269	1186



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.6	3.7
10°-20°	792.4	10.6
20°-30°	1187.1	15.8
30°-40°	1407.0	18.8
40°-50°	1409.6	18.8
50°-60°	1196.5	16.0
60°-70°	806.7	10.8
70°-80°	354.5	4.7
80°-90°	57.6	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°	2259.1	30.2
0°-40°	3666.1	48.9
0°-60°	6272.2	83.7
0°-90°	7491.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7491.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2972	2972	2972	2972	2972	
5°	2951	2944	2952	2944	3014	278
15°	2826	2793	2810	2825	2826	787
25°	2526	2540	2582	2615	2610	1168
35°	2199	2206	2256	2309	2307	1365
45°	1769	1802	1832	1879	1835	1369
55°	1322	1314	1348	1339	1339	1176
65°	812	802	833	801	807	808
75°	338	331	337	314	324	362
85°	41	40	41	40	38	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2972.2	2972.2	2972.2	2972.2	2972.2
2.5°	2998.0	2975.3	2954.2	2978.8	2993.7
5°	2951.1	2944.2	2952.3	2943.5	3014.5
7.5°	2890.5	2917.0	2932.3	2922.7	2927.0
10°	2858.3	2849.1	2883.2	2907.0	2903.5
12.5°	2823.7	2837.5	2839.5	2865.2	2867.5
15°	2825.6	2793.0	2810.3	2824.9	2826.0
17.5°	2715.9	2751.2	2763.1	2796.5	2755.0
20°	2702.5	2676.7	2702.5	2736.6	2731.2
22.5°	2619.9	2591.2	2646.4	2676.7	2674.8
25°	2526.3	2540.1	2581.6	2615.3	2610.0
27.5°	2444.2	2460.3	2519.4	2565.8	2535.9
30°	2380.9	2372.8	2422.7	2464.1	2487.2
32.5°	2267.7	2296.8	2355.1	2396.2	2374.3
35°	2199.0	2205.5	2256.5	2308.7	2307.2
37.5°	2078.8	2109.2	2180.9	2195.5	2182.1
40°	1976.4	2006.7	2071.5	2087.3	2080.8
42.5°	1900.8	1906.1	1961.8	1979.8	1951.0
45°	1769.1	1802.1	1832.1	1879.3	1834.8
47.5°	1657.1	1672.4	1736.9	1749.6	1726.2
50°	1555.4	1560.8	1625.6	1609.9	1594.5
52.5°	1427.6	1450.2	1486.7	1483.6	1465.6
55°	1322.4	1313.6	1348.2	1338.9	1338.6
57.5°	1196.2	1211.5	1239.9	1225.4	1201.9
60°	1078.0	1078.4	1088.7	1072.2	1069.2
62.5°	946.4	951.0	953.3	932.9	965.9
65°	812.4	801.7	833.1	801.3	806.7
67.5°	689.2	694.6	691.5	671.6	679.3
70°	564.1	571.0	566.0	543.4	550.3
72.5°	449.8	441.3	446.7	418.3	431.3
75°	338.1	331.2	337.3	313.5	324.3
77.5°	230.3	235.6	231.8	219.1	226.4
80°	152.0	147.7	147.7	140.5	142.0
82.5°	88.6	84.4	83.3	81.0	84.4
85°	41.4	40.3	41.1	39.9	38.4
87.5°	15.0	15.4	15.4	14.6	13.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)