

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: P589772

Luminaire Tested: **FMR-24-2-LD4-4STD-35-UNV-82-97-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589772
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-82-97-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

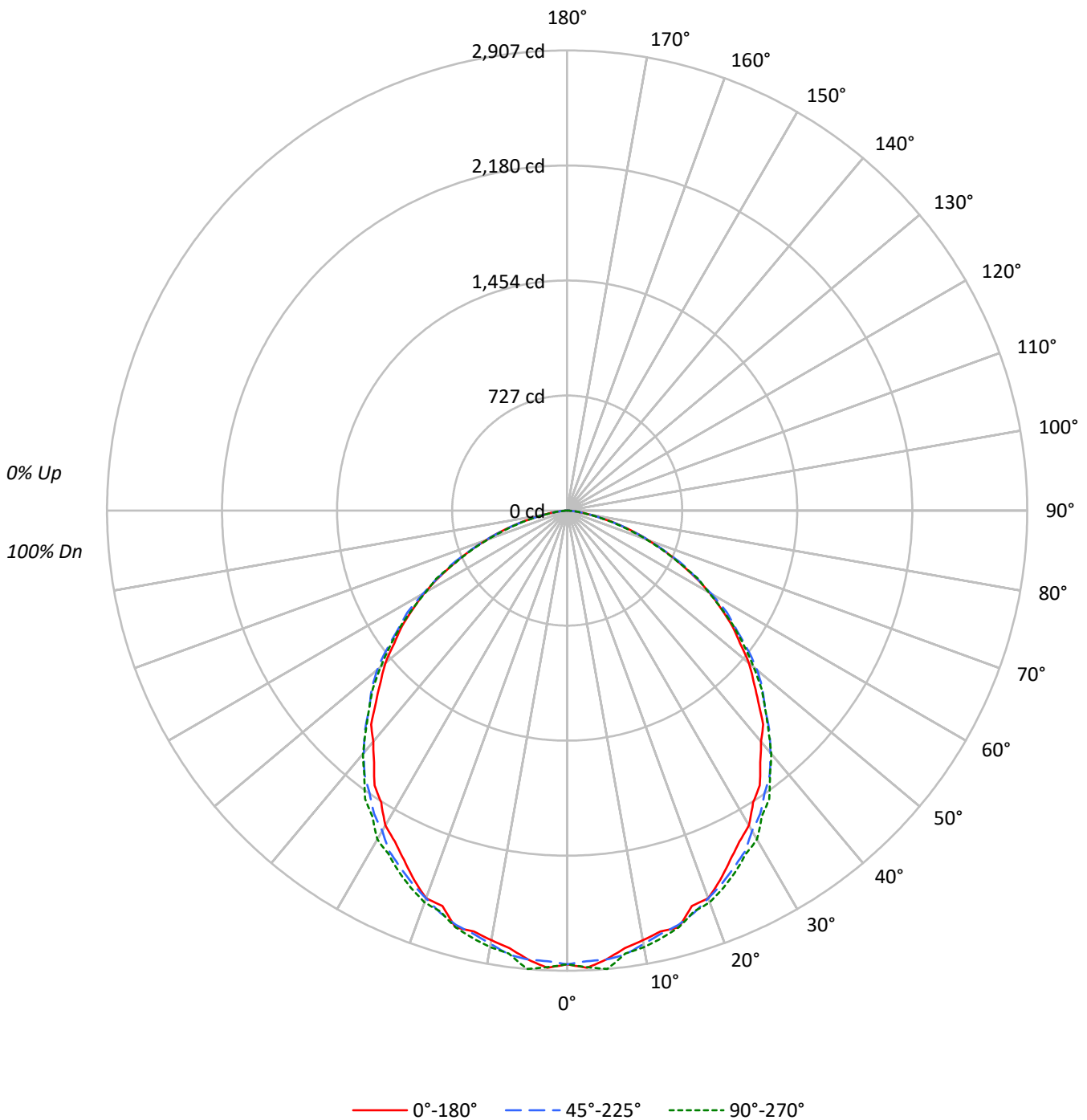
Lumens per Lamp: N/A
Luminaire Lumens: 7224.0 lumens
Efficiency: N/A
Efficacy: 108.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P589772

CATALOG NUMBER: FMR-24-2-LD4-4STD-35-UNV-82-97-EDD

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°	7713	7713	7713
5°	7688	7691	7853
10°	7532	7597	7651
15°	7591	7550	7592
20°	7463	7463	7543
25°	7234	7392	7473
30°	7134	7260	7453
35°	6966	7149	7309
40°	6695	7018	7049
45°	6493	6724	6734
50°	6280	6563	6437
55°	5983	6100	6056
60°	5595	5651	5549
65°	4989	5116	4953
70°	4280	4295	4175
75°	3389	3382	3251
80°	2272	2208	2122
85°	1235	1223	1142



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	269.6	3.7
10°-20°	764.1	10.6
20°-30°	1144.8	15.8
30°-40°	1356.9	18.8
40°-50°	1359.4	18.8
50°-60°	1153.9	16.0
60°-70°	777.9	10.8
70°-80°	341.8	4.7
80°-90°	55.6	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°	2178.6	30.2
0°-40°	3535.4	48.9
0°-60°	6048.7	83.7
0°-90°	7224.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7224.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2866	2866	2866	2866	2866	
5°	2846	2839	2847	2838	2907	268
15°	2725	2694	2710	2724	2725	759
25°	2436	2450	2490	2522	2517	1126
35°	2121	2127	2176	2226	2225	1317
45°	1706	1738	1767	1812	1769	1320
55°	1275	1267	1300	1291	1291	1134
65°	784	773	804	773	778	779
75°	326	319	325	302	313	349
85°	40	39	40	38	37	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2866.3	2866.3	2866.3	2866.3	2866.3
2.5°	2891.1	2869.3	2848.9	2872.6	2887.0
5°	2845.9	2839.3	2847.1	2838.5	2907.0
7.5°	2787.5	2813.0	2827.8	2818.6	2822.6
10°	2756.4	2747.5	2780.4	2803.4	2800.1
12.5°	2723.1	2736.4	2738.3	2763.0	2765.3
15°	2724.9	2693.5	2710.1	2724.2	2725.3
17.5°	2619.1	2653.1	2664.6	2696.8	2656.8
20°	2606.1	2581.3	2606.1	2639.1	2633.9
22.5°	2526.6	2498.8	2552.1	2581.3	2579.5
25°	2436.3	2449.6	2489.6	2522.1	2516.9
27.5°	2357.1	2372.6	2429.6	2474.4	2445.5
30°	2296.0	2288.2	2336.3	2376.3	2398.5
32.5°	2186.8	2215.0	2271.2	2310.8	2289.7
35°	2120.6	2126.9	2176.1	2226.4	2224.9
37.5°	2004.7	2034.0	2103.2	2117.3	2104.3
40°	1905.9	1935.2	1997.7	2012.9	2006.6
42.5°	1833.0	1838.2	1891.9	1909.3	1881.5
45°	1706.1	1737.9	1766.8	1812.3	1769.4
47.5°	1598.0	1612.8	1675.0	1687.2	1664.6
50°	1500.0	1505.1	1567.7	1552.5	1537.7
52.5°	1376.7	1398.5	1433.7	1430.7	1413.4
55°	1275.3	1266.8	1300.1	1291.2	1290.9
57.5°	1153.6	1168.4	1195.7	1181.7	1159.1
60°	1039.6	1039.9	1049.9	1034.0	1031.1
62.5°	912.6	917.1	919.3	899.7	931.5
65°	783.5	773.1	803.5	772.7	777.9
67.5°	664.7	669.9	666.9	647.6	655.0
70°	544.0	550.7	545.9	524.0	530.7
72.5°	433.7	425.6	430.8	403.4	416.0
75°	326.0	319.4	325.3	302.4	312.7
77.5°	222.1	227.2	223.5	211.3	218.3
80°	146.6	142.5	142.5	135.5	136.9
82.5°	85.5	81.4	80.3	78.1	81.4
85°	40.0	38.9	39.6	38.5	37.0
87.5°	14.4	14.8	14.8	14.1	13.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)