

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: P589308

Luminaire Tested: **FMR-24-2-LD4-3HI-40-UNV-80-97-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589308
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-40-UNV-80-97-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

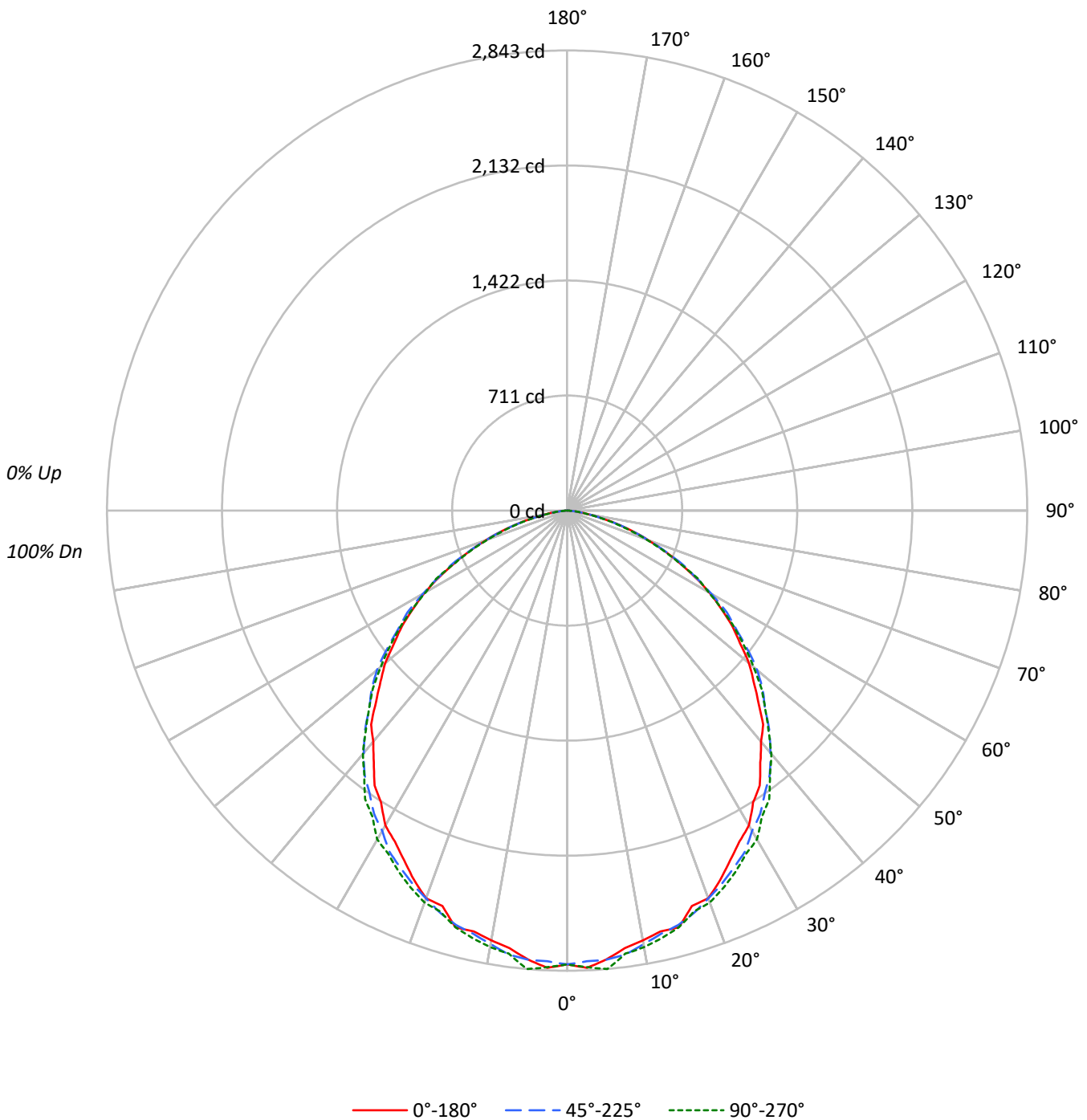
Lumens per Lamp: N/A
Luminaire Lumens: 7066.0 lumens
Efficiency: N/A
Efficacy: 109.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 64.8
Input Voltage (V): NR
Input Current (A_{in}): 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: P589308

CATALOG NUMBER: FMR-24-2-LD4-3HI-40-UNV-80-97-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589308

CATALOG NUMBER: FMR-24-2-LD4-3HI-40-UNV-80-97-EDD

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	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					100			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7544	7544	7544
5°	7519	7522	7681
10°	7367	7431	7484
15°	7425	7385	7426
20°	7300	7300	7378
25°	7076	7230	7310
30°	6978	7101	7290
35°	6814	6992	7149
40°	6549	6864	6895
45°	6351	6576	6586
50°	6142	6419	6297
55°	5852	5966	5924
60°	5472	5527	5428
65°	4879	5004	4845
70°	4187	4201	4084
75°	3316	3308	3180
80°	2221	2160	2075
85°	1207	1195	1118



TEST NUMBER: P589308

CATALOG NUMBER: FMR-24-2-LD4-3HI-40-UNV-80-97-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	263.7	3.7
10°-20°	747.4	10.6
20°-30°	1119.8	15.8
30°-40°	1327.2	18.8
40°-50°	1329.6	18.8
50°-60°	1128.6	16.0
60°-70°	760.9	10.8
70°-80°	334.4	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°	2130.9	30.2
0°-40°	3458.1	48.9
0°-60°	5916.4	83.7
0°-90°	7066.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7066.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2804	2804	2804	2804	2804	
5°	2784	2777	2785	2776	2843	262
15°	2665	2635	2651	2665	2666	743
25°	2383	2396	2435	2467	2462	1102
35°	2074	2080	2128	2178	2176	1288
45°	1669	1700	1728	1773	1731	1291
55°	1247	1239	1272	1263	1263	1110
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	



TEST NUMBER: P589308

CATALOG NUMBER: FMR-24-2-LD4-3HI-40-UNV-80-97-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2803.6	2803.6	2803.6	2803.6	2803.6
2.5°	2827.9	2806.5	2786.6	2809.8	2823.9
5°	2783.7	2777.2	2784.8	2776.5	2843.4
7.5°	2726.5	2751.5	2766.0	2756.9	2760.9
10°	2696.1	2687.4	2719.6	2742.1	2738.8
12.5°	2663.5	2676.6	2678.4	2702.6	2704.8
15°	2665.3	2634.6	2650.9	2664.6	2665.7
17.5°	2561.8	2595.1	2606.3	2637.8	2598.7
20°	2549.1	2524.9	2549.1	2581.3	2576.3
22.5°	2471.3	2444.2	2496.3	2524.9	2523.1
25°	2383.0	2396.0	2435.1	2467.0	2461.9
27.5°	2305.5	2320.7	2376.5	2420.3	2392.0
30°	2245.8	2238.2	2285.2	2324.3	2346.1
32.5°	2139.0	2166.5	2221.5	2260.3	2239.6
35°	2074.2	2080.4	2128.5	2177.7	2176.3
37.5°	1960.9	1989.5	2057.2	2070.9	2058.3
40°	1864.2	1892.8	1954.0	1968.9	1962.7
42.5°	1792.9	1798.0	1850.5	1867.5	1840.4
45°	1668.8	1699.9	1728.1	1772.7	1730.7
47.5°	1563.1	1577.6	1638.4	1650.3	1628.2
50°	1467.1	1472.2	1533.4	1518.5	1504.1
52.5°	1346.6	1368.0	1402.3	1399.5	1382.4
55°	1247.4	1239.1	1271.7	1263.0	1262.6
57.5°	1128.3	1142.8	1169.6	1155.8	1133.8
60°	1016.8	1017.2	1027.0	1011.4	1008.5
62.5°	892.7	897.0	899.2	880.0	911.1
65°	766.3	756.2	785.9	755.8	760.9
67.5°	650.1	655.2	652.3	633.5	640.7
70°	532.1	538.6	533.9	512.6	519.1
72.5°	424.3	416.3	421.4	394.6	406.9
75°	318.9	312.4	318.2	295.7	305.9
77.5°	217.2	222.3	218.6	206.7	213.6
80°	143.3	139.4	139.4	132.5	133.9
82.5°	83.6	79.6	78.6	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)