

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: P589815

Luminaire Tested: **FMR-24-2-LD4-4STD-50-UNV-80-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589815
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-50-UNV-80-86-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

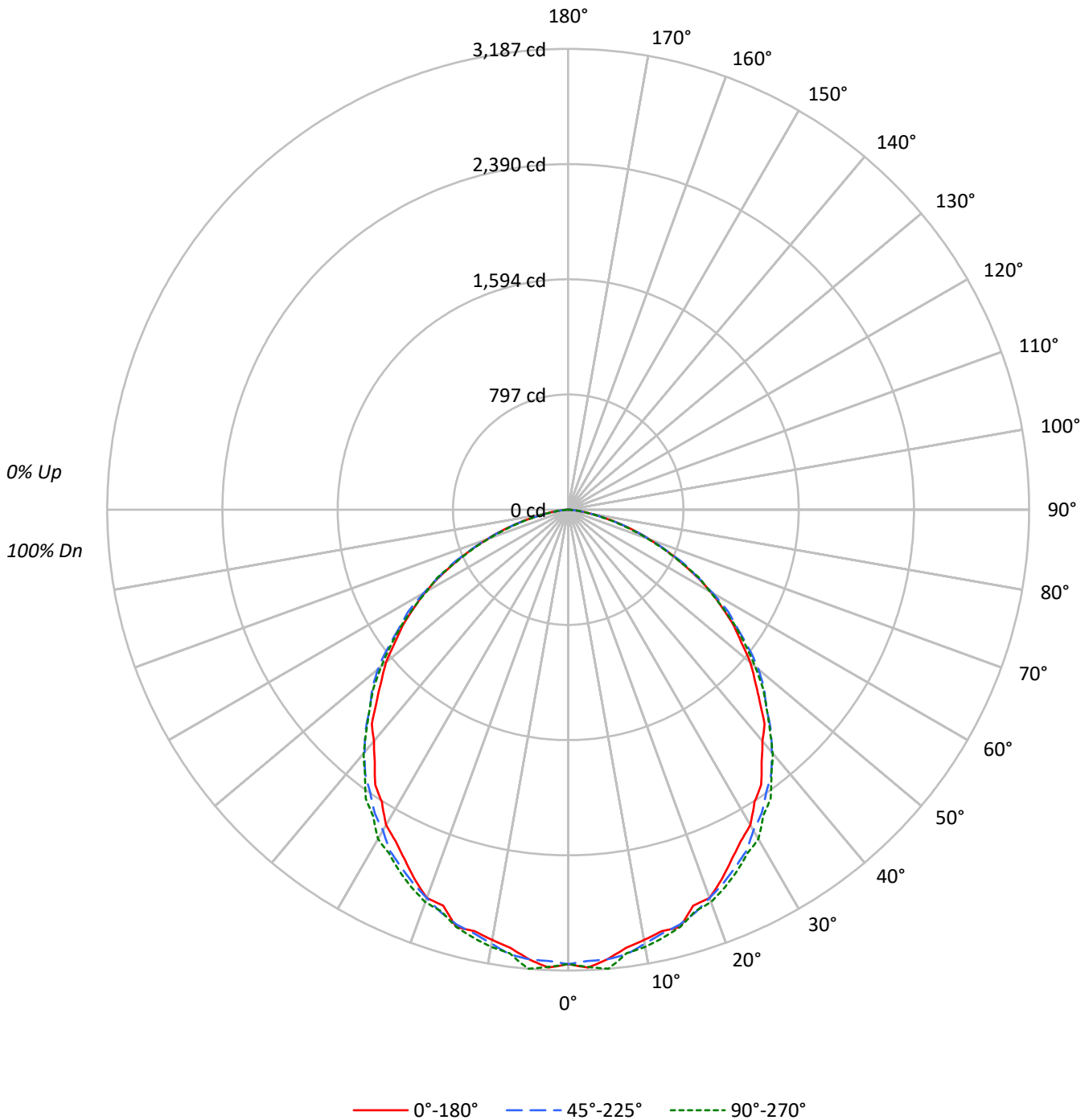
Lumens per Lamp: N/A
Luminaire Lumens: 7920.0 lumens
Efficiency: N/A
Efficacy: 118.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P589815

CATALOG NUMBER: FMR-24-2-LD4-4STD-50-UNV-80-86-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°	8456	8456	8456
5°	8428	8432	8609
10°	8258	8329	8388
15°	8323	8277	8324
20°	8182	8182	8269
25°	7931	8104	8193
30°	7822	7959	8171
35°	7637	7838	8013
40°	7340	7694	7728
45°	7118	7371	7382
50°	6885	7195	7057
55°	6560	6687	6640
60°	6134	6195	6084
65°	5470	5609	5431
70°	4692	4709	4578
75°	3717	3708	3565
80°	2490	2421	2326
85°	1352	1340	1254



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	295.6	3.7
10°-20°	837.8	10.6
20°-30°	1255.1	15.8
30°-40°	1487.6	18.8
40°-50°	1490.3	18.8
50°-60°	1265.0	16.0
60°-70°	852.9	10.8
70°-80°	374.8	4.7
80°-90°	60.9	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°	2388.5	30.2
0°-40°	3876.1	48.9
0°-60°	6631.4	83.7
0°-90°	7920.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7920.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3142	3142	3142	3142	3142	
5°	3120	3113	3121	3112	3187	294
15°	2988	2953	2971	2987	2988	832
25°	2671	2686	2729	2765	2759	1235
35°	2325	2332	2386	2441	2439	1443
45°	1870	1905	1937	1987	1940	1447
55°	1398	1389	1425	1416	1415	1244
65°	859	848	881	847	853	854
75°	358	350	357	332	343	383
85°	44	43	43	42	41	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3142.5	3142.5	3142.5	3142.5	3142.5
2.5°	3169.6	3145.7	3123.4	3149.4	3165.2
5°	3120.1	3112.8	3121.4	3112.0	3187.1
7.5°	3056.0	3084.0	3100.3	3090.1	3094.6
10°	3022.0	3012.2	3048.3	3073.5	3069.8
12.5°	2985.4	3000.0	3002.1	3029.3	3031.7
15°	2987.5	2953.0	2971.2	2986.7	2987.9
17.5°	2871.4	2908.7	2921.3	2956.6	2912.8
20°	2857.2	2830.0	2857.2	2893.3	2887.7
22.5°	2770.0	2739.6	2798.0	2830.0	2828.0
25°	2671.0	2685.6	2729.4	2765.1	2759.4
27.5°	2584.2	2601.2	2663.7	2712.8	2681.1
30°	2517.2	2508.7	2561.4	2605.3	2629.6
32.5°	2397.5	2428.4	2490.0	2533.4	2510.3
35°	2324.9	2331.8	2385.8	2440.9	2439.3
37.5°	2197.9	2229.9	2305.8	2321.2	2307.0
40°	2089.6	2121.6	2190.2	2206.8	2199.9
42.5°	2009.6	2015.3	2074.1	2093.2	2062.8
45°	1870.5	1905.4	1937.0	1986.9	1939.8
47.5°	1752.0	1768.2	1836.4	1849.8	1825.0
50°	1644.5	1650.1	1718.7	1702.1	1685.8
52.5°	1509.4	1533.3	1571.8	1568.6	1549.5
55°	1398.2	1388.8	1425.4	1415.6	1415.2
57.5°	1264.7	1280.9	1310.9	1295.5	1270.8
60°	1139.7	1140.1	1151.1	1133.6	1130.4
62.5°	1000.6	1005.4	1007.9	986.4	1021.2
65°	859.0	847.6	880.9	847.2	852.9
67.5°	728.7	734.4	731.1	710.0	718.2
70°	596.4	603.7	598.5	574.5	581.8
72.5°	475.5	466.6	472.3	442.3	456.1
75°	357.5	350.2	356.6	331.5	342.9
77.5°	243.4	249.1	245.1	231.7	239.4
80°	160.7	156.2	156.2	148.5	150.1
82.5°	93.7	89.3	88.0	85.6	89.3
85°	43.8	42.6	43.4	42.2	40.6
87.5°	15.8	16.2	16.2	15.4	14.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)