

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: P589820

Luminaire Tested: **FMR-24-2-LD4-4STD-50-UNV-80-97-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589820
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-80-97-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Summary

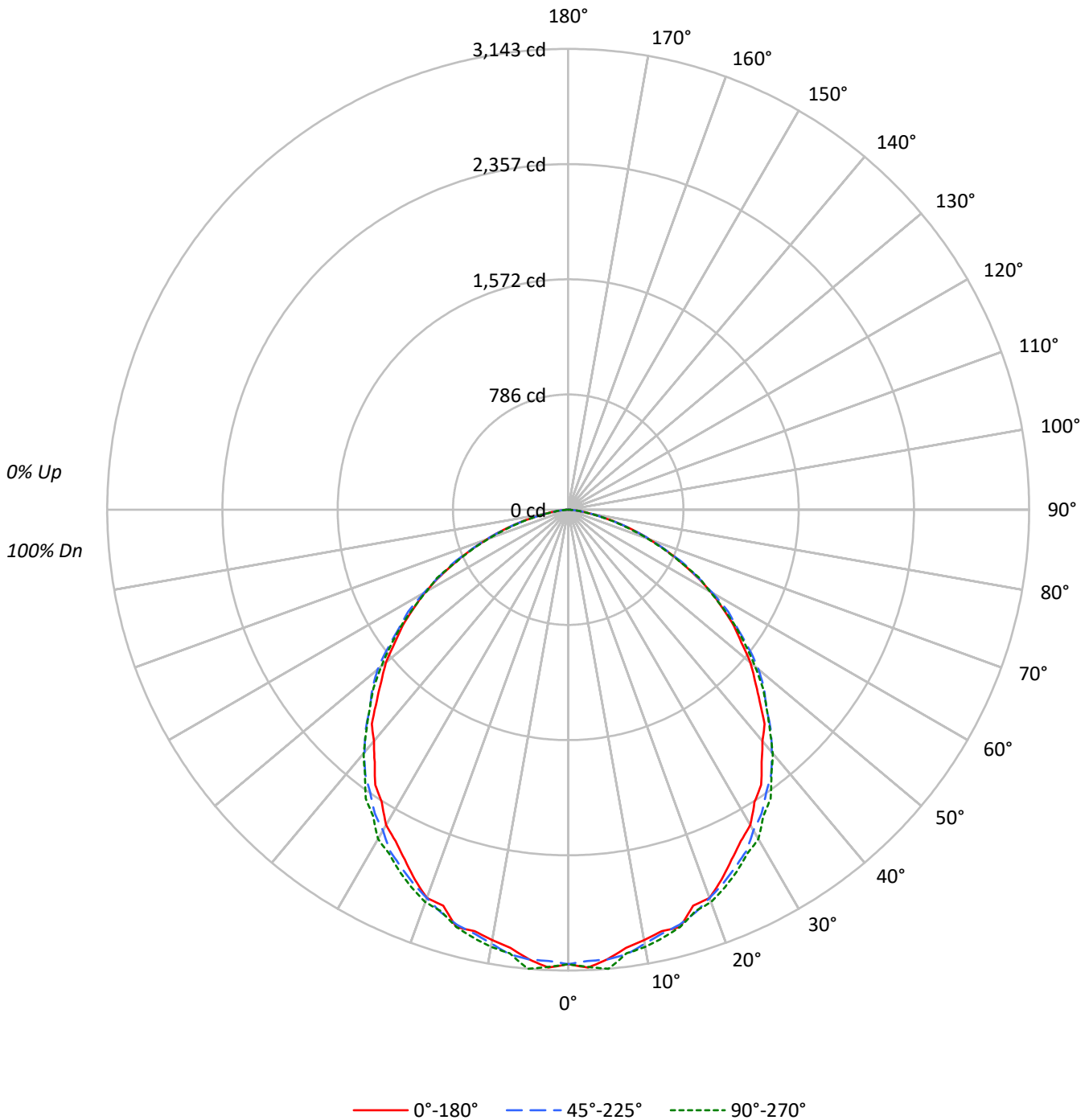
Lumens per Lamp: N/A
Luminaire Lumens: 7811.0 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
Input Voltage (V): NR
Input Current (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: P589820

CATALOG NUMBER: FMR-24-2-LD4-4STD-50-UNV-80-97-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°	8340	8340	8340
5°	8312	8316	8491
10°	8144	8215	8273
15°	8208	8164	8209
20°	8070	8070	8155
25°	7821	7992	8081
30°	7714	7850	8058
35°	7532	7729	7903
40°	7239	7588	7621
45°	7020	7270	7281
50°	6790	7096	6960
55°	6469	6595	6548
60°	6049	6110	6000
65°	5394	5531	5356
70°	4628	4644	4515
75°	3665	3657	3515
80°	2456	2388	2295
85°	1334	1321	1235



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	291.5	3.7
10°-20°	826.2	10.6
20°-30°	1237.9	15.8
30°-40°	1467.1	18.8
40°-50°	1469.8	18.8
50°-60°	1247.6	16.0
60°-70°	841.2	10.8
70°-80°	369.6	4.7
80°-90°	60.1	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°	2355.6	30.2
0°-40°	3822.7	48.9
0°-60°	6540.2	83.7
0°-90°	7811.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7811.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3099	3099	3099	3099	3099	
5°	3077	3070	3078	3069	3143	290
15°	2946	2912	2930	2946	2947	821
25°	2634	2649	2692	2727	2722	1218
35°	2293	2300	2353	2407	2406	1424
45°	1845	1879	1910	1960	1913	1427
55°	1379	1370	1406	1396	1396	1227
65°	847	836	869	836	841	842
75°	352	345	352	327	338	378
85°	43	42	43	42	40	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3099.2	3099.2	3099.2	3099.2	3099.2
2.5°	3126.0	3102.4	3080.4	3106.0	3121.6
5°	3077.2	3070.0	3078.4	3069.2	3143.2
7.5°	3014.0	3041.6	3057.6	3047.6	3052.0
10°	2980.4	2970.8	3006.4	3031.2	3027.6
12.5°	2944.3	2958.8	2960.8	2987.6	2990.0
15°	2946.3	2912.3	2930.3	2945.5	2946.7
17.5°	2831.9	2868.7	2881.1	2915.9	2872.7
20°	2817.9	2791.1	2817.9	2853.5	2847.9
22.5°	2731.9	2701.9	2759.5	2791.1	2789.1
25°	2634.2	2648.6	2691.8	2727.1	2721.5
27.5°	2548.6	2565.4	2627.0	2675.4	2644.2
30°	2482.6	2474.2	2526.2	2569.4	2593.4
32.5°	2364.5	2394.9	2455.8	2498.6	2475.8
35°	2292.9	2299.7	2352.9	2407.3	2405.7
37.5°	2167.6	2199.3	2274.1	2289.3	2275.3
40°	2060.8	2092.4	2160.0	2176.4	2169.6
42.5°	1982.0	1987.6	2045.6	2064.4	2034.4
45°	1844.7	1879.1	1910.3	1959.6	1913.1
47.5°	1727.9	1743.9	1811.1	1824.3	1799.9
50°	1621.8	1627.4	1695.1	1678.7	1662.6
52.5°	1488.6	1512.2	1550.2	1547.0	1528.2
55°	1378.9	1369.7	1405.7	1396.1	1395.7
57.5°	1247.3	1263.3	1292.9	1277.7	1253.3
60°	1124.0	1124.4	1135.2	1118.0	1114.8
62.5°	986.8	991.6	994.0	972.8	1007.2
65°	847.1	835.9	868.7	835.5	841.1
67.5°	718.7	724.3	721.1	700.3	708.3
70°	588.2	595.4	590.2	566.6	573.8
72.5°	469.0	460.2	465.8	436.2	449.8
75°	352.5	345.3	351.7	326.9	338.1
77.5°	240.1	245.7	241.7	228.5	236.1
80°	158.5	154.1	154.1	146.5	148.1
82.5°	92.4	88.0	86.8	84.4	88.0
85°	43.2	42.0	42.8	41.6	40.0
87.5°	15.6	16.0	16.0	15.2	14.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)