

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: P589354

Luminaire Tested: **FMR-24-2-LD4-3HI-50-UNV-82-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589354
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-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

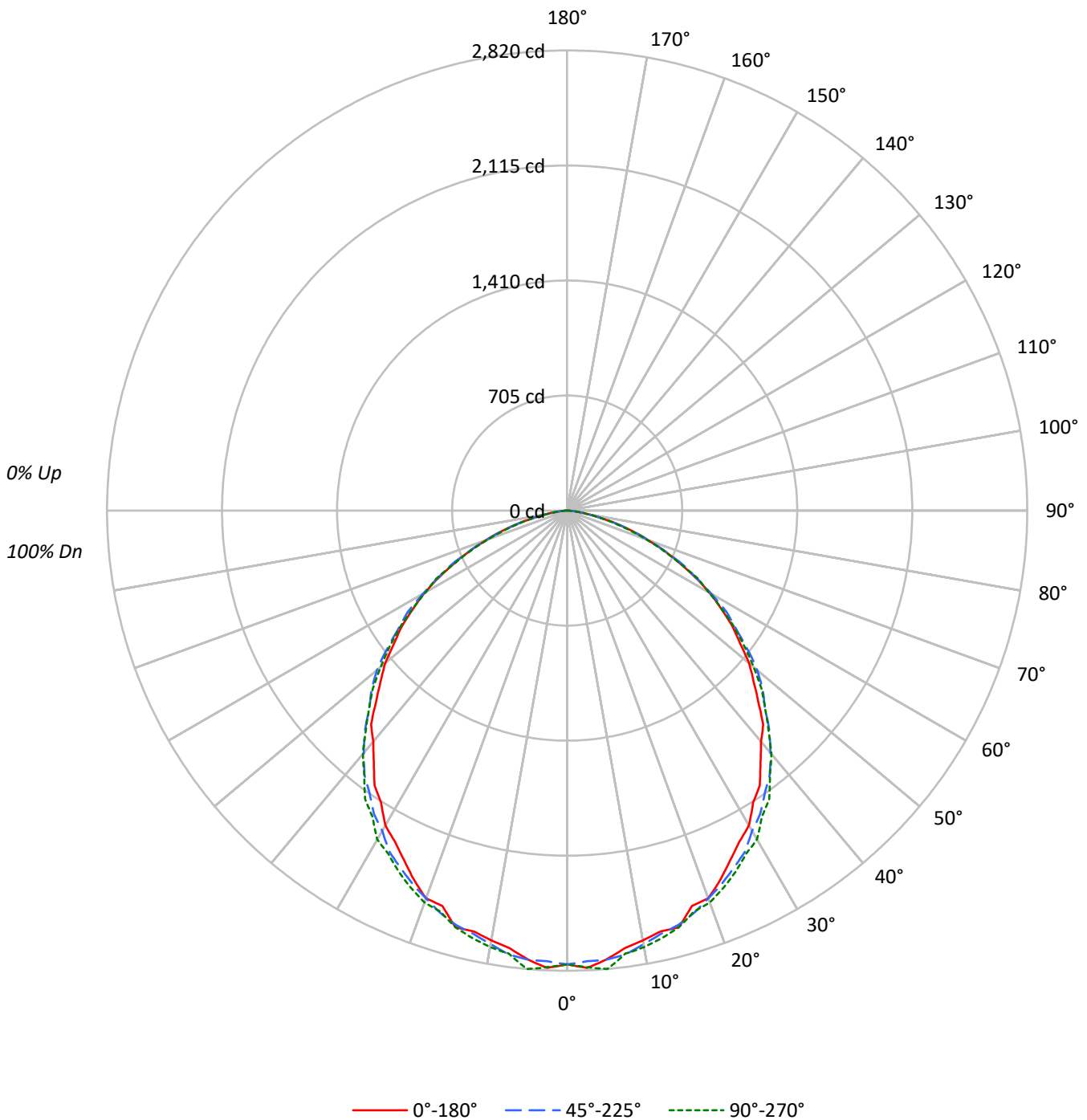
Lumens per Lamp: N/A
Luminaire Lumens: 7009.0 lumens
Efficiency: N/A
Efficacy: 108.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 64.8
Input Voltage (V): NR
Input Current (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: P589354

CATALOG NUMBER: FMR-24-2-LD4-3HI-50-UNV-82-94-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589354

CATALOG NUMBER: FMR-24-2-LD4-3HI-50-UNV-82-94-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	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°	7484	7484	7484
5°	7459	7462	7619
10°	7308	7371	7423
15°	7365	7326	7366
20°	7241	7241	7318
25°	7019	7172	7251
30°	6922	7044	7231
35°	6759	6936	7091
40°	6496	6809	6839
45°	6299	6524	6533
50°	6092	6368	6246
55°	5805	5918	5876
60°	5428	5483	5384
65°	4840	4963	4806
70°	4153	4167	4051
75°	3289	3281	3154
80°	2204	2142	2060
85°	1198	1186	1108



TEST NUMBER: P589354

CATALOG NUMBER: FMR-24-2-LD4-3HI-50-UNV-82-94-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.6	3.7
10°-20°	741.4	10.6
20°-30°	1110.8	15.8
30°-40°	1316.5	18.8
40°-50°	1318.9	18.8
50°-60°	1119.5	16.0
60°-70°	754.8	10.8
70°-80°	331.7	4.7
80°-90°	53.9	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°	2113.7	30.2
0°-40°	3430.2	48.9
0°-60°	5868.7	83.7
0°-90°	7009.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7009.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2781	2781	2781	2781	2781	
5°	2761	2755	2762	2754	2820	260
15°	2644	2613	2630	2643	2644	737
25°	2364	2377	2416	2447	2442	1093
35°	2058	2064	2111	2160	2159	1277
45°	1655	1686	1714	1758	1717	1280
55°	1237	1229	1261	1253	1252	1101
65°	760	750	780	750	755	756
75°	316	310	316	293	303	339
85°	39	38	38	37	36	56
90°	0	0	0	0	0	



TEST NUMBER: P589354

CATALOG NUMBER: FMR-24-2-LD4-3HI-50-UNV-82-94-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2781.0	2781.0	2781.0	2781.0	2781.0
2.5°	2805.1	2783.9	2764.1	2787.1	2801.1
5°	2761.2	2754.8	2762.3	2754.1	2820.5
7.5°	2704.5	2729.3	2743.7	2734.7	2738.6
10°	2674.4	2665.7	2697.7	2720.0	2716.7
12.5°	2642.0	2655.0	2656.8	2680.8	2683.0
15°	2643.8	2613.3	2629.5	2643.1	2644.2
17.5°	2541.1	2574.2	2585.3	2616.5	2577.8
20°	2528.6	2504.5	2528.6	2560.5	2555.5
22.5°	2451.4	2424.4	2476.1	2504.5	2502.7
25°	2363.8	2376.7	2415.5	2447.1	2442.0
27.5°	2286.9	2302.0	2357.3	2400.7	2372.7
30°	2227.7	2220.1	2266.8	2305.6	2327.1
32.5°	2121.7	2149.0	2203.6	2242.0	2221.6
35°	2057.5	2063.6	2111.3	2160.2	2158.7
37.5°	1945.1	1973.4	2040.6	2054.2	2041.7
40°	1849.2	1877.6	1938.3	1953.0	1946.9
42.5°	1778.5	1783.5	1835.6	1852.4	1825.5
45°	1655.3	1686.2	1714.2	1758.4	1716.7
47.5°	1550.5	1564.8	1625.1	1637.0	1615.1
50°	1455.3	1460.3	1521.0	1506.3	1491.9
52.5°	1335.7	1356.9	1391.0	1388.2	1371.3
55°	1237.4	1229.1	1261.4	1252.8	1252.4
57.5°	1119.2	1133.6	1160.2	1146.5	1124.6
60°	1008.6	1009.0	1018.7	1003.2	1000.4
62.5°	885.5	889.8	891.9	872.9	903.8
65°	760.2	750.1	779.5	749.7	754.8
67.5°	644.9	649.9	647.0	628.4	635.6
70°	527.8	534.3	529.6	508.4	514.9
72.5°	420.8	412.9	418.0	391.4	403.6
75°	316.3	309.9	315.6	293.4	303.4
77.5°	215.4	220.5	216.9	205.0	211.9
80°	142.2	138.2	138.2	131.4	132.9
82.5°	82.9	79.0	77.9	75.8	79.0
85°	38.8	37.7	38.4	37.3	35.9
87.5°	14.0	14.4	14.4	13.6	12.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)