

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: P589575

Luminaire Tested: **FMR-24-2-LD4-4HI-35-UNV-82-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589575
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-LD4-4HI-35-UNV-82-86-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

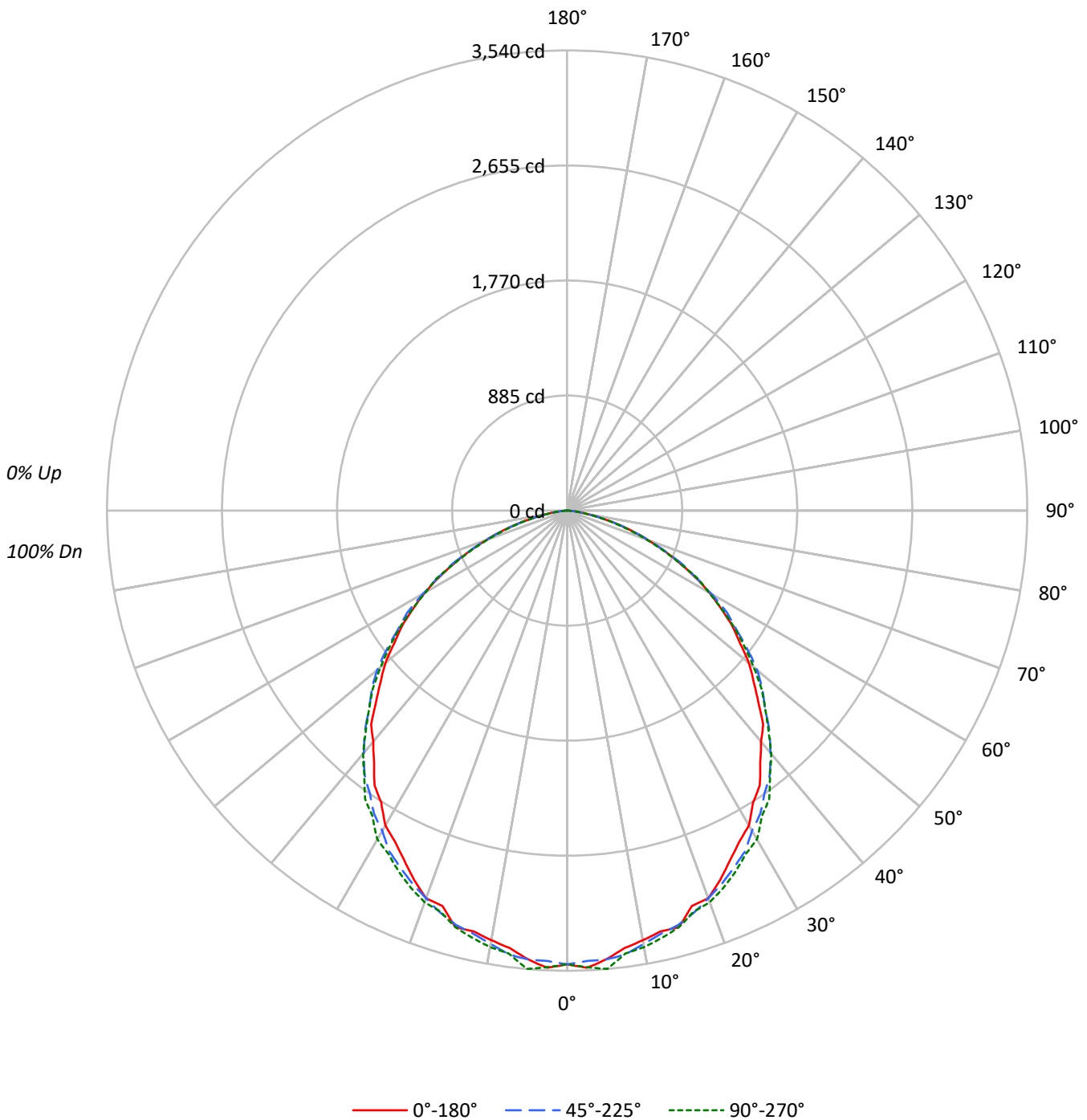
Lumens per Lamp: N/A
Luminaire Lumens: 8796.0 lumens
Efficiency: N/A
Efficacy: 101.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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: P589575

CATALOG NUMBER: FMR-24-2-LD4-4HI-35-UNV-82-86-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589575

CATALOG NUMBER: FMR-24-2-LD4-4HI-35-UNV-82-86-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				
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°	9392	9392	9392
5°	9360	9364	9561
10°	9171	9251	9316
15°	9243	9193	9244
20°	9087	9087	9184
25°	8808	9000	9099
30°	8687	8839	9075
35°	8482	8704	8900
40°	8152	8545	8583
45°	7905	8187	8199
50°	7646	7991	7838
55°	7285	7427	7374
60°	6812	6880	6757
65°	6074	6229	6031
70°	5212	5230	5084
75°	4128	4118	3959
80°	2765	2689	2583
85°	1504	1488	1392



TEST NUMBER: P589575

CATALOG NUMBER: FMR-24-2-LD4-4HI-35-UNV-82-86-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	328.3	3.7
10°-20°	930.4	10.6
20°-30°	1394.0	15.8
30°-40°	1652.1	18.8
40°-50°	1655.2	18.8
50°-60°	1405.0	16.0
60°-70°	947.2	10.8
70°-80°	416.2	4.7
80°-90°	67.6	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°	2652.7	30.2
0°-40°	4304.8	48.9
0°-60°	7364.9	83.7
0°-90°	8796.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8796.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3490	3490	3490	3490	3490	
5°	3465	3457	3467	3456	3540	327
15°	3318	3280	3300	3317	3318	924
25°	2966	2983	3031	3071	3065	1371
35°	2582	2590	2650	2711	2709	1603
45°	2077	2116	2151	2207	2154	1607
55°	1553	1542	1583	1572	1572	1381
65°	954	941	978	941	947	949
75°	397	389	396	368	381	425
85°	49	47	48	47	45	71
90°	0	0	0	0	0	



TEST NUMBER: P589575

CATALOG NUMBER: FMR-24-2-LD4-4HI-35-UNV-82-86-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3490.0	3490.0	3490.0	3490.0	3490.0
2.5°	3520.2	3493.6	3468.9	3497.7	3515.3
5°	3465.2	3457.1	3466.6	3456.2	3539.6
7.5°	3394.0	3425.1	3443.2	3431.9	3436.9
10°	3356.2	3345.4	3385.5	3413.4	3409.4
12.5°	3315.6	3331.9	3334.1	3364.3	3367.0
15°	3317.9	3279.6	3299.9	3317.0	3318.3
17.5°	3189.0	3230.5	3244.4	3283.6	3235.0
20°	3173.2	3143.1	3173.2	3213.4	3207.0
22.5°	3076.4	3042.6	3107.5	3143.1	3140.8
25°	2966.4	2982.6	3031.3	3071.0	3064.6
27.5°	2870.0	2888.9	2958.3	3012.8	2977.7
30°	2795.6	2786.2	2844.7	2893.4	2920.5
32.5°	2662.7	2696.9	2765.4	2813.7	2788.0
35°	2582.0	2589.7	2649.6	2710.9	2709.1
37.5°	2441.0	2476.6	2560.9	2578.0	2562.2
40°	2320.7	2356.3	2432.4	2450.9	2443.2
42.5°	2231.9	2238.2	2303.6	2324.7	2290.9
45°	2077.3	2116.1	2151.2	2206.7	2154.4
47.5°	1945.8	1963.8	2039.5	2054.4	2026.9
50°	1826.4	1832.7	1908.8	1890.3	1872.3
52.5°	1676.3	1702.9	1745.7	1742.1	1720.9
55°	1552.8	1542.5	1583.0	1572.2	1571.8
57.5°	1404.6	1422.6	1455.9	1438.8	1411.3
60°	1265.8	1266.2	1278.4	1259.0	1255.4
62.5°	1111.2	1116.6	1119.3	1095.5	1134.2
65°	954.0	941.3	978.3	940.9	947.2
67.5°	809.3	815.6	812.0	788.6	797.6
70°	662.4	670.5	664.7	638.1	646.2
72.5°	528.1	518.2	524.5	491.2	506.5
75°	397.0	388.9	396.1	368.2	380.8
77.5°	270.4	276.7	272.2	257.3	265.9
80°	178.4	173.5	173.5	164.9	166.7
82.5°	104.1	99.1	97.8	95.1	99.1
85°	48.7	47.3	48.2	46.9	45.1
87.5°	17.6	18.0	18.0	17.1	16.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)