

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: P589584

Luminaire Tested: **FMR-24-2-LD4-4HI-35-UNV-93-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589584
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-93-87-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

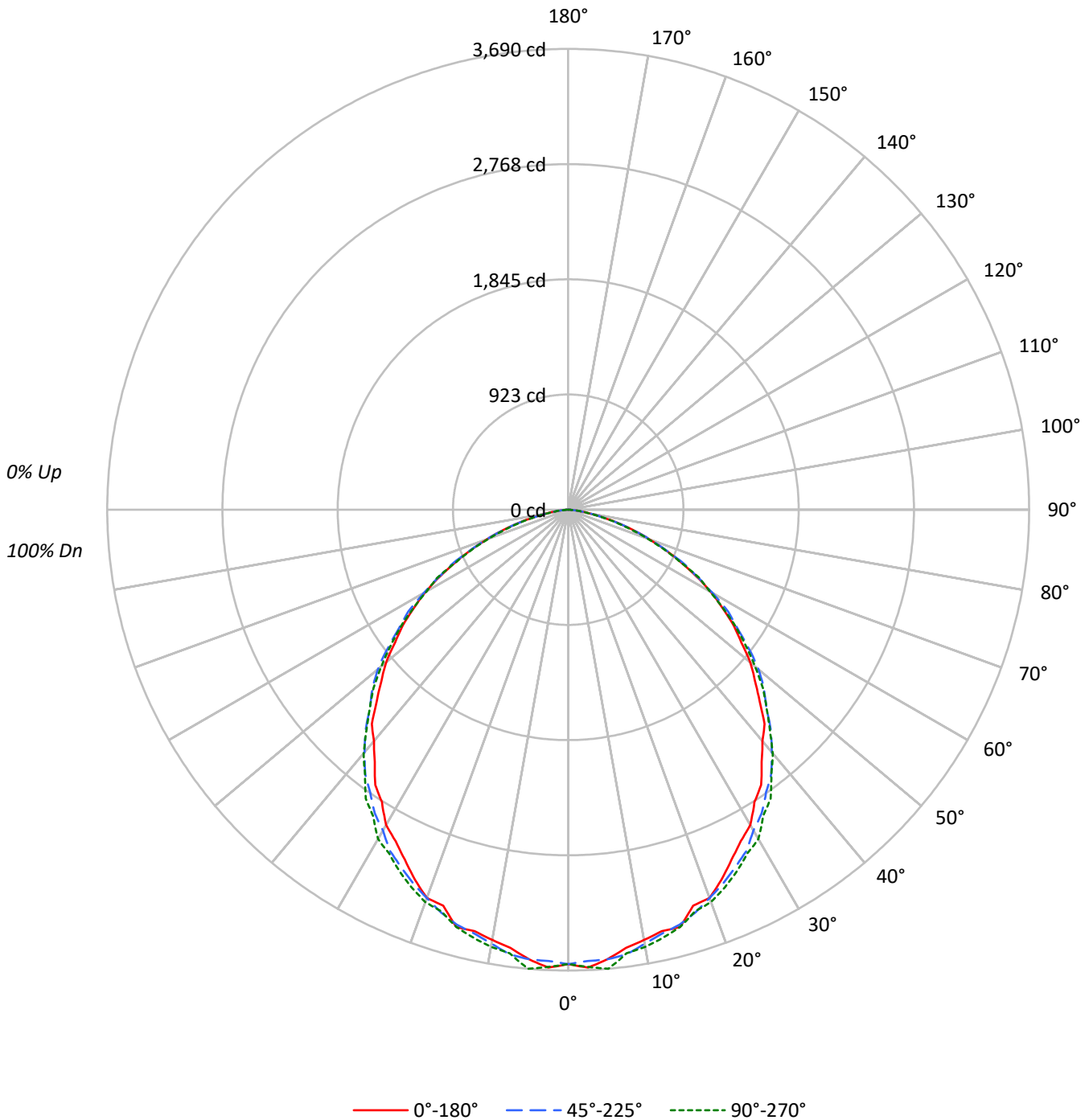
Lumens per Lamp: N/A
Luminaire Lumens: 9170.0 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P589584

CATALOG NUMBER: FMR-24-2-LD4-4HI-35-UNV-93-87-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589584

CATALOG NUMBER: FMR-24-2-LD4-4HI-35-UNV-93-87-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°	9791	9791	9791
5°	9759	9762	9968
10°	9561	9644	9712
15°	9636	9584	9638
20°	9474	9474	9574
25°	9182	9383	9486
30°	9056	9215	9460
35°	8843	9074	9278
40°	8499	8908	8948
45°	8242	8535	8547
50°	7971	8331	8171
55°	7595	7743	7688
60°	7102	7173	7044
65°	6332	6494	6288
70°	5434	5452	5301
75°	4303	4293	4128
80°	2882	2803	2693
85°	1565	1553	1451



TEST NUMBER: P589584

CATALOG NUMBER: FMR-24-2-LD4-4HI-35-UNV-93-87-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	342.2	3.7
10°-20°	970.0	10.6
20°-30°	1453.2	15.8
30°-40°	1722.4	18.8
40°-50°	1725.6	18.8
50°-60°	1464.7	16.0
60°-70°	987.5	10.8
70°-80°	433.9	4.7
80°-90°	70.5	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°	2765.4	30.2
0°-40°	4487.8	48.9
0°-60°	7678.1	83.7
0°-90°	9170.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9170.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3638	3638	3638	3638	3638	
5°	3613	3604	3614	3603	3690	341
15°	3459	3419	3440	3458	3459	964
25°	3092	3110	3160	3202	3195	1430
35°	2692	2700	2762	2826	2824	1671
45°	2166	2206	2243	2300	2246	1675
55°	1619	1608	1650	1639	1639	1440
65°	994	981	1020	981	988	989
75°	414	405	413	384	397	444
85°	51	49	50	49	47	74
90°	0	0	0	0	0	



TEST NUMBER: P589584

CATALOG NUMBER: FMR-24-2-LD4-4HI-35-UNV-93-87-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3638.4	3638.4	3638.4	3638.4	3638.4
2.5°	3669.9	3642.2	3616.3	3646.4	3664.7
5°	3612.6	3604.1	3614.0	3603.2	3690.1
7.5°	3538.4	3570.8	3589.6	3577.8	3583.0
10°	3498.9	3487.6	3529.4	3558.6	3554.3
12.5°	3456.6	3473.5	3475.9	3507.4	3510.2
15°	3459.0	3419.0	3440.2	3458.0	3459.4
17.5°	3324.6	3367.8	3382.4	3423.3	3372.5
20°	3308.2	3276.7	3308.2	3350.0	3343.4
22.5°	3207.2	3171.9	3239.6	3276.7	3274.3
25°	3092.5	3109.5	3160.2	3201.5	3195.0
27.5°	2992.0	3011.7	3084.1	3140.9	3104.3
30°	2914.5	2904.6	2965.7	3016.4	3044.6
32.5°	2775.9	2811.6	2883.0	2933.3	2906.5
35°	2691.8	2699.8	2762.3	2826.2	2824.3
37.5°	2544.8	2581.9	2669.7	2687.6	2671.2
40°	2419.4	2456.5	2535.9	2555.1	2547.1
42.5°	2326.8	2333.4	2401.5	2423.6	2388.3
45°	2165.7	2206.1	2242.7	2300.5	2246.0
47.5°	2028.5	2047.3	2126.2	2141.7	2113.1
50°	1904.0	1910.6	1990.0	1970.7	1951.9
52.5°	1747.6	1775.3	1819.9	1816.2	1794.1
55°	1618.9	1608.0	1650.3	1639.1	1638.6
57.5°	1464.3	1483.1	1517.9	1500.0	1471.3
60°	1319.6	1320.1	1332.8	1312.6	1308.8
62.5°	1158.5	1164.1	1166.9	1142.0	1182.4
65°	994.5	981.4	1019.9	980.9	987.5
67.5°	843.7	850.3	846.5	822.1	831.5
70°	690.6	699.0	692.9	665.2	673.7
72.5°	550.6	540.2	546.8	512.1	528.0
75°	413.9	405.4	412.9	383.8	397.0
77.5°	281.9	288.4	283.7	268.2	277.2
80°	186.0	180.9	180.9	171.9	173.8
82.5°	108.5	103.4	101.9	99.1	103.4
85°	50.7	49.3	50.3	48.9	47.0
87.5°	18.3	18.8	18.8	17.9	16.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)