

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: P589578

Luminaire Tested: **FMR-24-2-LD4-4HI-35-UNV-82-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589578
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-82-94-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

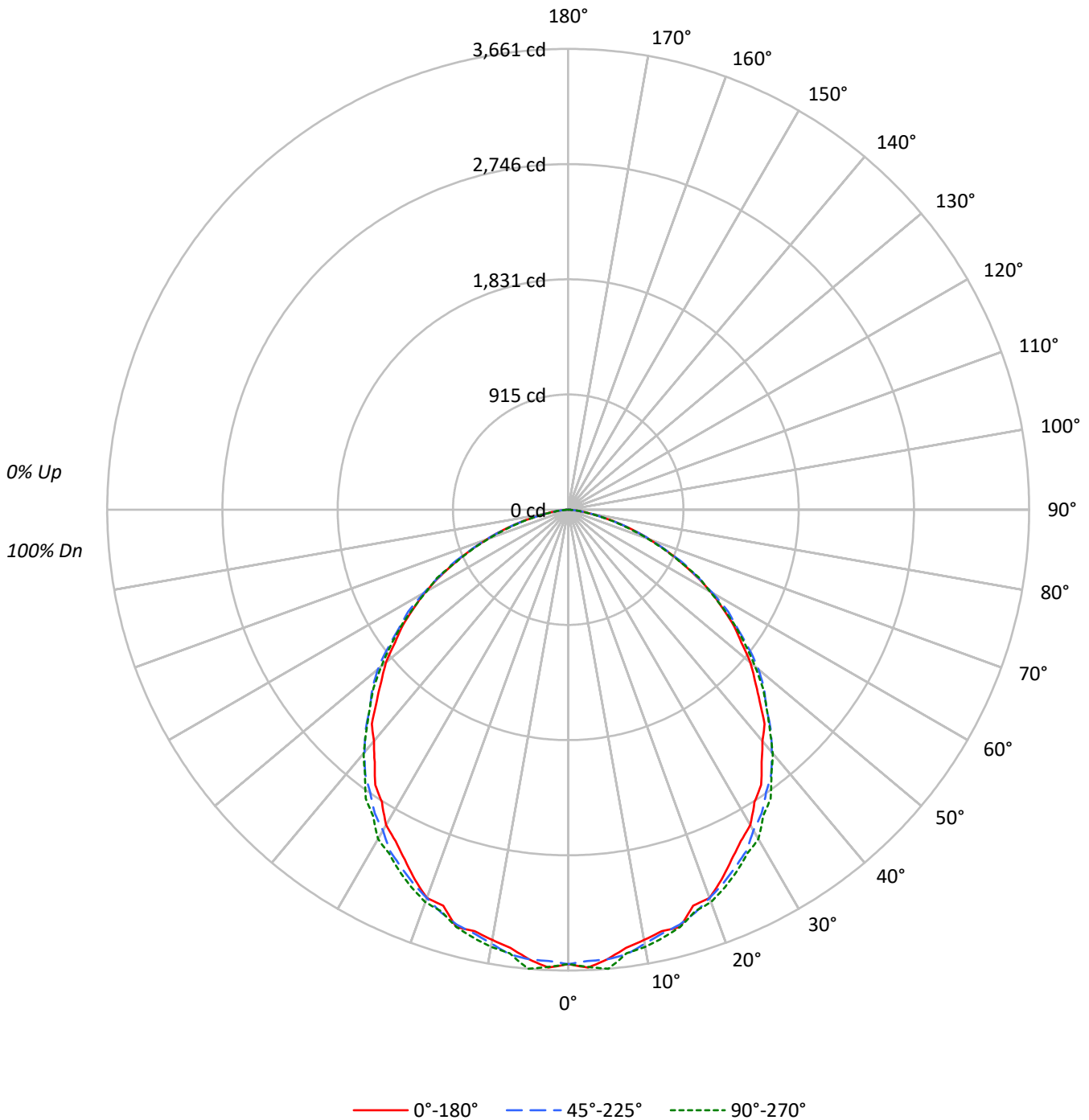
Lumens per Lamp: N/A
Luminaire Lumens: 9098.0 lumens
Efficiency: N/A
Efficacy: 105.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P589578

CATALOG NUMBER: FMR-24-2-LD4-4HI-35-UNV-82-94-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589578

CATALOG NUMBER: FMR-24-2-LD4-4HI-35-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°	9714	9714	9714
5°	9682	9686	9890
10°	9486	9568	9636
15°	9561	9509	9562
20°	9399	9399	9499
25°	9110	9310	9412
30°	8985	9143	9386
35°	8773	9003	9205
40°	8432	8838	8877
45°	8177	8468	8480
50°	7909	8266	8107
55°	7535	7682	7627
60°	7046	7117	6988
65°	6283	6443	6238
70°	5391	5409	5259
75°	4269	4260	4094
80°	2861	2780	2673
85°	1553	1541	1439



TEST NUMBER: P589578

CATALOG NUMBER: FMR-24-2-LD4-4HI-35-UNV-82-94-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	339.6	3.7
10°-20°	962.4	10.6
20°-30°	1441.8	15.8
30°-40°	1708.8	18.8
40°-50°	1712.0	18.8
50°-60°	1453.2	16.0
60°-70°	979.8	10.8
70°-80°	430.5	4.7
80°-90°	69.9	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°	2743.7	30.2
0°-40°	4452.6	48.9
0°-60°	7617.8	83.7
0°-90°	9098.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9098.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3610	3610	3610	3610	3610	
5°	3584	3576	3586	3575	3661	338
15°	3432	3392	3413	3431	3432	956
25°	3068	3085	3135	3176	3170	1418
35°	2671	2679	2741	2804	2802	1658
45°	2149	2189	2225	2282	2228	1662
55°	1606	1595	1637	1626	1626	1429
65°	987	974	1012	973	980	981
75°	411	402	410	381	394	440
85°	50	49	50	48	47	73
90°	0	0	0	0	0	



TEST NUMBER: P589578

CATALOG NUMBER: FMR-24-2-LD4-4HI-35-UNV-82-94-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3609.9	3609.9	3609.9	3609.9	3609.9
2.5°	3641.1	3613.6	3588.0	3617.8	3636.0
5°	3584.2	3575.8	3585.6	3574.9	3661.1
7.5°	3510.6	3542.7	3561.4	3549.7	3554.9
10°	3471.4	3460.2	3501.7	3530.6	3526.4
12.5°	3429.5	3446.3	3448.6	3479.8	3482.6
15°	3431.8	3392.2	3413.2	3430.9	3432.3
17.5°	3298.5	3341.4	3355.8	3396.4	3346.1
20°	3282.2	3251.0	3282.2	3323.7	3317.2
22.5°	3182.0	3147.0	3214.1	3251.0	3248.6
25°	3068.3	3085.0	3135.4	3176.4	3169.9
27.5°	2968.5	2988.1	3059.9	3116.3	3079.9
30°	2891.6	2881.8	2942.4	2992.8	3020.7
32.5°	2754.1	2789.5	2860.4	2910.3	2883.7
35°	2670.7	2678.6	2740.6	2804.0	2802.1
37.5°	2524.8	2561.6	2648.8	2666.5	2650.2
40°	2400.4	2437.2	2515.9	2535.1	2527.1
42.5°	2308.5	2315.1	2382.6	2404.6	2369.6
45°	2148.7	2188.8	2225.1	2282.4	2228.4
47.5°	2012.6	2031.2	2109.5	2124.9	2096.5
50°	1889.1	1895.6	1974.4	1955.2	1936.6
52.5°	1733.8	1761.3	1805.6	1801.9	1780.0
55°	1606.1	1595.4	1637.4	1626.2	1625.7
57.5°	1452.8	1471.4	1505.9	1488.2	1459.8
60°	1309.2	1309.7	1322.3	1302.3	1298.5
62.5°	1149.4	1155.0	1157.8	1133.1	1173.1
65°	986.7	973.7	1011.9	973.2	979.7
67.5°	837.1	843.6	839.9	815.7	825.0
70°	685.2	693.5	687.5	660.0	668.4
72.5°	546.3	536.0	542.5	508.0	523.9
75°	410.6	402.2	409.7	380.8	393.8
77.5°	279.7	286.2	281.5	266.1	275.0
80°	184.6	179.4	179.4	170.6	172.5
82.5°	107.7	102.5	101.1	98.3	102.5
85°	50.3	48.9	49.9	48.5	46.6
87.5°	18.2	18.6	18.6	17.7	16.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)