

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: P589625

Luminaire Tested: **FMR-24-2-LD4-4HI-50-UNV-80-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589625
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-50-UNV-80-88-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

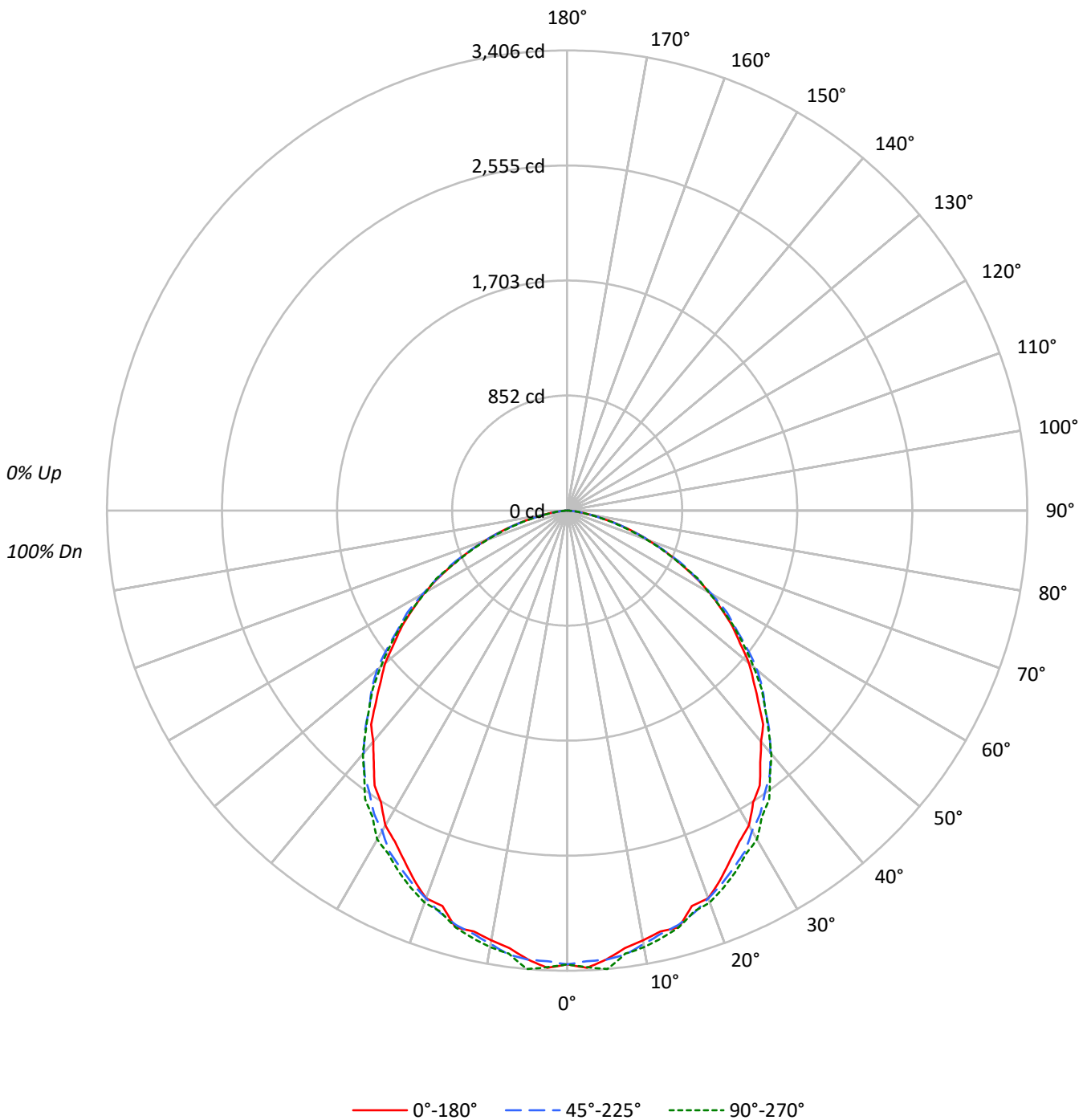
Lumens per Lamp: N/A
Luminaire Lumens: 8465.0 lumens
Efficiency: N/A
Efficacy: 98.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P589625

CATALOG NUMBER: FMR-24-2-LD4-4HI-50-UNV-80-88-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589625

CATALOG NUMBER: FMR-24-2-LD4-4HI-50-UNV-80-88-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°	9038	9038	9038
5°	9008	9012	9202
10°	8826	8903	8966
15°	8895	8847	8897
20°	8745	8745	8838
25°	8476	8662	8757
30°	8360	8507	8733
35°	8163	8377	8565
40°	7845	8223	8260
45°	7608	7879	7890
50°	7358	7690	7544
55°	7011	7147	7096
60°	6556	6621	6502
65°	5846	5995	5805
70°	5016	5032	4893
75°	3973	3963	3810
80°	2661	2588	2487
85°	1445	1433	1340



TEST NUMBER: P589625

CATALOG NUMBER: FMR-24-2-LD4-4HI-50-UNV-80-88-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	315.9	3.7
10°-20°	895.4	10.6
20°-30°	1341.5	15.8
30°-40°	1589.9	18.8
40°-50°	1592.9	18.8
50°-60°	1352.1	16.0
60°-70°	911.6	10.8
70°-80°	400.6	4.7
80°-90°	65.1	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°	2552.8	30.2
0°-40°	4142.8	48.9
0°-60°	7087.8	83.7
0°-90°	8465.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8465.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3359	3359	3359	3359	3359	
5°	3335	3327	3336	3326	3406	314
15°	3193	3156	3176	3192	3194	890
25°	2855	2870	2917	2955	2949	1320
35°	2485	2492	2550	2609	2607	1543
45°	1999	2036	2070	2124	2073	1546
55°	1494	1484	1523	1513	1513	1329
65°	918	906	942	906	912	913
75°	382	374	381	354	366	409
85°	47	46	46	45	43	68
90°	0	0	0	0	0	



TEST NUMBER: P589625

CATALOG NUMBER: FMR-24-2-LD4-4HI-50-UNV-80-88-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3358.7	3358.7	3358.7	3358.7	3358.7
2.5°	3387.8	3362.2	3338.3	3366.1	3383.0
5°	3334.8	3327.0	3336.1	3326.2	3406.4
7.5°	3266.3	3296.3	3313.6	3302.8	3307.5
10°	3229.9	3219.5	3258.1	3285.0	3281.1
12.5°	3190.9	3206.5	3208.7	3237.7	3240.3
15°	3193.0	3156.2	3175.7	3192.2	3193.5
17.5°	3069.0	3108.9	3122.4	3160.1	3113.2
20°	3053.8	3024.8	3053.8	3092.4	3086.4
22.5°	2960.6	2928.1	2990.5	3024.8	3022.6
25°	2854.8	2870.4	2917.2	2955.4	2949.3
27.5°	2762.0	2780.2	2847.0	2899.5	2865.6
30°	2690.4	2681.3	2737.7	2784.5	2810.6
32.5°	2562.5	2595.5	2661.4	2707.8	2683.1
35°	2484.9	2492.2	2549.9	2608.9	2607.2
37.5°	2349.1	2383.4	2464.5	2481.0	2465.8
40°	2233.3	2267.6	2340.9	2358.7	2351.3
42.5°	2147.9	2154.0	2216.9	2237.3	2204.7
45°	1999.2	2036.5	2070.3	2123.6	2073.3
47.5°	1872.5	1889.9	1962.7	1977.1	1950.6
50°	1757.6	1763.7	1837.0	1819.2	1801.9
52.5°	1613.2	1638.8	1680.0	1676.5	1656.1
55°	1494.4	1484.4	1523.4	1513.0	1512.6
57.5°	1351.7	1369.1	1401.2	1384.7	1358.2
60°	1218.2	1218.6	1230.3	1211.6	1208.2
62.5°	1069.4	1074.6	1077.2	1054.2	1091.5
65°	918.1	905.9	941.5	905.5	911.6
67.5°	778.9	784.9	781.5	758.9	767.6
70°	637.5	645.3	639.6	614.1	621.9
72.5°	508.2	498.7	504.8	472.7	487.4
75°	382.1	374.2	381.2	354.3	366.4
77.5°	260.2	266.3	261.9	247.6	255.9
80°	171.7	167.0	167.0	158.7	160.5
82.5°	100.2	95.4	94.1	91.5	95.4
85°	46.8	45.5	46.4	45.1	43.4
87.5°	16.9	17.3	17.3	16.5	15.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)