

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: P589158

Luminaire Tested: **FMR-24-2-LD4-2LO-50-UNV-82-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589158
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-LD4-2LO-50-UNV-82-85-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

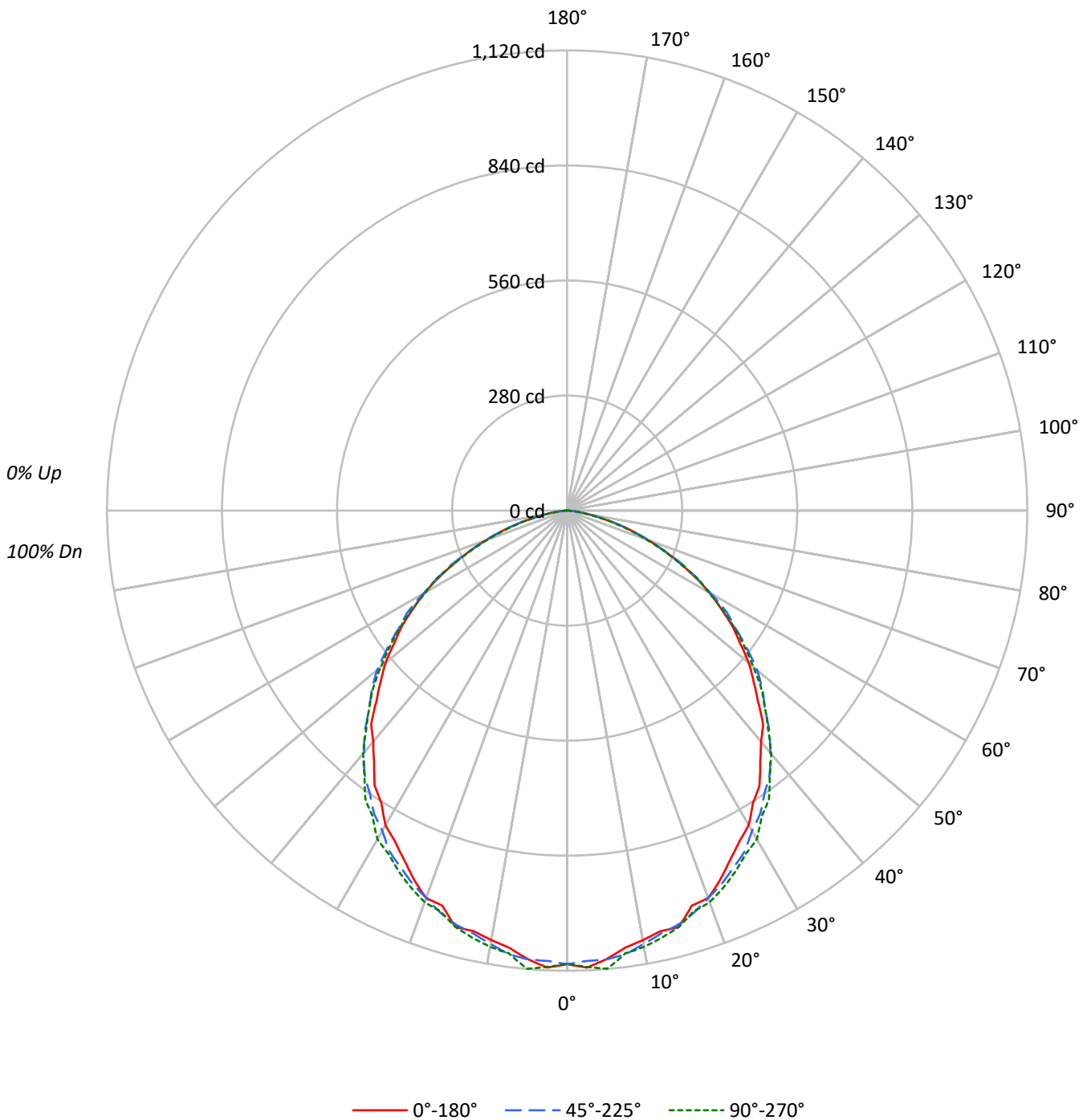
Lumens per Lamp: N/A
Luminaire Lumens: 2782.0 lumens
Efficiency: N/A
Efficacy: 118.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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: P589158

CATALOG NUMBER: FMR-24-2-LD4-2LO-50-UNV-82-85-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589158

CATALOG NUMBER: FMR-24-2-LD4-2LO-50-UNV-82-85-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					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2970	2970	2970
5°	2961	2962	3024
10°	2901	2926	2946
15°	2924	2908	2924
20°	2874	2874	2905
25°	2786	2847	2878
30°	2747	2796	2870
35°	2683	2753	2815
40°	2578	2702	2715
45°	2500	2589	2593
50°	2418	2527	2479
55°	2304	2349	2332
60°	2154	2176	2137
65°	1921	1970	1908
70°	1648	1654	1608
75°	1306	1303	1252
80°	874	851	817
85°	475	469	442



TEST NUMBER: P589158

CATALOG NUMBER: FMR-24-2-LD4-2LO-50-UNV-82-85-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.8	3.7
10°-20°	294.3	10.6
20°-30°	440.9	15.8
30°-40°	522.5	18.8
40°-50°	523.5	18.8
50°-60°	444.4	16.0
60°-70°	299.6	10.8
70°-80°	131.6	4.7
80°-90°	21.4	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°	839.0	30.2
0°-40°	1361.5	48.9
0°-60°	2329.4	83.7
0°-90°	2782.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2782.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1104	1104	1104	1104	1104	
5°	1096	1093	1096	1093	1120	103
15°	1049	1037	1044	1049	1050	292
25°	938	943	959	971	969	434
35°	817	819	838	857	857	507
45°	657	669	680	698	681	508
55°	491	488	501	497	497	437
65°	302	298	309	298	300	300
75°	126	123	125	116	120	135
85°	15	15	15	15	14	22
90°	0	0	0	0	0	



TEST NUMBER: P589158

CATALOG NUMBER: FMR-24-2-LD4-2LO-50-UNV-82-85-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1103.8	1103.8	1103.8	1103.8	1103.8
2.5°	1113.4	1105.0	1097.1	1106.3	1111.8
5°	1096.0	1093.4	1096.4	1093.1	1119.5
7.5°	1073.5	1083.3	1089.0	1085.4	1087.0
10°	1061.5	1058.1	1070.8	1079.6	1078.3
12.5°	1048.7	1053.8	1054.5	1064.1	1064.9
15°	1049.4	1037.3	1043.7	1049.1	1049.5
17.5°	1008.6	1021.7	1026.2	1038.6	1023.2
20°	1003.6	994.1	1003.6	1016.3	1014.3
22.5°	973.0	962.3	982.8	994.1	993.4
25°	938.2	943.3	958.7	971.3	969.3
27.5°	907.7	913.7	935.7	952.9	941.8
30°	884.2	881.2	899.7	915.1	923.7
32.5°	842.2	853.0	874.7	889.9	881.8
35°	816.6	819.1	838.0	857.4	856.8
37.5°	772.0	783.3	809.9	815.4	810.4
40°	734.0	745.2	769.3	775.2	772.8
42.5°	705.9	707.9	728.6	735.3	724.6
45°	657.0	669.3	680.4	697.9	681.4
47.5°	615.4	621.1	645.1	649.8	641.1
50°	577.6	579.6	603.7	597.9	592.2
52.5°	530.2	538.6	552.1	551.0	544.3
55°	491.1	487.9	500.7	497.3	497.1
57.5°	444.2	449.9	460.5	455.1	446.4
60°	400.3	400.5	404.3	398.2	397.1
62.5°	351.5	353.2	354.0	346.5	358.7
65°	301.7	297.7	309.4	297.6	299.6
67.5°	256.0	258.0	256.8	249.4	252.3
70°	209.5	212.1	210.2	201.8	204.4
72.5°	167.0	163.9	165.9	155.3	160.2
75°	125.6	123.0	125.3	116.4	120.4
77.5°	85.5	87.5	86.1	81.4	84.1
80°	56.4	54.9	54.9	52.2	52.7
82.5°	32.9	31.4	30.9	30.1	31.4
85°	15.4	15.0	15.2	14.8	14.3
87.5°	5.6	5.7	5.7	5.4	5.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)