

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: P589131

Luminaire Tested: **FMR-24-2-LD4-2LO-40-UNV-82-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589131
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-40-UNV-82-96-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

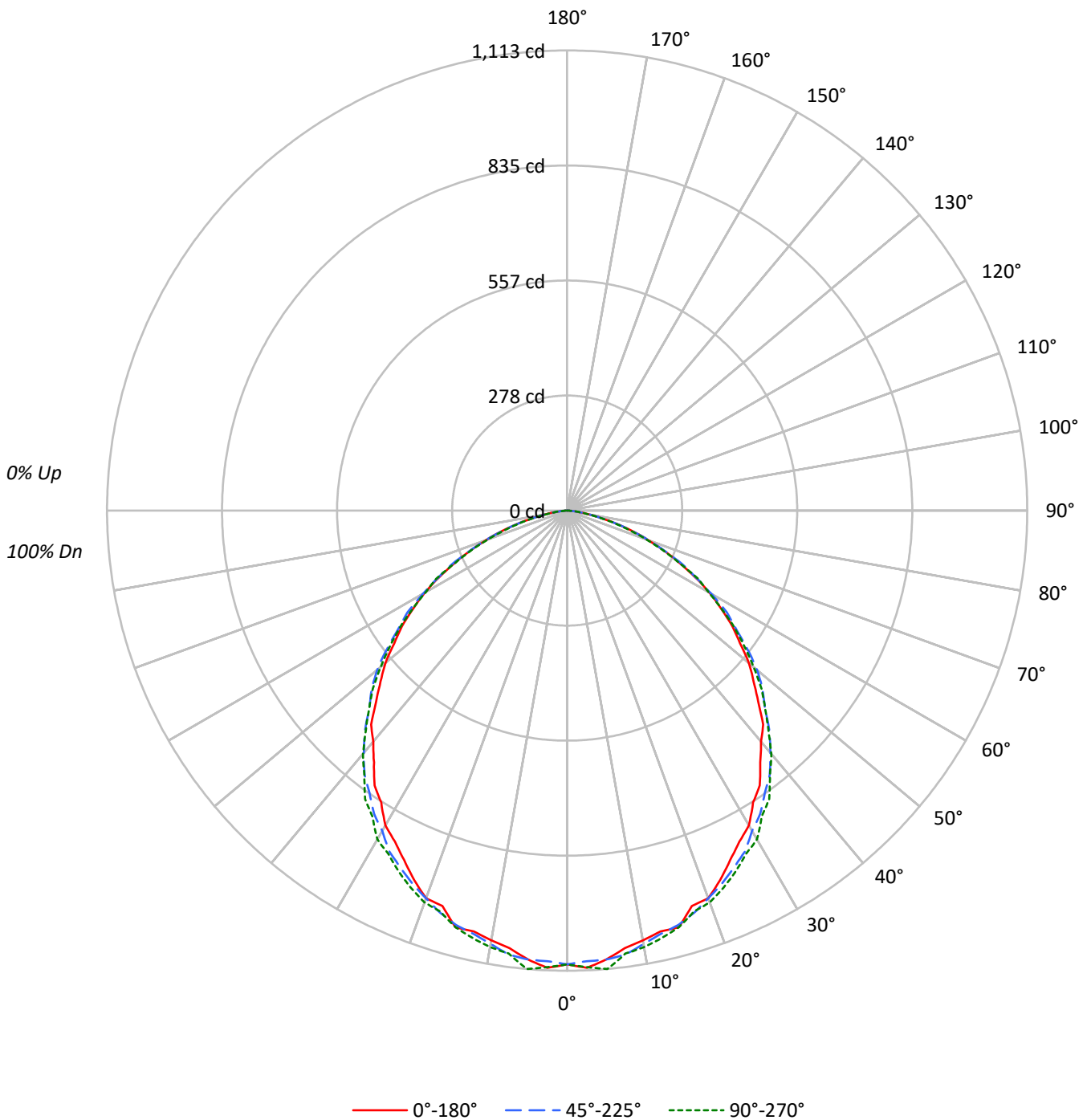
Lumens per Lamp: N/A
Luminaire Lumens: 2766.0 lumens
Efficiency: N/A
Efficacy: 118.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P589131

CATALOG NUMBER: FMR-24-2-LD4-2LO-40-UNV-82-96-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589131

CATALOG NUMBER: FMR-24-2-LD4-2LO-40-UNV-82-96-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°	2953	2953	2953
5°	2944	2945	3007
10°	2884	2909	2930
15°	2907	2891	2907
20°	2858	2858	2888
25°	2770	2830	2861
30°	2732	2780	2854
35°	2667	2737	2799
40°	2564	2687	2699
45°	2486	2575	2578
50°	2404	2513	2465
55°	2291	2335	2319
60°	2142	2164	2125
65°	1910	1959	1897
70°	1639	1644	1599
75°	1298	1295	1245
80°	869	846	812
85°	472	469	438



TEST NUMBER: P589131

CATALOG NUMBER: FMR-24-2-LD4-2LO-40-UNV-82-96-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.2	3.7
10°-20°	292.6	10.6
20°-30°	438.3	15.8
30°-40°	519.5	18.8
40°-50°	520.5	18.8
50°-60°	441.8	16.0
60°-70°	297.9	10.8
70°-80°	130.9	4.7
80°-90°	21.3	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°	834.2	30.2
0°-40°	1353.7	48.9
0°-60°	2316.0	83.7
0°-90°	2766.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2766.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1098	1098	1098	1098	1098	
5°	1090	1087	1090	1087	1113	103
15°	1043	1031	1038	1043	1044	291
25°	933	938	953	966	964	431
35°	812	814	833	852	852	504
45°	653	665	676	694	678	505
55°	488	485	498	494	494	434
65°	300	296	308	296	298	298
75°	125	122	125	116	120	134
85°	15	15	15	15	14	22
90°	0	0	0	0	0	



TEST NUMBER: P589131

CATALOG NUMBER: FMR-24-2-LD4-2LO-40-UNV-82-96-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1097.5	1097.5	1097.5	1097.5	1097.5
2.5°	1107.0	1098.6	1090.8	1099.9	1105.4
5°	1089.7	1087.1	1090.1	1086.9	1113.1
7.5°	1067.3	1077.1	1082.7	1079.2	1080.8
10°	1055.4	1052.0	1064.6	1073.4	1072.1
12.5°	1042.6	1047.7	1048.5	1057.9	1058.8
15°	1043.3	1031.3	1037.7	1043.1	1043.5
17.5°	1002.8	1015.9	1020.3	1032.6	1017.3
20°	997.9	988.4	997.9	1010.5	1008.5
22.5°	967.4	956.8	977.2	988.4	987.7
25°	932.8	937.9	953.2	965.7	963.7
27.5°	902.5	908.4	930.3	947.4	936.4
30°	879.1	876.1	894.6	909.9	918.4
32.5°	837.3	848.1	869.6	884.8	876.7
35°	812.0	814.4	833.2	852.5	851.9
37.5°	767.6	778.8	805.3	810.7	805.7
40°	729.8	741.0	764.9	770.7	768.3
42.5°	701.8	703.8	724.4	731.0	720.4
45°	653.2	665.4	676.5	693.9	677.5
47.5°	611.9	617.5	641.3	646.0	637.4
50°	574.3	576.3	600.2	594.4	588.8
52.5°	527.1	535.5	549.0	547.8	541.2
55°	488.3	485.0	497.8	494.4	494.3
57.5°	441.7	447.4	457.8	452.5	443.8
60°	398.0	398.2	402.0	395.9	394.8
62.5°	349.4	351.1	352.0	344.5	356.7
65°	300.0	296.0	307.6	295.9	297.9
67.5°	254.5	256.5	255.3	248.0	250.8
70°	208.3	210.9	209.0	200.6	203.2
72.5°	166.1	163.0	164.9	154.5	159.3
75°	124.8	122.3	124.6	115.8	119.7
77.5°	85.0	87.0	85.6	80.9	83.6
80°	56.1	54.6	54.6	51.9	52.4
82.5°	32.7	31.2	30.7	29.9	31.2
85°	15.3	14.9	15.2	14.7	14.2
87.5°	5.5	5.7	5.7	5.4	5.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)