

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: P589079

Luminaire Tested: **FMR-24-2-LD4-2LO-35-UNV-80-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589079
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-35-UNV-80-86-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

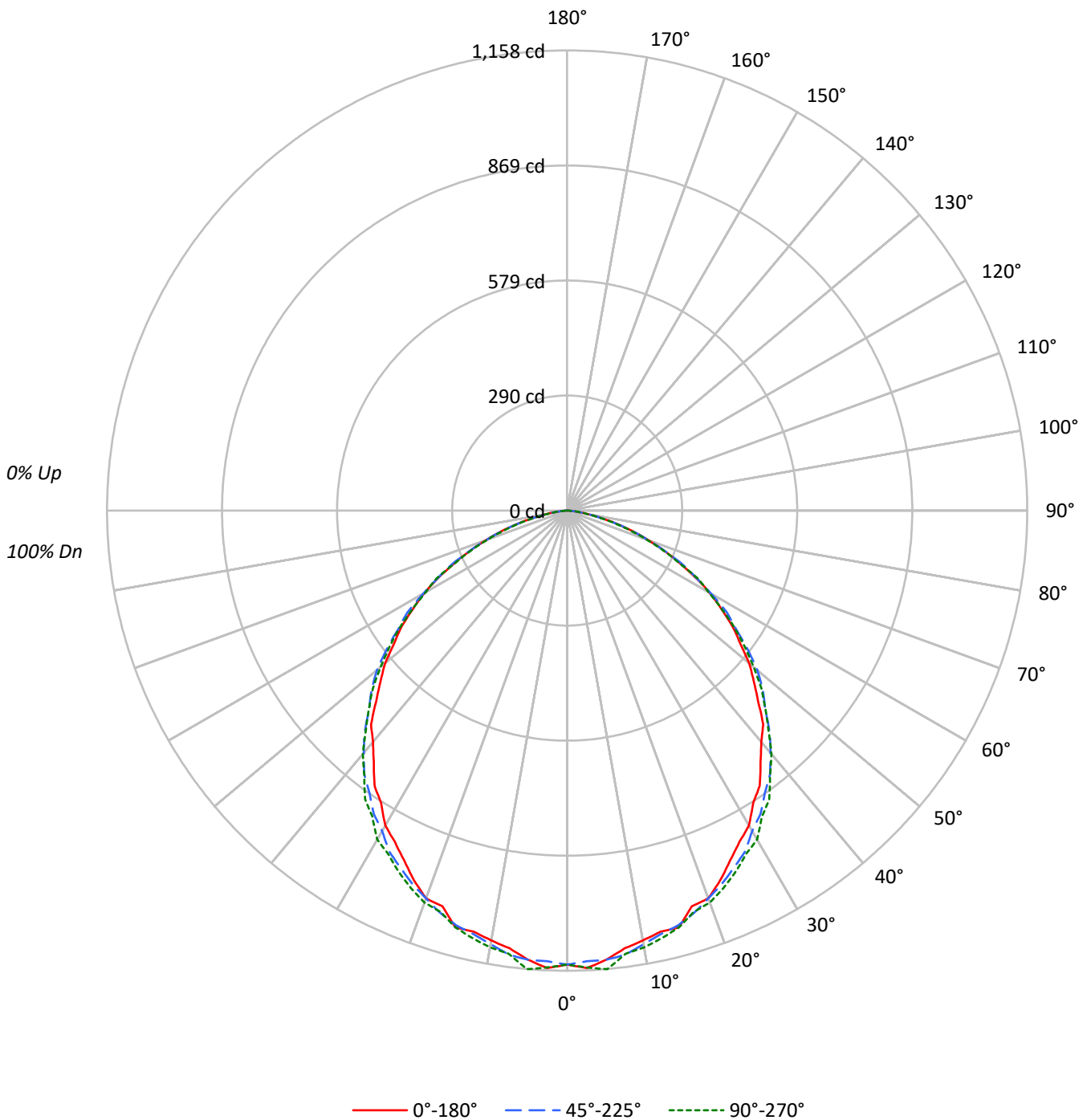
Lumens per Lamp: N/A
Luminaire Lumens: 2879.0 lumens
Efficiency: N/A
Efficacy: 123.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P589079

CATALOG NUMBER: FMR-24-2-LD4-2LO-35-UNV-80-86-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589079

CATALOG NUMBER: FMR-24-2-LD4-2LO-35-UNV-80-86-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°	3074	3074	3074
5°	3064	3065	3129
10°	3002	3028	3049
15°	3025	3009	3026
20°	2974	2974	3006
25°	2883	2946	2978
30°	2843	2893	2970
35°	2776	2849	2913
40°	2668	2797	2809
45°	2587	2680	2684
50°	2503	2616	2565
55°	2385	2431	2413
60°	2230	2252	2211
65°	1988	2039	1974
70°	1706	1711	1664
75°	1351	1347	1295
80°	905	880	846
85°	491	488	454



TEST NUMBER: P589079

CATALOG NUMBER: FMR-24-2-LD4-2LO-35-UNV-80-86-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.5	3.7
10°-20°	304.5	10.6
20°-30°	456.3	15.8
30°-40°	540.7	18.8
40°-50°	541.8	18.8
50°-60°	459.9	16.0
60°-70°	310.0	10.8
70°-80°	136.2	4.7
80°-90°	22.1	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°	868.2	30.2
0°-40°	1409.0	48.9
0°-60°	2410.6	83.7
0°-90°	2879.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2879.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1142	1142	1142	1142	1142	
5°	1134	1132	1135	1131	1158	107
15°	1086	1073	1080	1086	1086	303
25°	971	976	992	1005	1003	449
35°	845	848	867	887	887	525
45°	680	693	704	722	705	526
55°	508	505	518	515	514	452
65°	312	308	320	308	310	311
75°	130	127	130	120	125	139
85°	16	16	16	15	15	23
90°	0	0	0	0	0	



TEST NUMBER: P589079

CATALOG NUMBER: FMR-24-2-LD4-2LO-35-UNV-80-86-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1142.3	1142.3	1142.3	1142.3	1142.3
2.5°	1152.2	1143.5	1135.4	1144.8	1150.6
5°	1134.2	1131.5	1134.6	1131.3	1158.5
7.5°	1110.9	1121.1	1127.0	1123.3	1124.9
10°	1098.5	1095.0	1108.1	1117.2	1115.9
12.5°	1085.2	1090.5	1091.3	1101.2	1102.0
15°	1086.0	1073.4	1080.1	1085.7	1086.1
17.5°	1043.8	1057.4	1061.9	1074.8	1058.8
20°	1038.6	1028.7	1038.6	1051.8	1049.7
22.5°	1006.9	995.9	1017.1	1028.7	1028.0
25°	970.9	976.2	992.2	1005.1	1003.1
27.5°	939.4	945.6	968.3	986.1	974.6
30°	915.0	911.9	931.1	947.0	955.9
32.5°	871.5	882.7	905.1	920.9	912.5
35°	845.1	847.6	867.2	887.3	886.7
37.5°	799.0	810.6	838.2	843.8	838.6
40°	759.6	771.2	796.2	802.2	799.7
42.5°	730.5	732.6	754.0	760.9	749.8
45°	679.9	692.6	704.1	722.3	705.2
47.5°	636.9	642.8	667.5	672.4	663.4
50°	597.8	599.8	624.8	618.7	612.8
52.5°	548.7	557.4	571.4	570.2	563.3
55°	508.3	504.9	518.1	514.6	514.4
57.5°	459.7	465.6	476.5	470.9	461.9
60°	414.3	414.4	418.4	412.1	410.9
62.5°	363.7	365.5	366.4	358.5	371.2
65°	312.2	308.1	320.2	308.0	310.0
67.5°	264.9	267.0	265.8	258.1	261.1
70°	216.8	219.5	217.5	208.8	211.5
72.5°	172.9	169.6	171.7	160.8	165.8
75°	129.9	127.3	129.6	120.5	124.6
77.5°	88.5	90.6	89.1	84.2	87.0
80°	58.4	56.8	56.8	54.0	54.6
82.5°	34.1	32.4	32.0	31.1	32.4
85°	15.9	15.5	15.8	15.3	14.7
87.5°	5.8	5.9	5.9	5.6	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)