

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: P588727

Luminaire Tested: **FMR-24-2-LD4-1HI-40-UNV-80-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588727
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-LD4-1HI-40-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

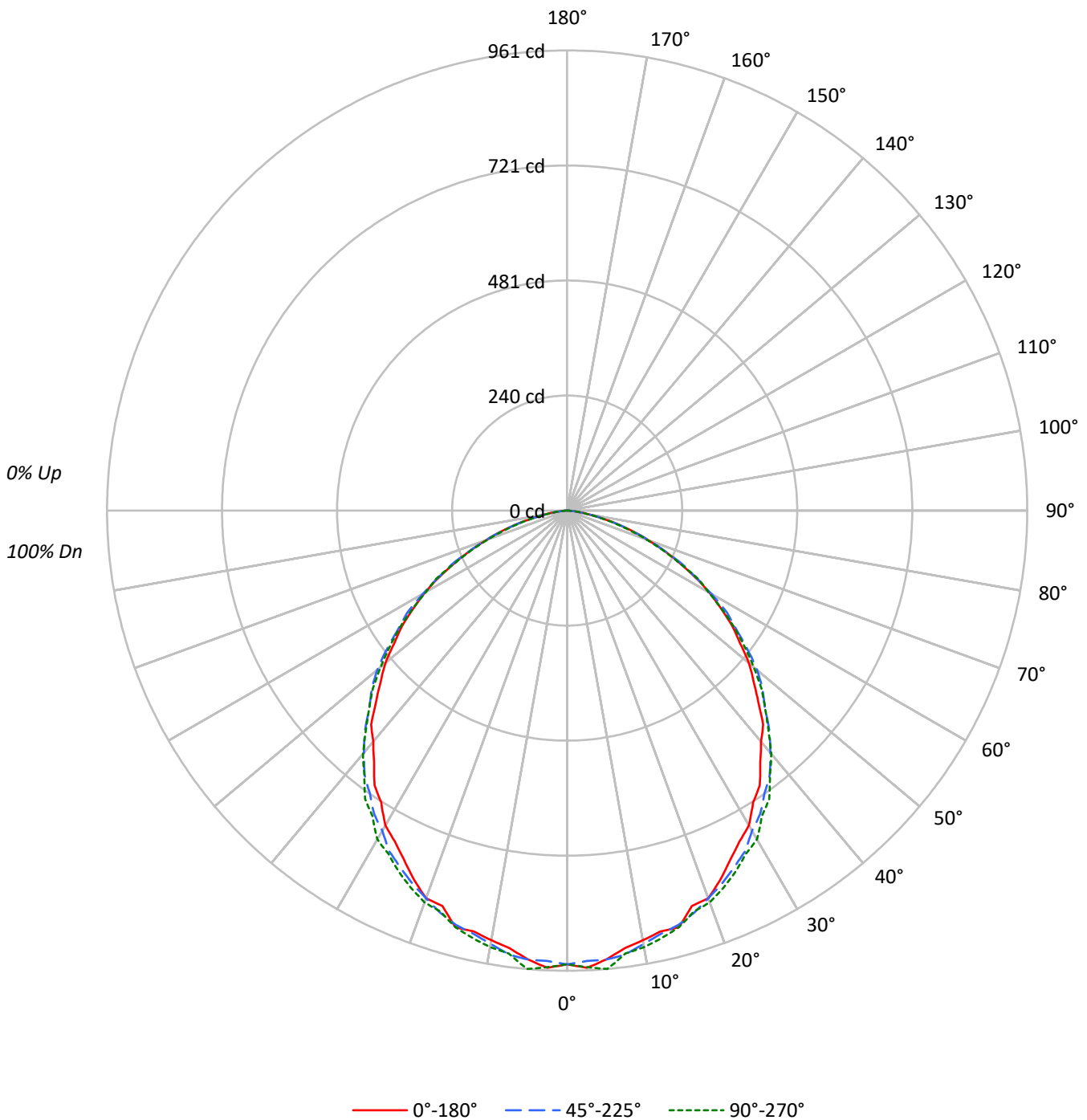
Lumens per Lamp: N/A
Luminaire Lumens: 2388.0 lumens
Efficiency: N/A
Efficacy: 110.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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: P588727

CATALOG NUMBER: FMR-24-2-LD4-1HI-40-UNV-80-86-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P588727

CATALOG NUMBER: FMR-24-2-LD4-1HI-40-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°	2550	2550	2550
5°	2541	2542	2596
10°	2490	2511	2529
15°	2510	2496	2510
20°	2467	2467	2493
25°	2391	2444	2470
30°	2358	2400	2464
35°	2303	2363	2416
40°	2213	2320	2330
45°	2146	2222	2226
50°	2076	2169	2128
55°	1978	2016	2002
60°	1849	1868	1834
65°	1649	1691	1638
70°	1415	1419	1380
75°	1121	1118	1075
80°	750	730	702
85°	408	404	377



TEST NUMBER: P588727

CATALOG NUMBER: FMR-24-2-LD4-1HI-40-UNV-80-86-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.1	3.7
10°-20°	252.6	10.6
20°-30°	378.4	15.8
30°-40°	448.5	18.8
40°-50°	449.4	18.8
50°-60°	381.4	16.0
60°-70°	257.2	10.8
70°-80°	113.0	4.7
80°-90°	18.4	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°	720.2	30.2
0°-40°	1168.7	48.9
0°-60°	1999.5	83.7
0°-90°	2388.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2388.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	948	948	948	948	948	
5°	941	939	941	938	961	89
15°	901	890	896	900	901	251
25°	805	810	823	834	832	372
35°	701	703	719	736	736	435
45°	564	574	584	599	585	436
55°	422	419	430	427	427	375
65°	259	256	266	255	257	258
75°	108	106	108	100	103	116
85°	13	13	13	13	12	19
90°	0	0	0	0	0	



TEST NUMBER: P588727

CATALOG NUMBER: FMR-24-2-LD4-1HI-40-UNV-80-86-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	947.5	947.5	947.5	947.5	947.5
2.5°	955.7	948.5	941.7	949.6	954.3
5°	940.8	938.6	941.1	938.3	961.0
7.5°	921.4	929.9	934.8	931.7	933.1
10°	911.2	908.2	919.1	926.7	925.6
12.5°	900.2	904.6	905.2	913.4	914.1
15°	900.8	890.4	895.9	900.5	900.9
17.5°	865.8	877.0	880.8	891.5	878.3
20°	861.5	853.3	861.5	872.4	870.7
22.5°	835.2	826.0	843.6	853.3	852.7
25°	805.3	809.7	823.0	833.7	832.0
27.5°	779.2	784.3	803.1	817.9	808.4
30°	759.0	756.4	772.3	785.5	792.9
32.5°	722.9	732.2	750.8	763.9	756.9
35°	701.0	703.1	719.3	736.0	735.5
37.5°	662.7	672.4	695.2	699.9	695.6
40°	630.0	639.7	660.4	665.4	663.3
42.5°	605.9	607.6	625.4	631.1	622.0
45°	564.0	574.5	584.0	599.1	584.9
47.5°	528.3	533.1	553.7	557.7	550.3
50°	495.8	497.5	518.2	513.2	508.3
52.5°	455.1	462.3	473.9	473.0	467.2
55°	421.6	418.8	429.8	426.8	426.7
57.5°	381.3	386.2	395.3	390.6	383.2
60°	343.6	343.8	347.1	341.8	340.8
62.5°	301.7	303.2	303.9	297.4	307.9
65°	259.0	255.6	265.6	255.4	257.2
67.5°	219.7	221.4	220.5	214.1	216.5
70°	179.8	182.0	180.4	173.2	175.4
72.5°	143.4	140.7	142.4	133.3	137.5
75°	107.8	105.6	107.5	99.9	103.4
77.5°	73.4	75.1	73.9	69.9	72.2
80°	48.4	47.1	47.1	44.8	45.3
82.5°	28.3	26.9	26.5	25.8	26.9
85°	13.2	12.8	13.1	12.7	12.2
87.5°	4.8	4.9	4.9	4.6	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)