

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: P588762

Luminaire Tested: **FMR-24-2-LD4-1HI-50-UNV-80-94-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588762  
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-50-UNV-80-94-EDD  
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

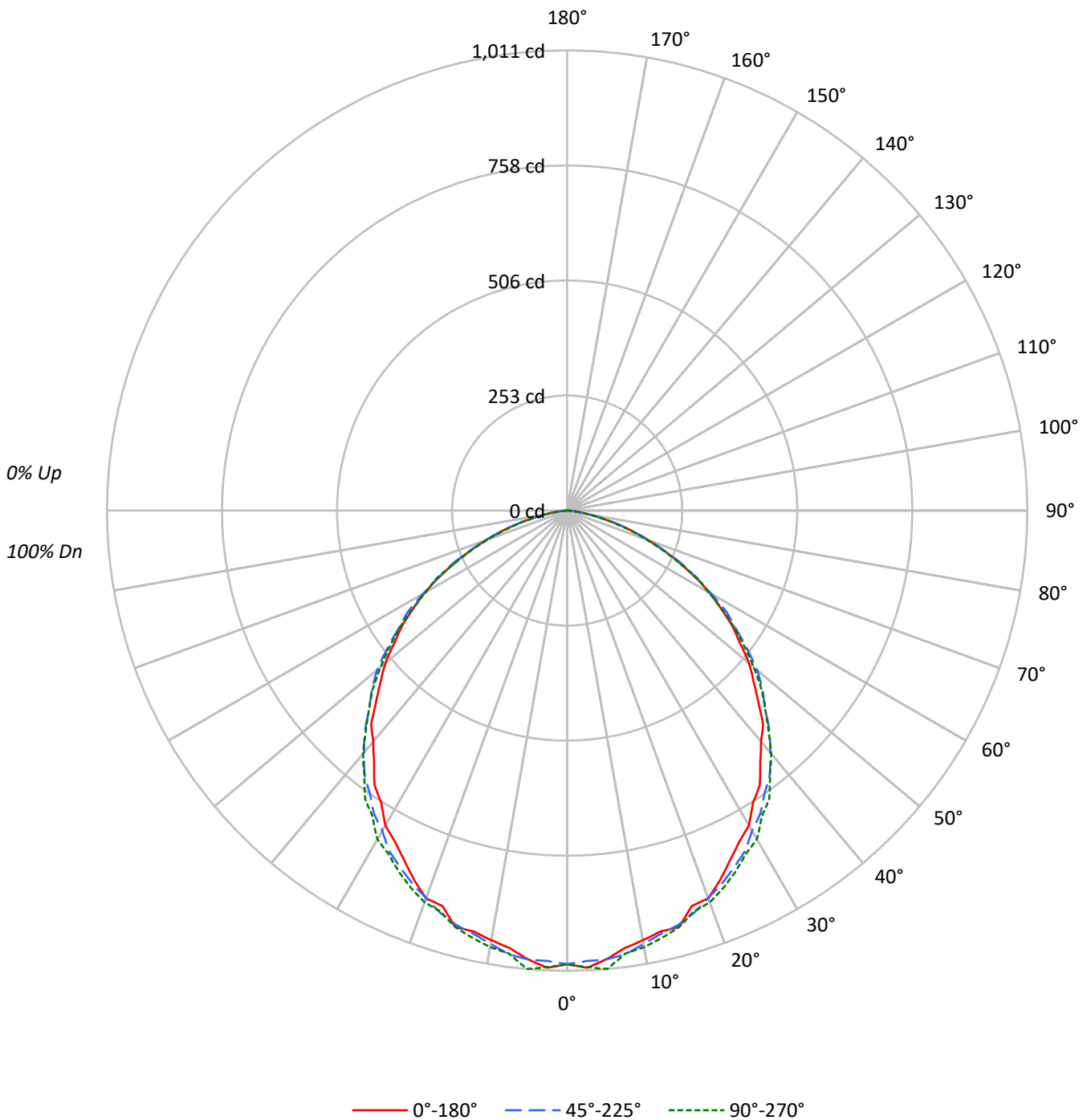
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2512.0 lumens  
Efficiency: N/A  
Efficacy: 116.3 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 (A<sub>in</sub>): 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: P588762

CATALOG NUMBER: FMR-24-2-LD4-1HI-50-UNV-80-94-EDD

### Luminous Intensity Polar Plot





TEST NUMBER: P588762

CATALOG NUMBER: FMR-24-2-LD4-1HI-50-UNV-80-94-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°	2682	2682	2682
5°	2673	2674	2731
10°	2619	2642	2661
15°	2640	2625	2640
20°	2595	2595	2623
25°	2515	2570	2599
30°	2481	2524	2591
35°	2422	2486	2542
40°	2328	2440	2451
45°	2258	2338	2342
50°	2184	2282	2238
55°	2081	2121	2106
60°	1946	1965	1929
65°	1734	1779	1722
70°	1489	1493	1452
75°	1179	1176	1130
80°	790	767	738
85°	429	426	398



TEST NUMBER: P588762

CATALOG NUMBER: FMR-24-2-LD4-1HI-50-UNV-80-94-EDD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.8	3.7
10°-20°	265.7	10.6
20°-30°	398.1	15.8
30°-40°	471.8	18.8
40°-50°	472.7	18.8
50°-60°	401.2	16.0
60°-70°	270.5	10.8
70°-80°	118.9	4.7
80°-90°	19.3	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°	757.6	30.2
0°-40°	1229.4	48.9
0°-60°	2103.3	83.7
0°-90°	2512.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2512.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	997	997	997	997	997	
5°	990	987	990	987	1011	93
15°	948	937	942	947	948	264
25°	847	852	866	877	875	392
35°	737	740	757	774	774	458
45°	593	604	614	630	615	459
55°	444	440	452	449	449	394
65°	272	269	279	269	270	271
75°	113	111	113	105	109	122
85°	14	14	14	13	13	20
90°	0	0	0	0	0	



TEST NUMBER: P588762

CATALOG NUMBER: FMR-24-2-LD4-1HI-50-UNV-80-94-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	996.7	996.7	996.7	996.7	996.7
2.5°	1005.3	997.7	990.6	998.9	1003.9
5°	989.6	987.3	990.0	987.0	1010.9
7.5°	969.3	978.2	983.3	980.1	981.5
10°	958.5	955.4	966.8	974.8	973.7
12.5°	946.9	951.5	952.2	960.8	961.6
15°	947.5	936.6	942.4	947.3	947.7
17.5°	910.7	922.6	926.6	937.8	923.9
20°	906.2	897.6	906.2	917.7	915.9
22.5°	878.6	868.9	887.4	897.6	897.0
25°	847.2	851.8	865.7	877.0	875.2
27.5°	819.6	825.0	844.8	860.4	850.4
30°	798.4	795.7	812.4	826.3	834.0
32.5°	760.4	770.2	789.8	803.5	796.2
35°	737.4	739.6	756.7	774.2	773.7
37.5°	697.1	707.3	731.3	736.2	731.7
40°	662.7	672.9	694.7	699.9	697.8
42.5°	637.4	639.2	657.9	663.9	654.3
45°	593.3	604.3	614.4	630.2	615.3
47.5°	555.7	560.8	582.4	586.7	578.8
50°	521.6	523.4	545.1	539.9	534.7
52.5°	478.7	486.3	498.5	497.5	491.5
55°	443.5	440.5	452.1	449.0	448.9
57.5°	401.1	406.3	415.8	410.9	403.1
60°	361.5	361.6	365.1	359.6	358.5
62.5°	317.3	318.9	319.7	312.8	323.9
65°	272.4	268.8	279.4	268.7	270.5
67.5°	231.1	232.9	231.9	225.2	227.8
70°	189.2	191.5	189.8	182.2	184.5
72.5°	150.8	148.0	149.8	140.3	144.6
75°	113.4	111.1	113.1	105.1	108.7
77.5°	77.2	79.0	77.7	73.5	75.9
80°	51.0	49.5	49.5	47.1	47.6
82.5°	29.7	28.3	27.9	27.2	28.3
85°	13.9	13.5	13.8	13.4	12.9
87.5°	5.0	5.1	5.1	4.9	4.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)