

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: P589080

Luminaire Tested: **FMR-24-2-LD4-2LO-35-UNV-80-87-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P589080  
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-80-87-EDD  
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

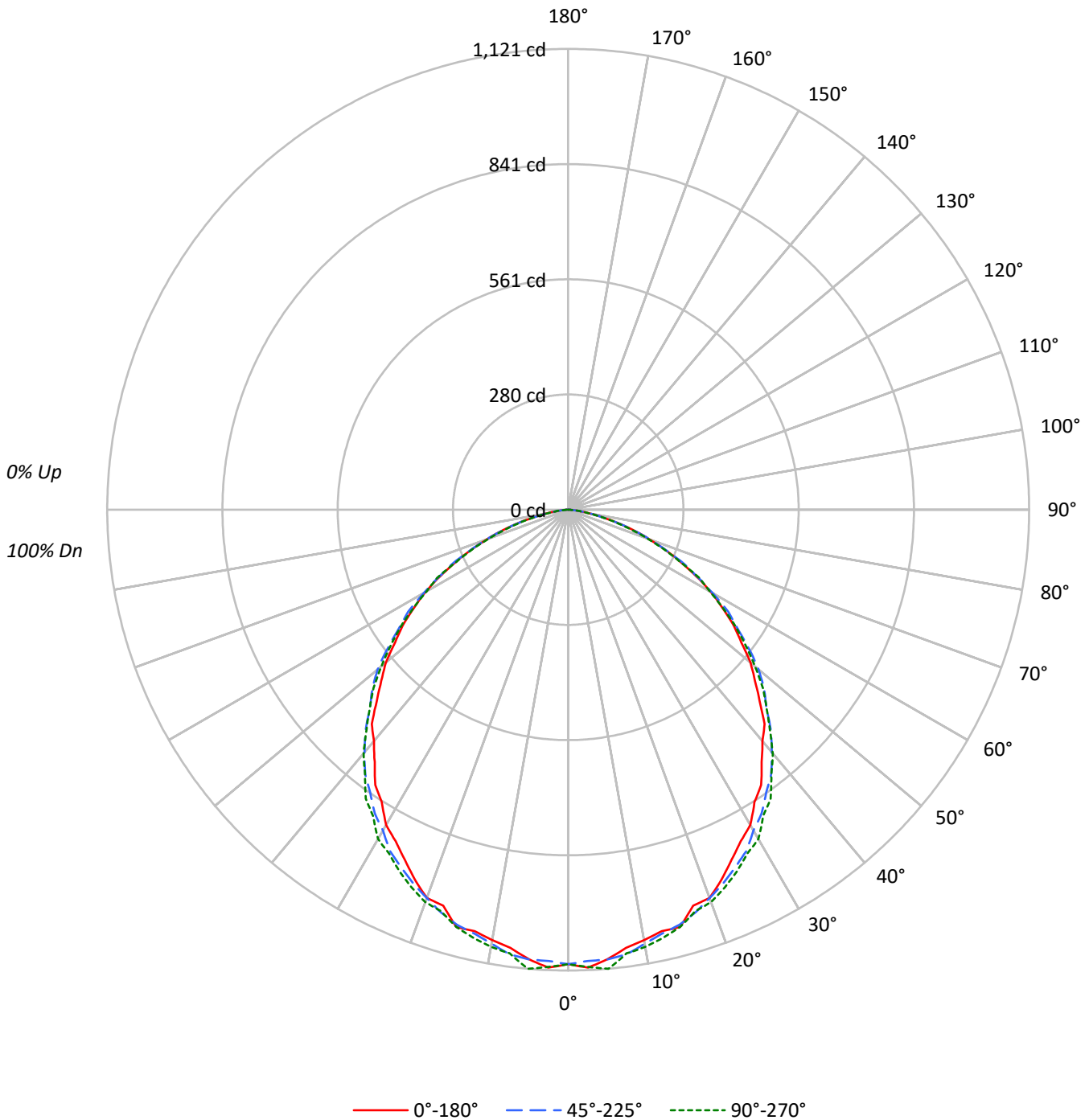
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2786.0 lumens  
Efficiency: N/A  
Efficacy: 119.1 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

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### Luminous Intensity Polar Plot





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**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°	2975	2975	2975
5°	2965	2966	3028
10°	2905	2930	2951
15°	2928	2912	2928
20°	2878	2878	2909
25°	2790	2851	2882
30°	2751	2800	2874
35°	2687	2757	2819
40°	2582	2706	2719
45°	2504	2593	2597
50°	2422	2531	2483
55°	2307	2352	2335
60°	2158	2179	2140
65°	1924	1973	1910
70°	1651	1656	1611
75°	1307	1305	1254
80°	876	851	818
85°	475	472	442



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	104.0	3.7
10°-20°	294.7	10.6
20°-30°	441.5	15.8
30°-40°	523.3	18.8
40°-50°	524.2	18.8
50°-60°	445.0	16.0
60°-70°	300.0	10.8
70°-80°	131.8	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°	840.2	30.2
0°-40°	1363.5	48.9
0°-60°	2332.7	83.7
0°-90°	2786.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2786.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1105	1105	1105	1105	1105	
5°	1098	1095	1098	1095	1121	103
15°	1051	1039	1045	1051	1051	293
25°	940	945	960	973	971	434
35°	818	820	839	859	858	508
45°	658	670	681	699	682	509
55°	492	489	501	498	498	438
65°	302	298	310	298	300	301
75°	126	123	126	117	121	135
85°	15	15	15	15	14	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1105.4	1105.4	1105.4	1105.4	1105.4
2.5°	1115.0	1106.6	1098.7	1107.8	1113.4
5°	1097.6	1095.0	1098.0	1094.7	1121.1
7.5°	1075.0	1084.9	1090.6	1087.0	1088.6
10°	1063.0	1059.6	1072.3	1081.2	1079.9
12.5°	1050.2	1055.3	1056.0	1065.6	1066.5
15°	1050.9	1038.8	1045.2	1050.6	1051.0
17.5°	1010.1	1023.2	1027.6	1040.0	1024.6
20°	1005.1	995.5	1005.1	1017.8	1015.8
22.5°	974.4	963.7	984.2	995.5	994.8
25°	939.6	944.7	960.1	972.7	970.7
27.5°	909.0	915.0	937.0	954.3	943.1
30°	885.5	882.5	901.0	916.4	925.0
32.5°	843.4	854.2	875.9	891.2	883.0
35°	817.8	820.2	839.2	858.6	858.1
37.5°	773.1	784.4	811.1	816.5	811.5
40°	735.0	746.3	770.4	776.3	773.9
42.5°	706.9	708.9	729.6	736.3	725.6
45°	658.0	670.2	681.4	698.9	682.4
47.5°	616.3	622.0	646.0	650.7	642.0
50°	578.5	580.5	604.6	598.7	593.0
52.5°	530.9	539.4	552.9	551.8	545.1
55°	491.8	488.6	501.4	498.0	497.8
57.5°	444.9	450.6	461.1	455.7	447.0
60°	400.9	401.1	404.9	398.8	397.6
62.5°	352.0	353.7	354.5	347.0	359.2
65°	302.2	298.2	309.9	298.0	300.0
67.5°	256.3	258.3	257.2	249.8	252.6
70°	209.8	212.4	210.5	202.1	204.7
72.5°	167.3	164.1	166.1	155.6	160.4
75°	125.7	123.2	125.5	116.6	120.6
77.5°	85.6	87.6	86.2	81.5	84.2
80°	56.5	54.9	54.9	52.2	52.8
82.5°	33.0	31.4	31.0	30.1	31.4
85°	15.4	15.0	15.3	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)