

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: P588875

Luminaire Tested: **FMR-24-2-LD4-1LO-50-UNV-82-96-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588875  
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-LD4-1LO-50-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 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

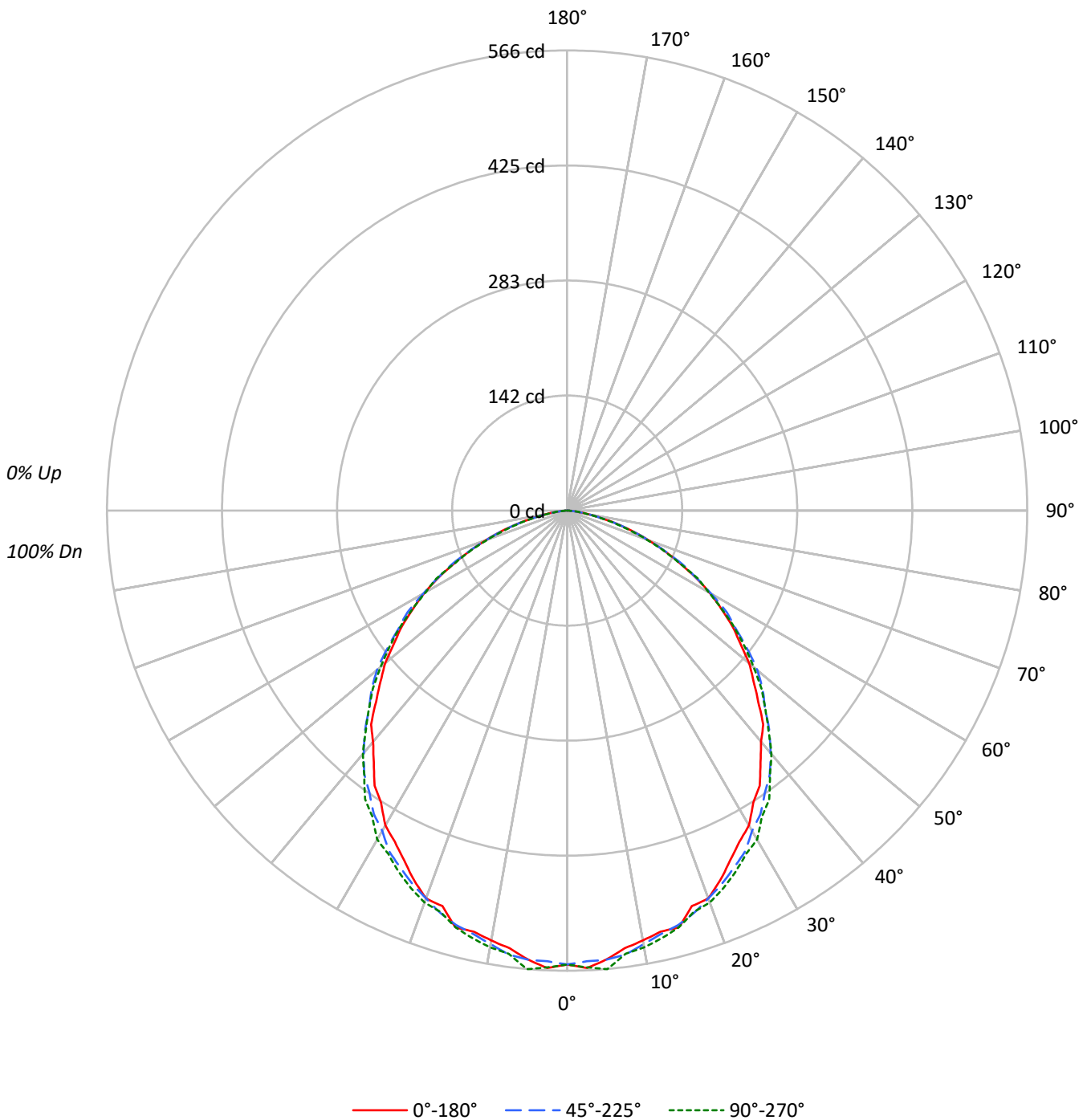
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1407.0 lumens  
Efficiency: N/A  
Efficacy: 120.3 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): 11.7  
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°	1502	1502	1502
5°	1497	1498	1529
10°	1467	1480	1490
15°	1478	1470	1479
20°	1454	1454	1469
25°	1409	1440	1455
30°	1390	1414	1452
35°	1357	1392	1423
40°	1304	1367	1373
45°	1265	1310	1311
50°	1223	1278	1254
55°	1165	1188	1179
60°	1090	1101	1081
65°	972	996	965
70°	834	836	814
75°	660	659	633
80°	442	431	414
85°	241	238	222



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.5	3.7
10°-20°	148.8	10.6
20°-30°	223.0	15.8
30°-40°	264.3	18.8
40°-50°	264.8	18.8
50°-60°	224.7	16.0
60°-70°	151.5	10.8
70°-80°	66.6	4.7
80°-90°	10.8	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°	424.3	30.2
0°-40°	688.6	48.9
0°-60°	1178.1	83.7
0°-90°	1407.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1407.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	558	558	558	558	558	
5°	554	553	554	553	566	52
15°	531	525	528	531	531	148
25°	474	477	485	491	490	219
35°	413	414	424	434	433	256
45°	332	338	344	353	345	257
55°	248	247	253	252	251	221
65°	153	151	156	150	152	152
75°	64	62	63	59	61	68
85°	8	8	8	8	7	11
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	558.3	558.3	558.3	558.3	558.3
2.5°	563.1	558.8	554.9	559.5	562.3
5°	554.3	553.0	554.5	552.9	566.2
7.5°	542.9	547.9	550.8	549.0	549.8
10°	536.9	535.1	541.5	546.0	545.4
12.5°	530.4	533.0	533.3	538.2	538.6
15°	530.7	524.6	527.8	530.6	530.8
17.5°	510.1	516.7	519.0	525.2	517.5
20°	507.6	502.8	507.6	514.0	513.0
22.5°	492.1	486.7	497.1	502.8	502.4
25°	474.5	477.1	484.9	491.2	490.2
27.5°	459.1	462.1	473.2	481.9	476.3
30°	447.2	445.7	455.0	462.8	467.2
32.5°	425.9	431.4	442.4	450.1	446.0
35°	413.0	414.2	423.8	433.6	433.3
37.5°	390.5	396.2	409.6	412.4	409.8
40°	371.2	376.9	389.1	392.0	390.8
42.5°	357.0	358.0	368.5	371.9	366.5
45°	332.3	338.5	344.1	353.0	344.6
47.5°	311.2	314.1	326.2	328.6	324.2
50°	292.1	293.2	305.3	302.4	299.5
52.5°	268.1	272.4	279.2	278.7	275.3
55°	248.4	246.7	253.2	251.5	251.4
57.5°	224.7	227.6	232.9	230.2	225.8
60°	202.5	202.5	204.5	201.4	200.8
62.5°	177.8	178.6	179.0	175.2	181.4
65°	152.6	150.6	156.5	150.5	151.5
67.5°	129.5	130.5	129.9	126.1	127.6
70°	106.0	107.3	106.3	102.1	103.4
72.5°	84.5	82.9	83.9	78.6	81.0
75°	63.5	62.2	63.4	58.9	60.9
77.5°	43.2	44.3	43.5	41.2	42.5
80°	28.5	27.8	27.8	26.4	26.7
82.5°	16.7	15.9	15.6	15.2	15.9
85°	7.8	7.6	7.7	7.5	7.2
87.5°	2.8	2.9	2.9	2.7	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)