

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: P588806

Luminaire Tested: **FMR-24-2-LD4-1LO-35-UNV-82-85-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588806  
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-35-UNV-82-85-EDD  
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

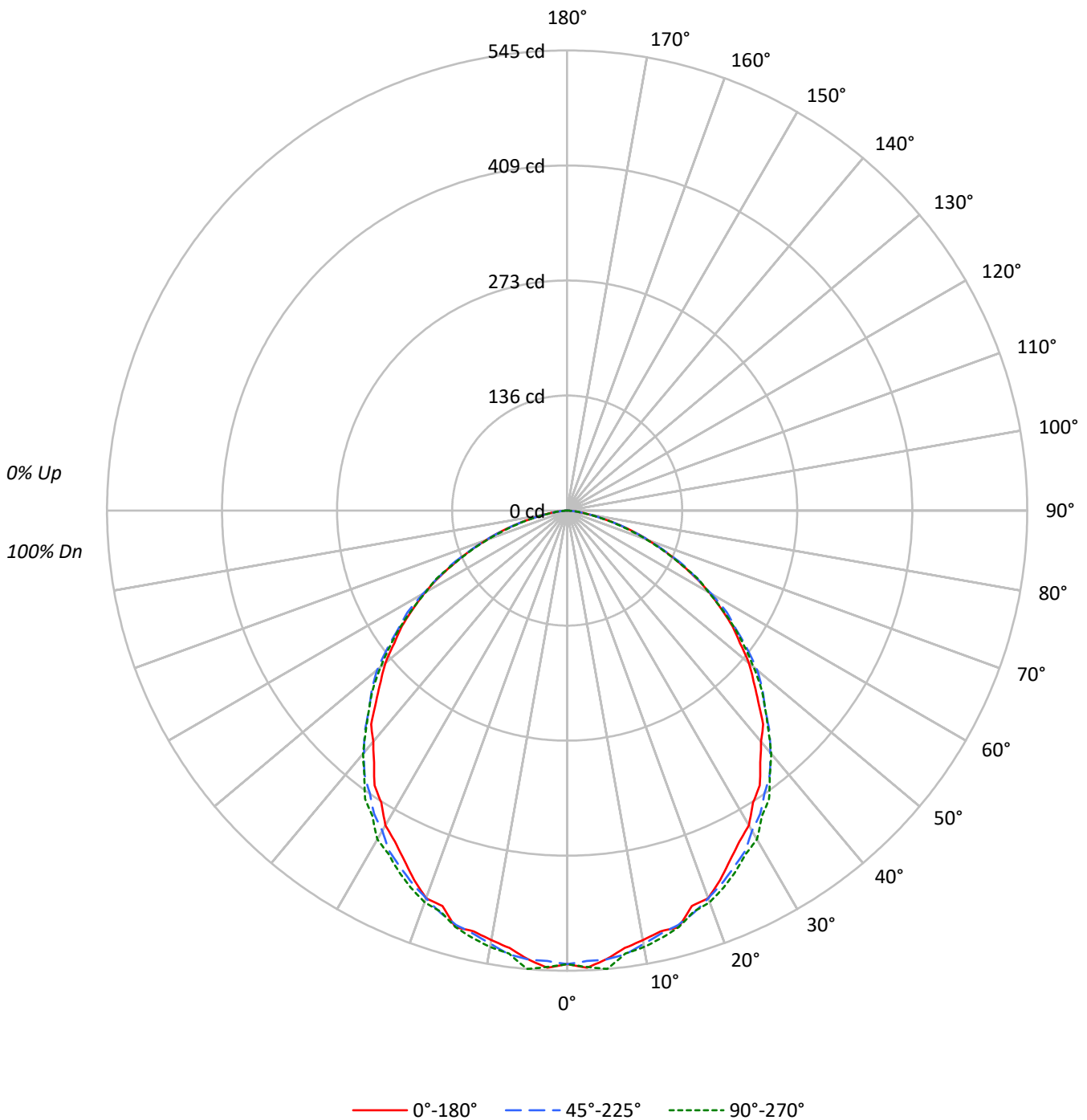
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1354.0 lumens  
Efficiency: N/A  
Efficacy: 115.7 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°	1446	1446	1446
5°	1441	1441	1472
10°	1412	1424	1434
15°	1423	1415	1423
20°	1399	1399	1414
25°	1356	1385	1401
30°	1337	1361	1397
35°	1306	1340	1370
40°	1255	1315	1321
45°	1217	1260	1262
50°	1177	1230	1207
55°	1121	1143	1135
60°	1048	1059	1040
65°	935	959	928
70°	803	805	783
75°	635	634	609
80°	426	414	398
85°	232	228	213



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.5	3.7
10°-20°	143.2	10.6
20°-30°	214.6	15.8
30°-40°	254.3	18.8
40°-50°	254.8	18.8
50°-60°	216.3	16.0
60°-70°	145.8	10.8
70°-80°	64.1	4.7
80°-90°	10.4	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°	408.3	30.2
0°-40°	662.6	48.9
0°-60°	1133.7	83.7
0°-90°	1354.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1354.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	537	537	537	537	537	
5°	533	532	534	532	545	50
15°	511	505	508	511	511	142
25°	457	459	467	473	472	211
35°	398	399	408	417	417	247
45°	320	326	331	340	332	247
55°	239	237	244	242	242	213
65°	147	145	151	145	146	146
75°	61	60	61	57	59	65
85°	8	7	7	7	7	11
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	537.2	537.2	537.2	537.2	537.2
2.5°	541.9	537.8	534.0	538.4	541.1
5°	533.4	532.2	533.6	532.0	544.9
7.5°	522.5	527.2	530.0	528.3	529.0
10°	516.6	515.0	521.1	525.4	524.8
12.5°	510.4	512.9	513.2	517.9	518.3
15°	510.7	504.8	508.0	510.6	510.8
17.5°	490.9	497.3	499.4	505.5	498.0
20°	488.5	483.8	488.5	494.6	493.7
22.5°	473.6	468.4	478.3	483.8	483.5
25°	456.6	459.1	466.6	472.7	471.8
27.5°	441.8	444.7	455.4	463.8	458.4
30°	430.3	428.9	437.9	445.4	449.6
32.5°	409.9	415.2	425.7	433.1	429.2
35°	397.5	398.6	407.9	417.3	417.0
37.5°	375.8	381.2	394.2	396.8	394.4
40°	357.2	362.7	374.4	377.3	376.1
42.5°	343.6	344.5	354.6	357.9	352.7
45°	319.8	325.7	331.1	339.7	331.6
47.5°	299.5	302.3	313.9	316.2	312.0
50°	281.1	282.1	293.8	291.0	288.2
52.5°	258.0	262.1	268.7	268.2	264.9
55°	239.0	237.4	243.7	242.0	241.9
57.5°	216.2	219.0	224.1	221.5	217.3
60°	194.8	194.9	196.8	193.8	193.3
62.5°	171.1	171.9	172.3	168.6	174.6
65°	146.8	144.9	150.6	144.8	145.8
67.5°	124.6	125.6	125.0	121.4	122.8
70°	102.0	103.2	102.3	98.2	99.5
72.5°	81.3	79.8	80.7	75.6	78.0
75°	61.1	59.9	61.0	56.7	58.6
77.5°	41.6	42.6	41.9	39.6	40.9
80°	27.5	26.7	26.7	25.4	25.7
82.5°	16.0	15.3	15.1	14.6	15.3
85°	7.5	7.3	7.4	7.2	6.9
87.5°	2.7	2.8	2.8	2.6	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)