

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: P588828

Luminaire Tested: **FMR-24-2-LD4-1LO-40-UNV-80-97-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588828  
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-40-UNV-80-97-EDD  
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

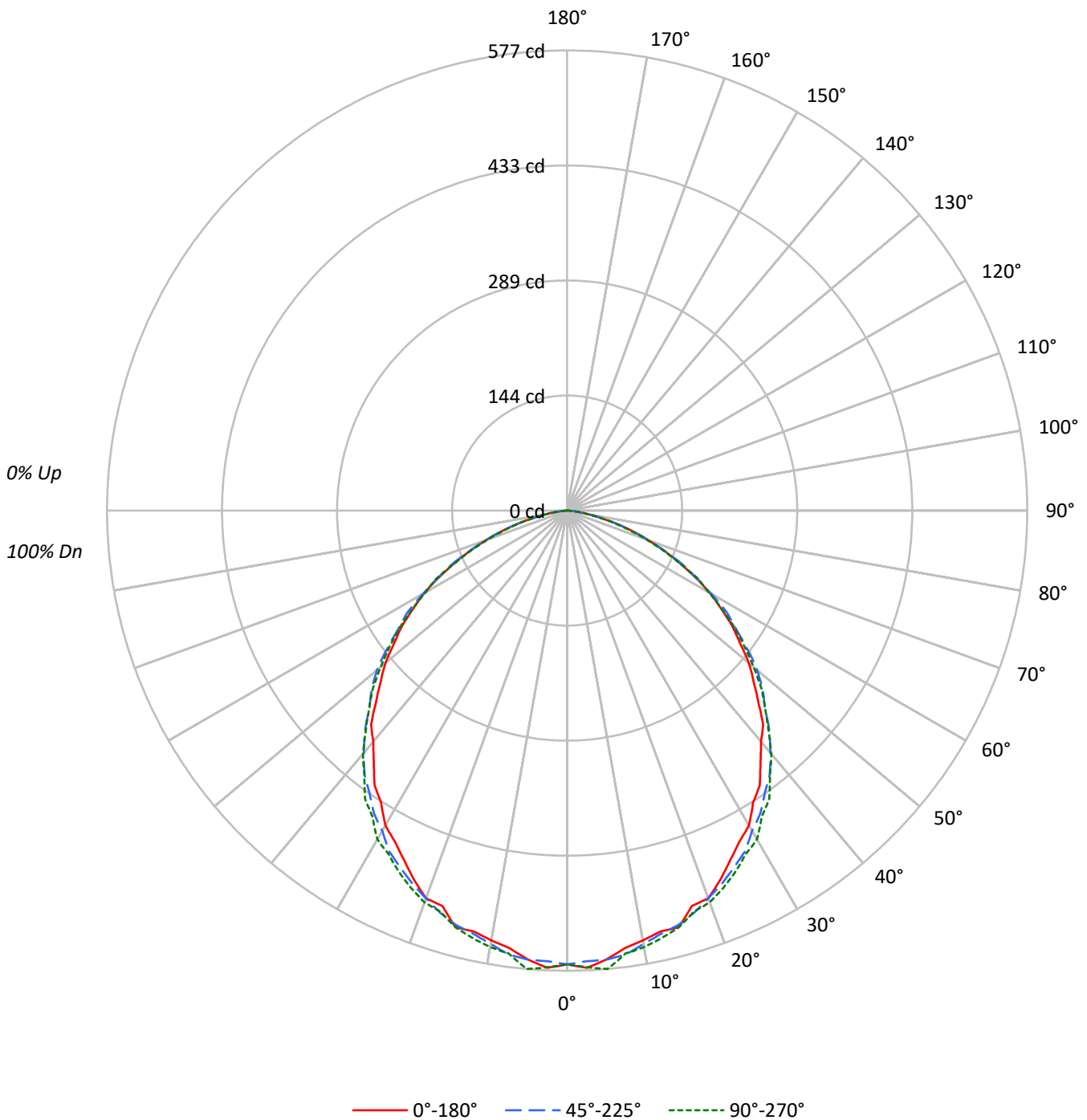
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1434.0 lumens  
Efficiency: N/A  
Efficacy: 122.6 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): 11.7  
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

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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°	1531	1531	1531
5°	1526	1527	1559
10°	1495	1508	1519
15°	1507	1499	1507
20°	1481	1481	1497
25°	1436	1467	1483
30°	1416	1441	1479
35°	1383	1419	1451
40°	1329	1393	1399
45°	1289	1335	1337
50°	1246	1303	1278
55°	1188	1211	1202
60°	1111	1122	1102
65°	990	1016	983
70°	850	853	828
75°	673	672	646
80°	451	439	422
85°	244	244	225



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.5	3.7
10°-20°	151.7	10.6
20°-30°	227.3	15.8
30°-40°	269.3	18.8
40°-50°	269.8	18.8
50°-60°	229.1	16.0
60°-70°	154.4	10.8
70°-80°	67.9	4.7
80°-90°	11.0	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°	432.5	30.2
0°-40°	701.8	48.9
0°-60°	1200.7	83.7
0°-90°	1434.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1434.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	569	569	569	569	569	
5°	565	564	565	564	577	53
15°	541	535	538	541	541	151
25°	484	486	494	501	500	224
35°	421	422	432	442	442	261
45°	339	345	351	360	351	262
55°	253	252	258	256	256	225
65°	156	154	160	153	154	155
75°	65	63	65	60	62	69
85°	8	8	8	8	7	12
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	569.0	569.0	569.0	569.0	569.0
2.5°	573.9	569.6	565.5	570.2	573.1
5°	564.9	563.6	565.2	563.5	577.1
7.5°	553.3	558.4	561.3	559.5	560.3
10°	547.2	545.4	551.9	556.5	555.8
12.5°	540.5	543.2	543.6	548.5	548.9
15°	540.9	534.7	538.0	540.8	541.0
17.5°	519.9	526.7	528.9	535.3	527.4
20°	517.3	512.4	517.3	523.9	522.8
22.5°	501.5	496.0	506.6	512.4	512.0
25°	483.6	486.3	494.2	500.7	499.6
27.5°	467.9	471.0	482.3	491.2	485.4
30°	455.8	454.2	463.8	471.7	476.1
32.5°	434.1	439.7	450.8	458.7	454.5
35°	420.9	422.2	432.0	442.0	441.7
37.5°	398.0	403.8	417.5	420.3	417.7
40°	378.3	384.1	396.6	399.6	398.3
42.5°	363.9	364.9	375.5	379.0	373.5
45°	338.7	345.0	350.7	359.8	351.2
47.5°	317.2	320.2	332.5	334.9	330.4
50°	297.7	298.8	311.2	308.2	305.2
52.5°	273.3	277.6	284.6	284.0	280.6
55°	253.2	251.5	258.1	256.3	256.2
57.5°	229.0	231.9	237.4	234.6	230.1
60°	206.4	206.4	208.4	205.3	204.7
62.5°	181.2	182.0	182.5	178.6	184.9
65°	155.5	153.5	159.5	153.4	154.4
67.5°	131.9	133.0	132.4	128.6	130.0
70°	108.0	109.3	108.4	104.0	105.3
72.5°	86.1	84.5	85.5	80.1	82.6
75°	64.7	63.4	64.6	60.0	62.1
77.5°	44.1	45.1	44.4	41.9	43.3
80°	29.1	28.3	28.3	26.9	27.2
82.5°	17.0	16.2	15.9	15.5	16.2
85°	7.9	7.7	7.9	7.6	7.3
87.5°	2.9	2.9	2.9	2.8	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)