

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: P588860

Luminaire Tested: **FMR-24-2-LD4-1LO-50-UNV-80-97-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588860  
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-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 5000K CCT  
LEDS  
Light Source: -  
Ballast/Driver: -

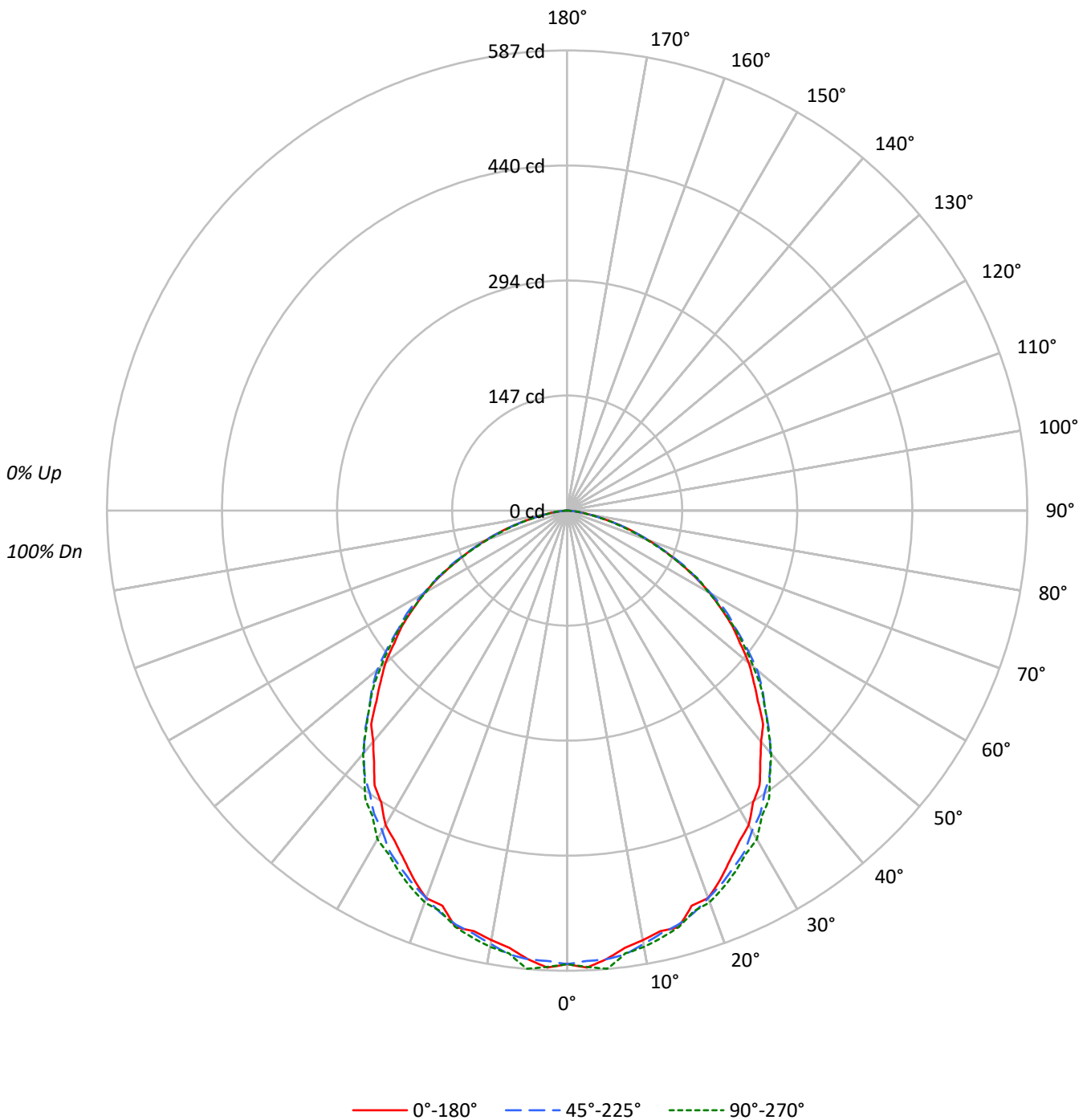
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1458.0 lumens  
Efficiency: N/A  
Efficacy: 124.6 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°	1557	1557	1557
5°	1552	1552	1585
10°	1520	1533	1544
15°	1532	1524	1532
20°	1506	1506	1522
25°	1460	1492	1508
30°	1440	1465	1504
35°	1406	1443	1475
40°	1351	1416	1423
45°	1310	1357	1359
50°	1267	1325	1299
55°	1208	1231	1222
60°	1129	1140	1120
65°	1007	1033	1000
70°	864	867	843
75°	684	683	656
80°	459	446	428
85°	250	247	232



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.4	3.7
10°-20°	154.2	10.6
20°-30°	231.1	15.8
30°-40°	273.9	18.8
40°-50°	274.4	18.8
50°-60°	232.9	16.0
60°-70°	157.0	10.8
70°-80°	69.0	4.7
80°-90°	11.2	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°	439.7	30.2
0°-40°	713.6	48.9
0°-60°	1220.8	83.7
0°-90°	1458.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1458.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	578	578	578	578	578	
5°	574	573	575	573	587	54
15°	550	544	547	550	550	153
25°	492	494	502	509	508	227
35°	428	429	439	449	449	266
45°	344	351	357	366	357	266
55°	257	256	262	261	260	229
65°	158	156	162	156	157	157
75°	66	64	66	61	63	71
85°	8	8	8	8	8	12
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	578.5	578.5	578.5	578.5	578.5
2.5°	583.5	579.1	575.0	579.8	582.7
5°	574.4	573.0	574.6	572.9	586.7
7.5°	562.6	567.7	570.7	568.9	569.7
10°	556.3	554.5	561.2	565.8	565.1
12.5°	549.6	552.3	552.7	557.7	558.1
15°	550.0	543.6	547.0	549.8	550.0
17.5°	528.6	535.5	537.8	544.3	536.2
20°	526.0	521.0	526.0	532.6	531.6
22.5°	509.9	504.3	515.1	521.0	520.6
25°	491.7	494.4	502.5	509.0	508.0
27.5°	475.7	478.9	490.4	499.4	493.6
30°	463.4	461.8	471.5	479.6	484.1
32.5°	441.4	447.0	458.4	466.4	462.1
35°	428.0	429.3	439.2	449.4	449.1
37.5°	404.6	410.5	424.5	427.3	424.7
40°	384.7	390.6	403.2	406.3	405.0
42.5°	370.0	371.0	381.8	385.3	379.7
45°	344.3	350.8	356.6	365.8	357.1
47.5°	322.5	325.5	338.1	340.5	336.0
50°	302.7	303.8	316.4	313.3	310.3
52.5°	277.9	282.3	289.4	288.8	285.3
55°	257.4	255.7	262.4	260.6	260.5
57.5°	232.8	235.8	241.3	238.5	233.9
60°	209.8	209.9	211.9	208.7	208.1
62.5°	184.2	185.1	185.5	181.6	188.0
65°	158.1	156.0	162.2	156.0	157.0
67.5°	134.1	135.2	134.6	130.7	132.2
70°	109.8	111.1	110.2	105.8	107.1
72.5°	87.5	85.9	86.9	81.4	84.0
75°	65.8	64.5	65.7	61.0	63.1
77.5°	44.8	45.9	45.1	42.6	44.1
80°	29.6	28.8	28.8	27.3	27.6
82.5°	17.3	16.4	16.2	15.8	16.4
85°	8.1	7.8	8.0	7.8	7.5
87.5°	2.9	3.0	3.0	2.8	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)