

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: P588867

Luminaire Tested: **FMR-24-2-LD4-1LO-50-UNV-81-96-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588867  
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-81-96-EDD  
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR  
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

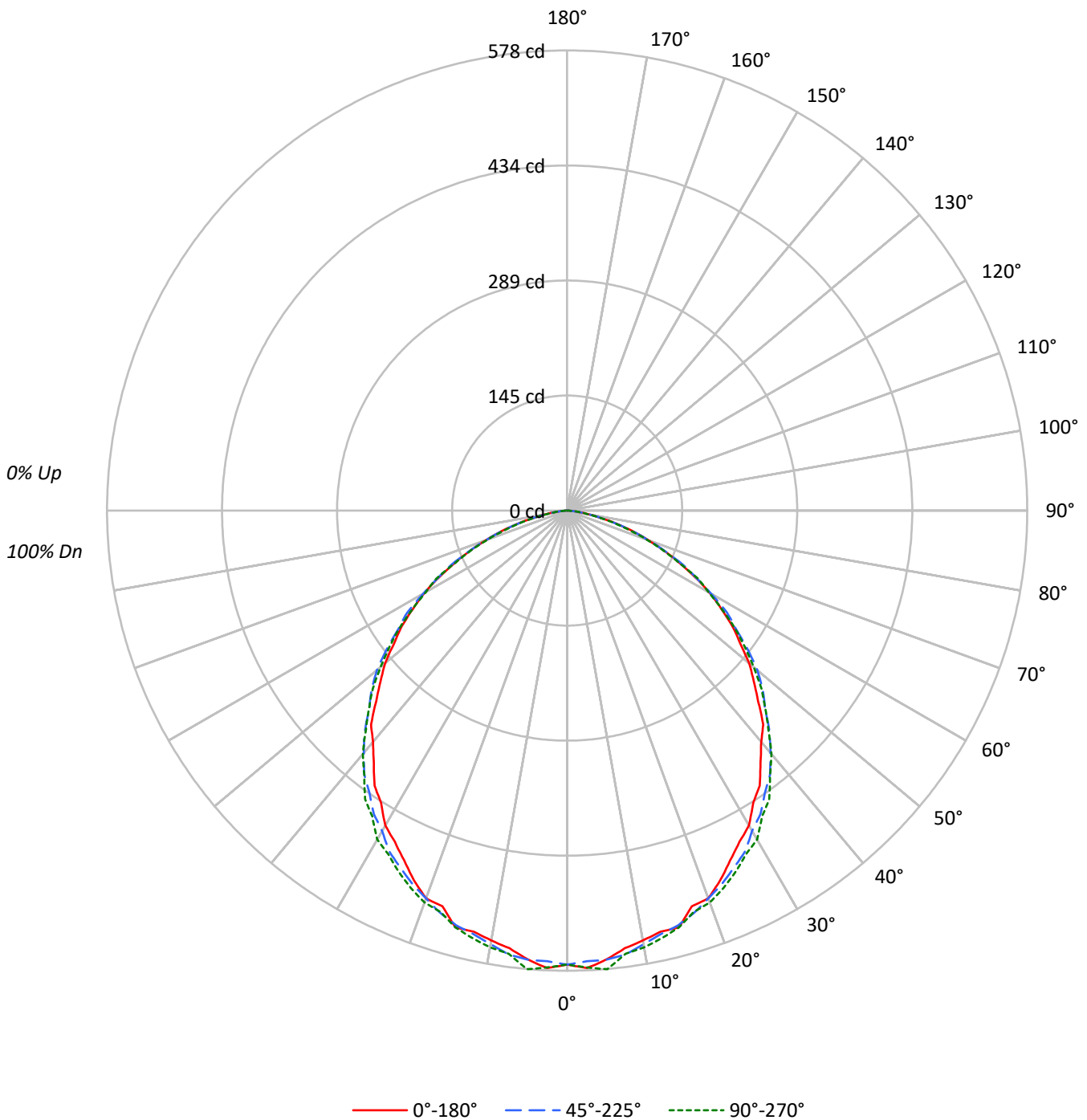
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1437.0 lumens  
Efficiency: N/A  
Efficacy: 122.8 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°	1534	1534	1534
5°	1529	1530	1562
10°	1498	1511	1522
15°	1510	1502	1510
20°	1485	1485	1500
25°	1439	1470	1487
30°	1419	1444	1482
35°	1386	1422	1454
40°	1332	1396	1402
45°	1292	1337	1340
50°	1249	1305	1281
55°	1190	1213	1205
60°	1113	1124	1104
65°	992	1018	985
70°	851	854	831
75°	675	673	647
80°	453	439	422
85°	247	244	228



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.6	3.7
10°-20°	152.0	10.6
20°-30°	227.7	15.8
30°-40°	269.9	18.8
40°-50°	270.4	18.8
50°-60°	229.5	16.0
60°-70°	154.7	10.8
70°-80°	68.0	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°	433.4	30.2
0°-40°	703.3	48.9
0°-60°	1203.2	83.7
0°-90°	1437.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1437.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	570	570	570	570	570	
5°	566	565	566	565	578	53
15°	542	536	539	542	542	151
25°	485	487	495	502	501	224
35°	422	423	433	443	443	262
45°	339	346	351	360	352	263
55°	254	252	259	257	257	226
65°	156	154	160	154	155	155
75°	65	64	65	60	62	70
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°	570.2	570.2	570.2	570.2	570.2
2.5°	575.1	570.8	566.7	571.4	574.3
5°	566.1	564.8	566.3	564.6	578.3
7.5°	554.5	559.6	562.5	560.7	561.5
10°	548.3	546.5	553.1	557.7	557.0
12.5°	541.7	544.3	544.7	549.6	550.1
15°	542.0	535.8	539.1	541.9	542.1
17.5°	521.0	527.8	530.0	536.4	528.5
20°	518.4	513.5	518.4	525.0	523.9
22.5°	502.6	497.1	507.7	513.5	513.1
25°	484.6	487.3	495.2	501.7	500.7
27.5°	468.9	472.0	483.3	492.2	486.5
30°	456.7	455.2	464.7	472.7	477.1
32.5°	435.0	440.6	451.8	459.7	455.5
35°	421.8	423.1	432.9	442.9	442.6
37.5°	398.8	404.6	418.4	421.2	418.6
40°	379.1	384.9	397.4	400.4	399.2
42.5°	364.6	365.7	376.3	379.8	374.3
45°	339.4	345.7	351.4	360.5	352.0
47.5°	317.9	320.8	333.2	335.6	331.1
50°	298.4	299.4	311.8	308.8	305.9
52.5°	273.9	278.2	285.2	284.6	281.1
55°	253.7	252.0	258.6	256.9	256.8
57.5°	229.5	232.4	237.9	235.1	230.6
60°	206.8	206.9	208.9	205.7	205.1
62.5°	181.5	182.4	182.9	179.0	185.3
65°	155.8	153.8	159.8	153.7	154.7
67.5°	132.2	133.2	132.7	128.8	130.3
70°	108.2	109.5	108.6	104.2	105.6
72.5°	86.3	84.7	85.7	80.2	82.7
75°	64.9	63.5	64.7	60.1	62.2
77.5°	44.2	45.2	44.5	42.0	43.4
80°	29.2	28.3	28.3	26.9	27.2
82.5°	17.0	16.2	16.0	15.5	16.2
85°	8.0	7.7	7.9	7.7	7.4
87.5°	2.9	2.9	2.9	2.8	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)