

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: P588825

Luminaire Tested: **FMR-24-2-LD4-1LO-40-UNV-80-88-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588825  
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-80-88-EDD  
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

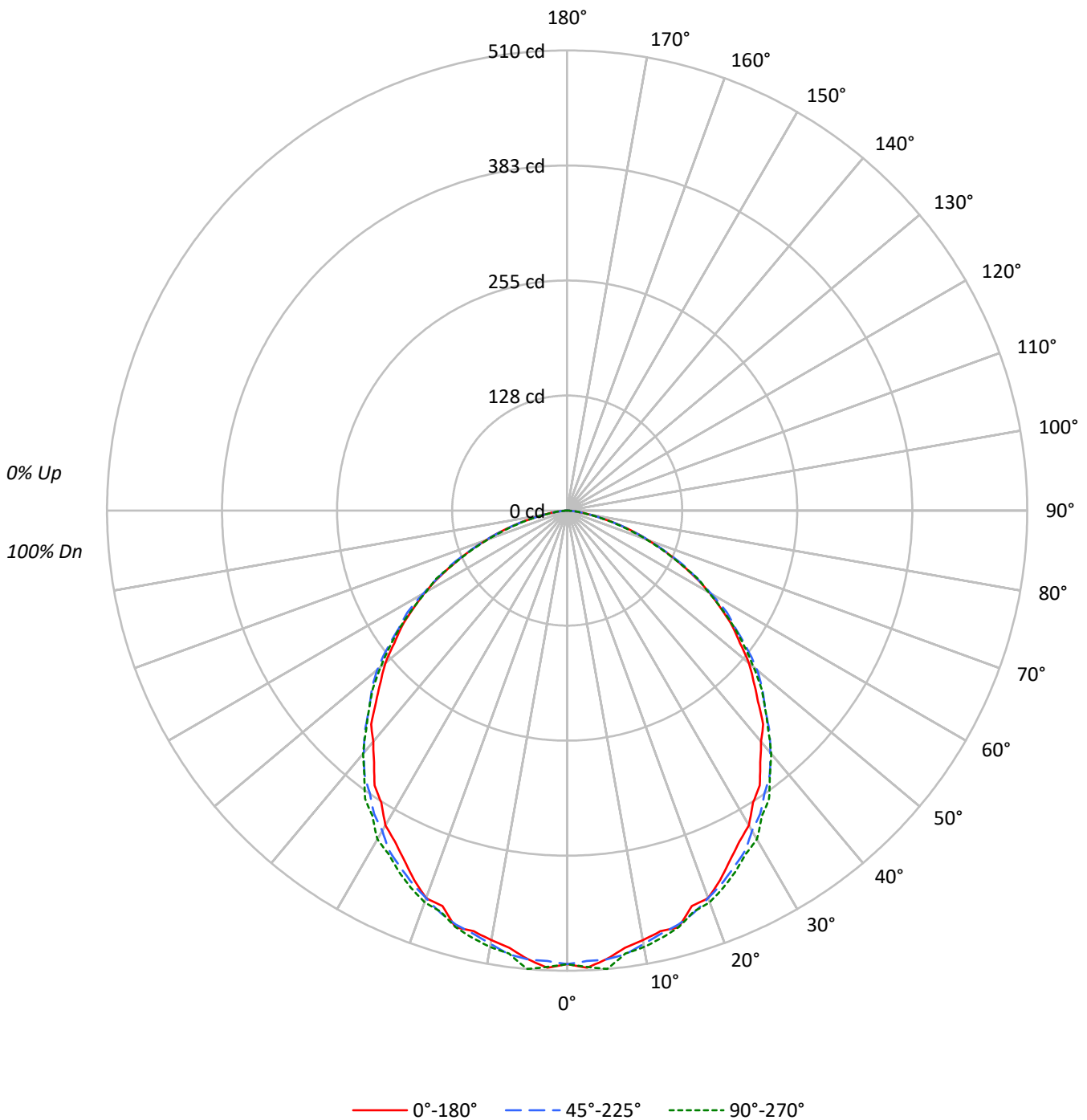
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1267.0 lumens  
Efficiency: N/A  
Efficacy: 108.3 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°	1353	1353	1353
5°	1348	1349	1377
10°	1321	1333	1342
15°	1331	1324	1332
20°	1309	1309	1323
25°	1269	1296	1311
30°	1251	1273	1307
35°	1222	1254	1282
40°	1174	1231	1236
45°	1139	1179	1181
50°	1101	1151	1129
55°	1050	1070	1062
60°	981	991	973
65°	875	897	869
70°	751	753	733
75°	595	594	570
80°	398	387	372
85°	216	213	201



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.3	3.7
10°-20°	134.0	10.6
20°-30°	200.8	15.8
30°-40°	238.0	18.8
40°-50°	238.4	18.8
50°-60°	202.4	16.0
60°-70°	136.4	10.8
70°-80°	60.0	4.7
80°-90°	9.7	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°	382.1	30.2
0°-40°	620.1	48.9
0°-60°	1060.9	83.7
0°-90°	1267.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1267.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	503	503	503	503	503	
5°	499	498	499	498	510	47
15°	478	472	475	478	478	133
25°	427	430	437	442	441	198
35°	372	373	382	390	390	231
45°	299	305	310	318	310	231
55°	224	222	228	226	226	199
65°	137	136	141	136	136	137
75°	57	56	57	53	55	61
85°	7	7	7	7	6	10
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	502.7	502.7	502.7	502.7	502.7
2.5°	507.1	503.2	499.7	503.8	506.3
5°	499.1	498.0	499.3	497.8	509.9
7.5°	488.9	493.4	496.0	494.3	495.1
10°	483.4	481.9	487.7	491.7	491.1
12.5°	477.6	479.9	480.3	484.6	485.0
15°	477.9	472.4	475.3	477.8	478.0
17.5°	459.4	465.3	467.3	473.0	466.0
20°	457.1	452.7	457.1	462.9	462.0
22.5°	443.1	438.3	447.6	452.7	452.4
25°	427.3	429.6	436.6	442.3	441.4
27.5°	413.4	416.1	426.1	434.0	428.9
30°	402.7	401.3	409.8	416.8	420.7
32.5°	383.5	388.5	398.3	405.3	401.6
35°	371.9	373.0	381.7	390.5	390.2
37.5°	351.6	356.7	368.9	371.3	369.1
40°	334.3	339.4	350.4	353.0	351.9
42.5°	321.5	322.4	331.8	334.9	330.0
45°	299.2	304.8	309.9	317.9	310.3
47.5°	280.3	282.9	293.8	295.9	292.0
50°	263.1	264.0	275.0	272.3	269.7
52.5°	241.5	245.3	251.5	250.9	247.9
55°	223.7	222.2	228.0	226.5	226.4
57.5°	202.3	204.9	209.7	207.3	203.3
60°	182.3	182.4	184.1	181.4	180.8
62.5°	160.1	160.8	161.2	157.8	163.4
65°	137.4	135.6	140.9	135.5	136.4
67.5°	116.6	117.5	117.0	113.6	114.9
70°	95.4	96.6	95.7	91.9	93.1
72.5°	76.1	74.6	75.6	70.7	73.0
75°	57.2	56.0	57.1	53.0	54.8
77.5°	38.9	39.9	39.2	37.1	38.3
80°	25.7	25.0	25.0	23.8	24.0
82.5°	15.0	14.3	14.1	13.7	14.3
85°	7.0	6.8	6.9	6.8	6.5
87.5°	2.5	2.6	2.6	2.5	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)