

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: P588826

Luminaire Tested: **FMR-24-2-LD4-1LO-40-UNV-80-94-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588826  
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-80-94-EDD  
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

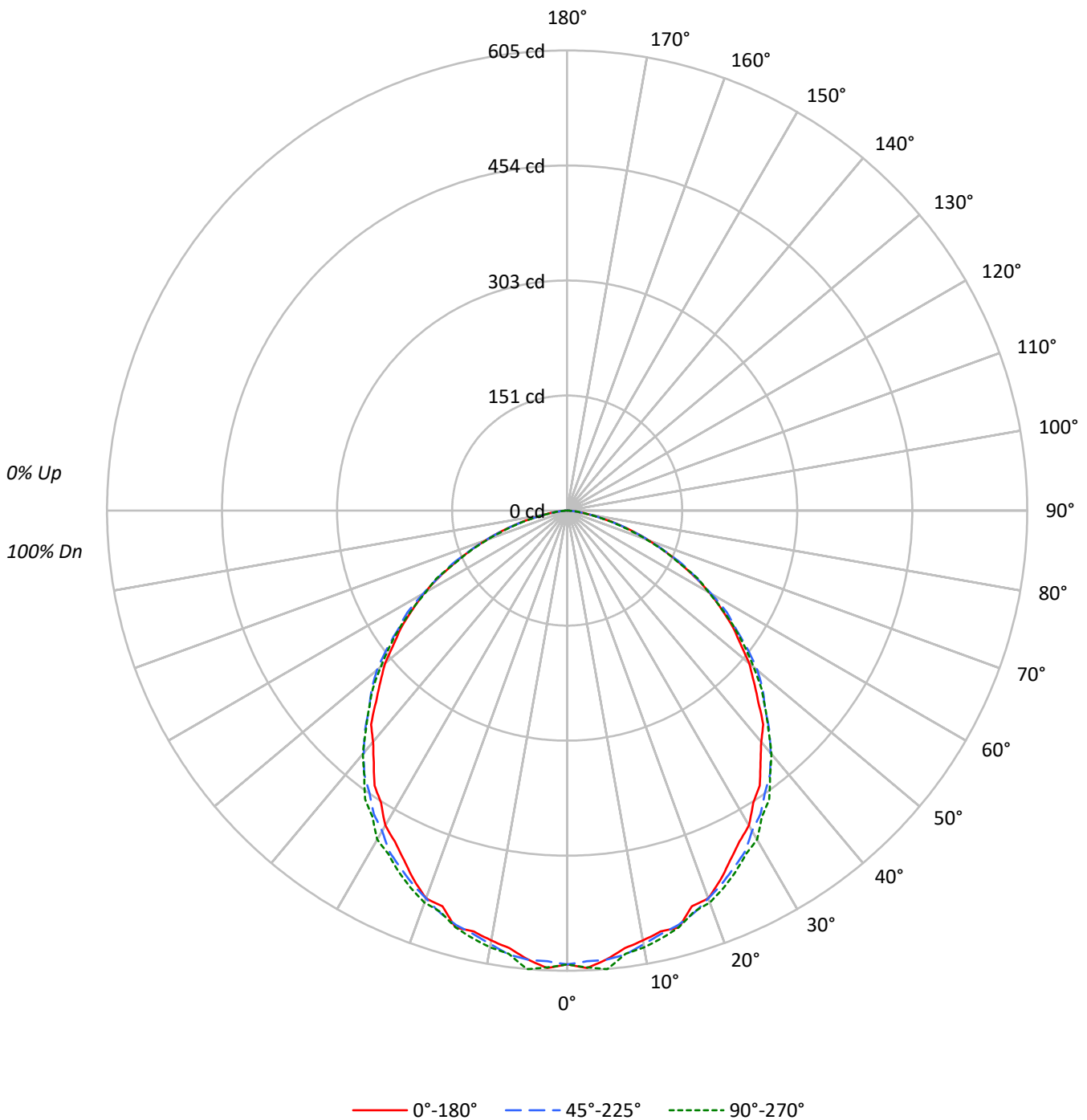
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1504.0 lumens  
Efficiency: N/A  
Efficacy: 128.5 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°	1606	1606	1606
5°	1600	1601	1635
10°	1568	1582	1593
15°	1580	1572	1581
20°	1554	1554	1570
25°	1506	1539	1556
30°	1485	1511	1552
35°	1450	1488	1522
40°	1394	1461	1468
45°	1352	1400	1402
50°	1307	1366	1340
55°	1246	1270	1261
60°	1165	1176	1156
65°	1039	1065	1032
70°	891	894	869
75°	706	704	677
80°	473	460	442
85°	256	253	238



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.1	3.7
10°-20°	159.1	10.6
20°-30°	238.3	15.8
30°-40°	282.5	18.8
40°-50°	283.0	18.8
50°-60°	240.2	16.0
60°-70°	162.0	10.8
70°-80°	71.2	4.7
80°-90°	11.6	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°	453.6	30.2
0°-40°	736.1	48.9
0°-60°	1259.3	83.7
0°-90°	1504.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1504.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	597	597	597	597	597	
5°	592	591	593	591	605	56
15°	567	561	564	567	567	158
25°	507	510	518	525	524	234
35°	442	443	453	464	463	274
45°	355	362	368	377	368	275
55°	266	264	271	269	269	236
65°	163	161	167	161	162	162
75°	68	66	68	63	65	73
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°	596.7	596.7	596.7	596.7	596.7
2.5°	601.9	597.4	593.1	598.1	601.1
5°	592.5	591.1	592.7	591.0	605.2
7.5°	580.3	585.7	588.7	586.8	587.7
10°	573.9	572.0	578.9	583.7	583.0
12.5°	566.9	569.7	570.1	575.3	575.7
15°	567.3	560.8	564.2	567.2	567.4
17.5°	545.3	552.4	554.8	561.5	553.1
20°	542.6	537.4	542.6	549.4	548.4
22.5°	526.0	520.2	531.3	537.4	537.0
25°	507.2	510.0	518.3	525.1	524.0
27.5°	490.7	494.0	505.8	515.2	509.1
30°	478.0	476.4	486.4	494.7	499.4
32.5°	455.3	461.1	472.9	481.1	476.7
35°	441.5	442.8	453.1	463.5	463.2
37.5°	417.4	423.5	437.9	440.8	438.1
40°	396.8	402.9	415.9	419.1	417.8
42.5°	381.6	382.7	393.9	397.5	391.7
45°	355.2	361.8	367.8	377.3	368.4
47.5°	332.7	335.8	348.7	351.3	346.6
50°	312.3	313.4	326.4	323.2	320.1
52.5°	286.6	291.2	298.5	297.9	294.3
55°	265.5	263.7	270.7	268.8	268.7
57.5°	240.2	243.2	248.9	246.0	241.3
60°	216.4	216.5	218.6	215.3	214.7
62.5°	190.0	190.9	191.4	187.3	193.9
65°	163.1	161.0	167.3	160.9	162.0
67.5°	138.4	139.5	138.8	134.8	136.4
70°	113.3	114.6	113.6	109.1	110.5
72.5°	90.3	88.6	89.7	84.0	86.6
75°	67.9	66.5	67.7	62.9	65.1
77.5°	46.2	47.3	46.5	44.0	45.5
80°	30.5	29.7	29.7	28.2	28.5
82.5°	17.8	17.0	16.7	16.3	17.0
85°	8.3	8.1	8.2	8.0	7.7
87.5°	3.0	3.1	3.1	2.9	2.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)