

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: P588859

Luminaire Tested: **FMR-24-2-LD4-1LO-50-UNV-80-96-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588859  
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-80-96-EDD  
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

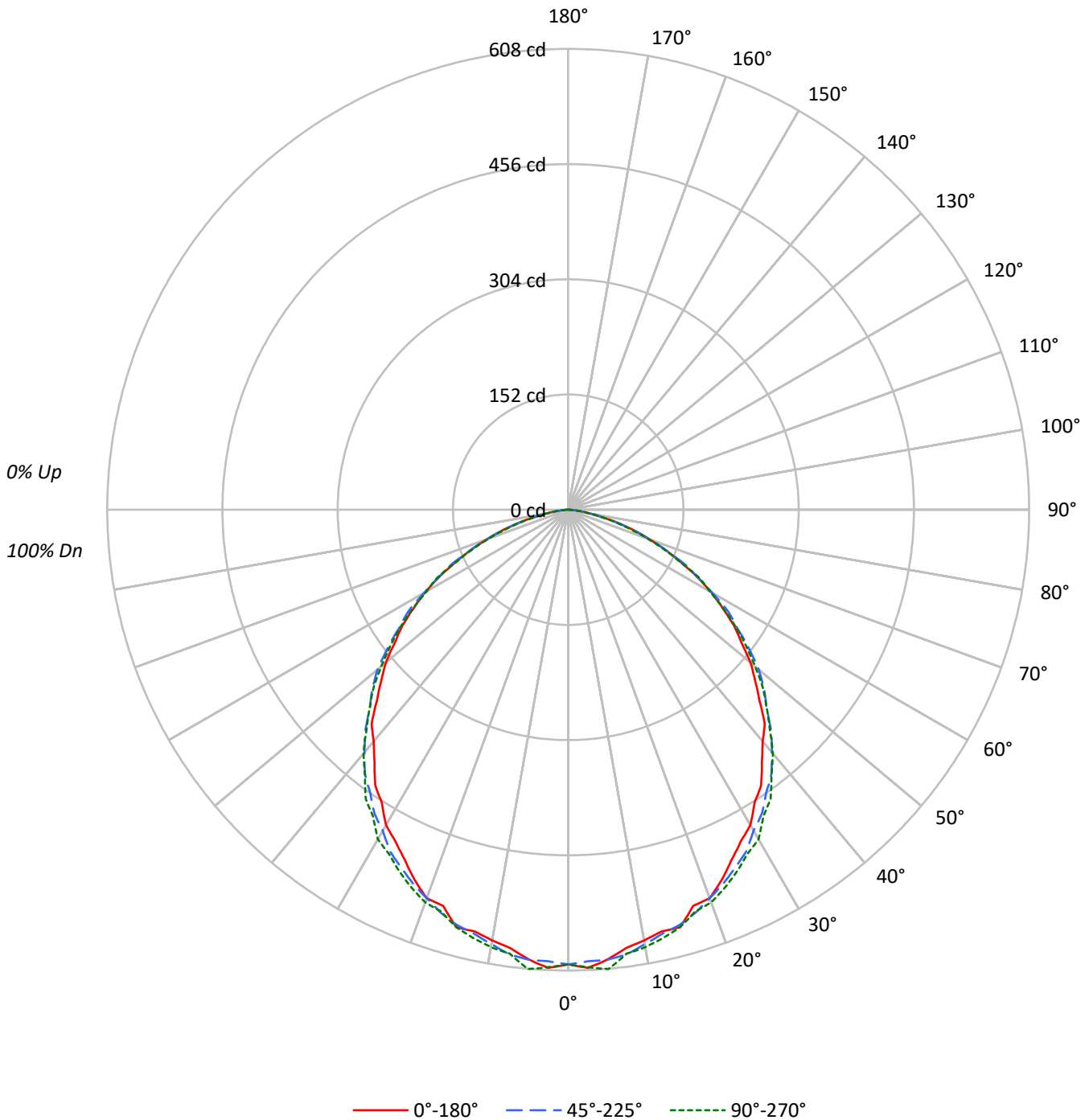
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1512.0 lumens  
Efficiency: N/A  
Efficacy: 129.2 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°	1614	1614	1614
5°	1609	1610	1643
10°	1576	1590	1602
15°	1589	1580	1589
20°	1562	1562	1579
25°	1514	1547	1564
30°	1493	1519	1560
35°	1458	1496	1530
40°	1401	1469	1475
45°	1359	1407	1409
50°	1314	1374	1347
55°	1252	1277	1268
60°	1171	1183	1161
65°	1044	1071	1037
70°	896	899	874
75°	709	708	681
80°	476	462	445
85°	259	256	238



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.4	3.7
10°-20°	159.9	10.6
20°-30°	239.6	15.8
30°-40°	284.0	18.8
40°-50°	284.5	18.8
50°-60°	241.5	16.0
60°-70°	162.8	10.8
70°-80°	71.6	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°	456.0	30.2
0°-40°	740.0	48.9
0°-60°	1266.0	83.7
0°-90°	1512.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1512.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	600	600	600	600	600	
5°	596	594	596	594	608	56
15°	570	564	567	570	570	159
25°	510	513	521	528	527	236
35°	444	445	456	466	466	276
45°	357	364	370	379	370	276
55°	267	265	272	270	270	237
65°	164	162	168	162	163	163
75°	68	67	68	63	66	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°	599.9	599.9	599.9	599.9	599.9
2.5°	605.1	600.5	596.3	601.2	604.3
5°	595.7	594.3	595.9	594.1	608.4
7.5°	583.4	588.8	591.9	589.9	590.8
10°	576.9	575.1	582.0	586.8	586.1
12.5°	569.9	572.7	573.1	578.3	578.8
15°	570.3	563.7	567.2	570.2	570.4
17.5°	548.2	555.3	557.7	564.4	556.1
20°	545.5	540.3	545.5	552.4	551.3
22.5°	528.8	523.0	534.2	540.3	539.9
25°	509.9	512.7	521.1	527.9	526.8
27.5°	493.3	496.6	508.5	517.9	511.9
30°	480.6	478.9	489.0	497.4	502.0
32.5°	457.7	463.6	475.4	483.7	479.2
35°	443.8	445.2	455.5	466.0	465.7
37.5°	419.6	425.7	440.2	443.1	440.4
40°	398.9	405.0	418.1	421.3	420.0
42.5°	383.7	384.7	396.0	399.6	393.8
45°	357.1	363.7	369.8	379.3	370.3
47.5°	334.5	337.6	350.6	353.1	348.4
50°	313.9	315.0	328.1	324.9	321.8
52.5°	288.1	292.7	300.1	299.5	295.8
55°	266.9	265.1	272.1	270.3	270.2
57.5°	241.4	244.5	250.3	247.3	242.6
60°	217.6	217.7	219.8	216.4	215.8
62.5°	191.0	191.9	192.4	188.3	195.0
65°	164.0	161.8	168.2	161.7	162.8
67.5°	139.1	140.2	139.6	135.6	137.1
70°	113.9	115.3	114.3	109.7	111.1
72.5°	90.8	89.1	90.2	84.4	87.1
75°	68.2	66.8	68.1	63.3	65.5
77.5°	46.5	47.6	46.8	44.2	45.7
80°	30.7	29.8	29.8	28.4	28.7
82.5°	17.9	17.0	16.8	16.3	17.0
85°	8.4	8.1	8.3	8.1	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)