

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: P588759

Luminaire Tested: **FMR-24-2-LD4-1HI-50-UNV-80-86-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588759  
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-LD4-1HI-50-UNV-80-86-EDD  
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

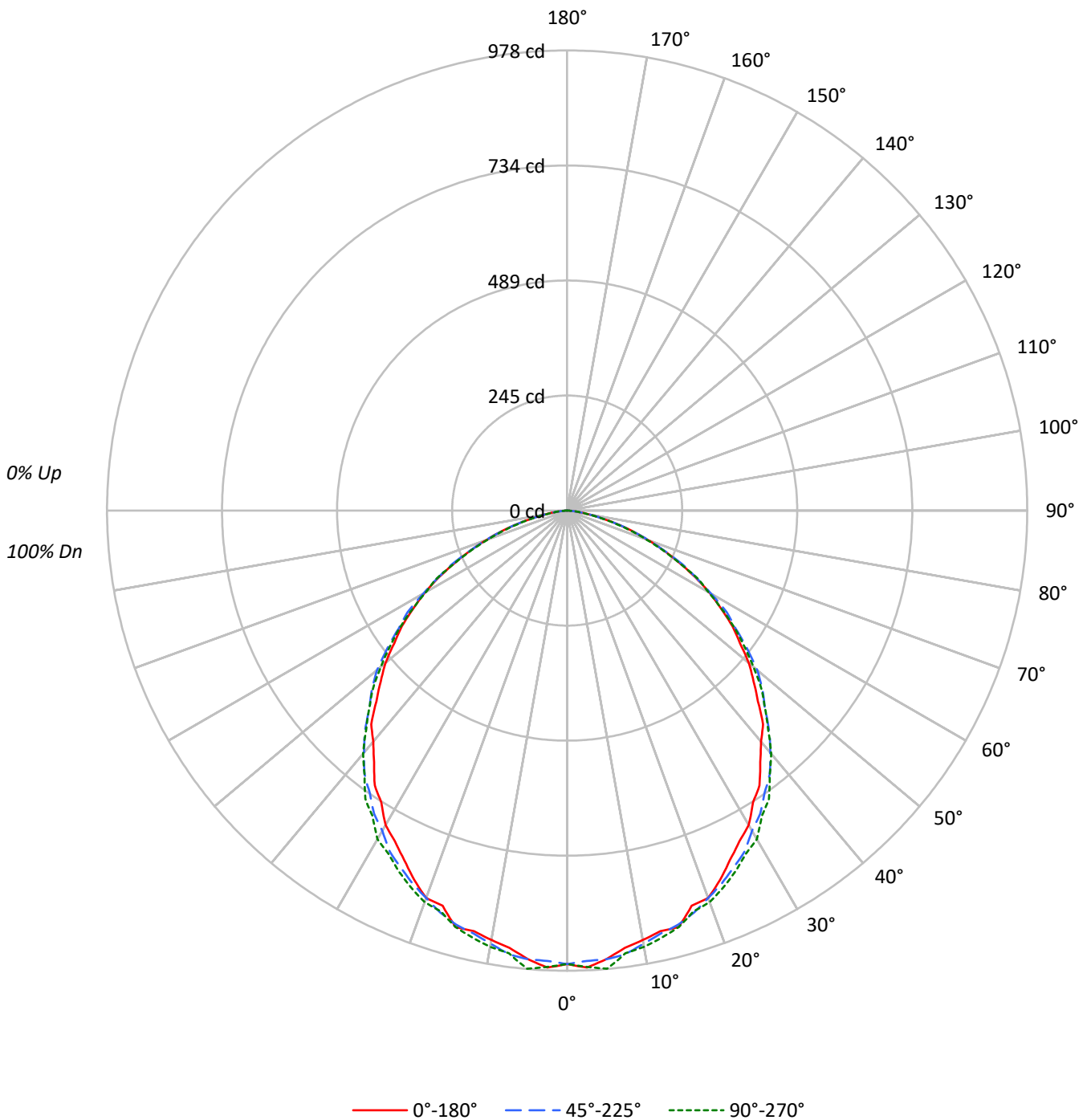
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2429.0 lumens  
Efficiency: N/A  
Efficacy: 112.5 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): 21.6  
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	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					100			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2594	2594	2594
5°	2585	2586	2640
10°	2532	2555	2573
15°	2552	2539	2553
20°	2509	2509	2536
25°	2432	2485	2513
30°	2399	2441	2506
35°	2342	2404	2458
40°	2251	2360	2370
45°	2183	2261	2264
50°	2111	2207	2164
55°	2012	2051	2036
60°	1881	1900	1866
65°	1677	1720	1666
70°	1439	1444	1404
75°	1140	1137	1093
80°	764	742	713
85°	414	411	383



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.7	3.7
10°-20°	256.9	10.6
20°-30°	384.9	15.8
30°-40°	456.2	18.8
40°-50°	457.1	18.8
50°-60°	388.0	16.0
60°-70°	261.6	10.8
70°-80°	114.9	4.7
80°-90°	18.7	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°	732.5	30.2
0°-40°	1188.8	48.9
0°-60°	2033.8	83.7
0°-90°	2429.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2429.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	964	964	964	964	964	
5°	957	955	957	954	978	90
15°	916	906	911	916	916	255
25°	819	824	837	848	846	379
35°	713	715	732	749	748	443
45°	574	584	594	609	595	444
55°	429	426	437	434	434	381
65°	263	260	270	260	262	262
75°	110	107	109	102	105	117
85°	13	13	13	13	12	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	963.8	963.8	963.8	963.8	963.8
2.5°	972.1	964.8	957.9	965.9	970.7
5°	956.9	954.7	957.3	954.4	977.5
7.5°	937.3	945.8	950.8	947.7	949.1
10°	926.8	923.8	934.9	942.6	941.5
12.5°	915.6	920.1	920.7	929.0	929.8
15°	916.2	905.7	911.3	916.0	916.4
17.5°	880.6	892.1	895.9	906.8	893.3
20°	876.3	867.9	876.3	887.4	885.6
22.5°	849.5	840.2	858.1	867.9	867.3
25°	819.2	823.6	837.1	848.0	846.3
27.5°	792.5	797.8	816.9	832.0	822.3
30°	772.0	769.4	785.6	799.0	806.5
32.5°	735.3	744.8	763.7	777.0	769.9
35°	713.0	715.1	731.7	748.6	748.1
37.5°	674.1	683.9	707.2	711.9	707.5
40°	640.9	650.7	671.7	676.8	674.7
42.5°	616.3	618.1	636.1	642.0	632.6
45°	573.7	584.4	594.1	609.4	594.9
47.5°	537.3	542.3	563.2	567.3	559.7
50°	504.3	506.1	527.1	522.0	517.0
52.5°	462.9	470.2	482.1	481.1	475.2
55°	428.8	425.9	437.1	434.2	434.0
57.5°	387.9	392.8	402.1	397.3	389.7
60°	349.5	349.7	353.0	347.7	346.7
62.5°	306.9	308.4	309.1	302.5	313.2
65°	263.4	259.9	270.2	259.8	261.6
67.5°	223.5	225.2	224.2	217.8	220.3
70°	182.9	185.2	183.5	176.2	178.4
72.5°	145.8	143.1	144.8	135.6	139.9
75°	109.6	107.4	109.4	101.7	105.1
77.5°	74.7	76.4	75.2	71.1	73.4
80°	49.3	47.9	47.9	45.5	46.0
82.5°	28.7	27.4	27.0	26.3	27.4
85°	13.4	13.1	13.3	12.9	12.4
87.5°	4.9	5.0	5.0	4.7	4.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)