

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: P588763

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

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588763  
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-80-96-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: -

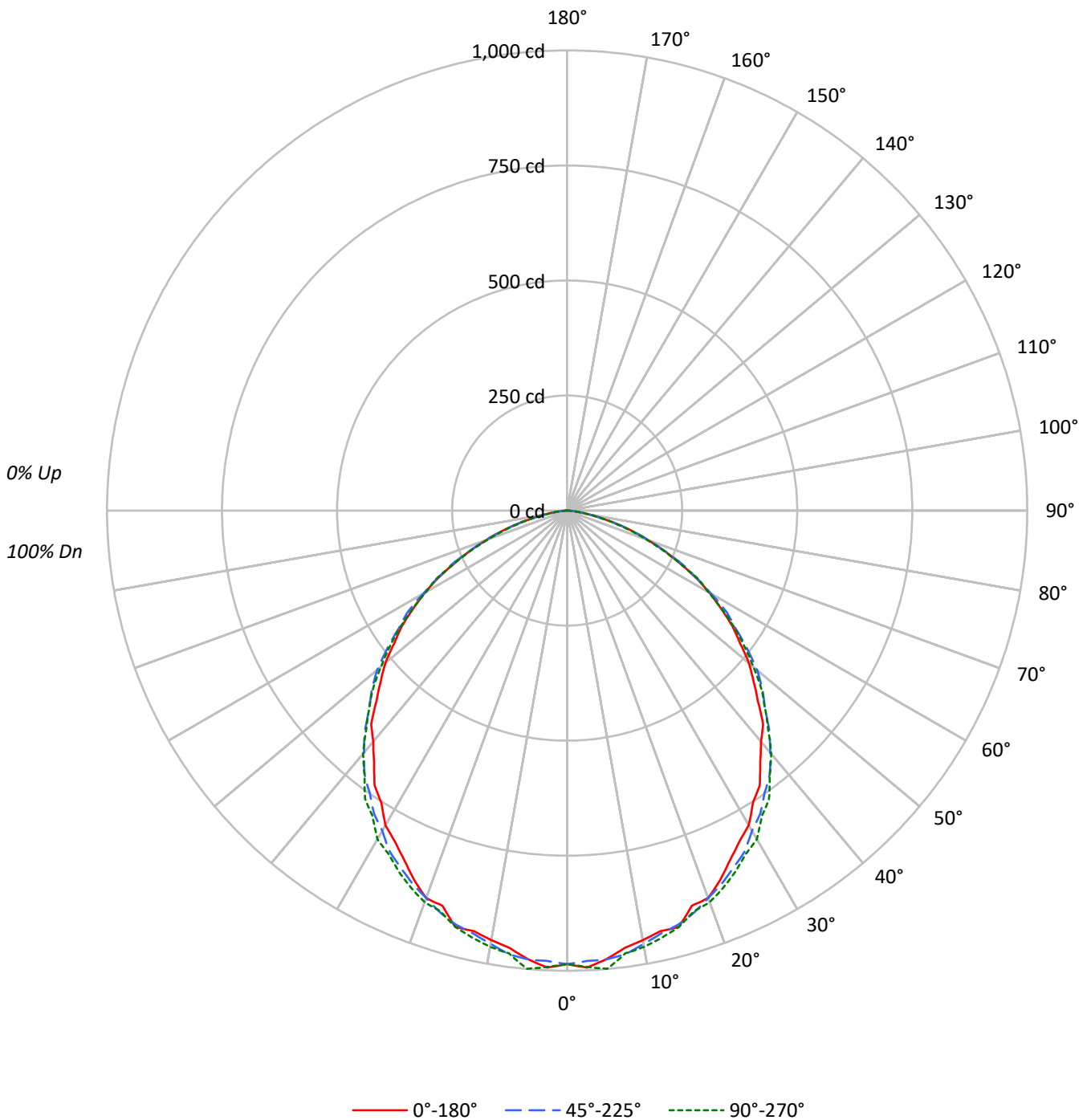
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2484.0 lumens  
Efficiency: N/A  
Efficacy: 115.0 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 (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°	2652	2652	2652
5°	2643	2645	2700
10°	2590	2613	2631
15°	2610	2596	2611
20°	2566	2566	2594
25°	2487	2542	2570
30°	2453	2496	2563
35°	2395	2458	2513
40°	2302	2413	2424
45°	2232	2312	2315
50°	2159	2257	2213
55°	2057	2097	2083
60°	1924	1943	1908
65°	1715	1759	1703
70°	1472	1477	1436
75°	1166	1163	1118
80°	781	759	730
85°	423	420	392



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	92.7	3.7
10°-20°	262.8	10.6
20°-30°	393.6	15.8
30°-40°	466.6	18.8
40°-50°	467.4	18.8
50°-60°	396.8	16.0
60°-70°	267.5	10.8
70°-80°	117.5	4.7
80°-90°	19.1	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°	749.1	30.2
0°-40°	1215.7	48.9
0°-60°	2079.9	83.7
0°-90°	2484.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2484.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	986	986	986	986	986	
5°	979	976	979	976	1000	92
15°	937	926	932	937	937	261
25°	838	842	856	867	866	387
35°	729	731	748	766	765	453
45°	587	598	608	623	608	454
55°	438	436	447	444	444	390
65°	269	266	276	266	268	268
75°	112	110	112	104	108	120
85°	14	13	14	13	13	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	985.6	985.6	985.6	985.6	985.6
2.5°	994.1	986.6	979.6	987.8	992.7
5°	978.6	976.3	979.0	976.0	999.6
7.5°	958.5	967.3	972.4	969.2	970.6
10°	947.8	944.7	956.1	964.0	962.8
12.5°	936.3	940.9	941.6	950.1	950.8
15°	937.0	926.2	931.9	936.7	937.1
17.5°	900.6	912.3	916.2	927.3	913.6
20°	896.1	887.6	896.1	907.5	905.7
22.5°	868.8	859.2	877.5	887.6	887.0
25°	837.7	842.3	856.0	867.2	865.5
27.5°	810.5	815.8	835.4	850.8	840.9
30°	789.5	786.8	803.4	817.1	824.7
32.5°	751.9	761.6	781.0	794.6	787.3
35°	729.2	731.3	748.3	765.6	765.1
37.5°	689.3	699.4	723.2	728.0	723.6
40°	655.4	665.4	686.9	692.1	690.0
42.5°	630.3	632.1	650.5	656.5	647.0
45°	586.6	597.6	607.5	623.2	608.4
47.5°	549.5	554.6	576.0	580.2	572.4
50°	515.8	517.5	539.1	533.8	528.7
52.5°	473.4	480.9	493.0	492.0	486.0
55°	438.5	435.6	447.0	444.0	443.9
57.5°	396.7	401.7	411.2	406.3	398.6
60°	357.5	357.6	361.0	355.5	354.5
62.5°	313.8	315.3	316.1	309.4	320.3
65°	269.4	265.8	276.3	265.7	267.5
67.5°	228.5	230.3	229.3	222.7	225.2
70°	187.1	189.4	187.7	180.2	182.5
72.5°	149.1	146.3	148.1	138.7	143.0
75°	112.1	109.8	111.9	104.0	107.5
77.5°	76.4	78.1	76.9	72.7	75.1
80°	50.4	49.0	49.0	46.6	47.1
82.5°	29.4	28.0	27.6	26.9	28.0
85°	13.7	13.4	13.6	13.2	12.7
87.5°	5.0	5.1	5.1	4.8	4.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)