

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: P588700

Luminaire Tested: **FMR-24-2-LD4-1HI-35-UNV-80-97-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588700  
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-35-UNV-80-97-EDD  
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

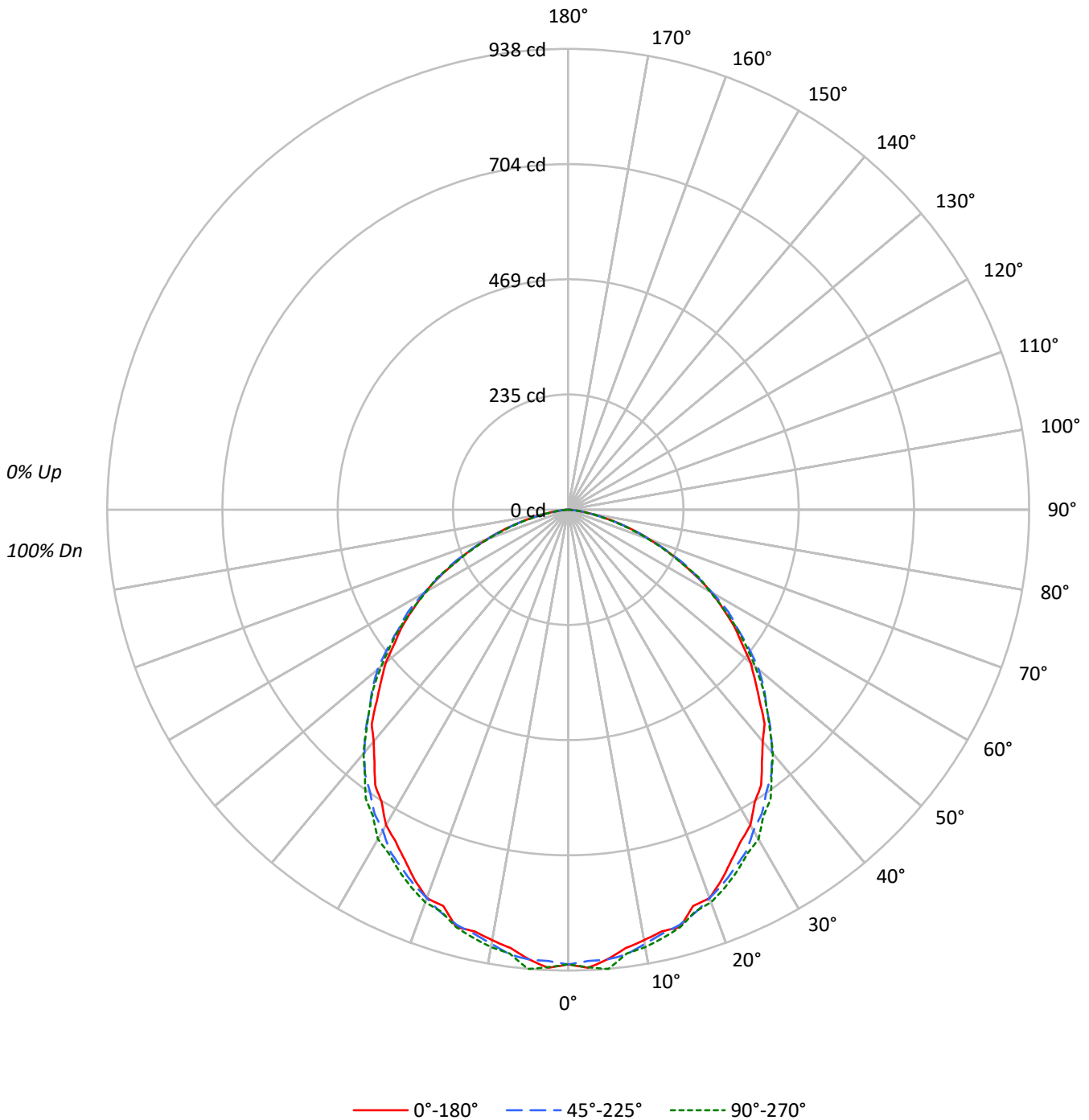
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2332.0 lumens  
Efficiency: N/A  
Efficacy: 108.0 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°	2490	2490	2490
5°	2482	2483	2535
10°	2431	2453	2470
15°	2450	2437	2451
20°	2409	2409	2435
25°	2335	2386	2412
30°	2303	2344	2406
35°	2249	2308	2359
40°	2161	2265	2276
45°	2096	2170	2174
50°	2027	2119	2078
55°	1932	1969	1955
60°	1806	1824	1791
65°	1610	1652	1599
70°	1382	1386	1348
75°	1095	1092	1050
80°	733	713	685
85°	398	395	367



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.0	3.7
10°-20°	246.7	10.6
20°-30°	369.6	15.8
30°-40°	438.0	18.8
40°-50°	438.8	18.8
50°-60°	372.5	16.0
60°-70°	251.1	10.8
70°-80°	110.4	4.7
80°-90°	17.9	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°	703.3	30.2
0°-40°	1141.3	48.9
0°-60°	1952.6	83.7
0°-90°	2332.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2332.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	925	925	925	925	925	
5°	919	917	919	916	938	87
15°	880	870	875	879	880	245
25°	786	791	804	814	812	364
35°	685	687	702	719	718	425
45°	551	561	570	585	571	426
55°	412	409	420	417	417	366
65°	253	250	259	249	251	252
75°	105	103	105	98	101	113
85°	13	12	13	12	12	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	925.3	925.3	925.3	925.3	925.3
2.5°	933.3	926.2	919.7	927.3	932.0
5°	918.7	916.6	919.1	916.3	938.4
7.5°	899.8	908.1	912.9	909.9	911.2
10°	889.8	886.9	897.6	905.0	903.9
12.5°	879.0	883.3	883.9	891.9	892.7
15°	879.6	869.5	874.9	879.4	879.8
17.5°	845.5	856.5	860.2	870.6	857.7
20°	841.3	833.3	841.3	851.9	850.3
22.5°	815.6	806.6	823.9	833.3	832.7
25°	786.5	790.8	803.7	814.2	812.5
27.5°	760.9	765.9	784.3	798.8	789.4
30°	741.2	738.7	754.2	767.1	774.3
32.5°	705.9	715.0	733.2	746.0	739.1
35°	684.6	686.6	702.5	718.7	718.2
37.5°	647.2	656.6	678.9	683.5	679.3
40°	615.3	624.7	644.9	649.8	647.8
42.5°	591.7	593.4	610.7	616.3	607.4
45°	550.7	561.0	570.3	585.0	571.2
47.5°	515.9	520.6	540.7	544.7	537.4
50°	484.2	485.9	506.1	501.2	496.4
52.5°	444.4	451.5	462.8	461.9	456.2
55°	411.7	408.9	419.7	416.8	416.7
57.5°	372.4	377.2	386.0	381.5	374.2
60°	335.6	335.7	338.9	333.8	332.8
62.5°	294.6	296.0	296.8	290.4	300.7
65°	252.9	249.6	259.4	249.4	251.1
67.5°	214.6	216.2	215.3	209.1	211.5
70°	175.6	177.8	176.2	169.2	171.3
72.5°	140.0	137.4	139.1	130.2	134.3
75°	105.3	103.1	105.0	97.6	101.0
77.5°	71.7	73.4	72.2	68.2	70.5
80°	47.3	46.0	46.0	43.7	44.2
82.5°	27.6	26.3	25.9	25.2	26.3
85°	12.9	12.5	12.8	12.4	11.9
87.5°	4.7	4.8	4.8	4.5	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)