

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: P588732

Luminaire Tested: **FMR-24-2-LD4-1HI-40-UNV-80-97-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588732  
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-40-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 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

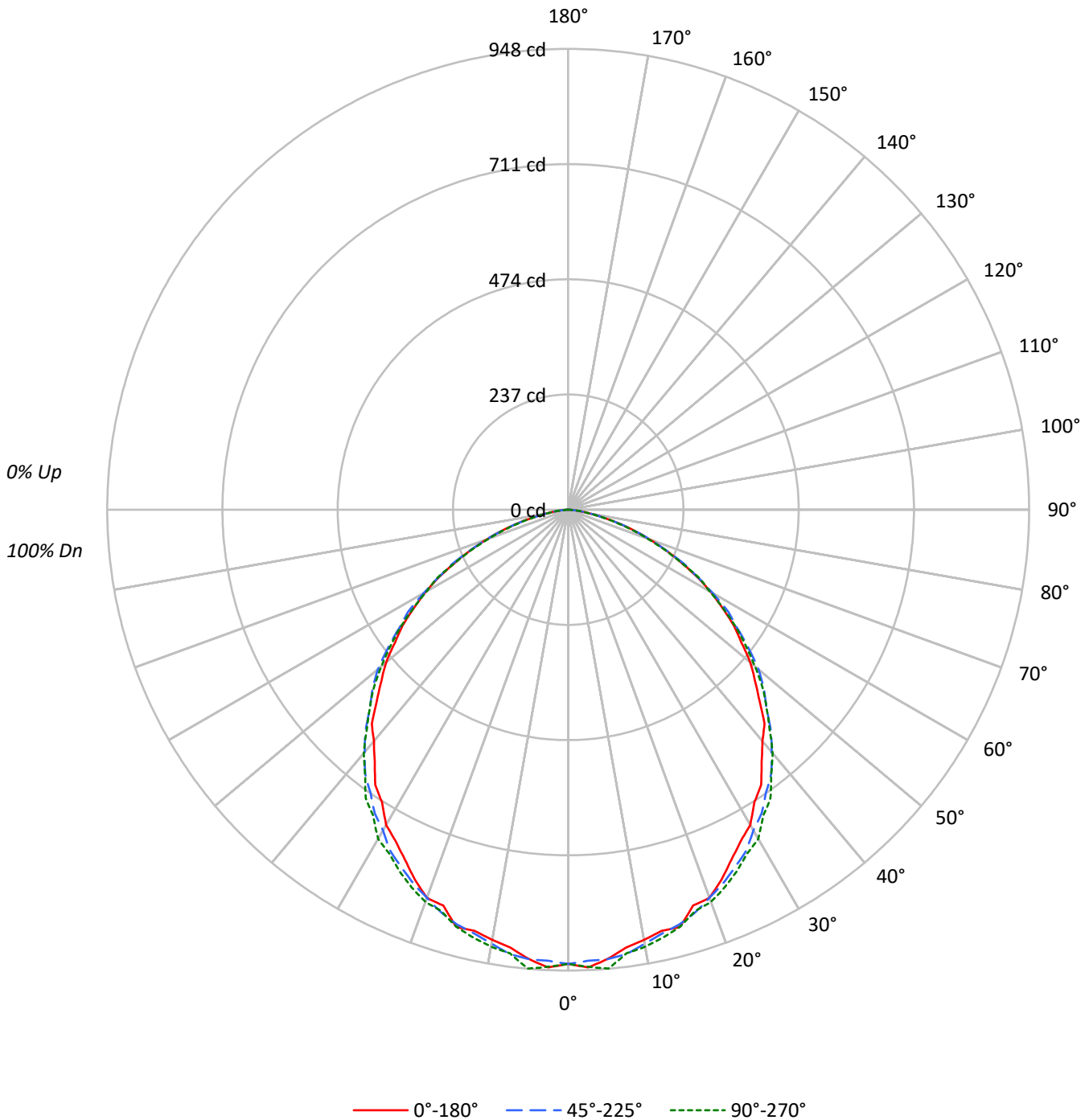
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2355.0 lumens  
Efficiency: N/A  
Efficacy: 109.0 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 (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	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°	2514	2514	2514
5°	2506	2507	2560
10°	2455	2477	2494
15°	2475	2461	2475
20°	2433	2433	2459
25°	2358	2410	2436
30°	2326	2367	2430
35°	2271	2330	2383
40°	2183	2288	2298
45°	2117	2192	2195
50°	2047	2140	2099
55°	1950	1988	1974
60°	1824	1842	1809
65°	1626	1668	1615
70°	1395	1400	1361
75°	1105	1102	1059
80°	741	719	691
85°	401	398	374



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.9	3.7
10°-20°	249.1	10.6
20°-30°	373.2	15.8
30°-40°	442.3	18.8
40°-50°	443.2	18.8
50°-60°	376.2	16.0
60°-70°	253.6	10.8
70°-80°	111.4	4.7
80°-90°	18.1	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°	710.2	30.2
0°-40°	1152.5	48.9
0°-60°	1971.8	83.7
0°-90°	2355.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2355.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	934	934	934	934	934	
5°	928	926	928	925	948	87
15°	888	878	884	888	888	247
25°	794	799	812	822	820	367
35°	691	693	709	726	725	429
45°	556	567	576	591	577	430
55°	416	413	424	421	421	370
65°	255	252	262	252	254	254
75°	106	104	106	99	102	114
85°	13	13	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°	934.4	934.4	934.4	934.4	934.4
2.5°	942.5	935.4	928.7	936.5	941.2
5°	927.8	925.6	928.1	925.4	947.7
7.5°	908.7	917.0	921.9	918.8	920.2
10°	898.6	895.7	906.4	913.9	912.8
12.5°	887.7	892.1	892.7	900.7	901.5
15°	888.3	878.1	883.5	888.1	888.4
17.5°	853.8	864.9	868.7	879.1	866.1
20°	849.6	841.5	849.6	860.3	858.6
22.5°	823.7	814.6	832.0	841.5	840.9
25°	794.2	798.6	811.6	822.2	820.5
27.5°	768.4	773.5	792.0	806.6	797.2
30°	748.5	746.0	761.6	774.7	781.9
32.5°	712.9	722.1	740.4	753.3	746.4
35°	691.3	693.4	709.4	725.8	725.3
37.5°	653.5	663.1	685.6	690.2	686.0
40°	621.3	630.9	651.2	656.2	654.1
42.5°	597.6	599.2	616.7	622.4	613.4
45°	556.2	566.6	576.0	590.8	576.8
47.5°	521.0	525.8	546.0	550.0	542.7
50°	489.0	490.7	511.1	506.1	501.3
52.5°	448.8	455.9	467.4	466.4	460.7
55°	415.7	413.0	423.8	420.9	420.8
57.5°	376.1	380.9	389.8	385.2	377.9
60°	338.9	339.0	342.3	337.1	336.1
62.5°	297.5	299.0	299.7	293.3	303.7
65°	255.4	252.0	261.9	251.9	253.6
67.5°	216.7	218.4	217.4	211.1	213.5
70°	177.3	179.5	178.0	170.8	173.0
72.5°	141.4	138.7	140.4	131.5	135.6
75°	106.3	104.1	106.0	98.6	101.9
77.5°	72.4	74.1	72.9	68.9	71.2
80°	47.8	46.4	46.4	44.2	44.6
82.5°	27.9	26.5	26.2	25.5	26.5
85°	13.0	12.7	12.9	12.5	12.1
87.5°	4.7	4.8	4.8	4.6	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)