

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: P588950

Luminaire Tested: **FMR-24-2-LD4-1STD-50-UNV-80-85-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588950  
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-LD4-1STD-50-UNV-80-85-EDD  
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

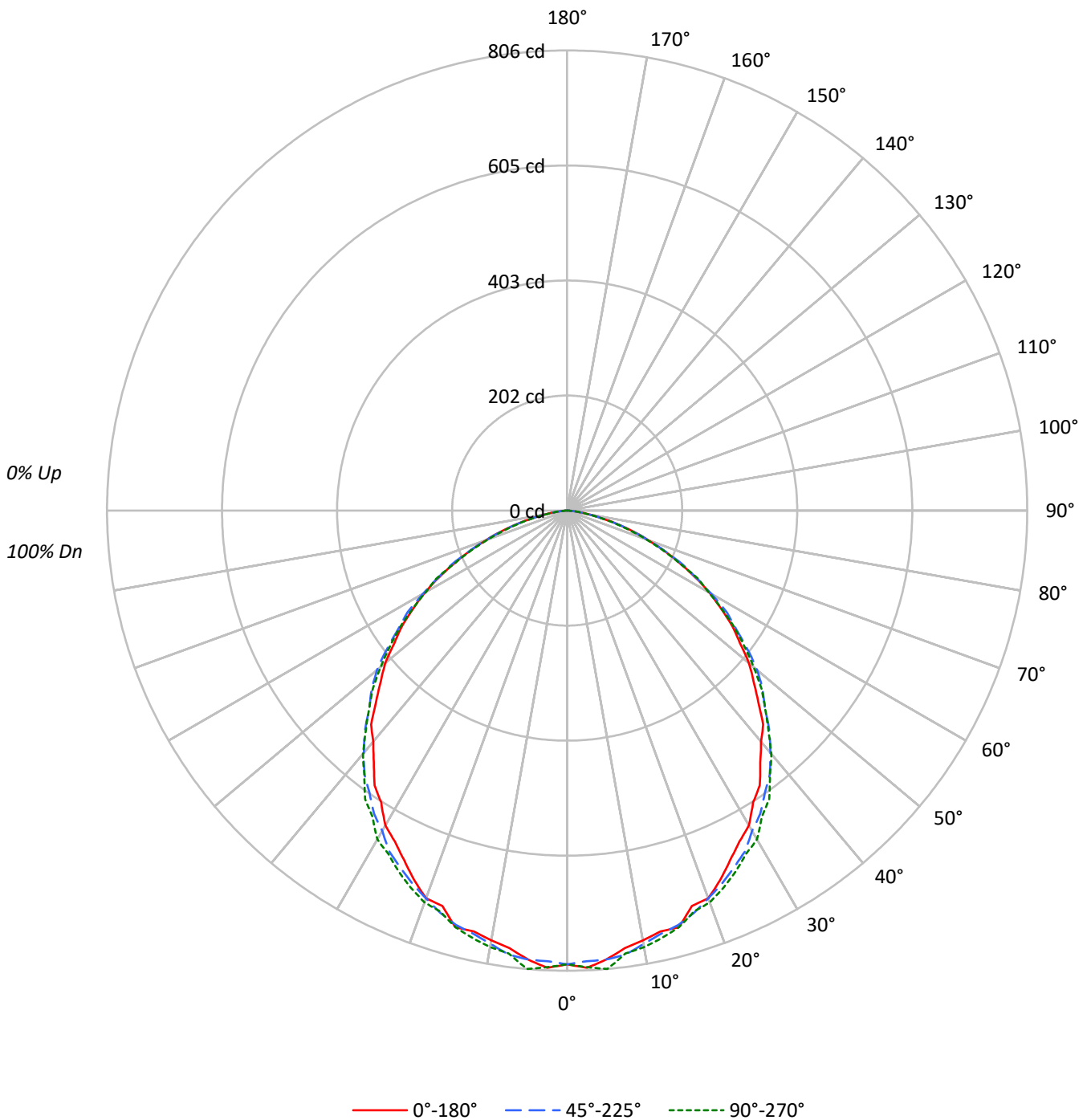
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2003.0 lumens  
Efficiency: N/A  
Efficacy: 120.7 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): 16.6  
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°	2139	2139	2139
5°	2132	2132	2177
10°	2088	2106	2122
15°	2105	2093	2105
20°	2069	2069	2091
25°	2006	2050	2072
30°	1978	2013	2066
35°	1932	1982	2027
40°	1857	1946	1955
45°	1800	1864	1867
50°	1741	1820	1785
55°	1659	1691	1679
60°	1551	1567	1539
65°	1383	1419	1373
70°	1186	1191	1157
75°	940	938	901
80°	629	612	589
85°	343	340	318



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.8	3.7
10°-20°	211.9	10.6
20°-30°	317.4	15.8
30°-40°	376.2	18.8
40°-50°	376.9	18.8
50°-60°	319.9	16.0
60°-70°	215.7	10.8
70°-80°	94.8	4.7
80°-90°	15.4	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°	604.1	30.2
0°-40°	980.3	48.9
0°-60°	1677.1	83.7
0°-90°	2003.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2003.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	795	795	795	795	795	
5°	789	787	789	787	806	74
15°	756	747	751	755	756	211
25°	676	679	690	699	698	312
35°	588	590	603	617	617	365
45°	473	482	490	502	491	366
55°	354	351	360	358	358	315
65°	217	214	223	214	216	216
75°	90	89	90	84	87	97
85°	11	11	11	11	10	16
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	794.7	794.7	794.7	794.7	794.7
2.5°	801.6	795.6	789.9	796.5	800.5
5°	789.1	787.2	789.4	787.0	806.0
7.5°	772.9	780.0	784.1	781.5	782.6
10°	764.3	761.8	770.9	777.3	776.4
12.5°	755.0	758.7	759.2	766.1	766.7
15°	755.5	746.8	751.4	755.3	755.6
17.5°	726.2	735.6	738.8	747.7	736.7
20°	722.6	715.7	722.6	731.7	730.3
22.5°	700.5	692.8	707.6	715.7	715.2
25°	675.5	679.2	690.3	699.3	697.9
27.5°	653.5	657.9	673.7	686.1	678.1
30°	636.6	634.5	647.8	658.9	665.0
32.5°	606.3	614.1	629.7	640.7	634.9
35°	588.0	589.7	603.4	617.3	616.9
37.5°	555.9	564.0	583.2	587.1	583.5
40°	528.5	536.6	553.9	558.1	556.4
42.5°	508.2	509.7	524.6	529.4	521.7
45°	473.0	481.9	489.9	502.5	490.6
47.5°	443.1	447.2	464.4	467.8	461.6
50°	415.9	417.3	434.7	430.5	426.4
52.5°	381.7	387.8	397.5	396.7	391.9
55°	353.6	351.2	360.5	358.0	357.9
57.5°	319.8	324.0	331.5	327.6	321.4
60°	288.2	288.3	291.1	286.7	285.9
62.5°	253.0	254.3	254.9	249.5	258.3
65°	217.2	214.4	222.8	214.3	215.7
67.5°	184.3	185.7	184.9	179.6	181.6
70°	150.8	152.7	151.4	145.3	147.1
72.5°	120.3	118.0	119.4	111.8	115.3
75°	90.4	88.6	90.2	83.8	86.7
77.5°	61.6	63.0	62.0	58.6	60.5
80°	40.6	39.5	39.5	37.6	38.0
82.5°	23.7	22.6	22.3	21.7	22.6
85°	11.1	10.8	11.0	10.7	10.3
87.5°	4.0	4.1	4.1	3.9	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)