

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: P588887

Luminaire Tested: **FMR-24-2-LD4-1STD-35-UNV-80-86-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588887  
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-35-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 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

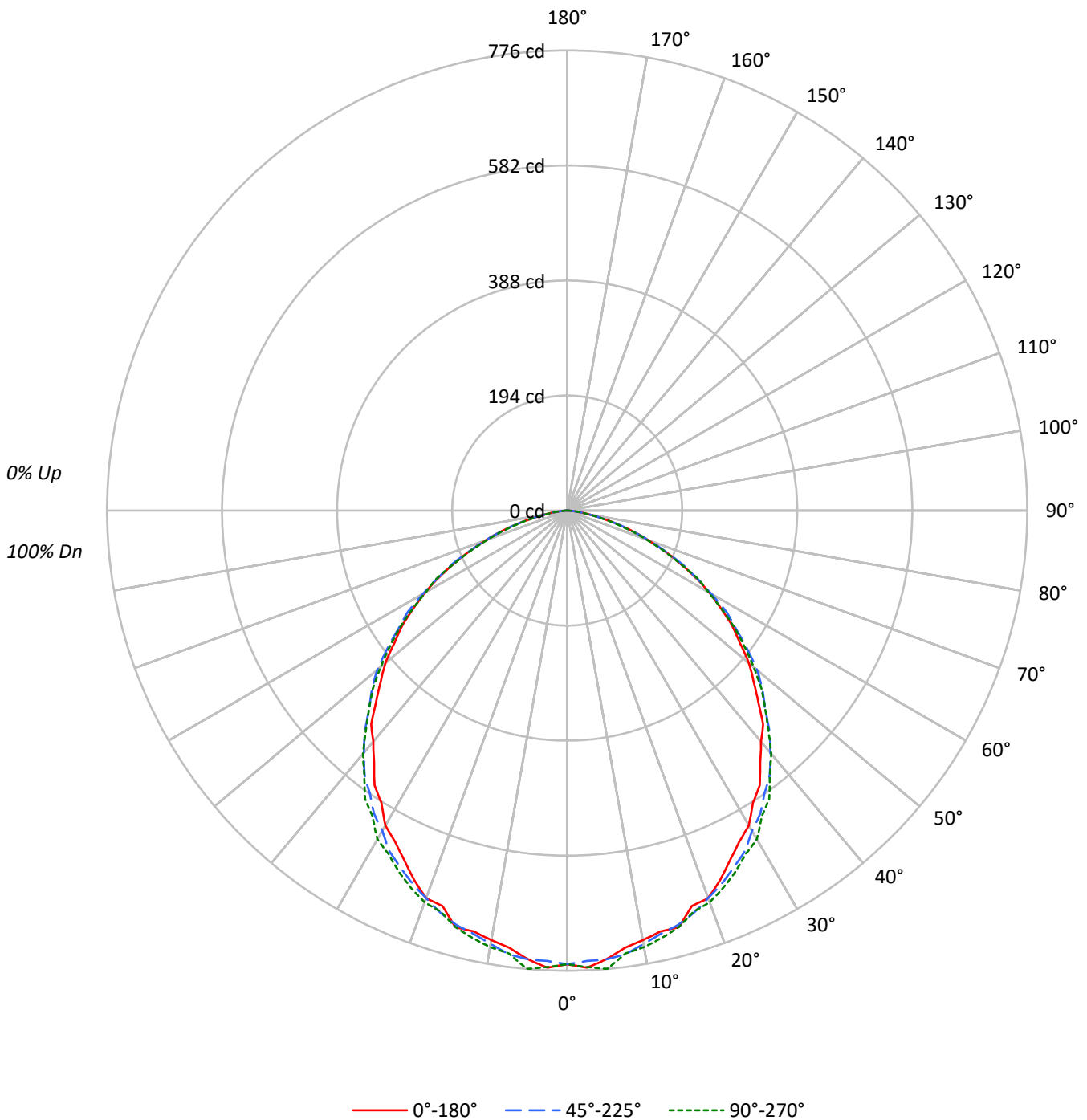
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1928.0 lumens  
Efficiency: N/A  
Efficacy: 116.1 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°	2059	2059	2059
5°	2052	2052	2096
10°	2010	2028	2042
15°	2026	2015	2026
20°	1992	1992	2013
25°	1931	1973	1994
30°	1904	1937	1989
35°	1859	1908	1951
40°	1787	1873	1881
45°	1733	1794	1797
50°	1676	1752	1718
55°	1597	1628	1616
60°	1493	1508	1481
65°	1331	1365	1322
70°	1142	1146	1114
75°	905	902	868
80°	606	589	566
85°	330	327	306



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.0	3.7
10°-20°	203.9	10.6
20°-30°	305.5	15.8
30°-40°	362.1	18.8
40°-50°	362.8	18.8
50°-60°	308.0	16.0
60°-70°	207.6	10.8
70°-80°	91.2	4.7
80°-90°	14.8	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°	581.4	30.2
0°-40°	943.6	48.9
0°-60°	1614.3	83.7
0°-90°	1928.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1928.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	765	765	765	765	765	
5°	760	758	760	758	776	72
15°	727	719	723	727	727	203
25°	650	654	664	673	672	301
35°	566	568	581	594	594	351
45°	455	464	472	484	472	352
55°	340	338	347	345	344	303
65°	209	206	214	206	208	208
75°	87	85	87	81	84	93
85°	11	10	11	10	10	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	765.0	765.0	765.0	765.0	765.0
2.5°	771.6	765.8	760.3	766.7	770.5
5°	759.5	757.8	759.8	757.6	775.8
7.5°	743.9	750.8	754.7	752.2	753.3
10°	735.6	733.3	742.1	748.2	747.3
12.5°	726.8	730.3	730.8	737.4	738.0
15°	727.3	718.9	723.3	727.1	727.3
17.5°	699.0	708.1	711.2	719.7	709.1
20°	695.5	688.9	695.5	704.3	703.0
22.5°	674.3	666.9	681.1	688.9	688.4
25°	650.2	653.8	664.4	673.1	671.7
27.5°	629.1	633.2	648.4	660.4	652.7
30°	612.8	610.7	623.5	634.2	640.1
32.5°	583.6	591.1	606.2	616.7	611.1
35°	566.0	567.6	580.8	594.2	593.8
37.5°	535.0	542.8	561.3	565.1	561.6
40°	508.7	516.5	533.2	537.2	535.5
42.5°	489.2	490.6	504.9	509.6	502.2
45°	455.3	463.8	471.5	483.7	472.2
47.5°	426.5	430.4	447.0	450.3	444.3
50°	400.3	401.7	418.4	414.3	410.4
52.5°	367.4	373.3	382.6	381.8	377.2
55°	340.4	338.1	347.0	344.6	344.5
57.5°	307.9	311.8	319.1	315.4	309.4
60°	277.4	277.5	280.2	276.0	275.2
62.5°	243.6	244.8	245.3	240.1	248.6
65°	209.1	206.3	214.4	206.2	207.6
67.5°	177.4	178.8	178.0	172.8	174.8
70°	145.2	147.0	145.7	139.9	141.6
72.5°	115.8	113.6	115.0	107.7	111.0
75°	87.0	85.2	86.8	80.7	83.5
77.5°	59.3	60.6	59.7	56.4	58.3
80°	39.1	38.0	38.0	36.2	36.5
82.5°	22.8	21.7	21.4	20.8	21.7
85°	10.7	10.4	10.6	10.3	9.9
87.5°	3.9	4.0	4.0	3.8	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)