

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: P588966

Luminaire Tested: **FMR-24-2-LD4-1STD-50-UNV-82-85-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588966  
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-82-85-EDD  
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

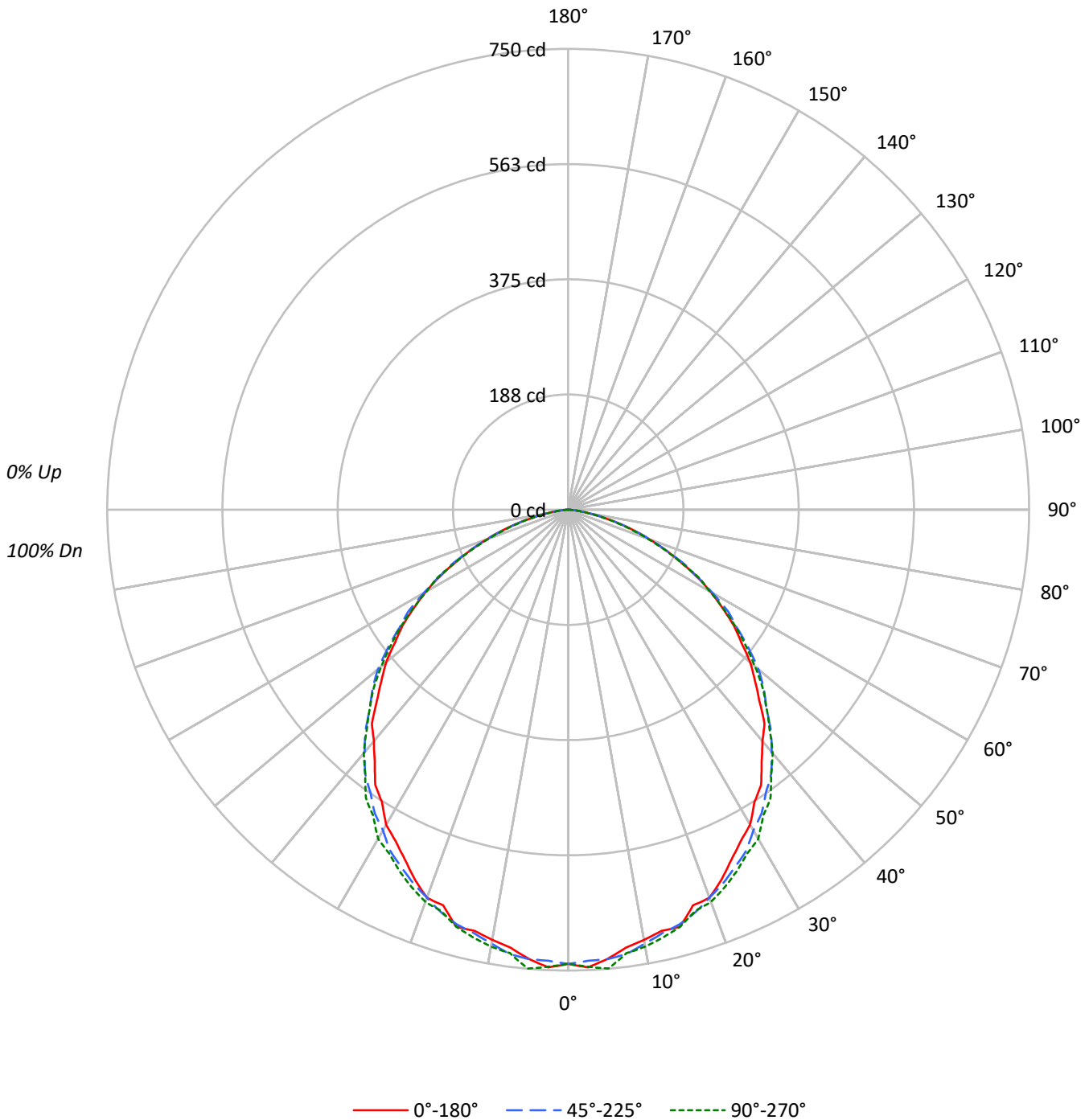
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1863.0 lumens  
Efficiency: N/A  
Efficacy: 112.2 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°	1989	1989	1989
5°	1982	1983	2025
10°	1942	1959	1973
15°	1958	1947	1958
20°	1925	1925	1945
25°	1866	1906	1927
30°	1840	1872	1922
35°	1797	1844	1885
40°	1727	1810	1818
45°	1674	1734	1737
50°	1619	1693	1660
55°	1543	1573	1562
60°	1443	1457	1431
65°	1286	1319	1277
70°	1104	1108	1077
75°	874	872	838
80°	586	569	547
85°	318	315	293



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.5	3.7
10°-20°	197.1	10.6
20°-30°	295.2	15.8
30°-40°	349.9	18.8
40°-50°	350.6	18.8
50°-60°	297.6	16.0
60°-70°	200.6	10.8
70°-80°	88.2	4.7
80°-90°	14.3	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°	561.8	30.2
0°-40°	911.8	48.9
0°-60°	1559.9	83.7
0°-90°	1863.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1863.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	739	739	739	739	739	
5°	734	732	734	732	750	69
15°	703	695	699	702	703	196
25°	628	632	642	650	649	290
35°	547	548	561	574	574	340
45°	440	448	456	467	456	340
55°	329	327	335	333	333	293
65°	202	199	207	199	201	201
75°	84	82	84	78	81	90
85°	10	10	10	10	10	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	739.2	739.2	739.2	739.2	739.2
2.5°	745.6	740.0	734.7	740.8	744.5
5°	733.9	732.2	734.2	732.0	749.7
7.5°	718.9	725.4	729.3	726.9	727.9
10°	710.8	708.6	717.0	723.0	722.1
12.5°	702.3	705.7	706.2	712.6	713.1
15°	702.7	694.6	698.9	702.5	702.8
17.5°	675.4	684.2	687.2	695.5	685.2
20°	672.1	665.7	672.1	680.6	679.3
22.5°	651.6	644.4	658.2	665.7	665.2
25°	628.3	631.7	642.0	650.4	649.1
27.5°	607.9	611.9	626.6	638.1	630.7
30°	592.1	590.1	602.5	612.8	618.6
32.5°	564.0	571.2	585.7	595.9	590.5
35°	546.9	548.5	561.2	574.2	573.8
37.5°	517.0	524.5	542.4	546.0	542.7
40°	491.5	499.1	515.2	519.1	517.5
42.5°	472.7	474.1	487.9	492.4	485.2
45°	440.0	448.2	455.6	467.4	456.3
47.5°	412.1	415.9	432.0	435.1	429.3
50°	386.8	388.2	404.3	400.4	396.6
52.5°	355.0	360.7	369.7	369.0	364.5
55°	328.9	326.7	335.3	333.0	332.9
57.5°	297.5	301.3	308.4	304.7	298.9
60°	268.1	268.2	270.8	266.7	265.9
62.5°	235.4	236.5	237.1	232.0	240.2
65°	202.0	199.4	207.2	199.3	200.6
67.5°	171.4	172.7	172.0	167.0	168.9
70°	140.3	142.0	140.8	135.1	136.9
72.5°	111.9	109.8	111.1	104.0	107.3
75°	84.1	82.4	83.9	78.0	80.6
77.5°	57.3	58.6	57.6	54.5	56.3
80°	37.8	36.7	36.7	34.9	35.3
82.5°	22.0	21.0	20.7	20.1	21.0
85°	10.3	10.0	10.2	9.9	9.5
87.5°	3.7	3.8	3.8	3.6	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)