

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: P588905

Luminaire Tested: **FMR-24-2-LD4-1STD-35-UNV-82-88-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588905  
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-82-88-EDD  
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

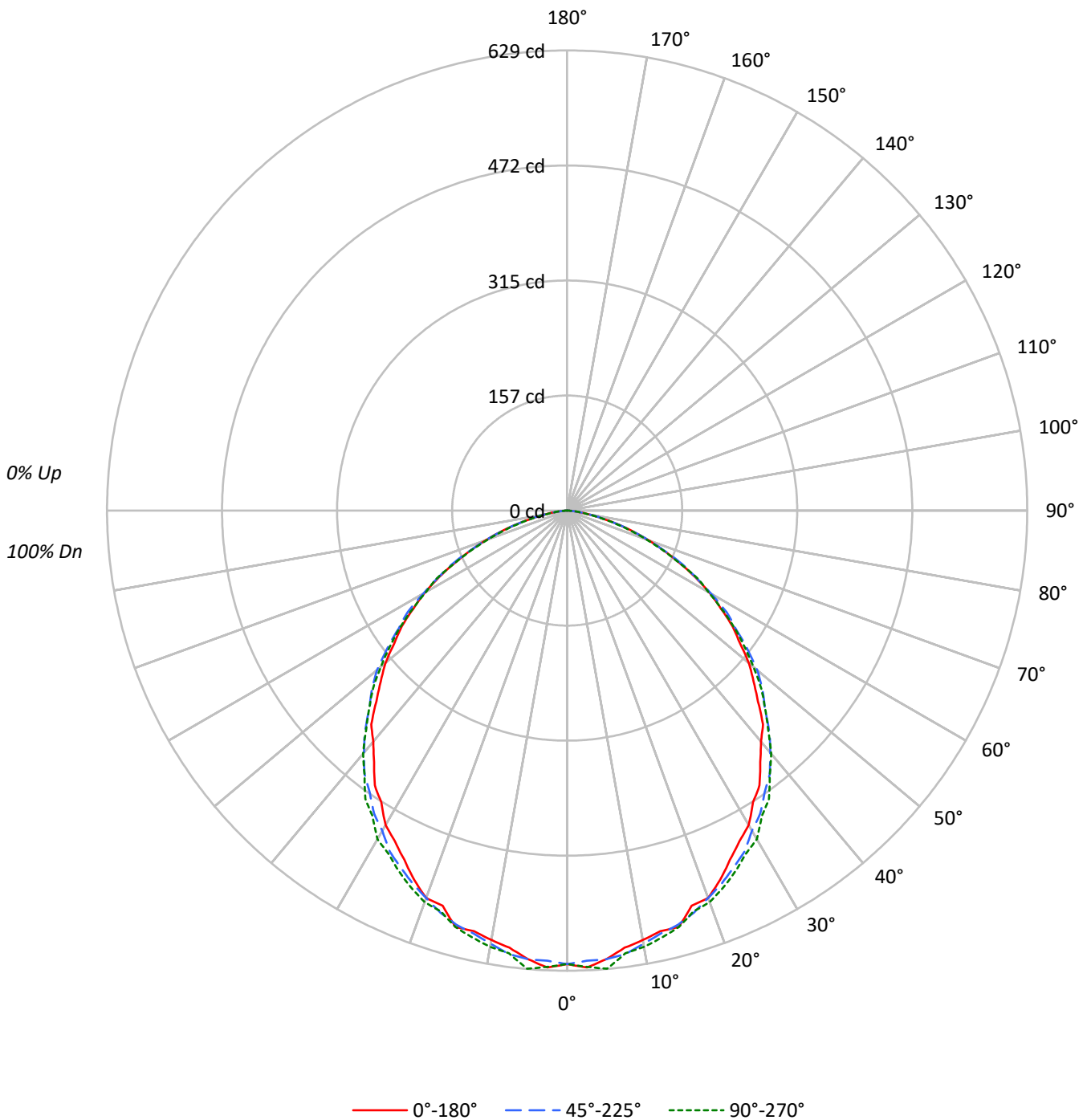
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1562.0 lumens  
Efficiency: N/A  
Efficacy: 94.1 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°	1668	1668	1668
5°	1662	1663	1698
10°	1629	1643	1654
15°	1641	1633	1642
20°	1614	1614	1631
25°	1564	1598	1616
30°	1542	1570	1611
35°	1506	1546	1580
40°	1448	1518	1524
45°	1404	1454	1456
50°	1358	1419	1392
55°	1294	1319	1309
60°	1210	1222	1200
65°	1079	1106	1071
70°	925	928	903
75°	733	731	703
80°	491	477	459
85°	266	266	247



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.3	3.7
10°-20°	165.2	10.6
20°-30°	247.5	15.8
30°-40°	293.4	18.8
40°-50°	293.9	18.8
50°-60°	249.5	16.0
60°-70°	168.2	10.8
70°-80°	73.9	4.7
80°-90°	12.0	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°	471.1	30.2
0°-40°	764.4	48.9
0°-60°	1307.9	83.7
0°-90°	1562.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1562.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	620	620	620	620	620	
5°	615	614	616	614	629	58
15°	589	582	586	589	589	164
25°	527	530	538	545	544	244
35°	458	460	470	481	481	285
45°	369	376	382	392	383	285
55°	276	274	281	279	279	245
65°	169	167	174	167	168	168
75°	70	69	70	65	68	76
85°	9	8	9	8	8	13
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	619.8	619.8	619.8	619.8	619.8
2.5°	625.1	620.4	616.0	621.1	624.2
5°	615.4	613.9	615.6	613.8	628.6
7.5°	602.7	608.2	611.4	609.4	610.3
10°	596.0	594.1	601.2	606.2	605.4
12.5°	588.8	591.7	592.1	597.4	597.9
15°	589.2	582.4	586.0	589.0	589.3
17.5°	566.3	573.7	576.2	583.1	574.5
20°	563.5	558.1	563.5	570.6	569.5
22.5°	546.3	540.3	551.8	558.1	557.7
25°	526.8	529.7	538.3	545.3	544.2
27.5°	509.7	513.0	525.3	535.0	528.8
30°	496.4	494.8	505.2	513.8	518.6
32.5°	472.8	478.9	491.1	499.7	495.1
35°	458.5	459.9	470.5	481.4	481.1
37.5°	433.5	439.8	454.8	457.8	455.0
40°	412.1	418.4	432.0	435.2	433.9
42.5°	396.3	397.5	409.1	412.8	406.8
45°	368.9	375.8	382.0	391.9	382.6
47.5°	345.5	348.7	362.2	364.8	359.9
50°	324.3	325.4	339.0	335.7	332.5
52.5°	297.7	302.4	310.0	309.4	305.6
55°	275.8	273.9	281.1	279.2	279.1
57.5°	249.4	252.6	258.5	255.5	250.6
60°	224.8	224.9	227.0	223.6	222.9
62.5°	197.3	198.3	198.8	194.5	201.4
65°	169.4	167.2	173.7	167.1	168.2
67.5°	143.7	144.8	144.2	140.0	141.6
70°	117.6	119.1	118.0	113.3	114.8
72.5°	93.8	92.0	93.1	87.2	89.9
75°	70.5	69.1	70.3	65.4	67.6
77.5°	48.0	49.1	48.3	45.7	47.2
80°	31.7	30.8	30.8	29.3	29.6
82.5°	18.5	17.6	17.4	16.9	17.6
85°	8.6	8.4	8.6	8.3	8.0
87.5°	3.1	3.2	3.2	3.0	2.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)