

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: P589567

Luminaire Tested: **FMR-24-2-LD4-4HI-35-UNV-81-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589567
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-LD4-4HI-35-UNV-81-86-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

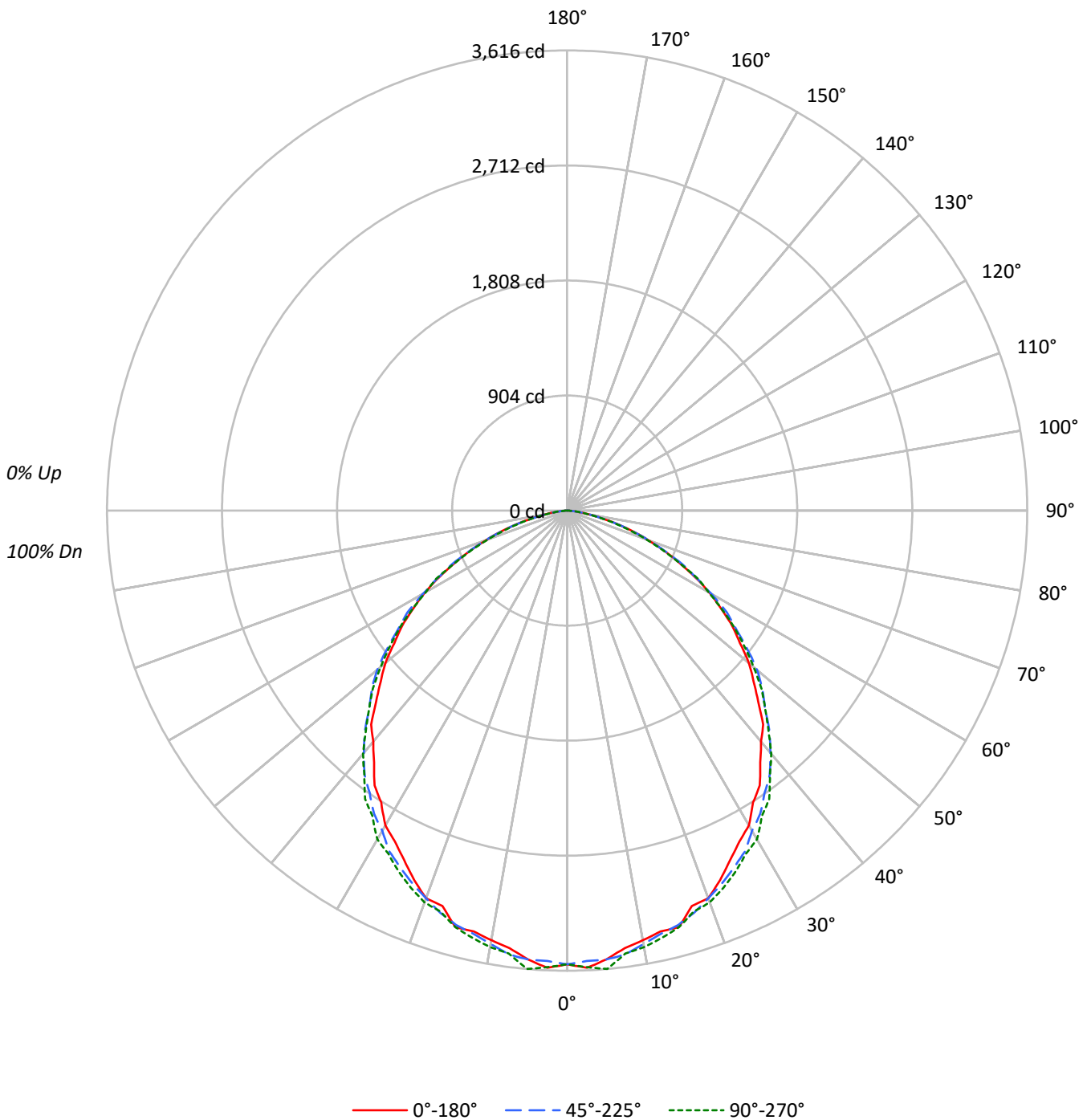
Lumens per Lamp: N/A
Luminaire Lumens: 8985.0 lumens
Efficiency: N/A
Efficacy: 104.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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	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					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°	9593	9593	9593
5°	9562	9565	9767
10°	9368	9450	9516
15°	9442	9391	9443
20°	9282	9282	9381
25°	8997	9194	9295
30°	8873	9029	9270
35°	8664	8891	9091
40°	8327	8728	8767
45°	8076	8363	8375
50°	7810	8163	8007
55°	7442	7586	7532
60°	6959	7028	6902
65°	6205	6363	6160
70°	5323	5342	5194
75°	4216	4207	4044
80°	2825	2746	2639
85°	1535	1522	1420



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	335.3	3.7
10°-20°	950.4	10.6
20°-30°	1423.9	15.8
30°-40°	1687.6	18.8
40°-50°	1690.7	18.8
50°-60°	1435.2	16.0
60°-70°	967.6	10.8
70°-80°	425.2	4.7
80°-90°	69.1	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°	2709.7	30.2
0°-40°	4397.3	48.9
0°-60°	7523.2	83.7
0°-90°	8985.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8985.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3565	3565	3565	3565	3565	
5°	3540	3531	3541	3530	3616	334
15°	3389	3350	3371	3388	3390	944
25°	3030	3047	3096	3137	3130	1401
35°	2638	2645	2707	2769	2767	1638
45°	2122	2162	2198	2254	2201	1641
55°	1586	1576	1617	1606	1606	1411
65°	974	962	999	961	968	969
75°	406	397	405	376	389	435
85°	50	48	49	48	46	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3565.0	3565.0	3565.0	3565.0	3565.0
2.5°	3595.9	3568.7	3543.4	3572.8	3590.8
5°	3539.7	3531.4	3541.1	3530.5	3615.7
7.5°	3467.0	3498.7	3517.1	3505.6	3510.7
10°	3428.3	3417.3	3458.2	3486.8	3482.6
12.5°	3386.9	3403.5	3405.8	3436.6	3439.4
15°	3389.2	3350.1	3370.8	3388.3	3389.6
17.5°	3257.5	3299.9	3314.2	3354.2	3304.5
20°	3241.4	3210.6	3241.4	3282.4	3276.0
22.5°	3142.5	3107.9	3174.2	3210.6	3208.3
25°	3030.2	3046.7	3096.4	3136.9	3130.5
27.5°	2931.6	2951.0	3021.9	3077.6	3041.7
30°	2855.7	2846.0	2905.9	2955.6	2983.2
32.5°	2719.9	2754.9	2824.9	2874.1	2847.9
35°	2637.5	2645.3	2706.6	2769.2	2767.3
37.5°	2493.4	2529.8	2615.9	2633.4	2617.3
40°	2370.5	2406.9	2484.7	2503.6	2495.7
42.5°	2279.9	2286.3	2353.1	2374.7	2340.2
45°	2122.0	2161.6	2197.5	2254.1	2200.7
47.5°	1987.6	2006.0	2083.3	2098.5	2070.4
50°	1865.6	1872.0	1949.8	1931.0	1912.5
52.5°	1712.3	1739.5	1783.2	1779.5	1757.9
55°	1586.2	1575.6	1617.0	1606.0	1605.5
57.5°	1434.8	1453.2	1487.2	1469.7	1441.7
60°	1293.0	1293.4	1305.9	1286.1	1282.4
62.5°	1135.1	1140.6	1143.4	1119.0	1158.6
65°	974.5	961.6	999.3	961.1	967.5
67.5°	826.7	833.1	829.5	805.5	814.7
70°	676.6	684.9	678.9	651.8	660.1
72.5°	539.5	529.3	535.8	501.7	517.4
75°	405.5	397.2	404.6	376.1	389.0
77.5°	276.2	282.6	278.0	262.8	271.6
80°	182.3	177.2	177.2	168.5	170.3
82.5°	106.3	101.3	99.9	97.1	101.3
85°	49.7	48.3	49.3	47.9	46.0
87.5°	18.0	18.4	18.4	17.5	16.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)