

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: P589585

Luminaire Tested: **FMR-24-2-LD4-4HI-35-UNV-93-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589585
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-93-88-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

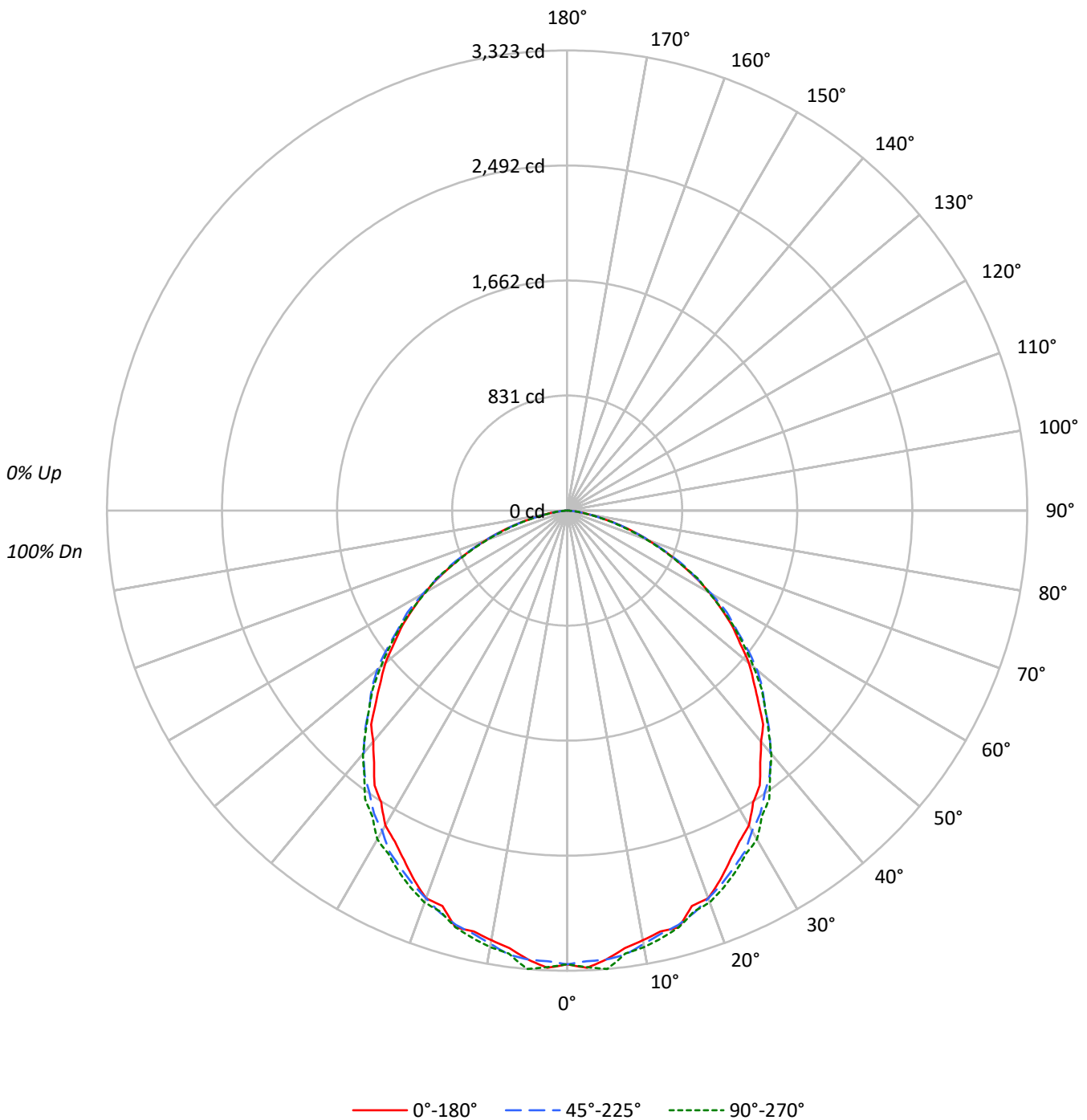
Lumens per Lamp: N/A
Luminaire Lumens: 8258.0 lumens
Efficiency: N/A
Efficacy: 95.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	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°	8817	8817	8817
5°	8788	8792	8977
10°	8610	8685	8746
15°	8678	8631	8679
20°	8531	8531	8622
25°	8269	8450	8543
30°	8155	8299	8520
35°	7963	8172	8355
40°	7653	8022	8058
45°	7422	7686	7697
50°	7178	7502	7359
55°	6839	6973	6923
60°	6396	6459	6343
65°	5703	5848	5663
70°	4893	4910	4773
75°	3875	3867	3717
80°	2596	2524	2425
85°	1411	1399	1306



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	308.2	3.7
10°-20°	873.5	10.6
20°-30°	1308.7	15.8
30°-40°	1551.1	18.8
40°-50°	1553.9	18.8
50°-60°	1319.0	16.0
60°-70°	889.3	10.8
70°-80°	390.8	4.7
80°-90°	63.5	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°	2490.4	30.2
0°-40°	4041.5	48.9
0°-60°	6914.4	83.7
0°-90°	8258.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8258.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3277	3277	3277	3277	3277	
5°	3253	3246	3255	3245	3323	307
15°	3115	3079	3098	3114	3115	868
25°	2785	2800	2846	2883	2877	1288
35°	2424	2431	2488	2545	2543	1505
45°	1950	1987	2020	2072	2023	1509
55°	1458	1448	1486	1476	1476	1297
65°	896	884	918	883	889	891
75°	373	365	372	346	358	399
85°	46	44	45	44	42	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3276.6	3276.6	3276.6	3276.6	3276.6
2.5°	3304.9	3280.0	3256.7	3283.8	3300.3
5°	3253.3	3245.7	3254.6	3244.8	3323.1
7.5°	3186.5	3215.6	3232.6	3222.0	3226.6
10°	3150.9	3140.8	3178.4	3204.6	3200.8
12.5°	3112.8	3128.1	3130.2	3158.5	3161.1
15°	3115.0	3079.0	3098.0	3114.1	3115.4
17.5°	2994.0	3032.9	3046.0	3082.8	3037.1
20°	2979.2	2950.8	2979.2	3016.8	3010.9
22.5°	2888.2	2856.5	2917.4	2950.8	2948.7
25°	2785.0	2800.2	2845.9	2883.1	2877.2
27.5°	2694.4	2712.2	2777.4	2828.5	2795.6
30°	2624.6	2615.8	2670.8	2716.4	2741.8
32.5°	2499.8	2532.0	2596.3	2641.6	2617.4
35°	2424.1	2431.3	2487.6	2545.1	2543.4
37.5°	2291.7	2325.1	2404.2	2420.3	2405.5
40°	2178.7	2212.2	2283.7	2301.0	2293.8
42.5°	2095.4	2101.3	2162.7	2182.5	2150.8
45°	1950.3	1986.7	2019.7	2071.7	2022.6
47.5°	1826.8	1843.7	1914.7	1928.7	1902.9
50°	1714.6	1720.6	1792.1	1774.7	1757.8
52.5°	1573.8	1598.7	1638.9	1635.5	1615.6
55°	1457.8	1448.1	1486.2	1476.0	1475.6
57.5°	1318.7	1335.6	1366.9	1350.8	1325.0
60°	1188.4	1188.8	1200.2	1182.0	1178.6
62.5°	1043.3	1048.3	1050.9	1028.4	1064.8
65°	895.6	883.8	918.5	883.3	889.3
67.5°	759.8	765.7	762.3	740.3	748.8
70°	621.9	629.5	624.0	599.0	606.7
72.5°	495.8	486.5	492.4	461.1	475.5
75°	372.7	365.1	371.9	345.6	357.5
77.5°	253.8	259.8	255.5	241.6	249.6
80°	167.5	162.9	162.9	154.8	156.5
82.5°	97.7	93.1	91.8	89.3	93.1
85°	45.7	44.4	45.3	44.0	42.3
87.5°	16.5	16.9	16.9	16.1	15.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)