

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: P589618

Luminaire Tested: **FMR-24-2-LD4-4HI-40-UNV-93-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589618
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-40-UNV-93-94-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

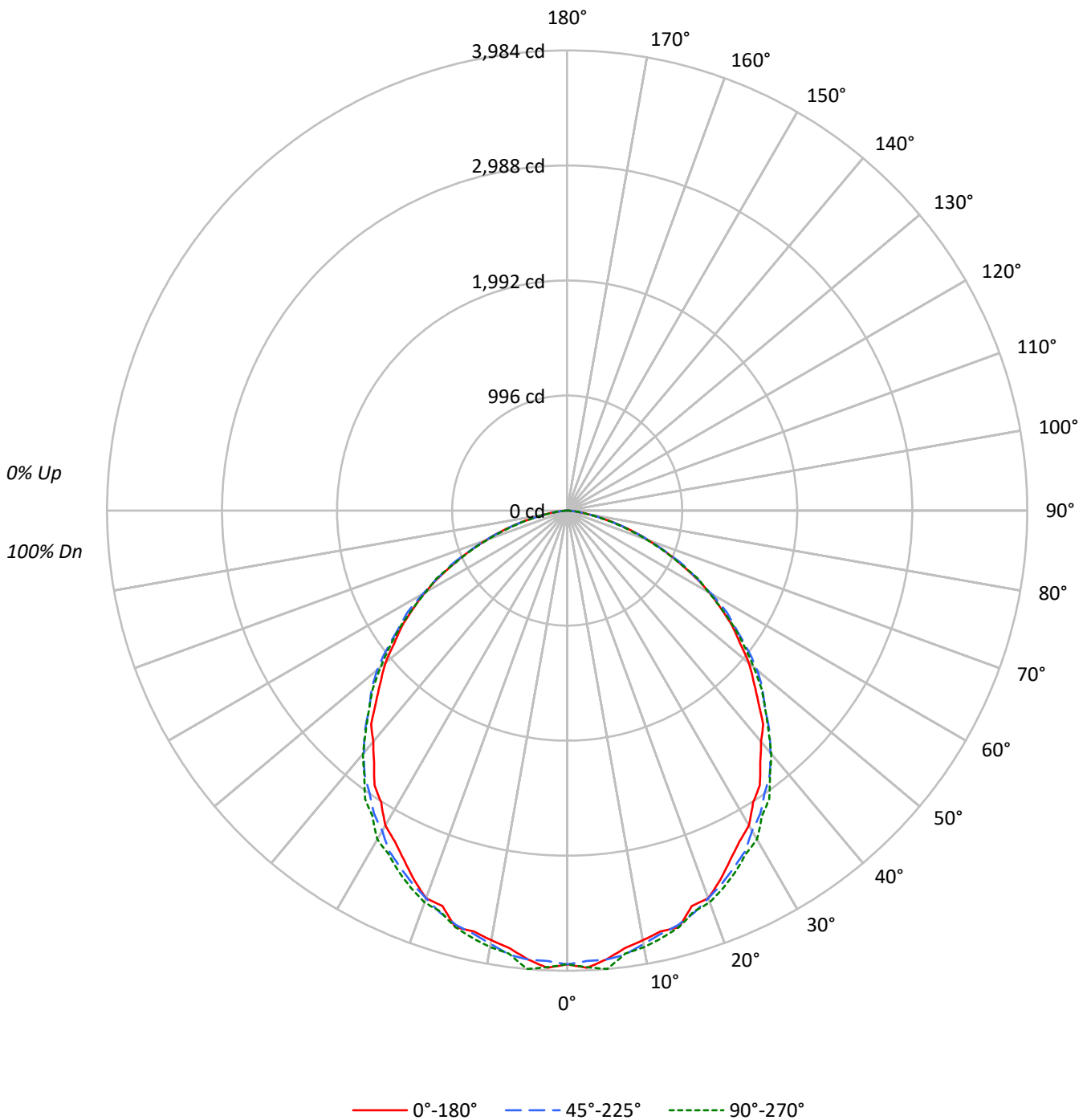
Lumens per Lamp: N/A
Luminaire Lumens: 9900.0 lumens
Efficiency: N/A
Efficacy: 114.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
Input Voltage (V): NR
Input Current (A_{in}): 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°	10570	10570	10570
5°	10535	10539	10762
10°	10322	10412	10485
15°	10403	10347	10405
20°	10228	10228	10337
25°	9913	10130	10242
30°	9777	9949	10214
35°	9547	9797	10017
40°	9175	9617	9660
45°	8898	9215	9228
50°	8606	8994	8822
55°	8199	8359	8299
60°	7668	7744	7605
65°	6837	7011	6788
70°	5866	5886	5722
75°	4645	4635	4456
80°	3112	3027	2909
85°	1692	1677	1565



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	369.5	3.7
10°-20°	1047.2	10.6
20°-30°	1568.9	15.8
30°-40°	1859.5	18.8
40°-50°	1862.9	18.8
50°-60°	1581.3	16.0
60°-70°	1066.1	10.8
70°-80°	468.5	4.7
80°-90°	76.1	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°	2985.6	30.2
0°-40°	4845.1	48.9
0°-60°	8289.3	83.7
0°-90°	9900.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9900.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3928	3928	3928	3928	3928	
5°	3900	3891	3902	3890	3984	368
15°	3734	3691	3714	3733	3735	1040
25°	3339	3357	3412	3456	3449	1544
35°	2906	2915	2982	3051	3049	1804
45°	2338	2382	2421	2484	2425	1809
55°	1748	1736	1782	1770	1769	1555
65°	1074	1060	1101	1059	1066	1068
75°	447	438	446	414	429	479
85°	55	53	54	53	51	79
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3928.1	3928.1	3928.1	3928.1	3928.1
2.5°	3962.1	3932.1	3904.2	3936.7	3956.5
5°	3900.2	3891.0	3901.7	3890.0	3983.9
7.5°	3820.0	3855.0	3875.3	3862.6	3868.2
10°	3777.4	3765.3	3810.4	3841.9	3837.3
12.5°	3731.8	3750.1	3752.6	3786.6	3789.6
15°	3734.3	3691.2	3714.0	3733.3	3734.8
17.5°	3589.3	3635.9	3651.7	3695.8	3641.0
20°	3571.5	3537.5	3571.5	3616.7	3609.6
22.5°	3462.5	3424.4	3497.5	3537.5	3535.0
25°	3338.7	3357.0	3411.8	3456.4	3449.3
27.5°	3230.2	3251.5	3329.6	3391.0	3351.4
30°	3146.5	3135.9	3201.8	3256.6	3287.0
32.5°	2996.9	3035.4	3112.5	3166.8	3137.9
35°	2906.1	2914.7	2982.2	3051.2	3049.1
37.5°	2747.4	2787.4	2882.3	2901.5	2883.8
40°	2612.0	2652.0	2737.7	2758.5	2749.9
42.5°	2512.0	2519.1	2592.7	2616.5	2578.5
45°	2338.1	2381.7	2421.3	2483.6	2424.8
47.5°	2190.0	2210.3	2295.5	2312.2	2281.3
50°	2055.6	2062.7	2148.4	2127.6	2107.3
52.5°	1886.7	1916.6	1964.8	1960.7	1936.9
55°	1747.7	1736.1	1781.7	1769.5	1769.0
57.5°	1580.9	1601.2	1638.7	1619.4	1588.5
60°	1424.7	1425.2	1438.9	1417.0	1413.0
62.5°	1250.7	1256.8	1259.8	1232.9	1276.6
65°	1073.7	1059.5	1101.1	1059.0	1066.1
67.5°	910.9	918.0	913.9	887.6	897.7
70°	745.5	754.7	748.1	718.2	727.3
72.5°	594.4	583.3	590.4	552.8	570.1
75°	446.8	437.7	445.8	414.4	428.6
77.5°	304.3	311.4	306.3	289.6	299.2
80°	200.8	195.3	195.3	185.6	187.7
82.5°	117.2	111.6	110.1	107.0	111.6
85°	54.8	53.3	54.3	52.7	50.7
87.5°	19.8	20.3	20.3	19.3	18.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)