

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: P589559

Luminaire Tested: **FMR-24-2-LD4-4HI-35-UNV-80-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589559
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-80-86-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

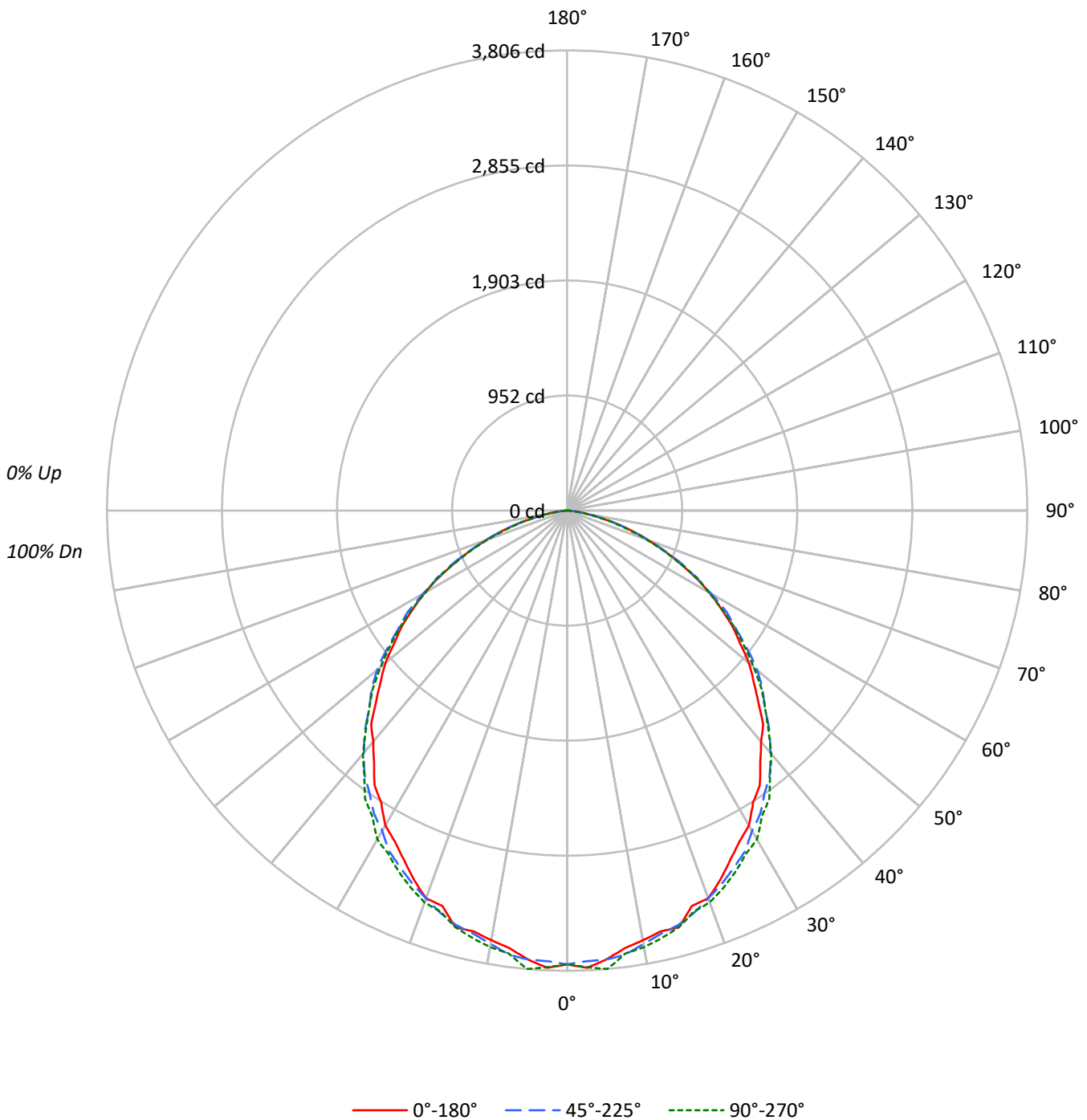
Lumens per Lamp: N/A
Luminaire Lumens: 9458.0 lumens
Efficiency: N/A
Efficacy: 109.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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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CATALOG NUMBER: FMR-24-2-LD4-4HI-35-UNV-80-86-EDD

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°	10098	10098	10098
5°	10065	10069	10281
10°	9861	9947	10017
15°	9939	9885	9940
20°	9771	9771	9875
25°	9471	9678	9784
30°	9340	9505	9757
35°	9121	9359	9569
40°	8766	9188	9229
45°	8501	8803	8816
50°	8221	8593	8428
55°	7834	7986	7929
60°	7325	7398	7265
65°	6532	6698	6485
70°	5604	5623	5467
75°	4439	4428	4257
80°	2974	2890	2779
85°	1615	1599	1497



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	353.0	3.7
10°-20°	1000.4	10.6
20°-30°	1498.9	15.8
30°-40°	1776.5	18.8
40°-50°	1779.8	18.8
50°-60°	1510.7	16.0
60°-70°	1018.5	10.8
70°-80°	447.5	4.7
80°-90°	72.7	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°	2852.3	30.2
0°-40°	4628.8	48.9
0°-60°	7919.2	83.7
0°-90°	9458.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9458.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3753	3753	3753	3753	3753	
5°	3726	3717	3728	3716	3806	351
15°	3568	3526	3548	3567	3568	994
25°	3190	3207	3259	3302	3295	1475
35°	2776	2785	2849	2915	2913	1724
45°	2234	2275	2313	2373	2316	1728
55°	1670	1659	1702	1690	1690	1485
65°	1026	1012	1052	1012	1018	1020
75°	427	418	426	396	409	457
85°	52	51	52	50	48	76
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3752.7	3752.7	3752.7	3752.7	3752.7
2.5°	3785.2	3756.6	3729.9	3760.9	3779.8
5°	3726.0	3717.3	3727.5	3716.4	3806.0
7.5°	3649.5	3682.9	3702.3	3690.2	3695.5
10°	3608.8	3597.2	3640.3	3670.3	3666.0
12.5°	3565.2	3582.6	3585.0	3617.5	3620.4
15°	3567.6	3526.4	3548.2	3566.6	3568.1
17.5°	3429.0	3473.6	3488.6	3530.8	3478.5
20°	3412.1	3379.6	3412.1	3455.2	3448.4
22.5°	3307.9	3271.6	3341.3	3379.6	3377.2
25°	3189.7	3207.1	3259.4	3302.1	3295.3
27.5°	3086.0	3106.3	3180.9	3239.6	3201.8
30°	3006.0	2995.9	3058.8	3111.2	3140.2
32.5°	2863.1	2899.9	2973.6	3025.4	2997.8
35°	2776.4	2784.6	2849.0	2914.9	2913.0
37.5°	2624.7	2663.0	2753.6	2772.0	2755.0
40°	2495.3	2533.6	2615.5	2635.4	2627.1
42.5°	2399.9	2406.7	2476.9	2499.7	2463.4
45°	2233.7	2275.4	2313.2	2372.8	2316.5
47.5°	2092.2	2111.6	2193.0	2209.0	2179.4
50°	1963.8	1970.6	2052.5	2032.6	2013.2
52.5°	1802.5	1831.0	1877.1	1873.2	1850.4
55°	1669.7	1658.6	1702.2	1690.5	1690.0
57.5°	1510.3	1529.7	1565.5	1547.1	1517.6
60°	1361.0	1361.5	1374.6	1353.8	1349.9
62.5°	1194.9	1200.7	1203.6	1177.9	1219.6
65°	1025.8	1012.2	1051.9	1011.7	1018.5
67.5°	870.2	877.0	873.1	847.9	857.6
70°	712.3	721.0	714.7	686.1	694.8
72.5°	567.9	557.2	564.0	528.1	544.6
75°	426.9	418.2	425.9	395.9	409.4
77.5°	290.7	297.5	292.7	276.7	285.9
80°	191.9	186.5	186.5	177.3	179.3
82.5°	111.9	106.6	105.1	102.2	106.6
85°	52.3	50.9	51.8	50.4	48.5
87.5°	18.9	19.4	19.4	18.4	17.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)