

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: P589587

Luminaire Tested: **FMR-24-2-LD4-4HI-35-UNV-93-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589587
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-93-96-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

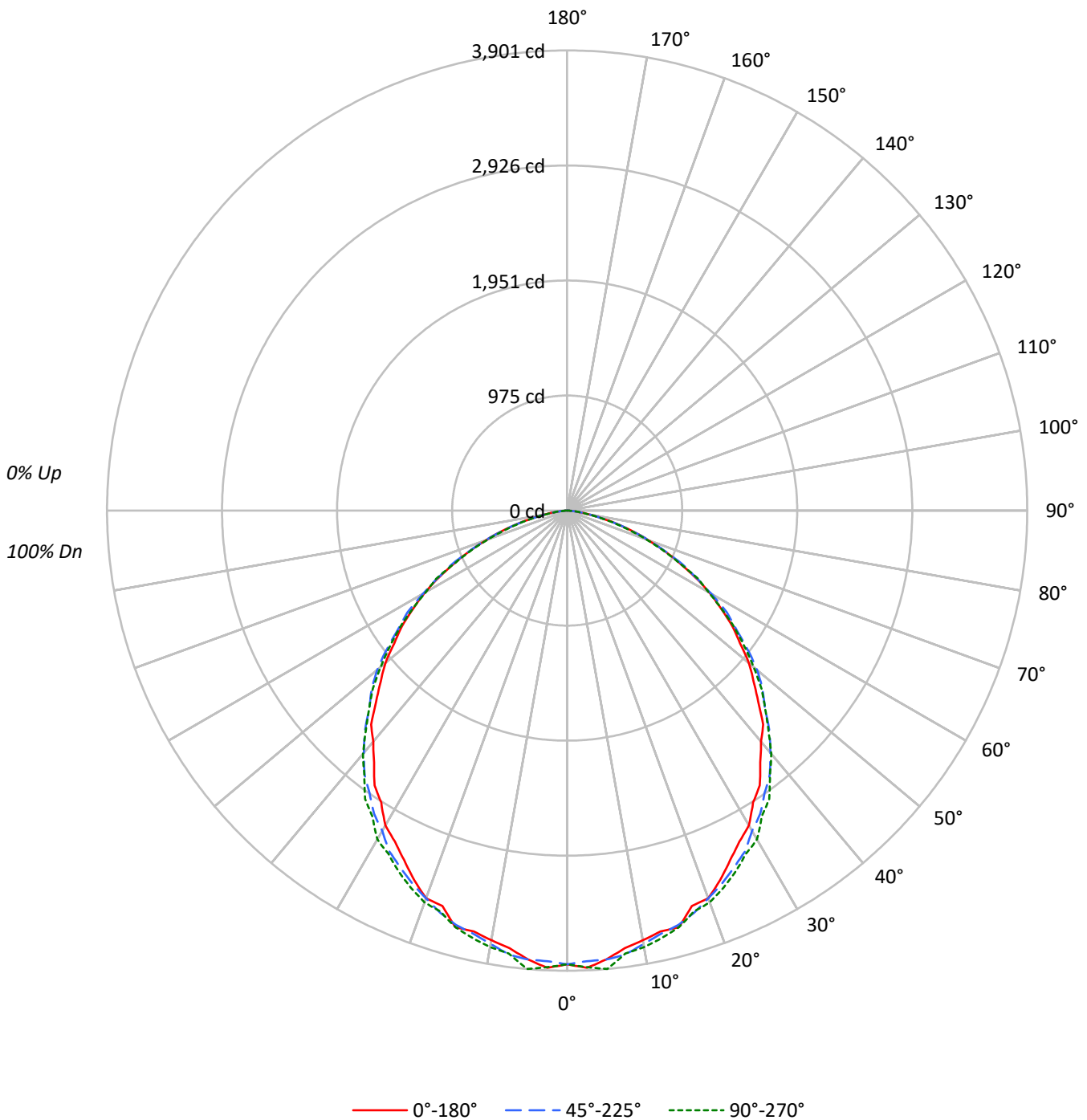
Lumens per Lamp: N/A
Luminaire Lumens: 9694.0 lumens
Efficiency: N/A
Efficacy: 112.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	10350	10350	10350
5°	10316	10320	10538
10°	10107	10195	10267
15°	10187	10132	10188
20°	10015	10015	10122
25°	9707	9919	10028
30°	9574	9742	10001
35°	9348	9593	9808
40°	8984	9417	9459
45°	8713	9023	9036
50°	8426	8807	8639
55°	8029	8185	8127
60°	7508	7583	7446
65°	6694	6865	6647
70°	5744	5763	5604
75°	4549	4538	4363
80°	3048	2963	2847
85°	1655	1639	1535



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	361.8	3.7
10°-20°	1025.4	10.6
20°-30°	1536.3	15.8
30°-40°	1820.8	18.8
40°-50°	1824.2	18.8
50°-60°	1548.4	16.0
60°-70°	1043.9	10.8
70°-80°	458.7	4.7
80°-90°	74.5	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°	2923.5	30.2
0°-40°	4744.3	48.9
0°-60°	8116.8	83.7
0°-90°	9694.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9694.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3846	3846	3846	3846	3846	
5°	3819	3810	3820	3809	3901	360
15°	3657	3614	3637	3656	3657	1019
25°	3269	3287	3341	3384	3378	1511
35°	2846	2854	2920	2988	2986	1767
45°	2289	2332	2371	2432	2374	1771
55°	1711	1700	1745	1733	1732	1522
65°	1051	1037	1078	1037	1044	1046
75°	438	429	436	406	420	469
85°	54	52	53	52	50	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3846.3	3846.3	3846.3	3846.3	3846.3
2.5°	3879.6	3850.3	3823.0	3854.8	3874.1
5°	3819.0	3810.1	3820.5	3809.1	3901.0
7.5°	3740.6	3774.8	3794.7	3782.3	3787.7
10°	3698.8	3686.9	3731.1	3761.9	3757.4
12.5°	3654.1	3672.0	3674.5	3707.8	3710.8
15°	3656.6	3614.4	3636.8	3655.6	3657.1
17.5°	3514.6	3560.3	3575.7	3618.9	3565.2
20°	3497.2	3463.9	3497.2	3541.4	3534.5
22.5°	3390.4	3353.2	3424.7	3463.9	3461.5
25°	3269.3	3287.1	3340.8	3384.5	3377.5
27.5°	3163.0	3183.8	3260.3	3320.4	3281.7
30°	3081.0	3070.6	3135.2	3188.8	3218.6
32.5°	2934.5	2972.3	3047.8	3100.9	3072.6
35°	2845.6	2854.1	2920.1	2987.7	2985.7
37.5°	2690.2	2729.4	2822.3	2841.2	2823.8
40°	2557.6	2596.8	2680.8	2701.1	2692.7
42.5°	2459.8	2466.7	2538.7	2562.1	2524.8
45°	2289.4	2332.1	2370.9	2432.0	2374.3
47.5°	2144.4	2164.3	2247.7	2264.1	2233.8
50°	2012.8	2019.8	2103.7	2083.3	2063.5
52.5°	1847.4	1876.7	1923.9	1919.9	1896.6
55°	1711.4	1699.9	1744.6	1732.7	1732.2
57.5°	1548.0	1567.8	1604.6	1585.7	1555.4
60°	1395.0	1395.5	1408.9	1387.6	1383.6
62.5°	1224.7	1230.6	1233.6	1207.3	1250.0
65°	1051.3	1037.4	1078.2	1036.9	1043.9
67.5°	891.9	898.9	894.9	869.1	879.0
70°	730.0	739.0	732.5	703.2	712.2
72.5°	582.0	571.1	578.1	541.3	558.2
75°	437.5	428.6	436.5	405.7	419.6
77.5°	298.0	304.9	300.0	283.6	293.0
80°	196.7	191.2	191.2	181.8	183.7
82.5°	114.7	109.3	107.8	104.8	109.3
85°	53.6	52.1	53.1	51.6	49.7
87.5°	19.4	19.9	19.9	18.9	17.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)