

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: P589805

Luminaire Tested: **FMR-24-2-LD4-4STD-40-UNV-93-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589805
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-LD4-4STD-40-UNV-93-84-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

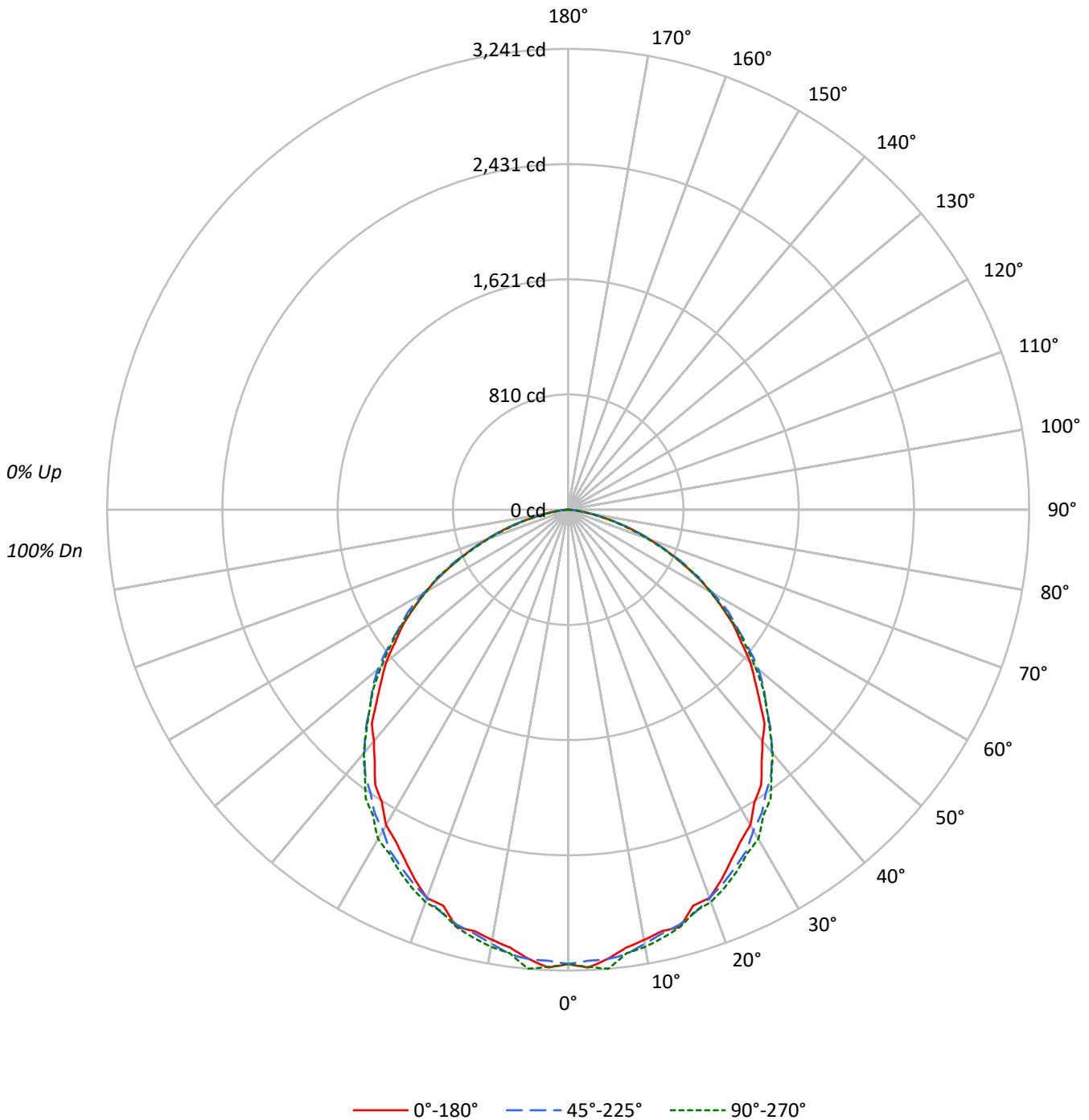
Lumens per Lamp: N/A
Luminaire Lumens: 8053.0 lumens
Efficiency: N/A
Efficacy: 120.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	8598	8598	8598
5°	8570	8573	8754
10°	8396	8469	8529
15°	8462	8417	8464
20°	8320	8320	8408
25°	8064	8240	8331
30°	7953	8093	8308
35°	7766	7969	8148
40°	7464	7823	7858
45°	7238	7495	7506
50°	7000	7316	7176
55°	6670	6800	6751
60°	6237	6299	6186
65°	5561	5703	5522
70°	4772	4788	4655
75°	3779	3770	3624
80°	2532	2461	2365
85°	1377	1362	1275



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	300.6	3.7
10°-20°	851.8	10.6
20°-30°	1276.2	15.8
30°-40°	1512.6	18.8
40°-50°	1515.4	18.8
50°-60°	1286.3	16.0
60°-70°	867.2	10.8
70°-80°	381.1	4.7
80°-90°	61.9	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°	2428.6	30.2
0°-40°	3941.1	48.9
0°-60°	6742.8	83.7
0°-90°	8053.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8053.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3195	3195	3195	3195	3195	
5°	3172	3165	3174	3164	3241	299
15°	3038	3003	3021	3037	3038	846
25°	2716	2731	2775	2812	2806	1256
35°	2364	2371	2426	2482	2480	1468
45°	1902	1937	1970	2020	1972	1471
55°	1422	1412	1449	1439	1439	1265
65°	873	862	896	861	867	869
75°	364	356	363	337	349	390
85°	45	43	44	43	41	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3195.2	3195.2	3195.2	3195.2	3195.2
2.5°	3222.9	3198.5	3175.8	3202.2	3218.3
5°	3172.5	3165.1	3173.8	3164.3	3240.6
7.5°	3107.4	3135.8	3152.3	3142.0	3146.5
10°	3072.7	3062.8	3099.5	3125.1	3121.4
12.5°	3035.6	3050.4	3052.5	3080.1	3082.6
15°	3037.6	3002.6	3021.1	3036.8	3038.0
17.5°	2919.6	2957.6	2970.4	3006.3	2961.7
20°	2905.2	2877.6	2905.2	2941.9	2936.1
22.5°	2816.5	2785.6	2845.0	2877.6	2875.5
25°	2715.8	2730.7	2775.2	2811.6	2805.8
27.5°	2627.6	2644.9	2708.4	2758.3	2726.2
30°	2559.5	2550.8	2604.5	2649.0	2673.8
32.5°	2437.8	2469.1	2531.8	2576.0	2552.5
35°	2363.9	2370.9	2425.8	2481.9	2480.3
37.5°	2234.8	2267.4	2344.5	2360.2	2345.8
40°	2124.7	2157.2	2227.0	2243.9	2236.9
42.5°	2043.4	2049.2	2109.0	2128.4	2097.4
45°	1901.9	1937.4	1969.5	2020.3	1972.4
47.5°	1781.4	1797.9	1867.2	1880.8	1855.7
50°	1672.1	1677.9	1747.6	1730.7	1714.2
52.5°	1534.7	1559.0	1598.2	1594.9	1575.5
55°	1421.7	1412.2	1449.3	1439.4	1439.0
57.5°	1285.9	1302.4	1333.0	1317.3	1292.1
60°	1158.9	1159.3	1170.4	1152.7	1149.4
62.5°	1017.4	1022.3	1024.8	1002.9	1038.4
65°	873.4	861.8	895.7	861.4	867.2
67.5°	740.9	746.7	743.4	722.0	730.2
70°	606.5	613.9	608.5	584.2	591.6
72.5°	483.5	474.4	480.2	449.7	463.7
75°	363.5	356.0	362.6	337.1	348.6
77.5°	247.5	253.3	249.2	235.6	243.4
80°	163.4	158.8	158.8	151.0	152.6
82.5°	95.3	90.8	89.5	87.0	90.8
85°	44.6	43.3	44.1	42.9	41.3
87.5°	16.1	16.5	16.5	15.7	14.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)