

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: P589768

Luminaire Tested: **FMR-24-2-LD4-4STD-35-UNV-82-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589768
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-35-UNV-82-87-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

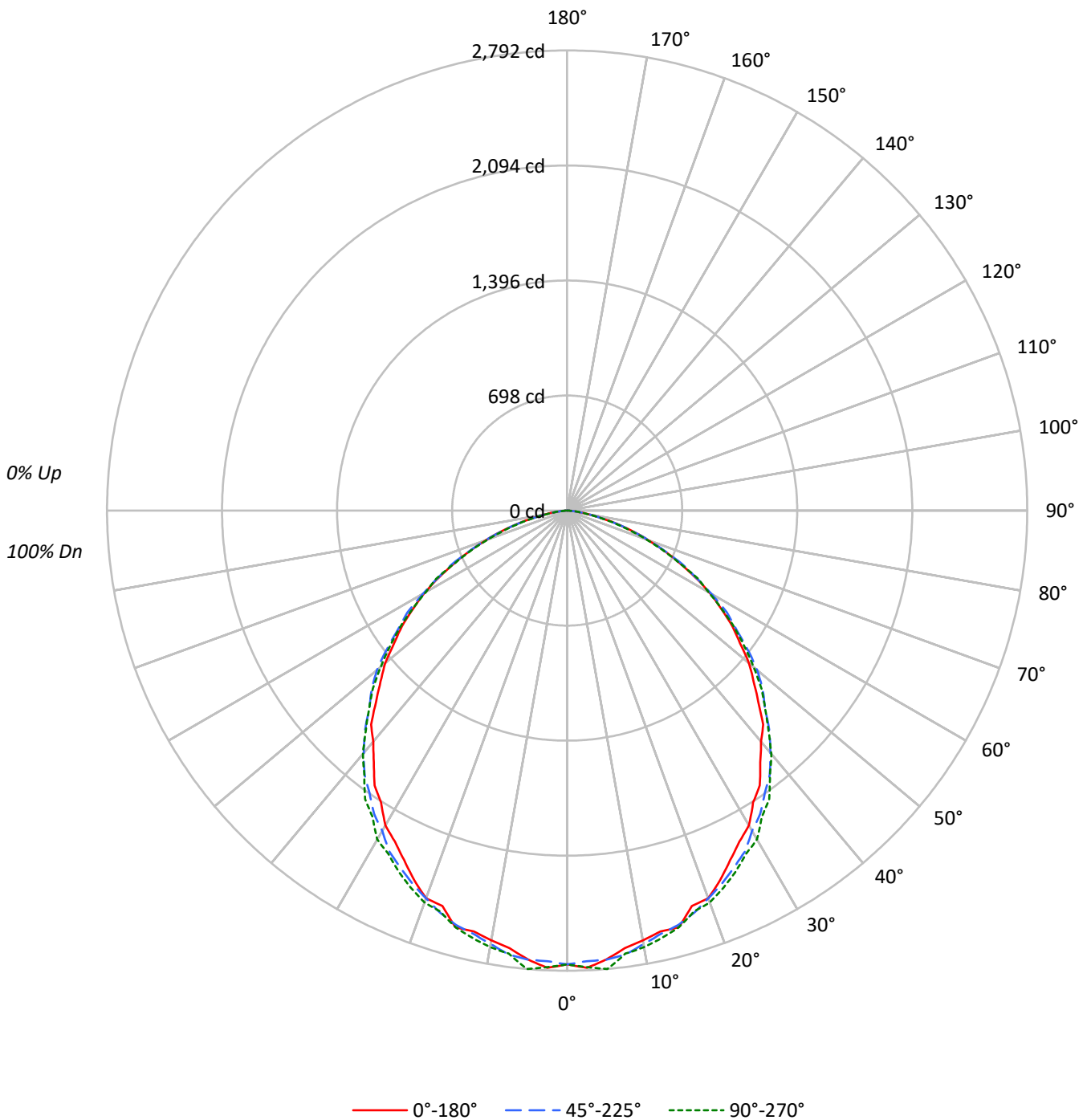
Lumens per Lamp: N/A
Luminaire Lumens: 6939.0 lumens
Efficiency: N/A
Efficacy: 104.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	7409	7409	7409
5°	7384	7387	7543
10°	7235	7298	7349
15°	7292	7252	7293
20°	7169	7169	7245
25°	6948	7100	7178
30°	6853	6973	7159
35°	6691	6866	7021
40°	6431	6741	6771
45°	6237	6459	6468
50°	6032	6304	6183
55°	5747	5859	5817
60°	5374	5428	5330
65°	4792	4914	4758
70°	4112	4125	4011
75°	3256	3249	3123
80°	2182	2122	2038
85°	1186	1173	1096



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	259.0	3.7
10°-20°	734.0	10.6
20°-30°	1099.7	15.8
30°-40°	1303.3	18.8
40°-50°	1305.7	18.8
50°-60°	1108.4	16.0
60°-70°	747.3	10.8
70°-80°	328.4	4.7
80°-90°	53.3	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°	2092.6	30.2
0°-40°	3396.0	48.9
0°-60°	5810.0	83.7
0°-90°	6939.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6939.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2753	2753	2753	2753	2753	
5°	2734	2727	2735	2727	2792	258
15°	2617	2587	2603	2617	2618	729
25°	2340	2353	2391	2423	2418	1082
35°	2037	2043	2090	2139	2137	1265
45°	1639	1669	1697	1741	1700	1268
55°	1225	1217	1249	1240	1240	1090
65°	753	743	772	742	747	748
75°	313	307	312	290	300	336
85°	38	37	38	37	36	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2753.2	2753.2	2753.2	2753.2	2753.2
2.5°	2777.0	2756.1	2736.5	2759.3	2773.1
5°	2733.7	2727.3	2734.7	2726.6	2792.3
7.5°	2677.5	2702.0	2716.2	2707.4	2711.3
10°	2647.6	2639.1	2670.7	2692.8	2689.6
12.5°	2615.6	2628.4	2630.2	2654.0	2656.2
15°	2617.4	2587.2	2603.2	2616.7	2617.8
17.5°	2515.8	2548.5	2559.5	2590.4	2552.0
20°	2503.3	2479.5	2503.3	2535.0	2530.0
22.5°	2426.9	2400.2	2451.4	2479.5	2477.7
25°	2340.1	2352.9	2391.3	2422.6	2417.6
27.5°	2264.1	2279.0	2333.7	2376.8	2349.0
30°	2205.4	2198.0	2244.2	2282.6	2303.9
32.5°	2100.6	2127.6	2181.6	2219.6	2199.4
35°	2036.9	2043.0	2090.2	2138.6	2137.2
37.5°	1925.7	1953.7	2020.2	2033.7	2021.3
40°	1830.7	1858.8	1918.9	1933.5	1927.4
42.5°	1760.7	1765.7	1817.2	1833.9	1807.3
45°	1638.8	1669.4	1697.1	1740.8	1699.6
47.5°	1535.0	1549.2	1608.9	1620.6	1599.0
50°	1440.8	1445.8	1505.8	1491.3	1477.0
52.5°	1322.4	1343.4	1377.1	1374.3	1357.6
55°	1225.0	1216.8	1248.8	1240.3	1239.9
57.5°	1108.0	1122.3	1148.6	1135.1	1113.4
60°	998.6	998.9	1008.5	993.2	990.4
62.5°	876.6	880.9	883.0	864.2	894.8
65°	752.6	742.6	771.8	742.2	747.2
67.5°	638.4	643.4	640.6	622.1	629.2
70°	522.6	529.0	524.3	503.4	509.8
72.5°	416.6	408.8	413.8	387.5	399.6
75°	313.2	306.8	312.5	290.4	300.4
77.5°	213.3	218.3	214.7	203.0	209.7
80°	140.8	136.9	136.9	130.1	131.5
82.5°	82.1	78.2	77.1	75.0	78.2
85°	38.4	37.3	38.0	37.0	35.5
87.5°	13.9	14.2	14.2	13.5	12.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)