

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: P589351

Luminaire Tested: **FMR-24-2-LD4-3HI-50-UNV-82-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589351
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-LD4-3HI-50-UNV-82-86-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

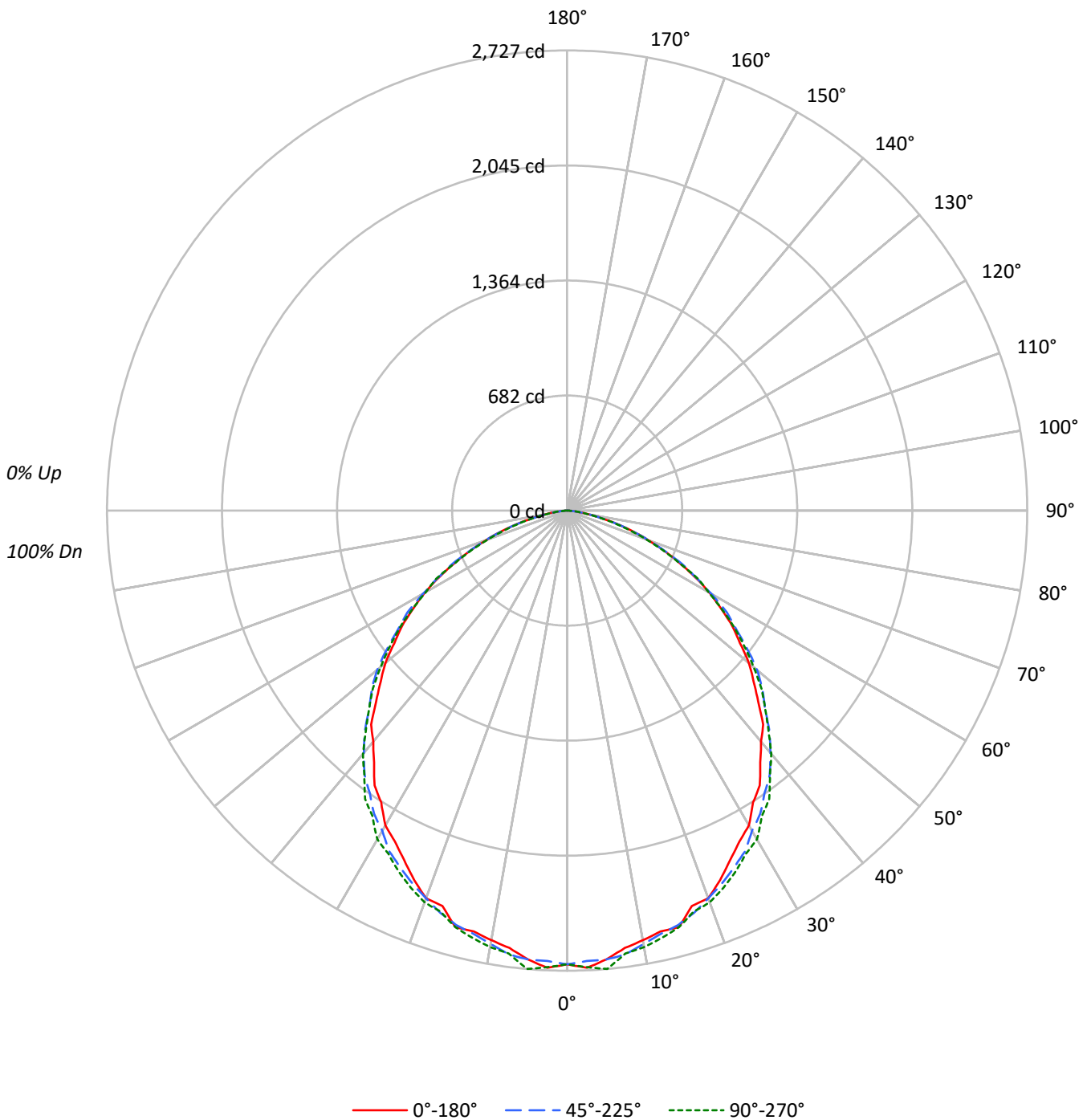
Lumens per Lamp: N/A
Luminaire Lumens: 6776.0 lumens
Efficiency: N/A
Efficacy: 104.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 64.8
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	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					100			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7235	7235	7235
5°	7211	7214	7366
10°	7065	7126	7177
15°	7120	7082	7122
20°	7000	7000	7075
25°	6785	6934	7010
30°	6692	6810	6991
35°	6534	6705	6856
40°	6280	6582	6612
45°	6090	6307	6316
50°	5890	6156	6038
55°	5612	5721	5681
60°	5248	5300	5205
65°	4679	4798	4646
70°	4015	4028	3917
75°	3179	3172	3049
80°	2131	2070	1990
85°	1158	1145	1071



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.9	3.7
10°-20°	716.7	10.6
20°-30°	1073.8	15.8
30°-40°	1272.7	18.8
40°-50°	1275.1	18.8
50°-60°	1082.3	16.0
60°-70°	729.7	10.8
70°-80°	320.6	4.7
80°-90°	52.1	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°	2043.5	30.2
0°-40°	3316.2	48.9
0°-60°	5673.6	83.7
0°-90°	6776.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6776.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2688	2688	2688	2688	2688	
5°	2670	2663	2670	2662	2727	252
15°	2556	2526	2542	2555	2556	712
25°	2285	2298	2335	2366	2361	1056
35°	1989	1995	2041	2088	2087	1235
45°	1600	1630	1657	1700	1660	1238
55°	1196	1188	1220	1211	1211	1064
65°	735	725	754	725	730	731
75°	306	300	305	284	293	328
85°	38	36	37	36	35	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2688.5	2688.5	2688.5	2688.5	2688.5
2.5°	2711.8	2691.3	2672.2	2694.4	2708.0
5°	2669.5	2663.2	2670.5	2662.5	2726.7
7.5°	2614.6	2638.6	2652.4	2643.8	2647.6
10°	2585.4	2577.1	2608.0	2629.5	2626.4
12.5°	2554.2	2566.7	2568.4	2591.7	2593.8
15°	2555.9	2526.4	2542.1	2555.2	2556.3
17.5°	2456.7	2488.6	2499.4	2529.6	2492.1
20°	2444.5	2421.3	2444.5	2475.4	2470.5
22.5°	2369.9	2343.8	2393.8	2421.3	2419.5
25°	2285.2	2297.7	2335.2	2365.7	2360.9
27.5°	2210.9	2225.5	2278.9	2320.9	2293.9
30°	2153.6	2146.3	2191.5	2228.9	2249.8
32.5°	2051.2	2077.6	2130.4	2167.5	2147.7
35°	1989.1	1995.0	2041.1	2088.4	2087.0
37.5°	1880.4	1907.8	1972.8	1985.9	1973.8
40°	1787.7	1815.2	1873.8	1888.1	1882.2
42.5°	1719.4	1724.2	1774.5	1790.9	1764.8
45°	1600.3	1630.1	1657.2	1699.9	1659.6
47.5°	1498.9	1512.8	1571.1	1582.6	1561.4
50°	1406.9	1411.8	1470.5	1456.2	1442.3
52.5°	1291.3	1311.8	1344.8	1342.0	1325.7
55°	1196.2	1188.2	1219.5	1211.1	1210.8
57.5°	1082.0	1095.9	1121.6	1108.4	1087.2
60°	975.1	975.4	984.8	969.9	967.1
62.5°	856.0	860.2	862.3	843.9	873.7
65°	734.9	725.2	753.6	724.8	729.7
67.5°	623.5	628.3	625.5	607.5	614.4
70°	510.3	516.5	512.0	491.5	497.8
72.5°	406.8	399.2	404.1	378.4	390.2
75°	305.8	299.6	305.1	283.6	293.3
77.5°	208.3	213.1	209.7	198.2	204.8
80°	137.5	133.6	133.6	127.1	128.4
82.5°	80.2	76.4	75.3	73.2	76.4
85°	37.5	36.4	37.1	36.1	34.7
87.5°	13.5	13.9	13.9	13.2	12.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)