

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: P589829

Luminaire Tested: **FMR-24-2-LD4-4STD-50-UNV-82-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589829
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-50-UNV-82-84-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

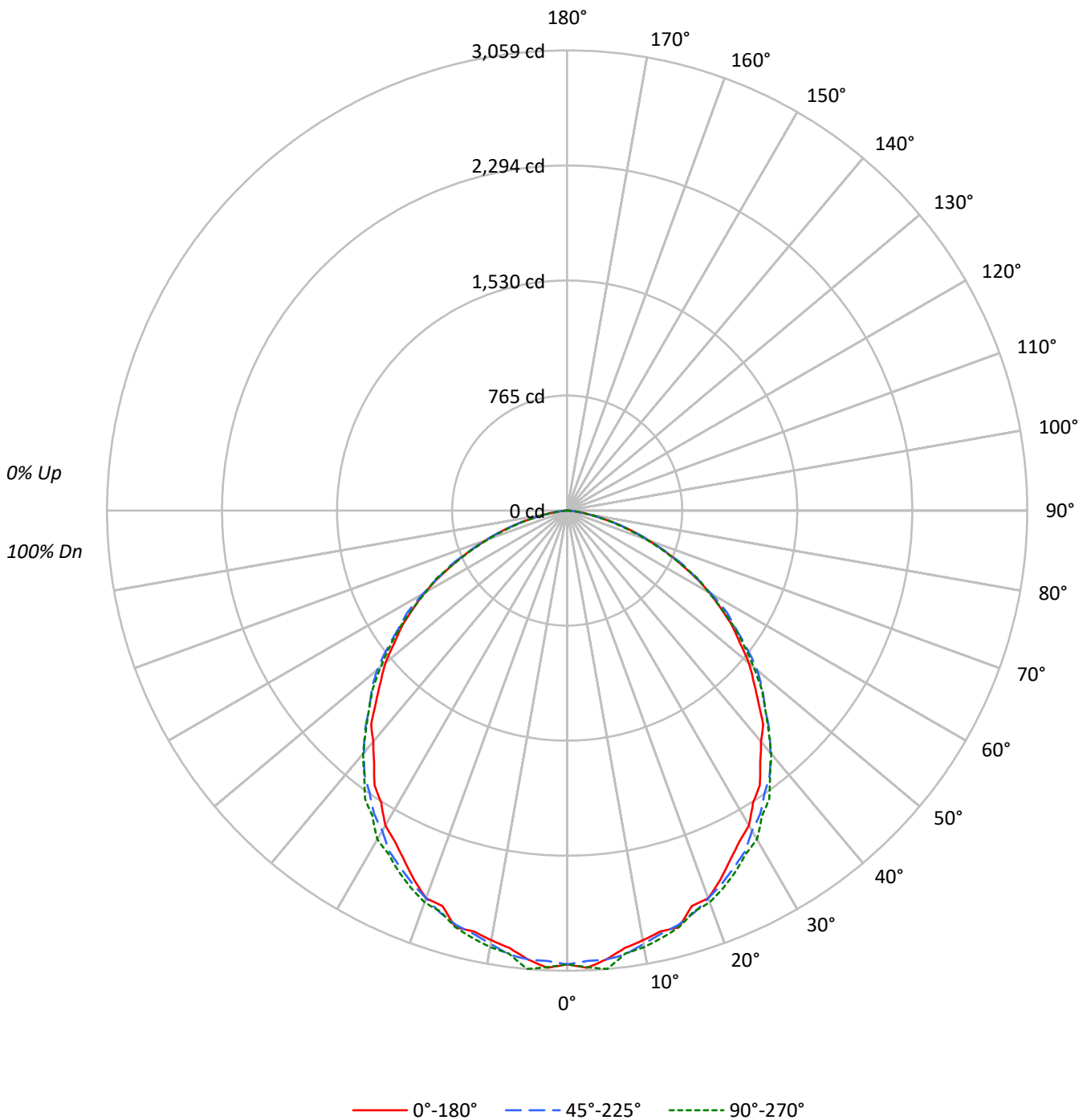
Lumens per Lamp: N/A
Luminaire Lumens: 7601.0 lumens
Efficiency: N/A
Efficacy: 114.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	8116	8116	8116
5°	8089	8092	8262
10°	7925	7994	8050
15°	7987	7944	7989
20°	7852	7852	7936
25°	7611	7778	7863
30°	7507	7639	7842
35°	7330	7522	7691
40°	7045	7384	7417
45°	6831	7075	7085
50°	6607	6905	6773
55°	6296	6418	6372
60°	5887	5945	5839
65°	5249	5383	5212
70°	4504	4519	4393
75°	3567	3559	3421
80°	2390	2323	2233
85°	1300	1288	1201



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	283.7	3.7
10°-20°	804.0	10.6
20°-30°	1204.6	15.8
30°-40°	1427.7	18.8
40°-50°	1430.3	18.8
50°-60°	1214.1	16.0
60°-70°	818.5	10.8
70°-80°	359.7	4.7
80°-90°	58.5	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°	2292.3	30.2
0°-40°	3719.9	48.9
0°-60°	6364.3	83.7
0°-90°	7601.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7601.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3016	3016	3016	3016	3016	
5°	2994	2988	2996	2987	3059	282
15°	2867	2834	2852	2866	2868	799
25°	2563	2577	2620	2654	2648	1185
35°	2231	2238	2290	2343	2341	1385
45°	1795	1829	1859	1907	1862	1389
55°	1342	1333	1368	1359	1358	1194
65°	824	814	845	813	818	820
75°	343	336	342	318	329	368
85°	42	41	42	40	39	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3015.9	3015.9	3015.9	3015.9	3015.9
2.5°	3042.0	3019.0	2997.6	3022.5	3037.7
5°	2994.5	2987.5	2995.6	2986.7	3058.7
7.5°	2932.9	2959.8	2975.4	2965.7	2969.9
10°	2900.2	2890.9	2925.5	2949.7	2946.2
12.5°	2865.2	2879.2	2881.2	2907.2	2909.6
15°	2867.1	2834.0	2851.6	2866.4	2867.5
17.5°	2755.8	2791.6	2803.7	2837.5	2795.5
20°	2742.1	2716.0	2742.1	2776.8	2771.3
22.5°	2658.4	2629.2	2685.3	2716.0	2714.1
25°	2563.4	2577.4	2619.5	2653.7	2648.3
27.5°	2480.1	2496.4	2556.4	2603.5	2573.1
30°	2415.8	2407.6	2458.3	2500.3	2523.7
32.5°	2301.0	2330.5	2389.7	2431.4	2409.2
35°	2231.2	2237.9	2289.7	2342.6	2341.1
37.5°	2109.4	2140.1	2212.9	2227.7	2214.1
40°	2005.4	2036.2	2102.0	2117.9	2111.3
42.5°	1928.7	1934.1	1990.6	2008.9	1979.7
45°	1795.1	1828.6	1859.0	1906.9	1861.7
47.5°	1681.4	1697.0	1762.4	1775.3	1751.5
50°	1578.2	1583.7	1649.5	1633.5	1617.9
52.5°	1448.6	1471.5	1508.5	1505.4	1487.1
55°	1341.9	1332.9	1368.0	1358.6	1358.2
57.5°	1213.8	1229.3	1258.1	1243.3	1219.6
60°	1093.8	1094.2	1104.7	1088.0	1084.9
62.5°	960.3	964.9	967.3	946.6	980.1
65°	824.4	813.5	845.4	813.1	818.5
67.5°	699.4	704.8	701.7	681.4	689.2
70°	572.4	579.4	574.4	551.4	558.4
72.5°	456.4	447.8	453.3	424.4	437.7
75°	343.1	336.1	342.3	318.1	329.0
77.5°	233.6	239.1	235.2	222.3	229.7
80°	154.2	149.9	149.9	142.5	144.1
82.5°	90.0	85.7	84.5	82.2	85.7
85°	42.1	40.9	41.7	40.5	38.9
87.5°	15.2	15.6	15.6	14.8	14.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)