

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: P589159

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

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589159
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-LD4-2LO-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

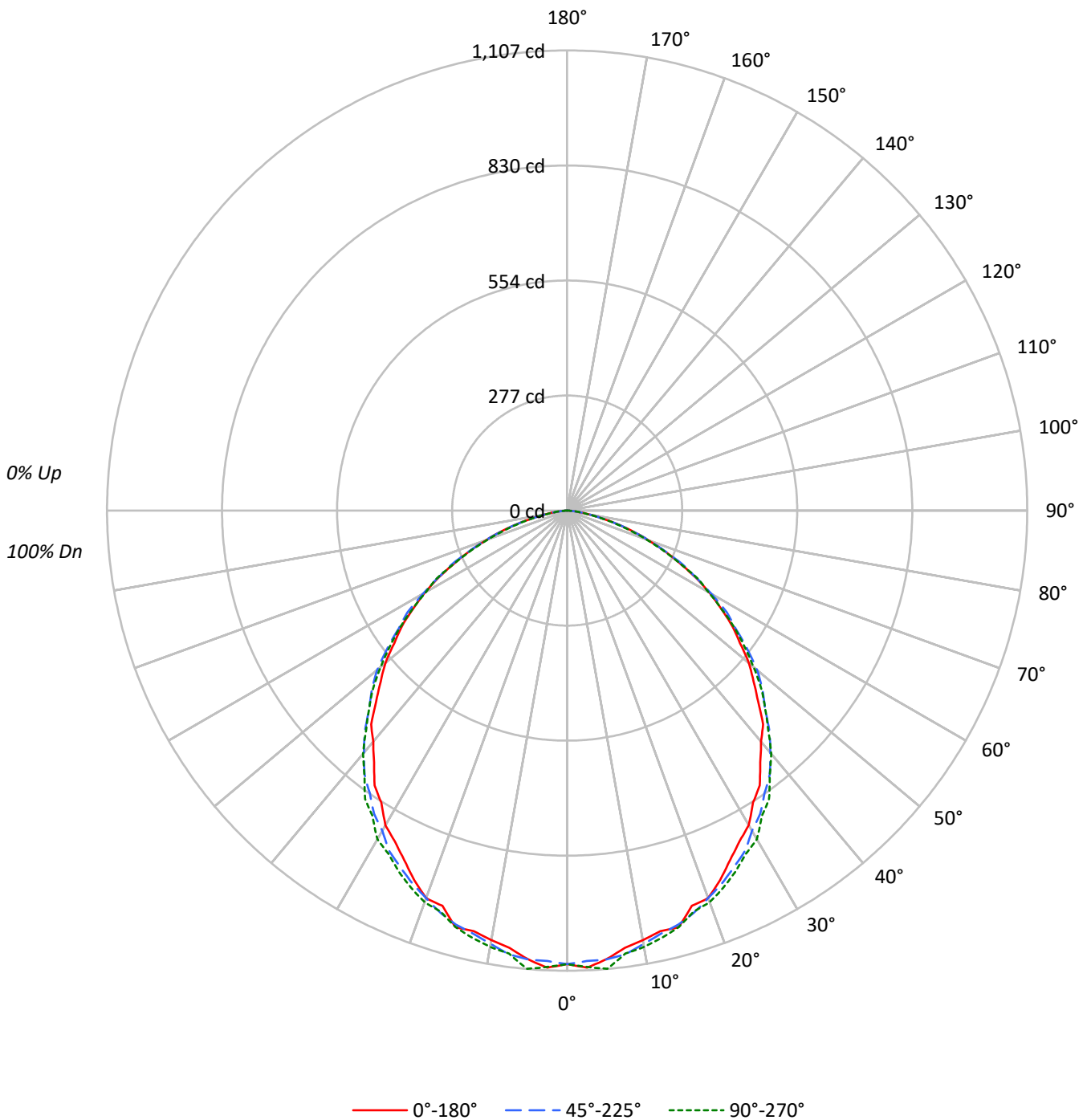
Lumens per Lamp: N/A
Luminaire Lumens: 2750.0 lumens
Efficiency: N/A
Efficacy: 117.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	2936	2936	2936
5°	2927	2928	2989
10°	2867	2892	2913
15°	2890	2874	2890
20°	2841	2841	2871
25°	2754	2814	2845
30°	2716	2764	2837
35°	2652	2721	2782
40°	2549	2672	2683
45°	2472	2560	2563
50°	2390	2498	2451
55°	2278	2322	2305
60°	2130	2151	2112
65°	1899	1948	1885
70°	1629	1635	1589
75°	1290	1287	1237
80°	865	840	807
85°	469	466	435



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.6	3.7
10°-20°	290.9	10.6
20°-30°	435.8	15.8
30°-40°	516.5	18.8
40°-50°	517.5	18.8
50°-60°	439.2	16.0
60°-70°	296.1	10.8
70°-80°	130.1	4.7
80°-90°	21.1	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°	829.3	30.2
0°-40°	1345.9	48.9
0°-60°	2302.6	83.7
0°-90°	2750.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2750.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1091	1091	1091	1091	1091	
5°	1083	1081	1084	1081	1107	102
15°	1037	1025	1032	1037	1038	289
25°	927	932	948	960	958	429
35°	807	810	828	848	847	501
45°	650	662	673	690	674	502
55°	486	482	495	492	491	432
65°	298	294	306	294	296	297
75°	124	122	124	115	119	133
85°	15	15	15	15	14	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1091.1	1091.1	1091.1	1091.1	1091.1
2.5°	1100.6	1092.3	1084.5	1093.5	1099.0
5°	1083.4	1080.8	1083.8	1080.6	1106.6
7.5°	1061.1	1070.8	1076.5	1073.0	1074.5
10°	1049.3	1045.9	1058.4	1067.2	1065.9
12.5°	1036.6	1041.7	1042.4	1051.8	1052.7
15°	1037.3	1025.3	1031.7	1037.0	1037.5
17.5°	997.0	1010.0	1014.3	1026.6	1011.4
20°	992.1	982.7	992.1	1004.6	1002.7
22.5°	961.8	951.2	971.5	982.7	981.9
25°	927.4	932.5	947.7	960.1	958.1
27.5°	897.3	903.2	924.9	941.9	930.9
30°	874.0	871.1	889.4	904.6	913.1
32.5°	832.5	843.2	864.6	879.7	871.6
35°	807.3	809.6	828.4	847.5	847.0
37.5°	763.2	774.3	800.6	806.0	801.1
40°	725.5	736.7	760.5	766.3	763.9
42.5°	697.8	699.8	720.2	726.8	716.2
45°	649.5	661.6	672.6	689.9	673.6
47.5°	608.3	614.0	637.6	642.3	633.7
50°	571.0	573.0	596.8	591.0	585.4
52.5°	524.1	532.4	545.8	544.6	538.0
55°	485.5	482.2	494.9	491.5	491.4
57.5°	439.1	444.8	455.2	449.8	441.2
60°	395.7	395.9	399.7	393.6	392.5
62.5°	347.4	349.1	350.0	342.5	354.6
65°	298.2	294.3	305.9	294.2	296.1
67.5°	253.0	255.0	253.9	246.5	249.4
70°	207.1	209.6	207.8	199.5	202.0
72.5°	165.1	162.0	164.0	153.6	158.4
75°	124.1	121.6	123.8	115.1	119.0
77.5°	84.5	86.5	85.1	80.4	83.1
80°	55.8	54.2	54.2	51.6	52.1
82.5°	32.5	31.0	30.6	29.7	31.0
85°	15.2	14.8	15.1	14.7	14.1
87.5°	5.5	5.6	5.6	5.4	5.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)