

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: P589162

Luminaire Tested: **FMR-24-2-LD4-2LO-50-UNV-82-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589162
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-82-94-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

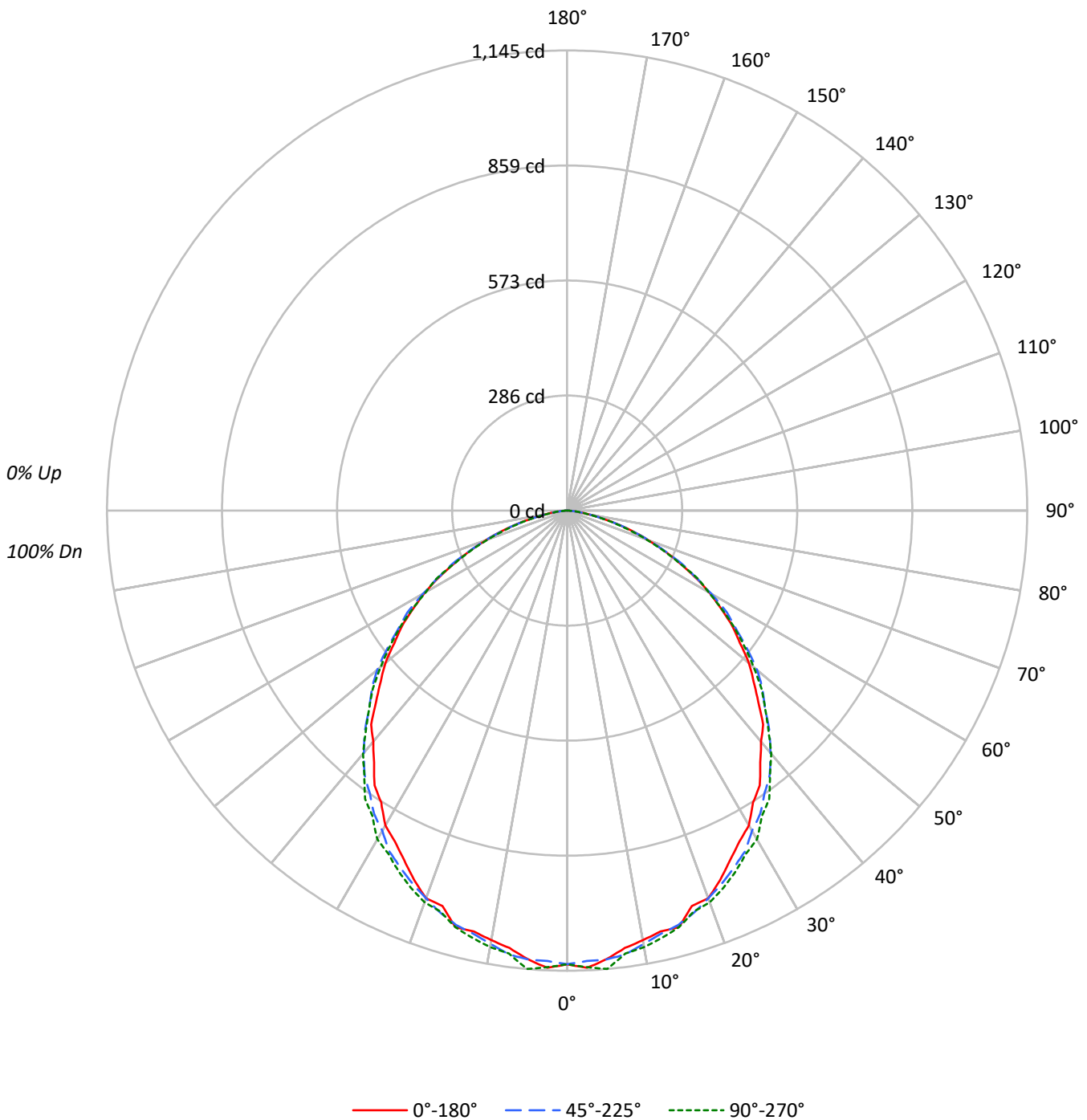
Lumens per Lamp: N/A
Luminaire Lumens: 2845.0 lumens
Efficiency: N/A
Efficacy: 121.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	3038	3038	3038
5°	3028	3029	3093
10°	2966	2992	3013
15°	2990	2973	2990
20°	2939	2939	2970
25°	2849	2911	2943
30°	2810	2859	2935
35°	2743	2815	2878
40°	2637	2764	2776
45°	2557	2648	2652
50°	2473	2585	2535
55°	2357	2402	2385
60°	2203	2225	2186
65°	1965	2015	1951
70°	1686	1692	1644
75°	1335	1332	1281
80°	894	869	835
85°	485	482	451



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.2	3.7
10°-20°	300.9	10.6
20°-30°	450.9	15.8
30°-40°	534.4	18.8
40°-50°	535.4	18.8
50°-60°	454.4	16.0
60°-70°	306.4	10.8
70°-80°	134.6	4.7
80°-90°	21.9	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°	858.0	30.2
0°-40°	1392.3	48.9
0°-60°	2382.1	83.7
0°-90°	2845.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2845.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1129	1129	1129	1129	1129	
5°	1121	1118	1121	1118	1145	106
15°	1073	1061	1067	1073	1073	299
25°	960	965	980	993	991	444
35°	835	838	857	877	876	519
45°	672	684	696	714	697	520
55°	502	499	512	508	508	447
65°	309	304	316	304	306	307
75°	128	126	128	119	123	138
85°	16	15	16	15	15	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1128.8	1128.8	1128.8	1128.8	1128.8
2.5°	1138.6	1130.0	1122.0	1131.3	1137.0
5°	1120.8	1118.2	1121.2	1117.9	1144.9
7.5°	1097.8	1107.8	1113.7	1110.0	1111.6
10°	1085.5	1082.0	1095.0	1104.0	1102.7
12.5°	1072.4	1077.7	1078.4	1088.2	1089.0
15°	1073.1	1060.8	1067.3	1072.9	1073.3
17.5°	1031.5	1044.9	1049.4	1062.1	1046.3
20°	1026.4	1016.6	1026.4	1039.3	1037.3
22.5°	995.0	984.1	1005.1	1016.6	1015.9
25°	959.5	964.7	980.5	993.3	991.2
27.5°	928.3	934.4	956.8	974.5	963.1
30°	904.2	901.2	920.1	935.9	944.6
32.5°	861.2	872.3	894.5	910.1	901.7
35°	835.1	837.6	857.0	876.8	876.2
37.5°	789.5	801.0	828.3	833.8	828.7
40°	750.6	762.1	786.8	792.7	790.2
42.5°	721.9	723.9	745.1	751.9	741.0
45°	671.9	684.4	695.8	713.7	696.8
47.5°	629.3	635.2	659.7	664.5	655.6
50°	590.7	592.8	617.4	611.4	605.6
52.5°	542.2	550.8	564.6	563.5	556.6
55°	502.3	498.9	512.0	508.5	508.4
57.5°	454.3	460.1	470.9	465.4	456.5
60°	409.4	409.6	413.5	407.2	406.1
62.5°	359.4	361.2	362.0	354.3	366.8
65°	308.6	304.5	316.4	304.3	306.4
67.5°	261.8	263.8	262.6	255.1	258.0
70°	214.3	216.9	215.0	206.4	209.0
72.5°	170.8	167.6	169.7	158.9	163.8
75°	128.4	125.8	128.1	119.1	123.2
77.5°	87.4	89.5	88.0	83.2	86.0
80°	57.7	56.1	56.1	53.3	53.9
82.5°	33.7	32.1	31.6	30.8	32.1
85°	15.7	15.3	15.6	15.2	14.6
87.5°	5.7	5.8	5.8	5.5	5.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)