

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: P589090

Luminaire Tested: **FMR-24-2-LD4-2LO-35-UNV-81-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589090
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-35-UNV-81-94-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

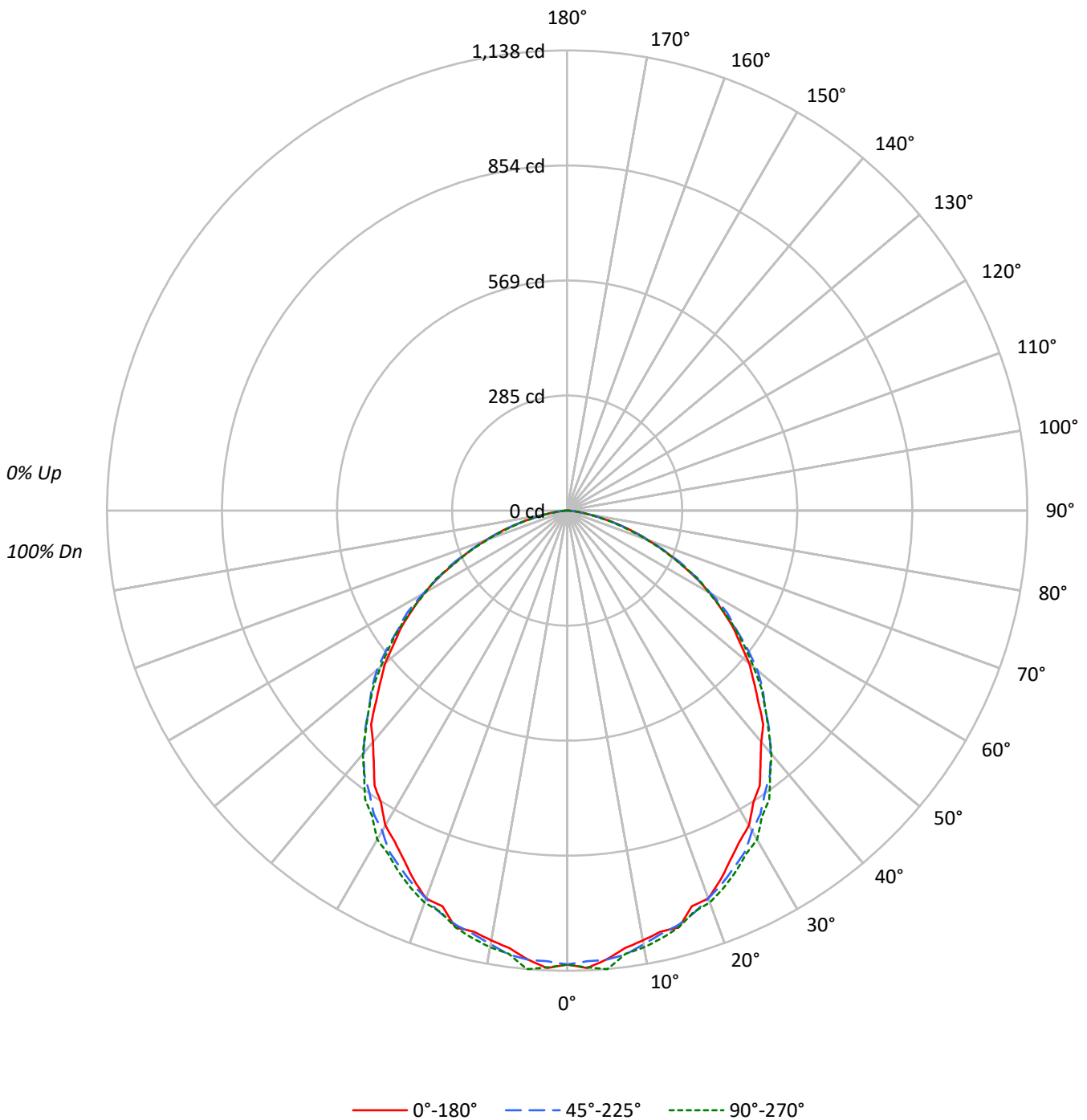
Lumens per Lamp: N/A
Luminaire Lumens: 2829.0 lumens
Efficiency: N/A
Efficacy: 120.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (A_{in}): 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°	3021	3021	3021
5°	3011	3012	3075
10°	2949	2975	2996
15°	2973	2957	2973
20°	2923	2923	2954
25°	2833	2895	2927
30°	2794	2843	2919
35°	2728	2800	2862
40°	2622	2748	2760
45°	2543	2633	2637
50°	2459	2570	2521
55°	2343	2388	2372
60°	2191	2213	2173
65°	1954	2003	1940
70°	1676	1682	1635
75°	1328	1325	1274
80°	890	865	831
85°	485	479	448



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.6	3.7
10°-20°	299.2	10.6
20°-30°	448.3	15.8
30°-40°	531.4	18.8
40°-50°	532.3	18.8
50°-60°	451.9	16.0
60°-70°	304.6	10.8
70°-80°	133.9	4.7
80°-90°	21.8	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°	853.2	30.2
0°-40°	1384.5	48.9
0°-60°	2368.7	83.7
0°-90°	2829.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2829.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1122	1122	1122	1122	1122	
5°	1114	1112	1115	1112	1138	105
15°	1067	1055	1061	1067	1067	297
25°	954	959	975	988	986	441
35°	830	833	852	872	871	516
45°	668	681	692	710	693	517
55°	499	496	509	506	506	444
65°	307	303	315	303	305	305
75°	128	125	127	118	122	137
85°	16	15	16	15	14	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1122.5	1122.5	1122.5	1122.5	1122.5
2.5°	1132.2	1123.6	1115.7	1124.9	1130.6
5°	1114.5	1111.9	1114.9	1111.6	1138.4
7.5°	1091.6	1101.6	1107.4	1103.8	1105.4
10°	1079.4	1076.0	1088.9	1097.8	1096.5
12.5°	1066.4	1071.6	1072.3	1082.0	1082.9
15°	1067.1	1054.8	1061.3	1066.8	1067.3
17.5°	1025.7	1039.0	1043.5	1056.1	1040.4
20°	1020.6	1010.9	1020.6	1033.5	1031.5
22.5°	989.4	978.6	999.4	1010.9	1010.2
25°	954.1	959.3	974.9	987.7	985.7
27.5°	923.1	929.1	951.5	969.0	957.7
30°	899.1	896.1	914.9	930.6	939.3
32.5°	856.4	867.4	889.4	904.9	896.7
35°	830.4	832.9	852.2	871.9	871.3
37.5°	785.1	796.5	823.6	829.1	824.1
40°	746.4	757.8	782.3	788.3	785.8
42.5°	717.8	719.9	740.9	747.7	736.8
45°	668.1	680.6	691.9	709.7	692.9
47.5°	625.8	631.6	655.9	660.7	651.9
50°	587.4	589.4	613.9	608.0	602.2
52.5°	539.1	547.7	561.5	560.3	553.5
55°	499.4	496.1	509.1	505.7	505.5
57.5°	451.7	457.5	468.3	462.8	453.9
60°	407.1	407.3	411.2	404.9	403.8
62.5°	357.4	359.1	360.0	352.3	364.8
65°	306.8	302.8	314.6	302.6	304.6
67.5°	260.3	262.3	261.2	253.6	256.5
70°	213.0	215.7	213.8	205.2	207.8
72.5°	169.9	166.7	168.7	158.0	162.9
75°	127.7	125.1	127.4	118.4	122.5
77.5°	87.0	89.0	87.5	82.8	85.5
80°	57.4	55.8	55.8	53.0	53.6
82.5°	33.5	31.9	31.4	30.6	31.9
85°	15.7	15.2	15.5	15.1	14.5
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)