

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: P589622

Luminaire Tested: **FMR-24-2-LD4-4HI-50-UNV-80-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589622
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-LD4-4HI-50-UNV-80-85-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

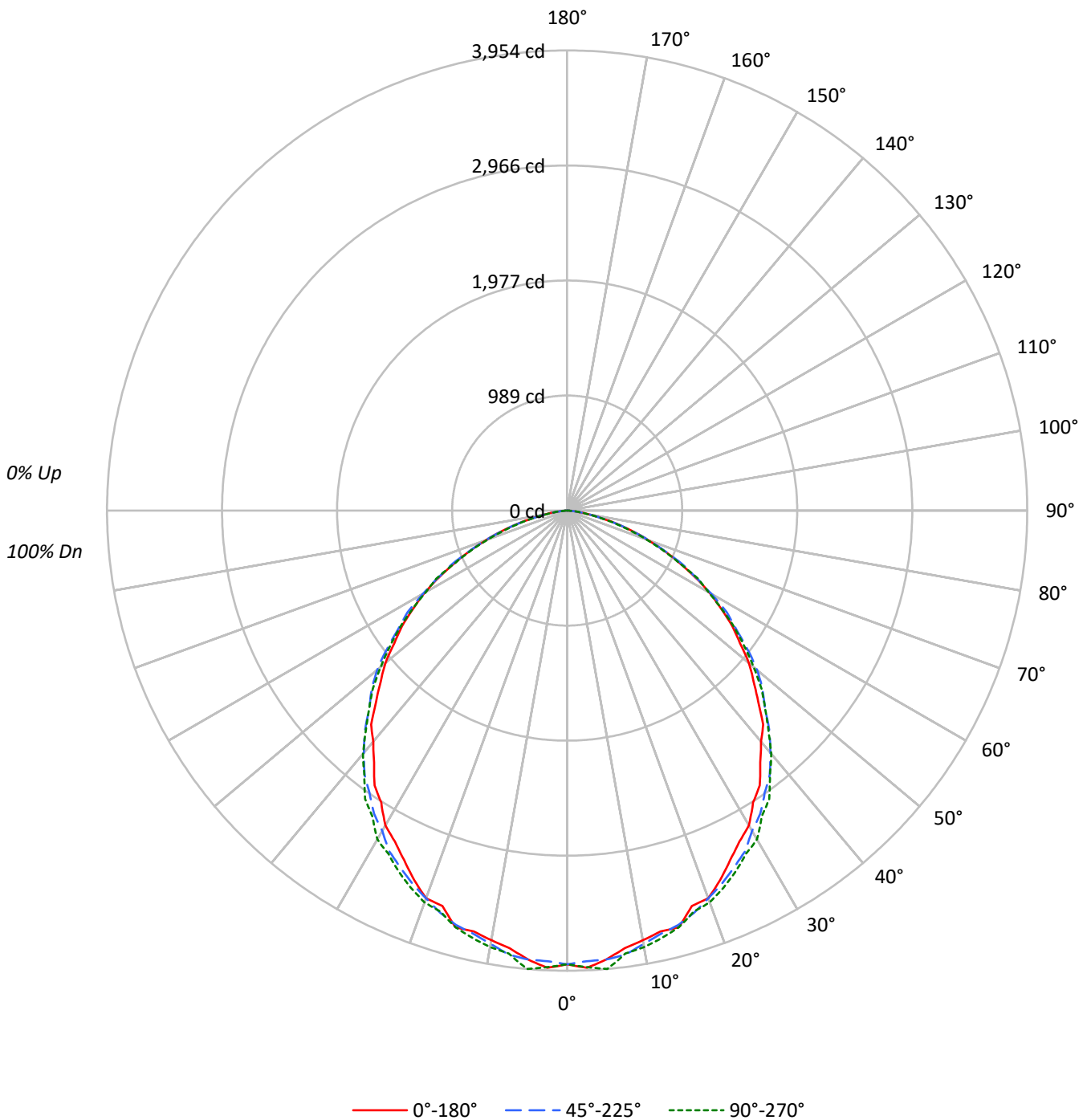
Lumens per Lamp: N/A
Luminaire Lumens: 9826.0 lumens
Efficiency: N/A
Efficacy: 113.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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°	10491	10491	10491
5°	10457	10461	10681
10°	10245	10334	10407
15°	10326	10270	10327
20°	10151	10151	10259
25°	9839	10054	10165
30°	9704	9875	10137
35°	9475	9724	9942
40°	9107	9545	9588
45°	8831	9146	9159
50°	8541	8927	8756
55°	8138	8297	8237
60°	7610	7686	7548
65°	6786	6958	6737
70°	5822	5842	5680
75°	4611	4601	4423
80°	3088	3003	2887
85°	1680	1664	1553



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	366.7	3.7
10°-20°	1039.4	10.6
20°-30°	1557.2	15.8
30°-40°	1845.6	18.8
40°-50°	1849.0	18.8
50°-60°	1569.5	16.0
60°-70°	1058.1	10.8
70°-80°	465.0	4.7
80°-90°	75.5	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°	2963.3	30.2
0°-40°	4808.9	48.9
0°-60°	8227.3	83.7
0°-90°	9826.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9826.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3899	3899	3899	3899	3899	
5°	3871	3862	3872	3861	3954	365
15°	3706	3664	3686	3705	3707	1033
25°	3314	3332	3386	3431	3424	1532
35°	2884	2893	2960	3028	3026	1791
45°	2321	2364	2403	2465	2407	1795
55°	1735	1723	1768	1756	1756	1543
65°	1066	1052	1093	1051	1058	1060
75°	444	434	442	411	425	475
85°	54	53	54	52	50	79
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3898.7	3898.7	3898.7	3898.7	3898.7
2.5°	3932.4	3902.7	3875.0	3907.3	3926.9
5°	3871.0	3862.0	3872.5	3861.0	3954.1
7.5°	3791.5	3826.2	3846.4	3833.8	3839.3
10°	3749.2	3737.1	3781.9	3813.1	3808.6
12.5°	3703.9	3722.0	3724.5	3758.3	3761.3
15°	3706.4	3663.6	3686.3	3705.4	3706.9
17.5°	3562.4	3608.8	3624.4	3668.2	3613.8
20°	3544.8	3511.1	3544.8	3589.6	3582.6
22.5°	3436.6	3398.8	3471.3	3511.1	3508.6
25°	3313.8	3331.9	3386.3	3430.6	3423.5
27.5°	3206.1	3227.2	3304.7	3365.6	3326.4
30°	3123.0	3112.4	3177.9	3232.2	3262.4
32.5°	2974.5	3012.8	3089.3	3143.1	3114.4
35°	2884.4	2892.9	2959.9	3028.4	3026.3
37.5°	2726.8	2766.6	2860.7	2879.9	2862.2
40°	2592.4	2632.2	2717.3	2737.9	2729.3
42.5°	2493.3	2500.3	2573.3	2597.0	2559.2
45°	2320.6	2363.9	2403.2	2465.1	2406.7
47.5°	2173.6	2193.7	2278.3	2294.9	2264.2
50°	2040.2	2047.3	2132.3	2111.7	2091.6
52.5°	1872.6	1902.3	1950.1	1946.1	1922.4
55°	1734.7	1723.1	1768.4	1756.3	1755.8
57.5°	1569.0	1589.2	1626.4	1607.3	1576.6
60°	1414.0	1414.5	1428.1	1406.5	1402.4
62.5°	1241.3	1247.4	1250.4	1223.7	1267.0
65°	1065.7	1051.6	1092.8	1051.1	1058.1
67.5°	904.1	911.1	907.1	880.9	891.0
70°	740.0	749.0	742.5	712.8	721.9
72.5°	590.0	578.9	585.9	548.7	565.8
75°	443.5	434.4	442.5	411.3	425.4
77.5°	302.0	309.1	304.0	287.4	297.0
80°	199.3	193.8	193.8	184.2	186.3
82.5°	116.3	110.7	109.2	106.2	110.7
85°	54.4	52.9	53.9	52.4	50.3
87.5°	19.6	20.1	20.1	19.1	18.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)