

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: P589624

Luminaire Tested: **FMR-24-2-LD4-4HI-50-UNV-80-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589624
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-80-87-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

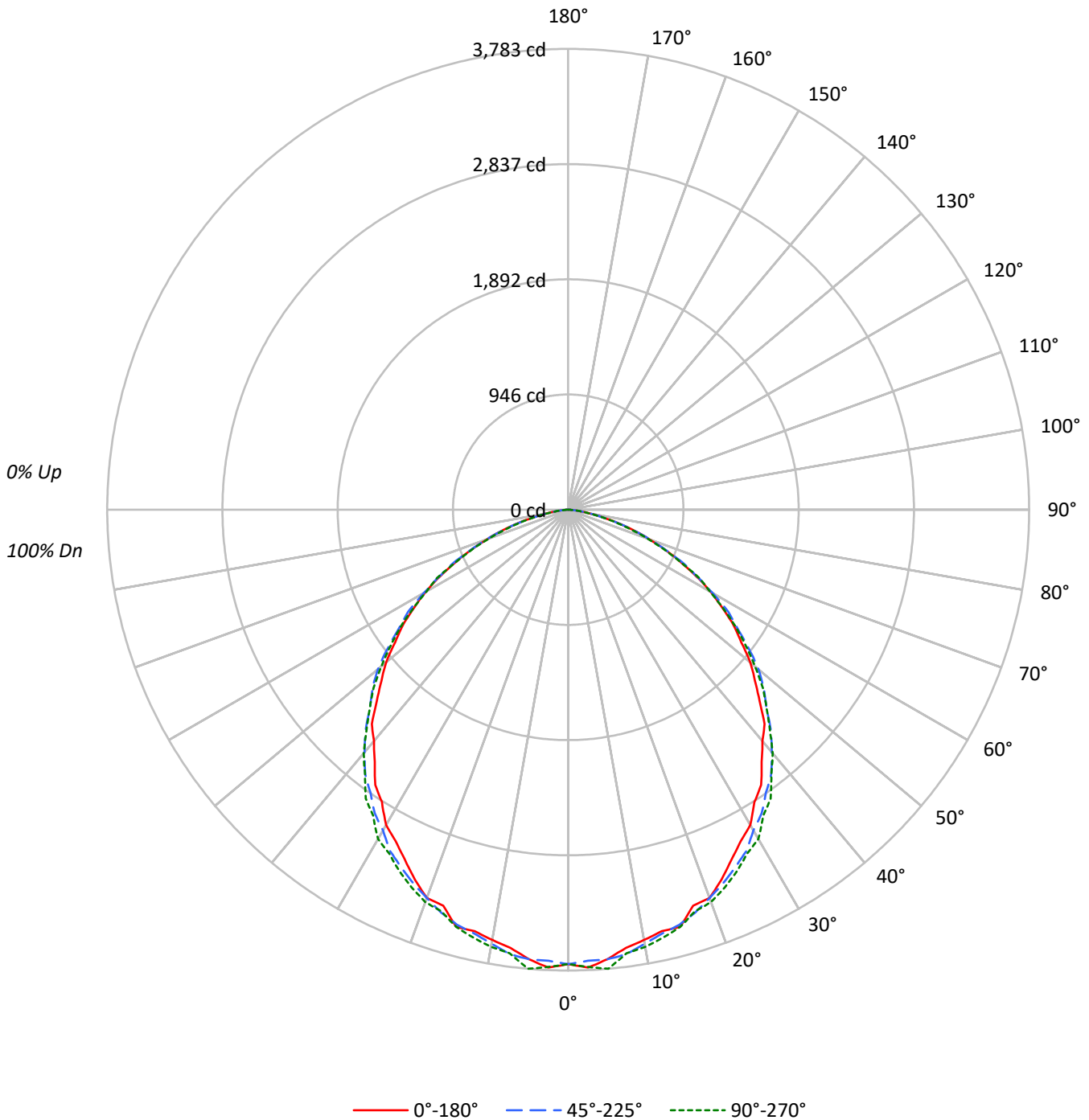
Lumens per Lamp: N/A
Luminaire Lumens: 9400.0 lumens
Efficiency: N/A
Efficacy: 108.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	10037	10037	10037
5°	10003	10007	10218
10°	9801	9886	9956
15°	9878	9824	9879
20°	9711	9711	9815
25°	9413	9619	9724
30°	9283	9446	9698
35°	9065	9302	9511
40°	8712	9132	9172
45°	8448	8749	8762
50°	8171	8540	8377
55°	7786	7937	7880
60°	7280	7353	7220
65°	6492	6657	6445
70°	5570	5589	5434
75°	4412	4401	4231
80°	2955	2873	2762
85°	1606	1590	1488



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	350.8	3.7
10°-20°	994.3	10.6
20°-30°	1489.7	15.8
30°-40°	1765.6	18.8
40°-50°	1768.8	18.8
50°-60°	1501.4	16.0
60°-70°	1012.3	10.8
70°-80°	444.8	4.7
80°-90°	72.3	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°	2834.8	30.2
0°-40°	4600.4	48.9
0°-60°	7870.6	83.7
0°-90°	9400.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9400.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3730	3730	3730	3730	3730	
5°	3703	3694	3705	3694	3783	349
15°	3546	3505	3526	3545	3546	988
25°	3170	3187	3240	3282	3275	1466
35°	2759	2768	2832	2897	2895	1713
45°	2220	2261	2299	2358	2302	1717
55°	1660	1648	1692	1680	1680	1476
65°	1020	1006	1046	1006	1012	1014
75°	424	416	423	393	407	455
85°	52	51	52	50	48	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3729.7	3729.7	3729.7	3729.7	3729.7
2.5°	3761.9	3733.5	3707.0	3737.9	3756.6
5°	3703.2	3694.5	3704.6	3693.6	3782.7
7.5°	3627.1	3660.3	3679.6	3667.6	3672.9
10°	3586.7	3575.1	3618.0	3647.8	3643.5
12.5°	3543.3	3560.7	3563.1	3595.3	3598.2
15°	3545.7	3504.8	3526.5	3544.8	3546.2
17.5°	3408.0	3452.3	3467.2	3509.1	3457.1
20°	3391.1	3358.9	3391.1	3434.0	3427.3
22.5°	3287.6	3251.5	3320.8	3358.9	3356.5
25°	3170.1	3187.4	3239.5	3281.8	3275.1
27.5°	3067.1	3087.3	3161.4	3219.7	3182.1
30°	2987.6	2977.5	3040.1	3092.1	3121.0
32.5°	2845.5	2882.1	2955.3	3006.9	2979.4
35°	2759.3	2767.5	2831.6	2897.1	2895.1
37.5°	2608.6	2646.7	2736.7	2755.0	2738.2
40°	2480.0	2518.1	2599.5	2619.2	2611.0
42.5°	2385.2	2391.9	2461.7	2484.4	2448.3
45°	2220.0	2261.4	2299.0	2358.2	2302.3
47.5°	2079.4	2098.6	2179.5	2195.4	2166.1
50°	1951.8	1958.5	2039.9	2020.1	2000.9
52.5°	1791.4	1819.8	1865.6	1861.7	1839.1
55°	1659.5	1648.4	1691.7	1680.2	1679.7
57.5°	1501.0	1520.3	1555.9	1537.6	1508.2
60°	1352.7	1353.2	1366.2	1345.5	1341.6
62.5°	1187.5	1193.3	1196.2	1170.7	1212.1
65°	1019.5	1006.0	1045.5	1005.5	1012.2
67.5°	864.9	871.6	867.8	842.7	852.4
70°	707.9	716.6	710.3	681.9	690.6
72.5°	564.4	553.8	560.5	524.9	541.3
75°	424.3	415.6	423.3	393.4	406.9
77.5°	288.9	295.7	290.9	275.0	284.1
80°	190.7	185.4	185.4	176.3	178.2
82.5°	111.2	105.9	104.5	101.6	105.9
85°	52.0	50.6	51.5	50.1	48.2
87.5°	18.8	19.3	19.3	18.3	17.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)