

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: P589634

Luminaire Tested: **FMR-24-2-LD4-4HI-50-UNV-81-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589634
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-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

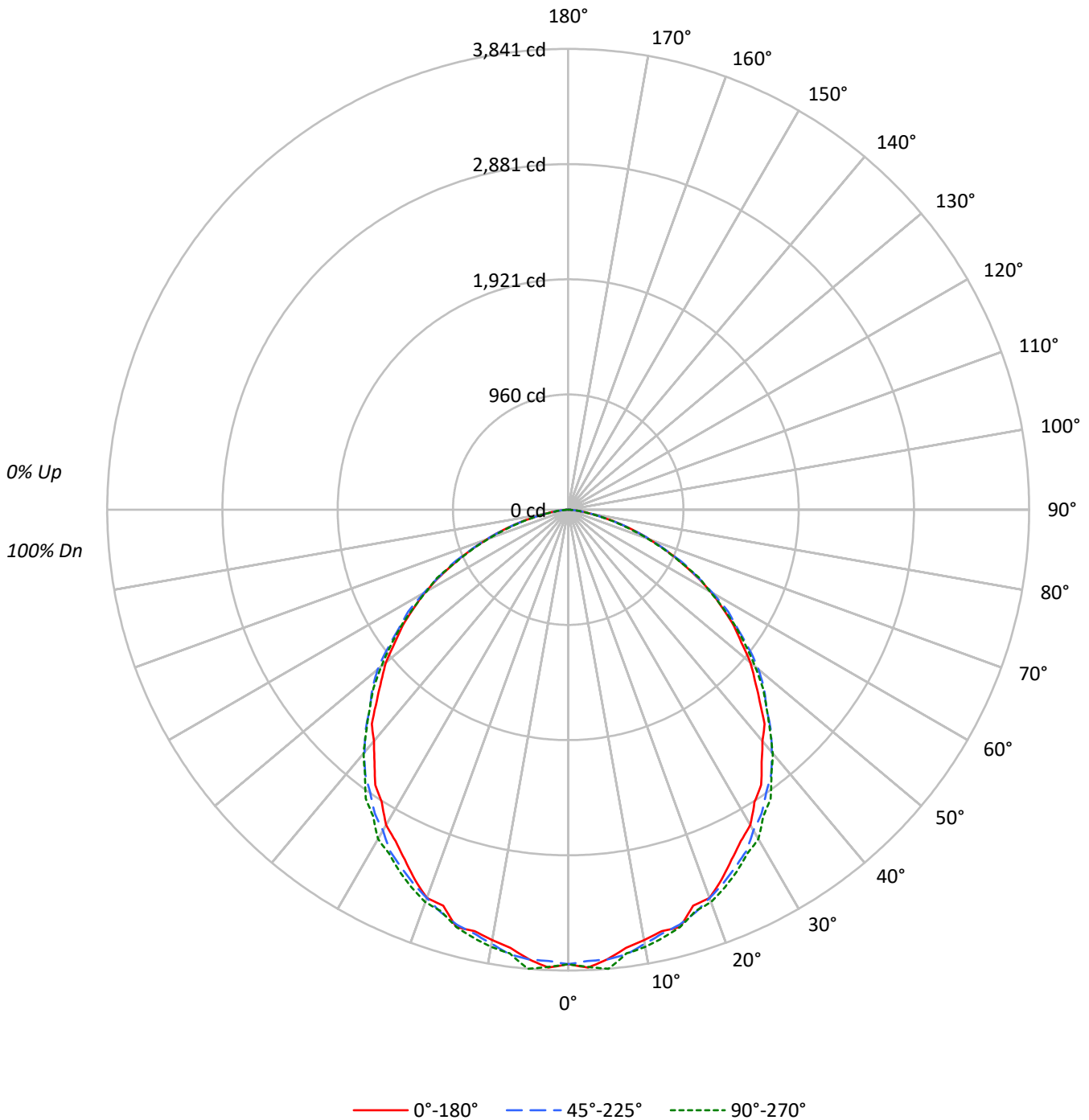
Lumens per Lamp: N/A
Luminaire Lumens: 9546.0 lumens
Efficiency: N/A
Efficacy: 110.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	10192	10192	10192
5°	10159	10163	10377
10°	9953	10040	10110
15°	10031	9977	10033
20°	9862	9862	9967
25°	9559	9768	9875
30°	9427	9593	9849
35°	9205	9447	9658
40°	8847	9273	9315
45°	8580	8885	8898
50°	8298	8673	8507
55°	7906	8060	8003
60°	7393	7467	7333
65°	6592	6760	6546
70°	5656	5675	5518
75°	4479	4470	4296
80°	3002	2918	2803
85°	1630	1615	1510



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	356.3	3.7
10°-20°	1009.7	10.6
20°-30°	1512.8	15.8
30°-40°	1793.0	18.8
40°-50°	1796.3	18.8
50°-60°	1524.8	16.0
60°-70°	1028.0	10.8
70°-80°	451.7	4.7
80°-90°	73.4	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°	2878.8	30.2
0°-40°	4671.8	48.9
0°-60°	7992.9	83.7
0°-90°	9546.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9546.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3788	3788	3788	3788	3788	
5°	3761	3752	3762	3751	3841	355
15°	3601	3559	3581	3600	3601	1003
25°	3219	3237	3290	3333	3326	1488
35°	2802	2810	2876	2942	2940	1740
45°	2254	2296	2335	2395	2338	1744
55°	1685	1674	1718	1706	1706	1499
65°	1035	1022	1062	1021	1028	1030
75°	431	422	430	400	413	462
85°	53	51	52	51	49	77
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3787.6	3787.6	3787.6	3787.6	3787.6
2.5°	3820.4	3791.5	3764.6	3795.9	3815.0
5°	3760.7	3751.9	3762.2	3750.9	3841.4
7.5°	3683.4	3717.2	3736.8	3724.5	3729.9
10°	3642.4	3630.6	3674.2	3704.5	3700.1
12.5°	3598.4	3616.0	3618.4	3651.2	3654.1
15°	3600.8	3559.2	3581.2	3599.8	3601.3
17.5°	3460.9	3505.9	3521.1	3563.6	3510.8
20°	3443.8	3411.1	3443.8	3487.3	3480.5
22.5°	3338.7	3302.0	3372.4	3411.1	3408.6
25°	3219.3	3237.0	3289.8	3332.8	3326.0
27.5°	3114.7	3135.2	3210.5	3269.7	3231.6
30°	3034.0	3023.7	3087.3	3140.1	3169.5
32.5°	2889.7	2926.9	3001.2	3053.6	3025.7
35°	2802.2	2810.5	2875.6	2942.1	2940.1
37.5°	2649.1	2687.8	2779.2	2797.8	2780.7
40°	2518.6	2557.2	2639.8	2659.9	2651.6
42.5°	2422.2	2429.1	2500.0	2523.0	2486.3
45°	2254.5	2296.5	2334.7	2394.8	2338.1
47.5°	2111.7	2131.2	2213.4	2229.5	2199.7
50°	1982.1	1988.9	2071.6	2051.5	2032.0
52.5°	1819.2	1848.1	1894.5	1890.6	1867.6
55°	1685.2	1674.0	1718.0	1706.3	1705.8
57.5°	1524.3	1543.9	1580.1	1561.5	1531.7
60°	1373.7	1374.2	1387.4	1366.4	1362.5
62.5°	1206.0	1211.8	1214.8	1188.9	1230.9
65°	1035.3	1021.6	1061.7	1021.1	1028.0
67.5°	878.3	885.2	881.2	855.8	865.6
70°	718.9	727.7	721.3	692.5	701.3
72.5°	573.2	562.4	569.2	533.1	549.7
75°	430.8	422.0	429.9	399.5	413.2
77.5°	293.4	300.3	295.4	279.2	288.5
80°	193.7	188.3	188.3	179.0	180.9
82.5°	113.0	107.6	106.1	103.2	107.6
85°	52.8	51.3	52.3	50.9	48.9
87.5°	19.1	19.6	19.6	18.6	17.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)