

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: P589623

Luminaire Tested: **FMR-24-2-LD4-4HI-50-UNV-80-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589623
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-80-86-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

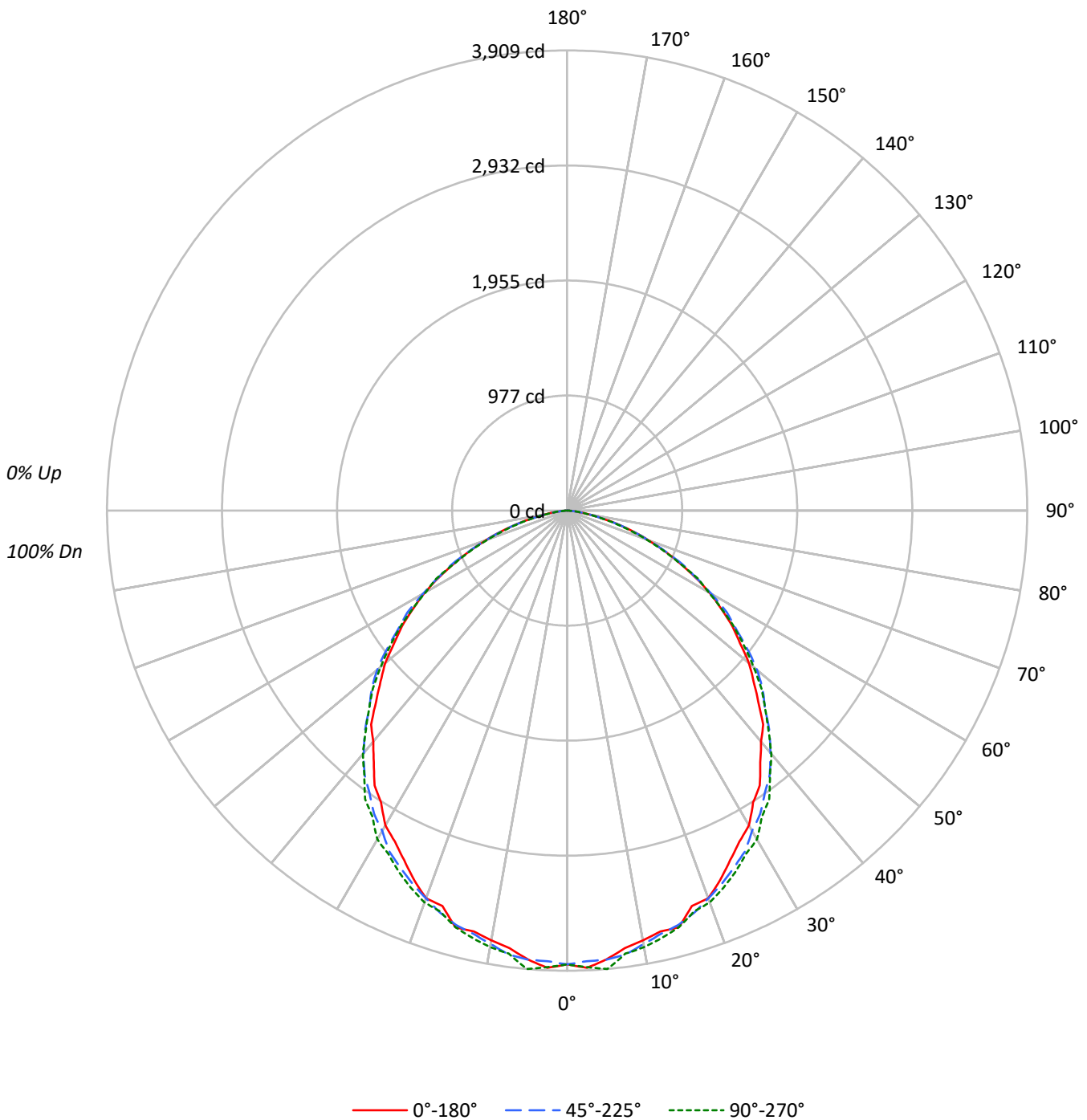
Lumens per Lamp: N/A
Luminaire Lumens: 9715.0 lumens
Efficiency: N/A
Efficacy: 112.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	10373	10373	10373
5°	10339	10343	10560
10°	10129	10217	10289
15°	10209	10154	10210
20°	10037	10037	10143
25°	9728	9941	10050
30°	9594	9763	10023
35°	9368	9614	9830
40°	9004	9438	9479
45°	8732	9042	9055
50°	8445	8826	8657
55°	8047	8203	8145
60°	7524	7599	7463
65°	6709	6880	6662
70°	5756	5776	5615
75°	4559	4549	4373
80°	3054	2969	2853
85°	1661	1646	1538



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	362.6	3.7
10°-20°	1027.6	10.6
20°-30°	1539.6	15.8
30°-40°	1824.7	18.8
40°-50°	1828.1	18.8
50°-60°	1551.8	16.0
60°-70°	1046.2	10.8
70°-80°	459.7	4.7
80°-90°	74.7	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°	2929.8	30.2
0°-40°	4754.5	48.9
0°-60°	8134.4	83.7
0°-90°	9715.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9715.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3855	3855	3855	3855	3855	
5°	3827	3818	3829	3817	3909	361
15°	3664	3622	3645	3664	3665	1021
25°	3276	3294	3348	3392	3385	1515
35°	2852	2860	2926	2994	2992	1771
45°	2294	2337	2376	2437	2380	1775
55°	1715	1704	1748	1736	1736	1526
65°	1054	1040	1080	1039	1046	1048
75°	438	430	438	407	421	470
85°	54	52	53	52	50	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3854.7	3854.7	3854.7	3854.7	3854.7
2.5°	3888.0	3858.6	3831.3	3863.1	3882.5
5°	3827.3	3818.3	3828.8	3817.3	3909.4
7.5°	3748.7	3783.0	3802.9	3790.5	3795.9
10°	3706.9	3694.9	3739.2	3770.1	3765.6
12.5°	3662.1	3680.0	3682.5	3715.8	3718.8
15°	3664.5	3622.2	3644.6	3663.6	3665.0
17.5°	3522.2	3568.0	3583.4	3626.7	3573.0
20°	3504.8	3471.4	3504.8	3549.1	3542.1
22.5°	3397.8	3360.5	3432.1	3471.4	3469.0
25°	3276.3	3294.3	3348.0	3391.8	3384.8
27.5°	3169.8	3190.7	3267.4	3327.6	3288.8
30°	3087.7	3077.3	3142.0	3195.7	3225.6
32.5°	2940.9	2978.7	3054.4	3107.6	3079.3
35°	2851.8	2860.3	2926.5	2994.1	2992.2
37.5°	2696.0	2735.3	2828.4	2847.3	2829.9
40°	2563.1	2602.5	2686.6	2707.0	2698.5
42.5°	2465.1	2472.1	2544.2	2567.6	2530.3
45°	2294.4	2337.2	2376.0	2437.2	2379.5
47.5°	2149.1	2169.0	2252.6	2269.0	2238.6
50°	2017.2	2024.1	2108.2	2087.8	2067.9
52.5°	1851.4	1880.8	1928.1	1924.1	1900.7
55°	1715.1	1703.6	1748.4	1736.5	1736.0
57.5°	1551.3	1571.2	1608.1	1589.1	1558.8
60°	1398.0	1398.5	1412.0	1390.6	1386.6
62.5°	1227.3	1233.3	1236.3	1209.9	1252.7
65°	1053.6	1039.7	1080.5	1039.2	1046.2
67.5°	893.9	900.8	896.9	871.0	880.9
70°	731.6	740.6	734.1	704.7	713.7
72.5°	583.3	572.4	579.3	542.5	559.4
75°	438.5	429.5	437.5	406.6	420.6
77.5°	298.6	305.6	300.6	284.2	293.6
80°	197.1	191.6	191.6	182.2	184.1
82.5°	115.0	109.5	108.0	105.0	109.5
85°	53.8	52.3	53.3	51.8	49.8
87.5°	19.4	19.9	19.9	18.9	17.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)