

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: P589330

Luminaire Tested: **FMR-24-2-LD4-3HI-40-UNV-93-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589330
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-LD4-3HI-40-UNV-93-94-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

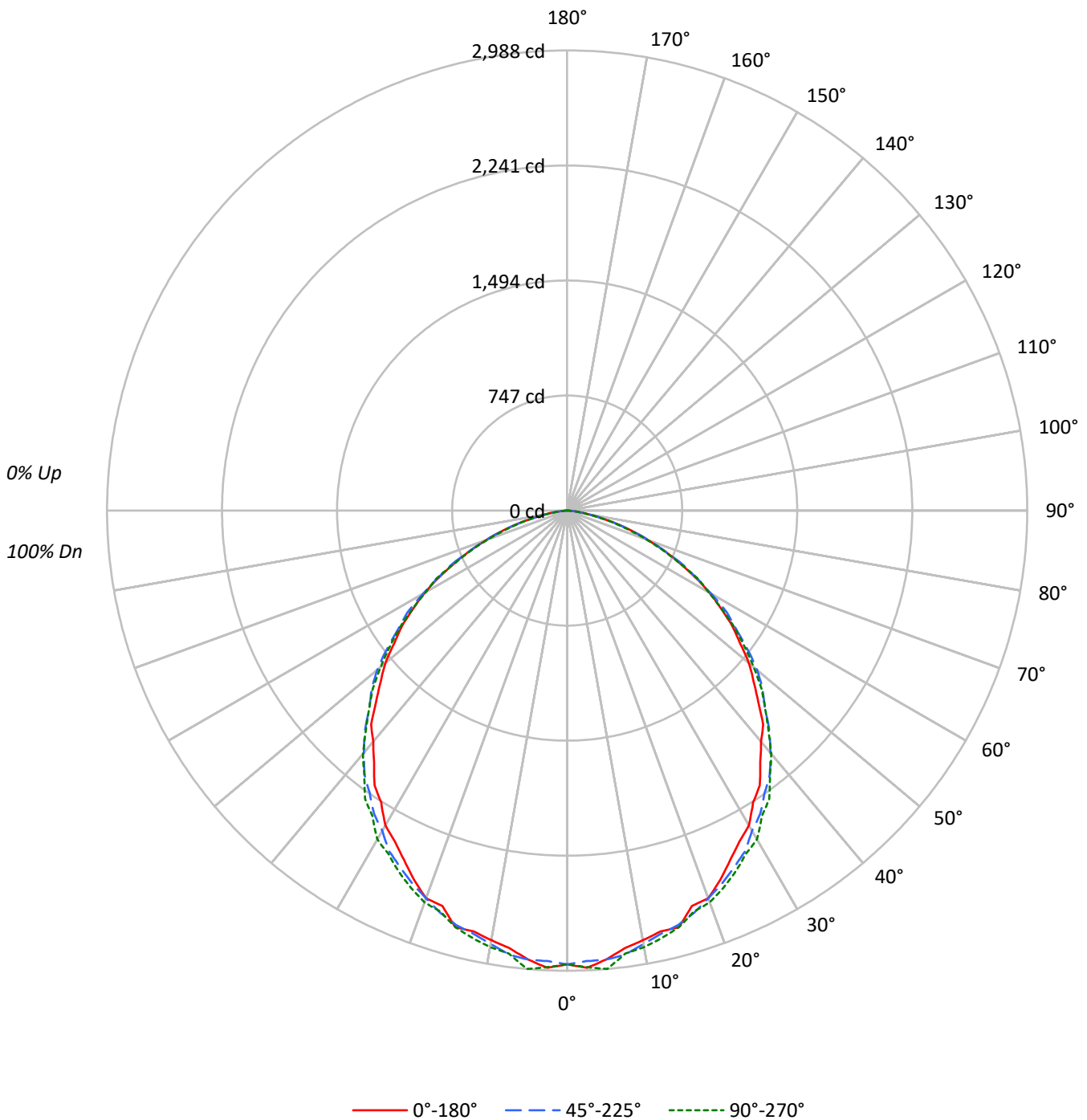
Lumens per Lamp: N/A
Luminaire Lumens: 7425.0 lumens
Efficiency: N/A
Efficacy: 114.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 64.8
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°	7928	7928	7928
5°	7901	7905	8071
10°	7741	7809	7864
15°	7802	7760	7804
20°	7671	7671	7753
25°	7435	7598	7681
30°	7333	7461	7660
35°	7160	7347	7513
40°	6882	7213	7245
45°	6674	6911	6921
50°	6454	6746	6617
55°	6150	6269	6225
60°	5751	5808	5703
65°	5128	5258	5091
70°	4400	4415	4292
75°	3484	3477	3342
80°	2334	2269	2180
85°	1269	1257	1173



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	277.1	3.7
10°-20°	785.4	10.6
20°-30°	1176.7	15.8
30°-40°	1394.6	18.8
40°-50°	1397.2	18.8
50°-60°	1186.0	16.0
60°-70°	799.6	10.8
70°-80°	351.3	4.7
80°-90°	57.1	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°	2239.2	30.2
0°-40°	3633.8	48.9
0°-60°	6217.0	83.7
0°-90°	7425.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7425.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2946	2946	2946	2946	2946	
5°	2925	2918	2926	2918	2988	276
15°	2801	2768	2786	2800	2801	780
25°	2504	2518	2559	2592	2587	1158
35°	2180	2186	2237	2288	2287	1353
45°	1754	1786	1816	1863	1819	1356
55°	1311	1302	1336	1327	1327	1166
65°	805	795	826	794	800	801
75°	335	328	334	311	321	359
85°	41	40	41	40	38	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2946.1	2946.1	2946.1	2946.1	2946.1
2.5°	2971.5	2949.1	2928.2	2952.5	2967.4
5°	2925.1	2918.3	2926.3	2917.5	2987.9
7.5°	2865.0	2891.3	2906.5	2897.0	2901.2
10°	2833.1	2824.0	2857.8	2881.4	2878.0
12.5°	2798.8	2812.5	2814.4	2839.9	2842.2
15°	2800.7	2768.4	2785.5	2800.0	2801.1
17.5°	2692.0	2727.0	2738.7	2771.8	2730.8
20°	2678.6	2653.2	2678.6	2712.5	2707.2
22.5°	2596.9	2568.3	2623.1	2653.2	2651.3
25°	2504.0	2517.7	2558.8	2592.3	2587.0
27.5°	2422.6	2438.6	2497.2	2543.2	2513.6
30°	2359.9	2351.9	2401.3	2442.4	2465.3
32.5°	2247.7	2276.6	2334.4	2375.1	2353.4
35°	2179.6	2186.1	2236.6	2288.4	2286.9
37.5°	2060.5	2090.6	2161.7	2176.2	2162.8
40°	1959.0	1989.0	2053.3	2068.9	2062.4
42.5°	1884.0	1889.4	1944.5	1962.4	1933.9
45°	1753.6	1786.3	1815.9	1862.7	1818.6
47.5°	1642.5	1657.7	1721.6	1734.2	1711.0
50°	1541.7	1547.0	1611.3	1595.7	1580.5
52.5°	1415.0	1437.5	1473.6	1470.6	1452.7
55°	1310.8	1302.0	1336.3	1327.2	1326.8
57.5°	1185.6	1200.9	1229.0	1214.6	1191.4
60°	1068.5	1068.9	1079.1	1062.8	1059.7
62.5°	938.0	942.6	944.9	924.7	957.4
65°	805.3	794.6	825.8	794.2	799.6
67.5°	683.2	688.5	685.4	665.7	673.3
70°	559.2	566.0	561.1	538.6	545.5
72.5°	445.8	437.4	442.8	414.6	427.5
75°	335.1	328.3	334.4	310.8	321.4
77.5°	228.2	233.6	229.8	217.2	224.4
80°	150.6	146.4	146.4	139.2	140.7
82.5°	87.9	83.7	82.5	80.3	83.7
85°	41.1	39.9	40.7	39.6	38.0
87.5°	14.8	15.2	15.2	14.5	13.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)