

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: P589842

Luminaire Tested: **FMR-24-2-LD4-4STD-50-UNV-93-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589842
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-LD4-4STD-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

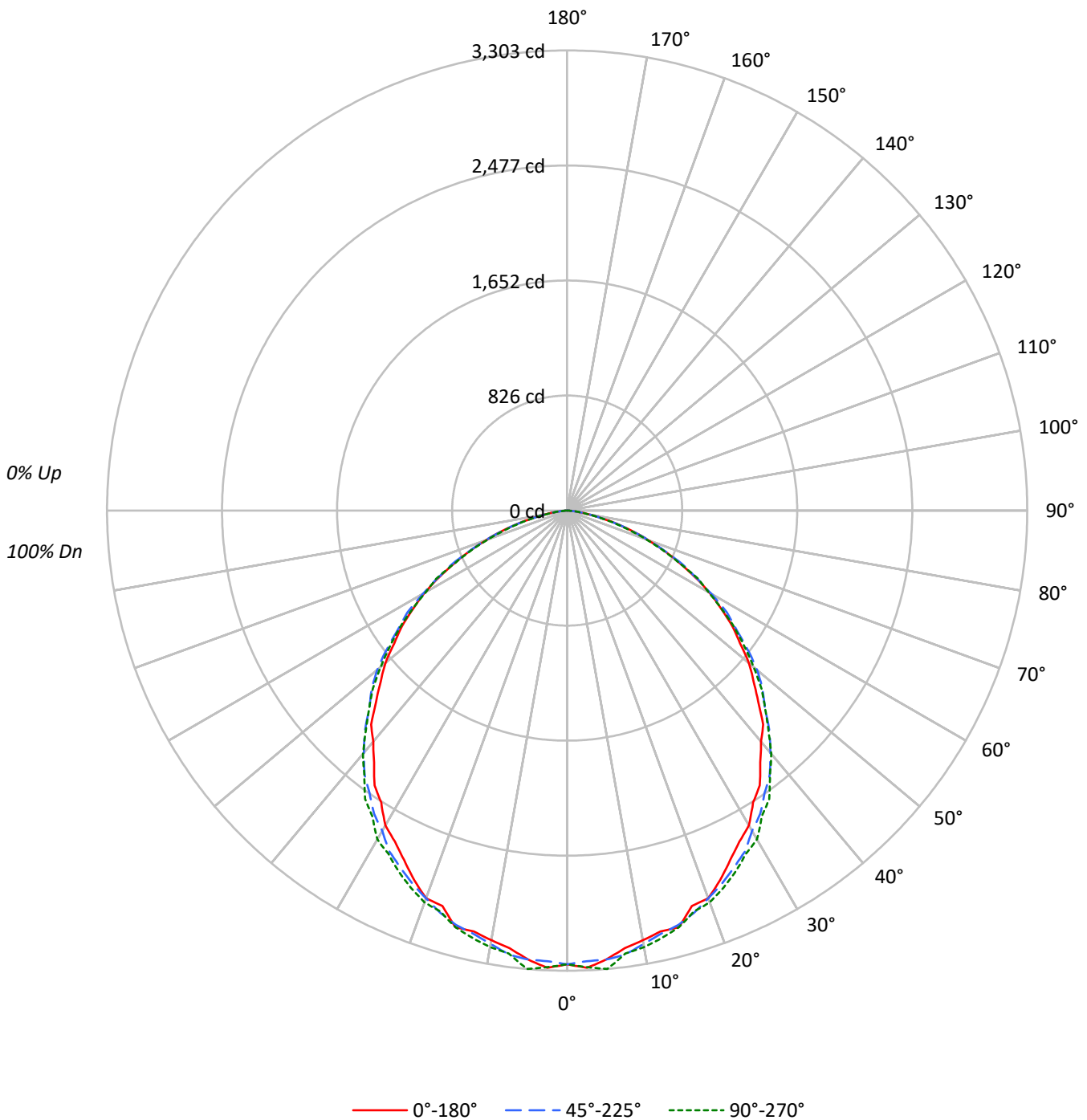
Lumens per Lamp: N/A
Luminaire Lumens: 8208.0 lumens
Efficiency: N/A
Efficacy: 123.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	8764	8764	8764
5°	8735	8738	8922
10°	8558	8632	8693
15°	8625	8579	8627
20°	8480	8480	8570
25°	8219	8399	8491
30°	8106	8249	8468
35°	7915	8122	8305
40°	7607	7973	8009
45°	7377	7639	7651
50°	7135	7457	7315
55°	6798	6930	6881
60°	6357	6420	6305
65°	5668	5813	5628
70°	4863	4880	4744
75°	3852	3843	3694
80°	2580	2509	2411
85°	1402	1389	1297



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	306.3	3.7
10°-20°	868.2	10.6
20°-30°	1300.8	15.8
30°-40°	1541.7	18.8
40°-50°	1544.5	18.8
50°-60°	1311.0	16.0
60°-70°	883.9	10.8
70°-80°	388.4	4.7
80°-90°	63.1	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°	2475.3	30.2
0°-40°	4017.0	48.9
0°-60°	6872.6	83.7
0°-90°	8208.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8208.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3257	3257	3257	3257	3257	
5°	3234	3226	3235	3225	3303	305
15°	3096	3060	3079	3095	3096	863
25°	2768	2783	2829	2866	2860	1280
35°	2409	2417	2472	2530	2528	1496
45°	1938	1975	2007	2059	2010	1500
55°	1449	1439	1477	1467	1467	1289
65°	890	878	913	878	884	885
75°	370	363	370	344	355	397
85°	45	44	45	44	42	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3256.7	3256.7	3256.7	3256.7	3256.7
2.5°	3284.9	3260.1	3237.0	3263.9	3280.3
5°	3233.6	3226.0	3234.9	3225.2	3303.0
7.5°	3167.2	3196.2	3213.0	3202.5	3207.1
10°	3131.8	3121.7	3159.2	3185.2	3181.5
12.5°	3094.0	3109.1	3111.2	3139.4	3141.9
15°	3096.1	3060.4	3079.3	3095.3	3096.5
17.5°	2975.8	3014.5	3027.6	3064.1	3018.7
20°	2961.1	2932.9	2961.1	2998.5	2992.7
22.5°	2870.7	2839.2	2899.7	2932.9	2930.8
25°	2768.1	2783.3	2828.7	2865.7	2859.8
27.5°	2678.1	2695.8	2760.5	2811.4	2778.6
30°	2608.7	2599.9	2654.6	2700.0	2725.2
32.5°	2484.7	2516.7	2580.6	2625.6	2601.6
35°	2409.4	2416.6	2472.5	2529.7	2528.0
37.5°	2277.8	2311.0	2389.7	2405.6	2390.9
40°	2165.5	2198.8	2269.8	2287.1	2279.9
42.5°	2082.7	2088.6	2149.6	2169.3	2137.8
45°	1938.5	1974.6	2007.4	2059.2	2010.4
47.5°	1815.7	1832.5	1903.2	1917.0	1891.4
50°	1704.3	1710.1	1781.2	1764.0	1747.2
52.5°	1564.2	1589.0	1629.0	1625.6	1605.9
55°	1449.0	1439.4	1477.2	1467.1	1466.7
57.5°	1310.7	1327.5	1358.6	1342.6	1317.0
60°	1181.2	1181.6	1192.9	1174.9	1171.5
62.5°	1036.9	1042.0	1044.5	1022.2	1058.4
65°	890.2	878.4	912.9	878.0	883.9
67.5°	755.2	761.1	757.7	735.9	744.3
70°	618.1	625.7	620.2	595.4	603.0
72.5°	492.8	483.6	489.5	458.3	472.6
75°	370.5	362.9	369.6	343.5	355.3
77.5°	252.3	258.2	254.0	240.1	248.1
80°	166.5	161.9	161.9	153.9	155.6
82.5°	97.1	92.5	91.2	88.7	92.5
85°	45.4	44.2	45.0	43.7	42.0
87.5°	16.4	16.8	16.8	16.0	15.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)