

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: P589812

Luminaire Tested: **FMR-24-2-LD4-4STD-40-UNV-93-97-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589812
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-40-UNV-93-97-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

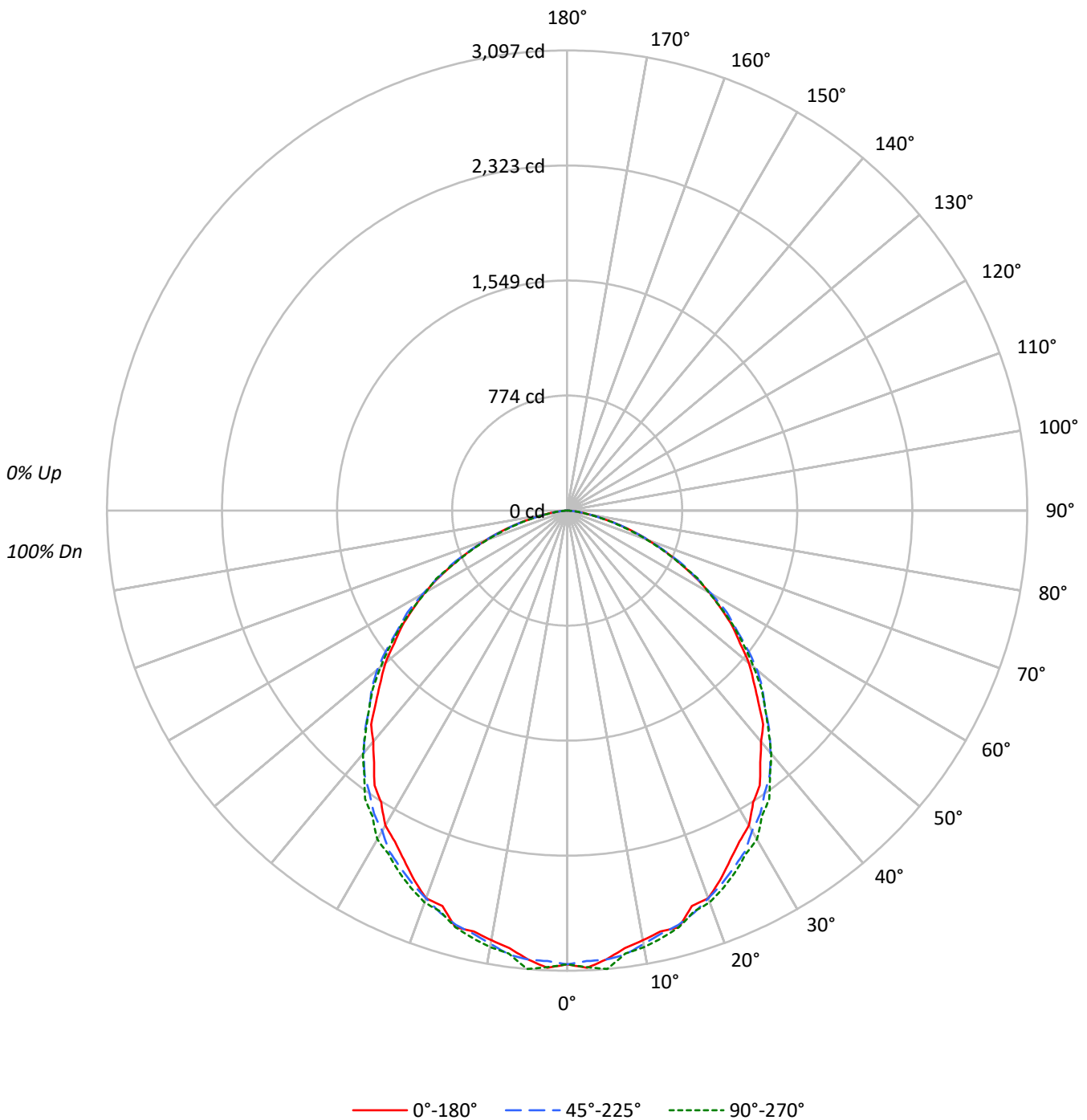
Lumens per Lamp: N/A
Luminaire Lumens: 7696.0 lumens
Efficiency: N/A
Efficacy: 115.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	8217	8217	8217
5°	8190	8193	8366
10°	8024	8094	8151
15°	8087	8043	8089
20°	7951	7951	8035
25°	7706	7875	7962
30°	7600	7734	7940
35°	7421	7616	7787
40°	7133	7476	7509
45°	6917	7163	7174
50°	6690	6992	6858
55°	6374	6498	6452
60°	5961	6020	5912
65°	5315	5450	5277
70°	4560	4575	4449
75°	3611	3604	3464
80°	2419	2352	2261
85°	1315	1303	1216



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	287.2	3.7
10°-20°	814.1	10.6
20°-30°	1219.6	15.8
30°-40°	1445.5	18.8
40°-50°	1448.2	18.8
50°-60°	1229.3	16.0
60°-70°	828.8	10.8
70°-80°	364.2	4.7
80°-90°	59.2	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°	2320.9	30.2
0°-40°	3766.4	48.9
0°-60°	6443.9	83.7
0°-90°	7696.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7696.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3054	3054	3054	3054	3054	
5°	3032	3025	3033	3024	3097	286
15°	2903	2870	2887	2902	2903	809
25°	2595	2610	2652	2687	2681	1200
35°	2259	2266	2318	2372	2370	1403
45°	1818	1852	1882	1931	1885	1406
55°	1359	1350	1385	1376	1375	1209
65°	835	824	856	823	829	830
75°	347	340	347	322	333	372
85°	43	41	42	41	39	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3053.6	3053.6	3053.6	3053.6	3053.6
2.5°	3080.0	3056.7	3035.0	3060.3	3075.7
5°	3031.9	3024.8	3033.1	3024.0	3096.9
7.5°	2969.6	2996.8	3012.6	3002.7	3007.1
10°	2936.5	2927.0	2962.1	2986.6	2983.0
12.5°	2901.0	2915.2	2917.2	2943.6	2945.9
15°	2903.0	2869.5	2887.2	2902.2	2903.4
17.5°	2790.2	2826.5	2838.7	2873.0	2830.4
20°	2776.4	2750.0	2776.4	2811.5	2806.0
22.5°	2691.6	2662.1	2718.8	2750.0	2748.0
25°	2595.4	2609.6	2652.2	2686.9	2681.4
27.5°	2511.1	2527.6	2588.3	2636.1	2605.3
30°	2446.0	2437.7	2489.0	2531.6	2555.2
32.5°	2329.7	2359.7	2419.6	2461.8	2439.3
35°	2259.1	2265.8	2318.3	2371.9	2370.3
37.5°	2135.7	2166.9	2240.6	2255.6	2241.8
40°	2030.5	2061.6	2128.2	2144.4	2137.7
42.5°	1952.8	1958.3	2015.5	2034.0	2004.4
45°	1817.6	1851.5	1882.2	1930.7	1885.0
47.5°	1702.4	1718.2	1784.4	1797.5	1773.4
50°	1598.0	1603.5	1670.1	1653.9	1638.2
52.5°	1466.7	1489.9	1527.4	1524.2	1505.7
55°	1358.6	1349.6	1385.1	1375.6	1375.2
57.5°	1228.9	1244.7	1273.9	1258.9	1234.8
60°	1107.5	1107.9	1118.5	1101.6	1098.4
62.5°	972.3	977.0	979.4	958.5	992.4
65°	834.7	823.6	855.9	823.2	828.7
67.5°	708.1	713.6	710.5	690.0	697.8
70°	579.6	586.7	581.5	558.3	565.4
72.5°	462.1	453.4	458.9	429.7	443.2
75°	347.3	340.3	346.6	322.1	333.2
77.5°	236.6	242.1	238.1	225.1	232.6
80°	156.1	151.8	151.8	144.3	145.9
82.5°	91.1	86.7	85.6	83.2	86.7
85°	42.6	41.4	42.2	41.0	39.4
87.5°	15.4	15.8	15.8	15.0	14.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)