

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: P589763

Luminaire Tested: **FMR-24-2-LD4-4STD-35-UNV-81-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589763
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-35-UNV-81-96-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

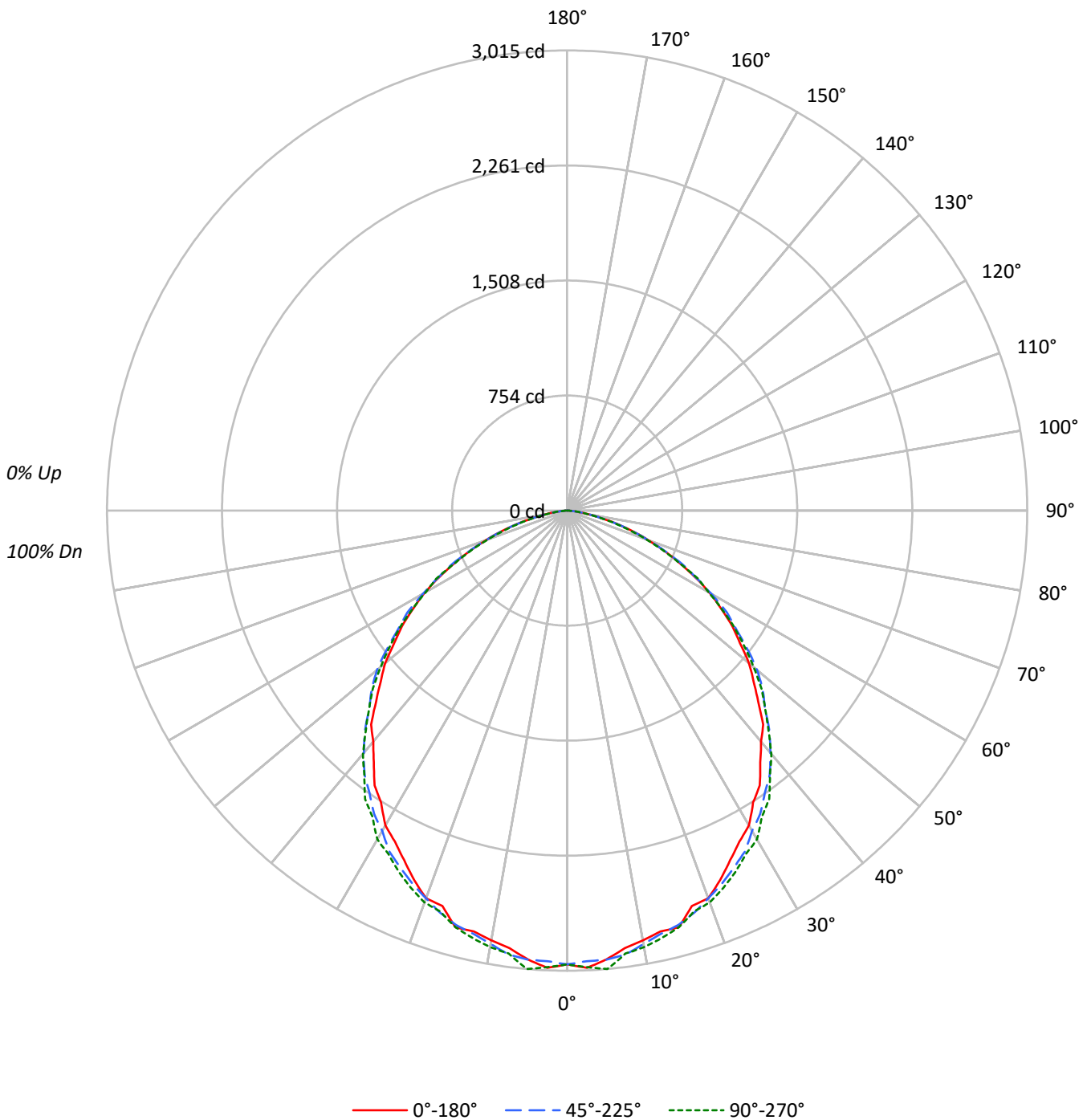
Lumens per Lamp: N/A
Luminaire Lumens: 7493.0 lumens
Efficiency: N/A
Efficacy: 112.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	8000	8000	8000
5°	7974	7977	8145
10°	7812	7881	7936
15°	7874	7831	7875
20°	7741	7741	7824
25°	7503	7667	7752
30°	7400	7530	7730
35°	7226	7415	7581
40°	6945	7279	7311
45°	6734	6974	6984
50°	6513	6808	6677
55°	6206	6327	6282
60°	5803	5861	5755
65°	5174	5307	5138
70°	4440	4455	4331
75°	3516	3508	3373
80°	2356	2290	2201
85°	1281	1269	1186



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.7	3.7
10°-20°	792.6	10.6
20°-30°	1187.5	15.8
30°-40°	1407.4	18.8
40°-50°	1410.0	18.8
50°-60°	1196.8	16.0
60°-70°	806.9	10.8
70°-80°	354.6	4.7
80°-90°	57.6	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°	2259.7	30.2
0°-40°	3667.1	48.9
0°-60°	6273.9	83.7
0°-90°	7493.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7493.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2973	2973	2973	2973	2973	
5°	2952	2945	2953	2944	3015	278
15°	2826	2794	2811	2826	2827	787
25°	2527	2541	2582	2616	2611	1168
35°	2200	2206	2257	2309	2308	1366
45°	1770	1803	1833	1880	1835	1369
55°	1323	1314	1348	1339	1339	1177
65°	813	802	833	802	807	808
75°	338	331	337	314	324	362
85°	42	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°	2973.0	2973.0	2973.0	2973.0	2973.0
2.5°	2998.8	2976.1	2955.0	2979.6	2994.5
5°	2951.9	2945.0	2953.1	2944.2	3015.3
7.5°	2891.3	2917.8	2933.1	2923.5	2927.7
10°	2859.0	2849.8	2884.0	2907.8	2904.3
12.5°	2824.5	2838.3	2840.2	2865.9	2868.2
15°	2826.4	2793.8	2811.0	2825.6	2826.8
17.5°	2716.6	2751.9	2763.8	2797.2	2755.8
20°	2703.2	2677.5	2703.2	2737.3	2732.0
22.5°	2620.6	2591.9	2647.1	2677.5	2675.5
25°	2527.0	2540.8	2582.3	2616.0	2610.7
27.5°	2444.8	2461.0	2520.1	2566.5	2536.6
30°	2381.5	2373.4	2423.3	2464.8	2487.8
32.5°	2268.3	2297.4	2355.8	2396.9	2375.0
35°	2199.5	2206.1	2257.1	2309.3	2307.8
37.5°	2079.4	2109.7	2181.5	2196.1	2182.7
40°	1976.9	2007.2	2072.1	2087.8	2081.3
42.5°	1901.3	1906.7	1962.3	1980.4	1951.6
45°	1769.6	1802.6	1832.6	1879.8	1835.3
47.5°	1657.5	1672.9	1737.4	1750.0	1726.6
50°	1555.8	1561.2	1626.1	1610.3	1595.0
52.5°	1428.0	1450.6	1487.1	1484.0	1466.0
55°	1322.8	1314.0	1348.5	1339.3	1338.9
57.5°	1196.5	1211.9	1240.3	1225.7	1202.3
60°	1078.3	1078.7	1089.0	1072.5	1069.4
62.5°	946.6	951.2	953.5	933.2	966.2
65°	812.6	801.9	833.4	801.5	806.9
67.5°	689.4	694.8	691.7	671.8	679.4
70°	564.3	571.2	566.2	543.6	550.5
72.5°	449.9	441.4	446.8	418.4	431.5
75°	338.2	331.3	337.4	313.6	324.4
77.5°	230.3	235.7	231.9	219.2	226.5
80°	152.0	147.8	147.8	140.5	142.0
82.5°	88.7	84.5	83.3	81.0	84.5
85°	41.5	40.3	41.1	39.9	38.4
87.5°	15.0	15.4	15.4	14.6	13.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)