

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: P589527

Luminaire Tested: **FMR-24-2-LD4-3STD-50-UNV-80-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589527
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-LD4-3STD-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

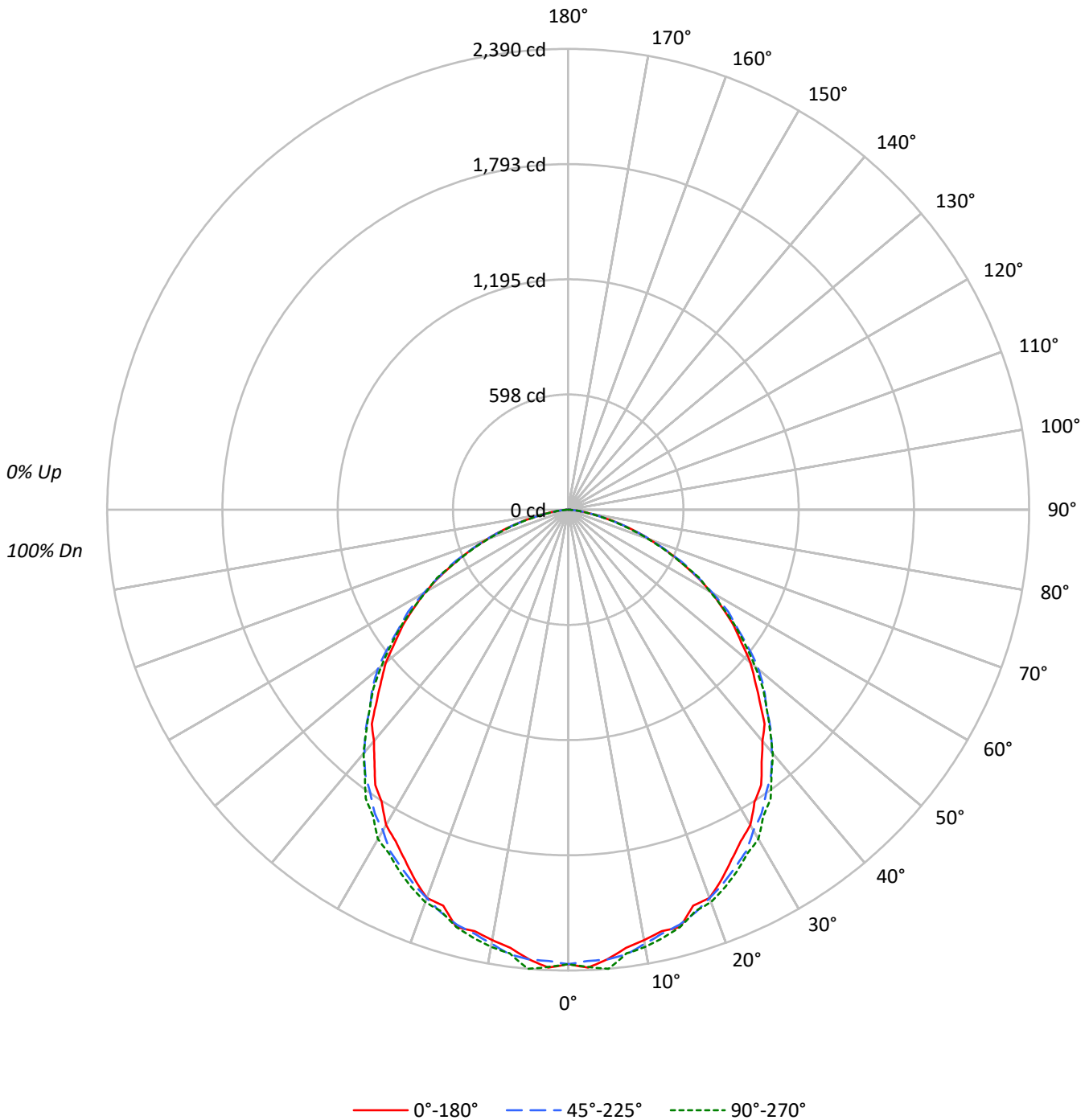
Lumens per Lamp: N/A
Luminaire Lumens: 5940.0 lumens
Efficiency: N/A
Efficacy: 118.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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°	6342	6342	6342
5°	6321	6324	6457
10°	6193	6247	6291
15°	6242	6208	6243
20°	6137	6137	6202
25°	5948	6078	6145
30°	5866	5969	6128
35°	5728	5878	6010
40°	5505	5770	5796
45°	5339	5529	5537
50°	5163	5396	5293
55°	4920	5015	4980
60°	4600	4646	4563
65°	4102	4206	4073
70°	3519	3531	3434
75°	2787	2781	2673
80°	1867	1816	1745
85°	1016	1007	939



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.7	3.7
10°-20°	628.3	10.6
20°-30°	941.3	15.8
30°-40°	1115.7	18.8
40°-50°	1117.8	18.8
50°-60°	948.8	16.0
60°-70°	639.7	10.8
70°-80°	281.1	4.7
80°-90°	45.7	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°	1791.4	30.2
0°-40°	2907.0	48.9
0°-60°	4973.6	83.7
0°-90°	5940.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5940.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2357	2357	2357	2357	2357	
5°	2340	2335	2341	2334	2390	221
15°	2241	2215	2228	2240	2241	624
25°	2003	2014	2047	2074	2070	926
35°	1744	1749	1789	1831	1830	1083
45°	1403	1429	1453	1490	1455	1085
55°	1049	1042	1069	1062	1061	933
65°	644	636	661	635	640	641
75°	268	263	268	249	257	287
85°	33	32	33	32	30	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2356.8	2356.8	2356.8	2356.8	2356.8
2.5°	2377.2	2359.3	2342.5	2362.0	2373.9
5°	2340.1	2334.6	2341.0	2334.0	2390.3
7.5°	2292.0	2313.0	2325.2	2317.6	2320.9
10°	2266.5	2259.2	2286.2	2305.1	2302.4
12.5°	2239.1	2250.0	2251.6	2271.9	2273.8
15°	2240.6	2214.7	2228.4	2240.0	2240.9
17.5°	2153.6	2181.6	2191.0	2217.5	2184.6
20°	2142.9	2122.5	2142.9	2170.0	2165.7
22.5°	2077.5	2054.7	2098.5	2122.5	2121.0
25°	2003.2	2014.2	2047.1	2073.8	2069.6
27.5°	1938.1	1950.9	1997.8	2034.6	2010.8
30°	1887.9	1881.5	1921.1	1953.9	1972.2
32.5°	1798.1	1821.3	1867.5	1900.1	1882.7
35°	1743.7	1748.8	1789.3	1830.7	1829.5
37.5°	1648.4	1672.5	1729.4	1740.9	1730.3
40°	1567.2	1591.2	1642.6	1655.1	1649.9
42.5°	1507.2	1511.5	1555.6	1569.9	1547.1
45°	1402.8	1429.0	1452.8	1490.2	1454.9
47.5°	1314.0	1326.2	1377.3	1387.3	1368.8
50°	1233.3	1237.6	1289.0	1276.6	1264.4
52.5°	1132.0	1150.0	1178.9	1176.4	1162.1
55°	1048.6	1041.6	1069.0	1061.7	1061.4
57.5°	948.5	960.7	983.2	971.6	953.1
60°	854.8	855.1	863.3	850.2	847.8
62.5°	750.4	754.1	755.9	739.8	765.9
65°	644.2	635.7	660.6	635.4	639.6
67.5°	546.5	550.8	548.4	532.5	538.6
70°	447.3	452.8	448.8	430.9	436.4
72.5°	356.6	350.0	354.2	331.7	342.0
75°	268.1	262.6	267.5	248.6	257.1
77.5°	182.6	186.8	183.8	173.8	179.5
80°	120.5	117.2	117.2	111.4	112.6
82.5°	70.3	66.9	66.0	64.2	66.9
85°	32.9	32.0	32.6	31.6	30.4
87.5°	11.9	12.2	12.2	11.6	11.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)