

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: P589738

Luminaire Tested: **FMR-24-2-LD4-4LO-50-UNV-82-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589738
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-LD4-4LO-50-UNV-82-94-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

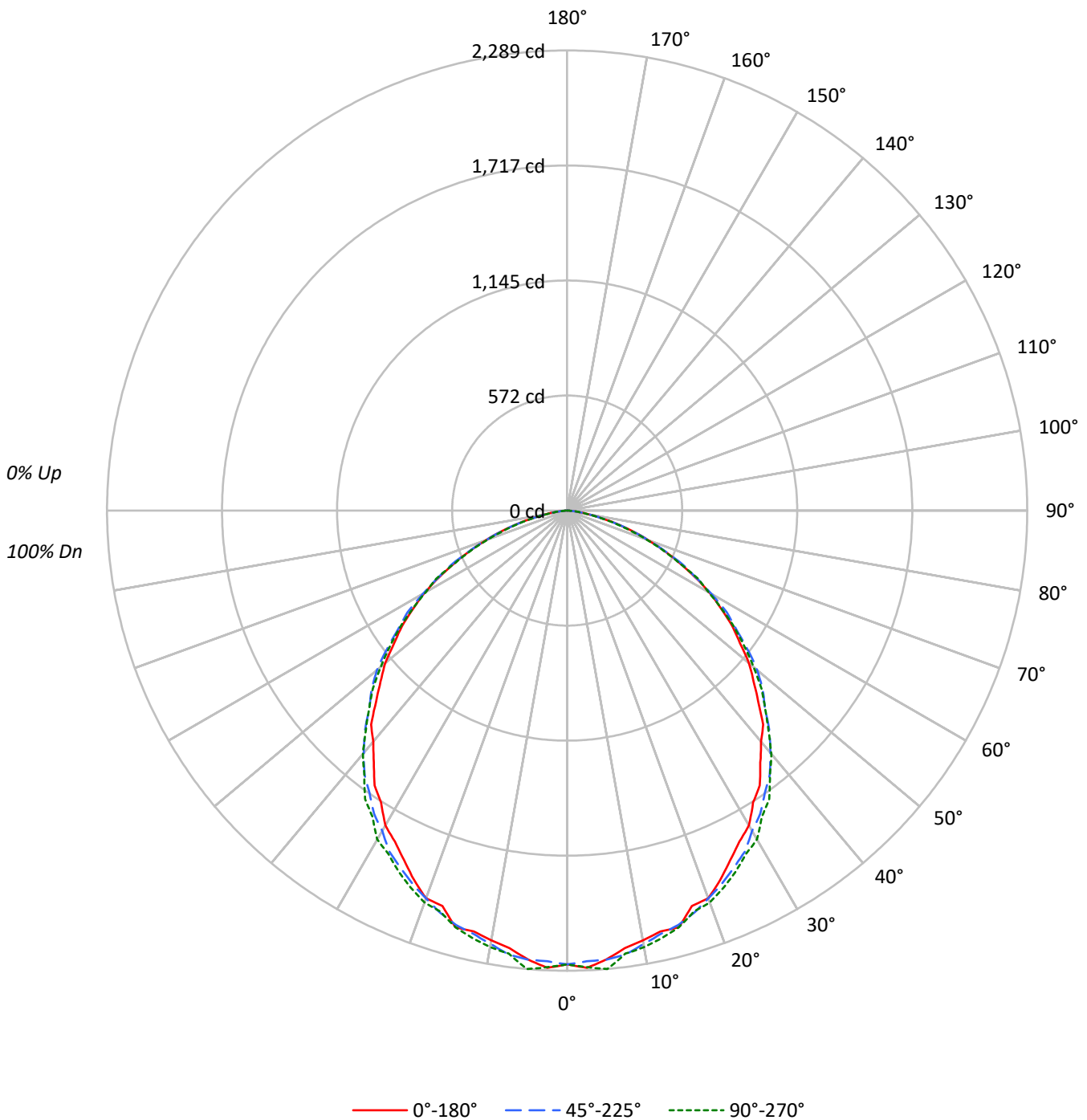
Lumens per Lamp: N/A
Luminaire Lumens: 5689.0 lumens
Efficiency: N/A
Efficacy: 121.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	6074	6074	6074
5°	6054	6056	6184
10°	5931	5983	6025
15°	5978	5946	5979
20°	5877	5877	5940
25°	5697	5821	5885
30°	5618	5717	5869
35°	5486	5630	5756
40°	5272	5526	5551
45°	5113	5295	5303
50°	4945	5169	5070
55°	4712	4804	4769
60°	4406	4450	4370
65°	3929	4029	3901
70°	3371	3382	3288
75°	2670	2664	2561
80°	1788	1739	1671
85°	973	963	898



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	212.3	3.7
10°-20°	601.8	10.6
20°-30°	901.6	15.8
30°-40°	1068.5	18.8
40°-50°	1070.5	18.8
50°-60°	908.7	16.0
60°-70°	612.6	10.8
70°-80°	269.2	4.7
80°-90°	43.7	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°	1715.7	30.2
0°-40°	2784.2	48.9
0°-60°	4763.4	83.7
0°-90°	5689.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5689.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2257	2257	2257	2257	2257	
5°	2241	2236	2242	2235	2289	211
15°	2146	2121	2134	2145	2146	598
25°	1919	1929	1961	1986	1982	887
35°	1670	1675	1714	1753	1752	1037
45°	1344	1369	1391	1427	1393	1039
55°	1004	998	1024	1017	1017	893
65°	617	609	633	608	613	614
75°	257	252	256	238	246	275
85°	32	31	31	30	29	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2257.3	2257.3	2257.3	2257.3	2257.3
2.5°	2276.8	2259.6	2243.6	2262.2	2273.6
5°	2241.2	2236.0	2242.1	2235.4	2289.3
7.5°	2195.2	2215.3	2226.9	2219.7	2222.9
10°	2170.7	2163.7	2189.6	2207.7	2205.1
12.5°	2144.5	2155.0	2156.4	2175.9	2177.7
15°	2145.9	2121.1	2134.3	2145.3	2146.2
17.5°	2062.6	2089.4	2098.4	2123.8	2092.3
20°	2052.4	2032.8	2052.4	2078.3	2074.2
22.5°	1989.7	1967.8	2009.8	2032.8	2031.4
25°	1918.6	1929.1	1960.6	1986.2	1982.1
27.5°	1856.2	1868.5	1913.3	1948.6	1925.9
30°	1808.1	1802.0	1839.9	1871.4	1888.9
32.5°	1722.2	1744.3	1788.6	1819.8	1803.2
35°	1670.0	1674.9	1713.7	1753.3	1752.2
37.5°	1578.8	1601.8	1656.3	1667.4	1657.2
40°	1500.9	1524.0	1573.2	1585.2	1580.2
42.5°	1443.5	1447.6	1489.9	1503.6	1481.7
45°	1343.6	1368.6	1391.4	1427.2	1393.4
47.5°	1258.5	1270.1	1319.1	1328.7	1310.9
50°	1181.2	1185.3	1234.6	1222.6	1211.0
52.5°	1084.2	1101.4	1129.1	1126.7	1113.0
55°	1004.3	997.6	1023.9	1016.9	1016.6
57.5°	908.4	920.1	941.7	930.6	912.8
60°	818.7	819.0	826.8	814.3	812.0
62.5°	718.7	722.2	724.0	708.5	733.6
65°	617.0	608.8	632.7	608.5	612.6
67.5°	523.4	527.5	525.2	510.0	515.9
70°	428.4	433.7	429.9	412.7	417.9
72.5°	341.6	335.2	339.2	317.7	327.6
75°	256.8	251.5	256.2	238.1	246.3
77.5°	174.9	178.9	176.0	166.4	172.0
80°	115.4	112.2	112.2	106.7	107.8
82.5°	67.3	64.1	63.2	61.5	64.1
85°	31.5	30.6	31.2	30.3	29.1
87.5°	11.4	11.7	11.7	11.1	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)