

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: P589046

Luminaire Tested: **FMR-24-2-LD4-2HI-50-UNV-80-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589046
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-LD4-2HI-50-UNV-80-85-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

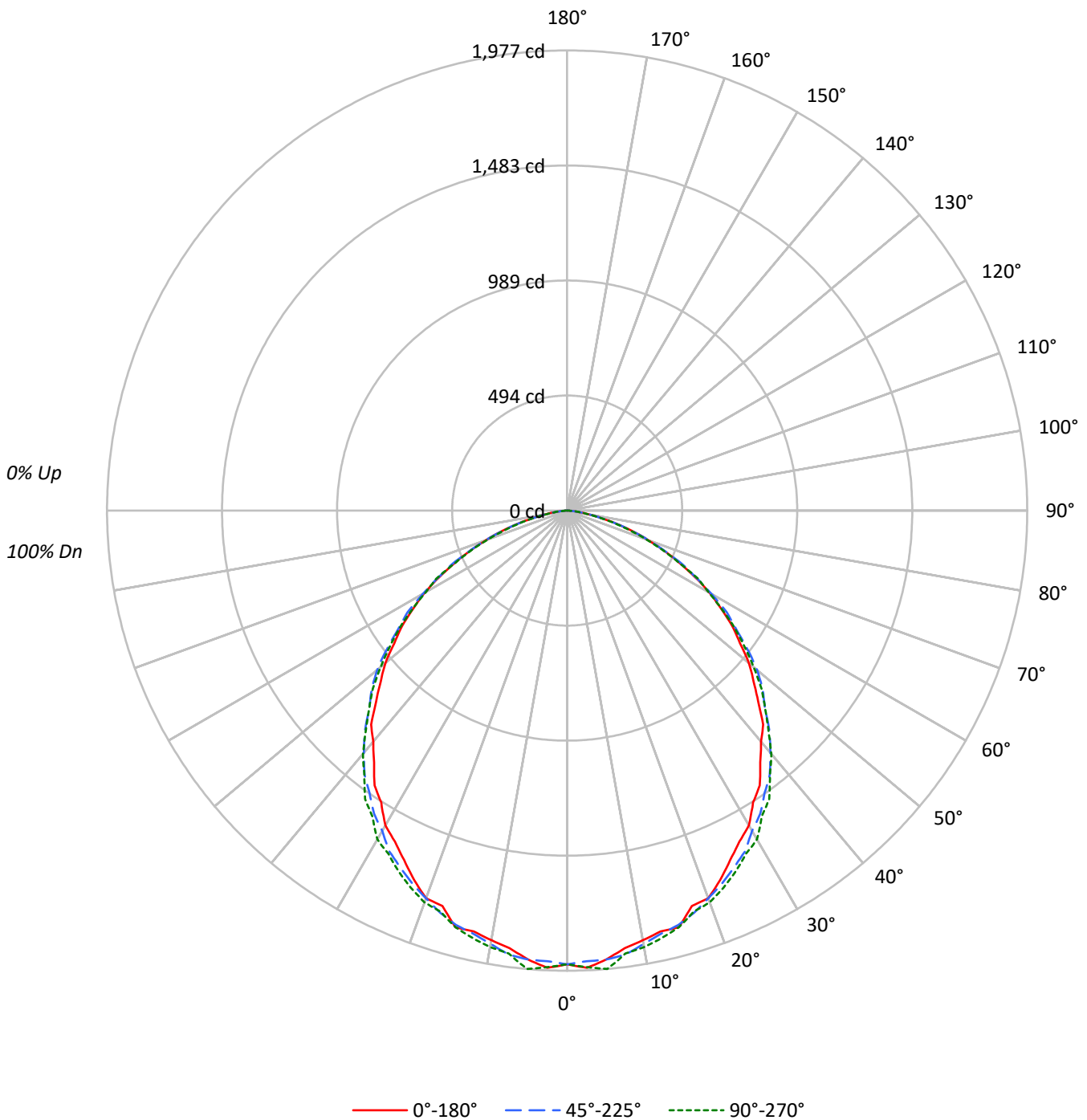
Lumens per Lamp: N/A
Luminaire Lumens: 4913.0 lumens
Efficiency: N/A
Efficacy: 113.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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																		
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	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°	5246	5246	5246
5°	5228	5230	5340
10°	5122	5167	5203
15°	5163	5135	5164
20°	5076	5076	5130
25°	4920	5027	5083
30°	4852	4937	5069
35°	4738	4862	4971
40°	4553	4773	4794
45°	4416	4573	4579
50°	4271	4464	4378
55°	4069	4148	4119
60°	3805	3843	3774
65°	3393	3479	3369
70°	2911	2921	2840
75°	2305	2300	2211
80°	1545	1502	1443
85°	840	831	778



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.4	3.7
10°-20°	519.7	10.6
20°-30°	778.6	15.8
30°-40°	922.8	18.8
40°-50°	924.5	18.8
50°-60°	784.7	16.0
60°-70°	529.1	10.8
70°-80°	232.5	4.7
80°-90°	37.8	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°	1481.6	30.2
0°-40°	2404.4	48.9
0°-60°	4113.7	83.7
0°-90°	4913.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4913.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1949	1949	1949	1949	1949	
5°	1936	1931	1936	1930	1977	182
15°	1853	1832	1843	1853	1854	516
25°	1657	1666	1693	1715	1712	766
35°	1442	1446	1480	1514	1513	895
45°	1160	1182	1202	1232	1203	898
55°	867	862	884	878	878	772
65°	533	526	546	526	529	530
75°	222	217	221	206	213	238
85°	27	26	27	26	25	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1949.4	1949.4	1949.4	1949.4	1949.4
2.5°	1966.2	1951.4	1937.5	1953.6	1963.4
5°	1935.5	1931.0	1936.3	1930.5	1977.0
7.5°	1895.7	1913.1	1923.2	1916.9	1919.7
10°	1874.6	1868.6	1891.0	1906.6	1904.3
12.5°	1851.9	1861.0	1862.3	1879.1	1880.6
15°	1853.2	1831.8	1843.1	1852.7	1853.5
17.5°	1781.2	1804.4	1812.2	1834.1	1806.9
20°	1772.4	1755.6	1772.4	1794.8	1791.3
22.5°	1718.3	1699.4	1735.7	1755.6	1754.3
25°	1656.9	1665.9	1693.1	1715.3	1711.8
27.5°	1603.0	1613.6	1652.4	1682.8	1663.2
30°	1561.5	1556.2	1588.9	1616.1	1631.2
32.5°	1487.2	1506.4	1544.6	1571.6	1557.2
35°	1442.2	1446.5	1479.9	1514.2	1513.2
37.5°	1363.4	1383.3	1430.4	1439.9	1431.1
40°	1296.2	1316.1	1358.6	1369.0	1364.7
42.5°	1246.6	1250.2	1286.6	1298.5	1279.6
45°	1160.3	1181.9	1201.6	1232.5	1203.3
47.5°	1086.8	1096.9	1139.2	1147.5	1132.1
50°	1020.1	1023.6	1066.2	1055.8	1045.8
52.5°	936.3	951.1	975.1	973.0	961.2
55°	867.3	861.5	884.2	878.2	877.9
57.5°	784.5	794.6	813.2	803.7	788.3
60°	707.0	707.3	714.1	703.2	701.2
62.5°	620.7	623.7	625.2	611.9	633.5
65°	532.8	525.8	546.4	525.5	529.1
67.5°	452.0	455.6	453.5	440.5	445.5
70°	370.0	374.5	371.2	356.4	360.9
72.5°	295.0	289.4	293.0	274.3	282.9
75°	221.7	217.2	221.2	205.6	212.7
77.5°	151.0	154.5	152.0	143.7	148.5
80°	99.7	96.9	96.9	92.1	93.1
82.5°	58.1	55.4	54.6	53.1	55.4
85°	27.2	26.4	26.9	26.2	25.2
87.5°	9.8	10.1	10.1	9.6	9.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)