

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: P589483

Luminaire Tested: **FMR-24-2-LD4-3STD-35-UNV-82-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589483
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-35-UNV-82-96-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

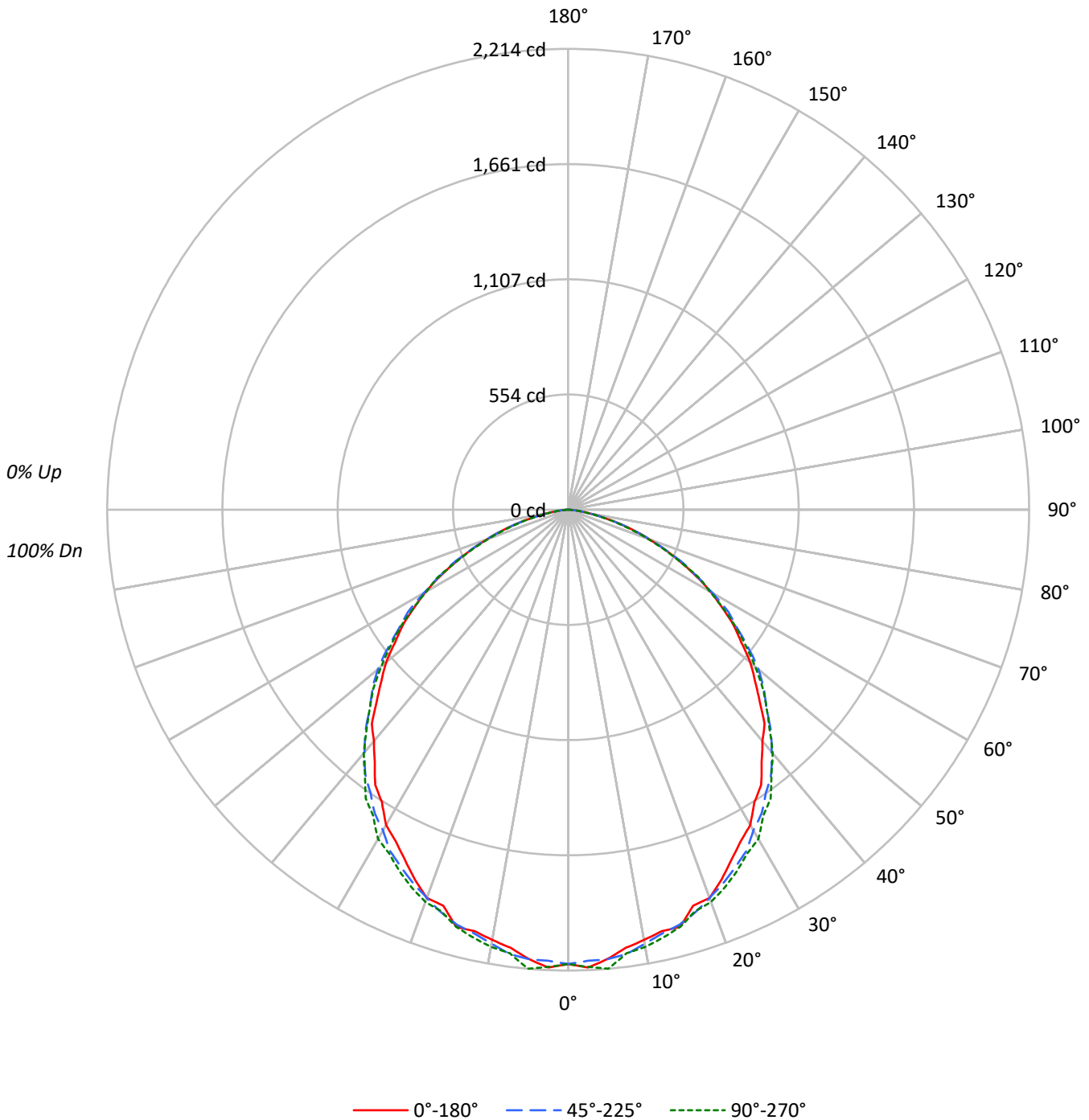
Lumens per Lamp: N/A
Luminaire Lumens: 5501.0 lumens
Efficiency: N/A
Efficacy: 110.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	5874	5874	5874
5°	5854	5856	5980
10°	5735	5786	5826
15°	5781	5749	5782
20°	5683	5683	5744
25°	5508	5629	5691
30°	5433	5528	5675
35°	5305	5444	5566
40°	5098	5344	5368
45°	4944	5120	5128
50°	4782	4998	4902
55°	4556	4645	4612
60°	4260	4303	4225
65°	3799	3896	3772
70°	3260	3271	3179
75°	2582	2575	2476
80°	1729	1681	1616
85°	939	932	871



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.3	3.7
10°-20°	581.9	10.6
20°-30°	871.8	15.8
30°-40°	1033.2	18.8
40°-50°	1035.1	18.8
50°-60°	878.7	16.0
60°-70°	592.4	10.8
70°-80°	260.3	4.7
80°-90°	42.3	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°	1659.0	30.2
0°-40°	2692.2	48.9
0°-60°	4606.0	83.7
0°-90°	5501.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5501.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2183	2183	2183	2183	2183	
5°	2167	2162	2168	2162	2214	204
15°	2075	2051	2064	2074	2075	578
25°	1855	1865	1896	1921	1917	858
35°	1615	1620	1657	1695	1694	1003
45°	1299	1323	1345	1380	1347	1005
55°	971	965	990	983	983	864
65°	597	589	612	588	592	593
75°	248	243	248	230	238	266
85°	30	30	30	29	28	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2182.7	2182.7	2182.7	2182.7	2182.7
2.5°	2201.5	2184.9	2169.4	2187.4	2198.4
5°	2167.2	2162.1	2168.0	2161.5	2213.7
7.5°	2122.6	2142.1	2153.3	2146.3	2149.4
10°	2099.0	2092.2	2117.3	2134.7	2132.2
12.5°	2073.6	2083.7	2085.1	2104.0	2105.7
15°	2075.0	2051.1	2063.7	2074.4	2075.3
17.5°	1994.4	2020.3	2029.1	2053.6	2023.2
20°	1984.5	1965.7	1984.5	2009.6	2005.7
22.5°	1924.0	1902.8	1943.4	1965.7	1964.3
25°	1855.2	1865.3	1895.8	1920.6	1916.6
27.5°	1794.9	1806.7	1850.1	1884.2	1862.2
30°	1748.4	1742.5	1779.1	1809.5	1826.4
32.5°	1665.2	1686.7	1729.5	1759.7	1743.6
35°	1614.8	1619.6	1657.1	1695.4	1694.3
37.5°	1526.6	1548.9	1601.6	1612.3	1602.4
40°	1451.3	1473.6	1521.2	1532.8	1528.0
42.5°	1395.8	1399.8	1440.6	1453.9	1432.7
45°	1299.2	1323.4	1345.4	1380.0	1347.4
47.5°	1216.9	1228.2	1275.5	1284.8	1267.6
50°	1142.2	1146.1	1193.8	1182.2	1170.9
52.5°	1048.4	1065.0	1091.8	1089.5	1076.3
55°	971.1	964.7	990.0	983.3	983.0
57.5°	878.4	889.7	910.5	899.8	882.6
60°	791.6	791.9	799.5	787.4	785.1
62.5°	695.0	698.3	700.0	685.1	709.3
65°	596.6	588.7	611.8	588.4	592.4
67.5°	506.1	510.1	507.8	493.2	498.8
70°	414.3	419.3	415.7	399.1	404.1
72.5°	330.3	324.1	328.0	307.2	316.8
75°	248.3	243.2	247.7	230.2	238.1
77.5°	169.1	173.0	170.2	160.9	166.3
80°	111.6	108.5	108.5	103.1	104.3
82.5°	65.1	62.0	61.2	59.5	62.0
85°	30.4	29.6	30.2	29.3	28.2
87.5°	11.0	11.3	11.3	10.7	10.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)