

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: P589745

Luminaire Tested: **FMR-24-2-LD4-4LO-50-UNV-93-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589745
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-93-88-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

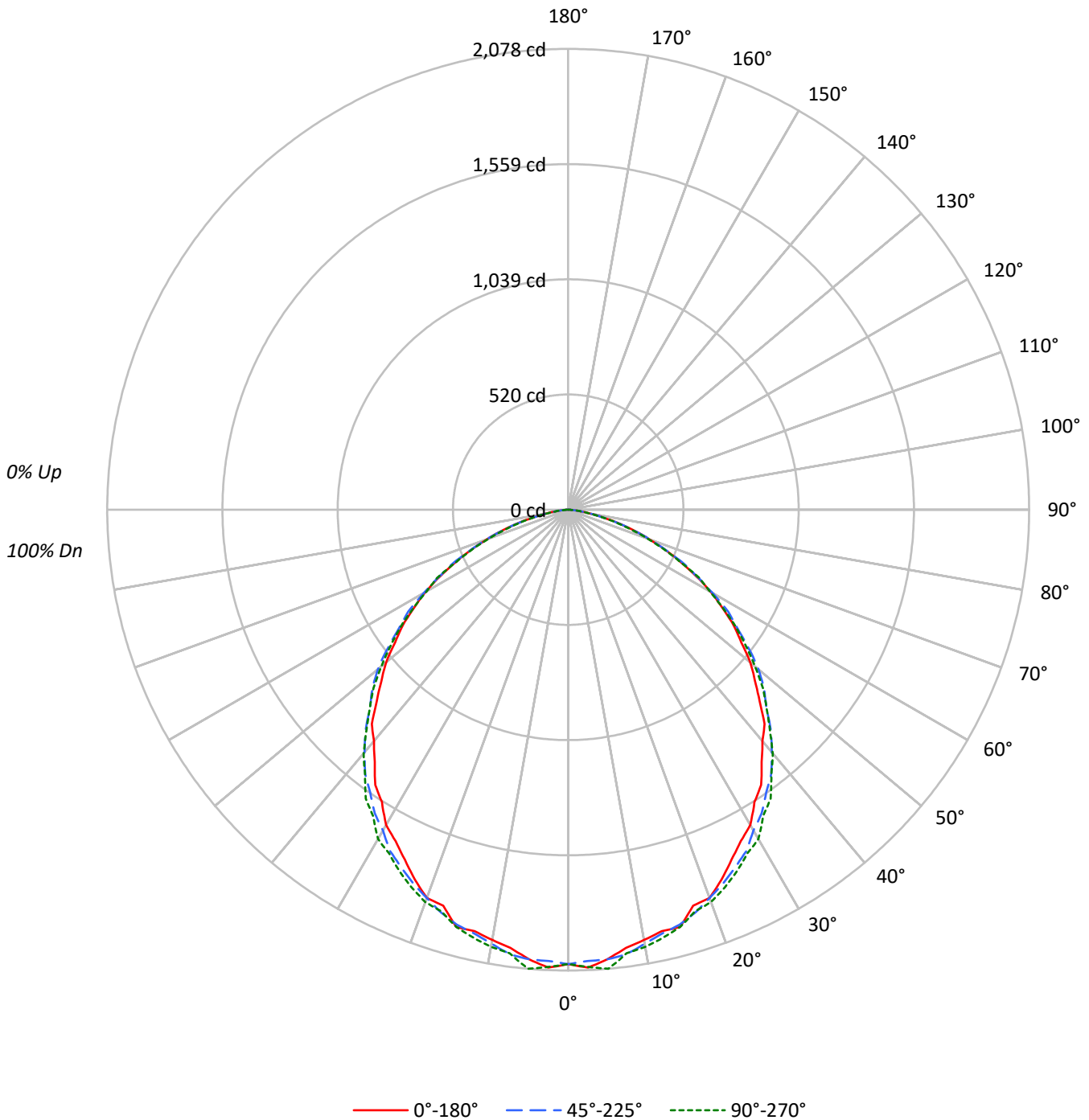
Lumens per Lamp: N/A
Luminaire Lumens: 5164.0 lumens
Efficiency: N/A
Efficacy: 110.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	5514	5514	5514
5°	5495	5498	5613
10°	5384	5431	5469
15°	5427	5397	5428
20°	5335	5335	5392
25°	5171	5284	5342
30°	5100	5189	5328
35°	4980	5110	5225
40°	4786	5016	5039
45°	4641	4806	4813
50°	4489	4691	4602
55°	4277	4360	4329
60°	3999	4039	3967
65°	3566	3657	3541
70°	3060	3070	2985
75°	2424	2417	2324
80°	1624	1579	1517
85°	883	874	818



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	192.7	3.7
10°-20°	546.2	10.6
20°-30°	818.4	15.8
30°-40°	969.9	18.8
40°-50°	971.7	18.8
50°-60°	824.8	16.0
60°-70°	556.1	10.8
70°-80°	244.4	4.7
80°-90°	39.7	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°	1557.3	30.2
0°-40°	2527.3	48.9
0°-60°	4323.8	83.7
0°-90°	5164.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5164.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2049	2049	2049	2049	2049	
5°	2034	2030	2035	2029	2078	192
15°	1948	1925	1937	1947	1948	543
25°	1742	1751	1780	1803	1799	805
35°	1516	1520	1556	1592	1590	941
45°	1220	1242	1263	1296	1265	943
55°	912	906	929	923	923	811
65°	560	553	574	552	556	557
75°	233	228	232	216	224	250
85°	29	28	28	28	26	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2048.9	2048.9	2048.9	2048.9	2048.9
2.5°	2066.7	2051.1	2036.5	2053.4	2063.8
5°	2034.4	2029.6	2035.2	2029.1	2078.0
7.5°	1992.6	2010.8	2021.4	2014.8	2017.7
10°	1970.4	1964.0	1987.6	2004.0	2001.6
12.5°	1946.6	1956.1	1957.4	1975.1	1976.7
15°	1947.9	1925.4	1937.3	1947.4	1948.2
17.5°	1872.2	1896.6	1904.8	1927.8	1899.2
20°	1863.0	1845.2	1863.0	1886.5	1882.8
22.5°	1806.1	1786.2	1824.3	1845.2	1843.9
25°	1741.5	1751.1	1779.6	1802.9	1799.2
27.5°	1684.9	1696.0	1736.8	1768.8	1748.2
30°	1641.3	1635.7	1670.1	1698.7	1714.6
32.5°	1563.2	1583.3	1623.5	1651.9	1636.8
35°	1515.9	1520.4	1555.6	1591.5	1590.5
37.5°	1433.1	1454.0	1503.4	1513.5	1504.2
40°	1362.4	1383.3	1428.0	1438.9	1434.4
42.5°	1310.3	1314.0	1352.4	1364.8	1345.0
45°	1219.6	1242.3	1263.0	1295.5	1264.8
47.5°	1142.3	1152.9	1197.4	1206.1	1189.9
50°	1072.2	1075.9	1120.6	1109.8	1099.2
52.5°	984.1	999.7	1024.9	1022.8	1010.3
55°	911.6	905.6	929.4	923.0	922.8
57.5°	824.6	835.2	854.8	844.7	828.6
60°	743.1	743.4	750.5	739.2	737.0
62.5°	652.4	655.6	657.1	643.1	665.9
65°	560.1	552.6	574.3	552.4	556.1
67.5°	475.1	478.8	476.7	463.0	468.3
70°	388.9	393.7	390.2	374.6	379.4
72.5°	310.1	304.2	307.9	288.4	297.4
75°	233.1	228.3	232.5	216.1	223.5
77.5°	158.7	162.4	159.8	151.1	156.1
80°	104.8	101.9	101.9	96.8	97.9
82.5°	61.1	58.2	57.4	55.8	58.2
85°	28.6	27.8	28.3	27.5	26.5
87.5°	10.3	10.6	10.6	10.1	9.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)