

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: P589743

Luminaire Tested: **FMR-24-2-LD4-4LO-50-UNV-93-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589743
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-93-86-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

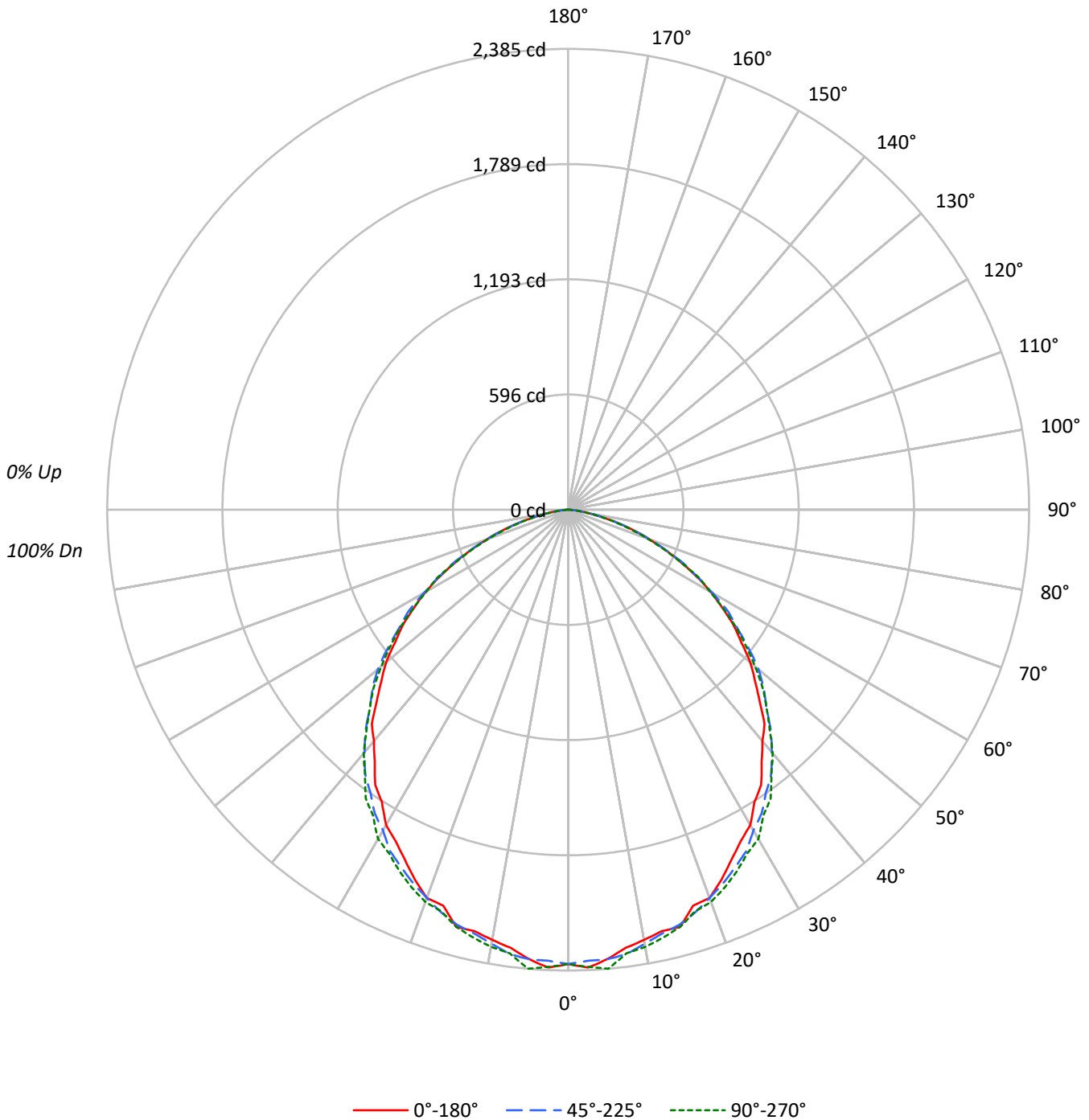
Lumens per Lamp: N/A
Luminaire Lumens: 5926.0 lumens
Efficiency: N/A
Efficacy: 126.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	6327	6327	6327
5°	6306	6309	6442
10°	6178	6233	6276
15°	6227	6194	6228
20°	6122	6122	6187
25°	5934	6064	6130
30°	5853	5955	6114
35°	5715	5864	5996
40°	5492	5757	5782
45°	5326	5515	5524
50°	5151	5384	5281
55°	4908	5004	4968
60°	4590	4635	4552
65°	4092	4197	4063
70°	3511	3523	3425
75°	2781	2775	2667
80°	1863	1812	1740
85°	1013	1003	939



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.2	3.7
10°-20°	626.8	10.6
20°-30°	939.1	15.8
30°-40°	1113.1	18.8
40°-50°	1115.1	18.8
50°-60°	946.6	16.0
60°-70°	638.2	10.8
70°-80°	280.4	4.7
80°-90°	45.6	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°	1787.1	30.2
0°-40°	2900.2	48.9
0°-60°	4961.9	83.7
0°-90°	5926.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5926.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2351	2351	2351	2351	2351	
5°	2335	2329	2336	2328	2385	220
15°	2235	2210	2223	2235	2236	623
25°	1998	2009	2042	2069	2065	924
35°	1740	1745	1785	1826	1825	1080
45°	1400	1426	1449	1487	1452	1083
55°	1046	1039	1066	1059	1059	931
65°	643	634	659	634	638	639
75°	268	262	267	248	256	287
85°	33	32	32	32	30	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2351.3	2351.3	2351.3	2351.3	2351.3
2.5°	2371.6	2353.7	2337.0	2356.4	2368.3
5°	2334.6	2329.1	2335.5	2328.5	2384.7
7.5°	2286.6	2307.6	2319.7	2312.1	2315.5
10°	2261.1	2253.8	2280.9	2299.7	2296.9
12.5°	2233.8	2244.7	2246.2	2266.6	2268.4
15°	2235.3	2209.5	2223.2	2234.7	2235.6
17.5°	2148.5	2176.4	2185.8	2212.2	2179.5
20°	2137.9	2117.5	2137.9	2164.9	2160.6
22.5°	2072.6	2049.8	2093.5	2117.5	2116.0
25°	1998.5	2009.4	2042.2	2069.0	2064.7
27.5°	1933.6	1946.3	1993.1	2029.8	2006.1
30°	1883.5	1877.1	1916.5	1949.3	1967.6
32.5°	1793.9	1817.0	1863.1	1895.6	1878.3
35°	1739.6	1744.7	1785.1	1826.4	1825.2
37.5°	1644.5	1668.5	1725.3	1736.8	1726.2
40°	1563.5	1587.5	1638.8	1651.2	1646.1
42.5°	1503.7	1507.9	1551.9	1566.2	1543.4
45°	1399.5	1425.6	1449.3	1486.7	1451.5
47.5°	1310.9	1323.0	1374.0	1384.1	1365.5
50°	1230.4	1234.7	1286.0	1273.6	1261.4
52.5°	1129.3	1147.3	1176.1	1173.7	1159.4
55°	1046.2	1039.2	1066.5	1059.2	1058.9
57.5°	946.3	958.4	980.9	969.4	950.8
60°	852.8	853.1	861.3	848.2	845.8
62.5°	748.6	752.3	754.1	738.0	764.1
65°	642.7	634.2	659.1	633.9	638.1
67.5°	545.2	549.5	547.1	531.3	537.4
70°	446.3	451.7	447.8	429.9	435.3
72.5°	355.8	349.1	353.4	330.9	341.2
75°	267.5	262.0	266.9	248.0	256.5
77.5°	182.2	186.4	183.4	173.3	179.1
80°	120.2	116.9	116.9	111.1	112.3
82.5°	70.1	66.8	65.9	64.1	66.8
85°	32.8	31.9	32.5	31.6	30.4
87.5°	11.8	12.1	12.1	11.5	10.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)