

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: P589655

Luminaire Tested: **FMR-24-2-LD4-4LO-35-UNV-80-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589655
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-35-UNV-80-86-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

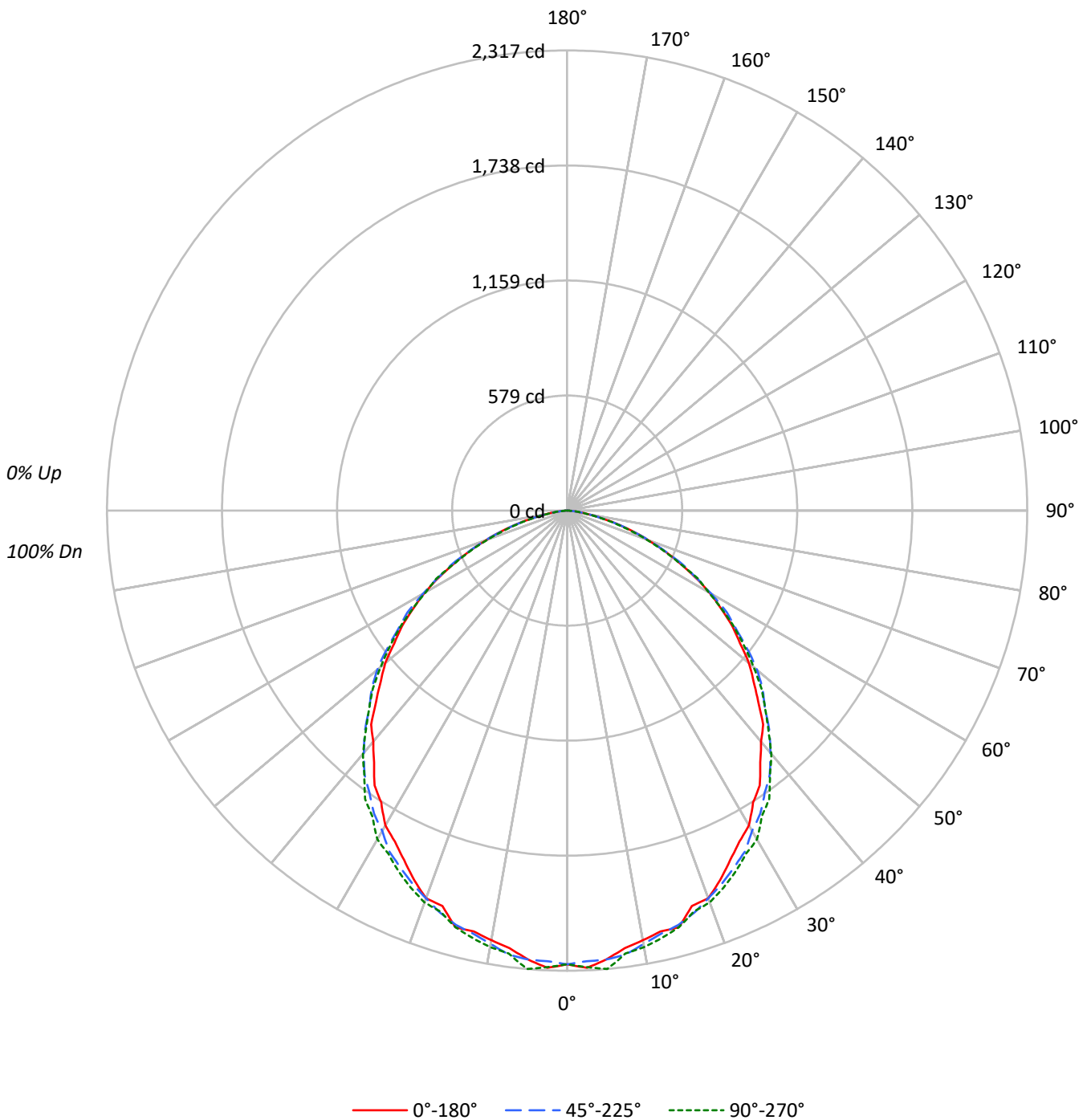
Lumens per Lamp: N/A
Luminaire Lumens: 5758.0 lumens
Efficiency: N/A
Efficacy: 123.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	6148	6148	6148
5°	6128	6130	6259
10°	6003	6056	6098
15°	6051	6018	6052
20°	5949	5949	6012
25°	5766	5892	5957
30°	5687	5786	5940
35°	5552	5698	5826
40°	5337	5593	5618
45°	5175	5359	5367
50°	5005	5231	5131
55°	4769	4862	4827
60°	4459	4504	4423
65°	3976	4078	3948
70°	3412	3423	3328
75°	2702	2696	2592
80°	1810	1760	1691
85°	985	976	911



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.9	3.7
10°-20°	609.1	10.6
20°-30°	912.5	15.8
30°-40°	1081.5	18.8
40°-50°	1083.5	18.8
50°-60°	919.7	16.0
60°-70°	620.1	10.8
70°-80°	272.5	4.7
80°-90°	44.3	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°	1736.5	30.2
0°-40°	2818.0	48.9
0°-60°	4821.2	83.7
0°-90°	5758.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5758.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2285	2285	2285	2285	2285	
5°	2268	2263	2269	2262	2317	214
15°	2172	2147	2160	2171	2172	605
25°	1942	1952	1984	2010	2006	898
35°	1690	1695	1734	1775	1773	1049
45°	1360	1385	1408	1444	1410	1052
55°	1016	1010	1036	1029	1029	904
65°	624	616	640	616	620	621
75°	260	255	259	241	249	279
85°	32	31	32	31	30	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2284.6	2284.6	2284.6	2284.6	2284.6
2.5°	2304.4	2287.0	2270.8	2289.6	2301.1
5°	2268.4	2263.1	2269.3	2262.5	2317.1
7.5°	2221.8	2242.2	2254.0	2246.6	2249.8
10°	2197.0	2189.9	2216.2	2234.5	2231.8
12.5°	2170.5	2181.1	2182.6	2202.3	2204.1
15°	2171.9	2146.9	2160.1	2171.4	2172.2
17.5°	2087.6	2114.7	2123.9	2149.5	2117.7
20°	2077.3	2057.5	2077.3	2103.5	2099.4
22.5°	2013.8	1991.7	2034.2	2057.5	2056.0
25°	1941.9	1952.5	1984.3	2010.3	2006.2
27.5°	1878.7	1891.1	1936.6	1972.2	1949.2
30°	1830.1	1823.9	1862.2	1894.1	1911.8
32.5°	1743.0	1765.5	1810.3	1841.9	1825.0
35°	1690.2	1695.3	1734.5	1774.6	1773.4
37.5°	1597.9	1621.2	1676.4	1687.6	1677.3
40°	1519.2	1542.5	1592.3	1604.4	1599.4
42.5°	1461.0	1465.2	1507.9	1521.8	1499.7
45°	1359.9	1385.2	1408.2	1444.5	1410.3
47.5°	1273.7	1285.5	1335.1	1344.8	1326.8
50°	1195.6	1199.7	1249.5	1237.4	1225.6
52.5°	1097.3	1114.7	1142.8	1140.4	1126.5
55°	1016.5	1009.7	1036.3	1029.2	1028.9
57.5°	919.5	931.3	953.1	941.9	923.9
60°	828.6	828.9	836.9	824.2	821.8
62.5°	727.4	731.0	732.7	717.1	742.5
65°	624.5	616.2	640.4	615.9	620.1
67.5°	529.8	533.9	531.6	516.2	522.1
70°	433.6	438.9	435.1	417.7	423.0
72.5°	345.7	339.2	343.4	321.5	331.6
75°	259.9	254.6	259.3	241.0	249.3
77.5°	177.0	181.1	178.2	168.4	174.0
80°	116.8	113.6	113.6	108.0	109.1
82.5°	68.1	64.9	64.0	62.2	64.9
85°	31.9	31.0	31.6	30.7	29.5
87.5°	11.5	11.8	11.8	11.2	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)