

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: P589698

Luminaire Tested: **FMR-24-2-LD4-4LO-40-UNV-81-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589698
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-40-UNV-81-94-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

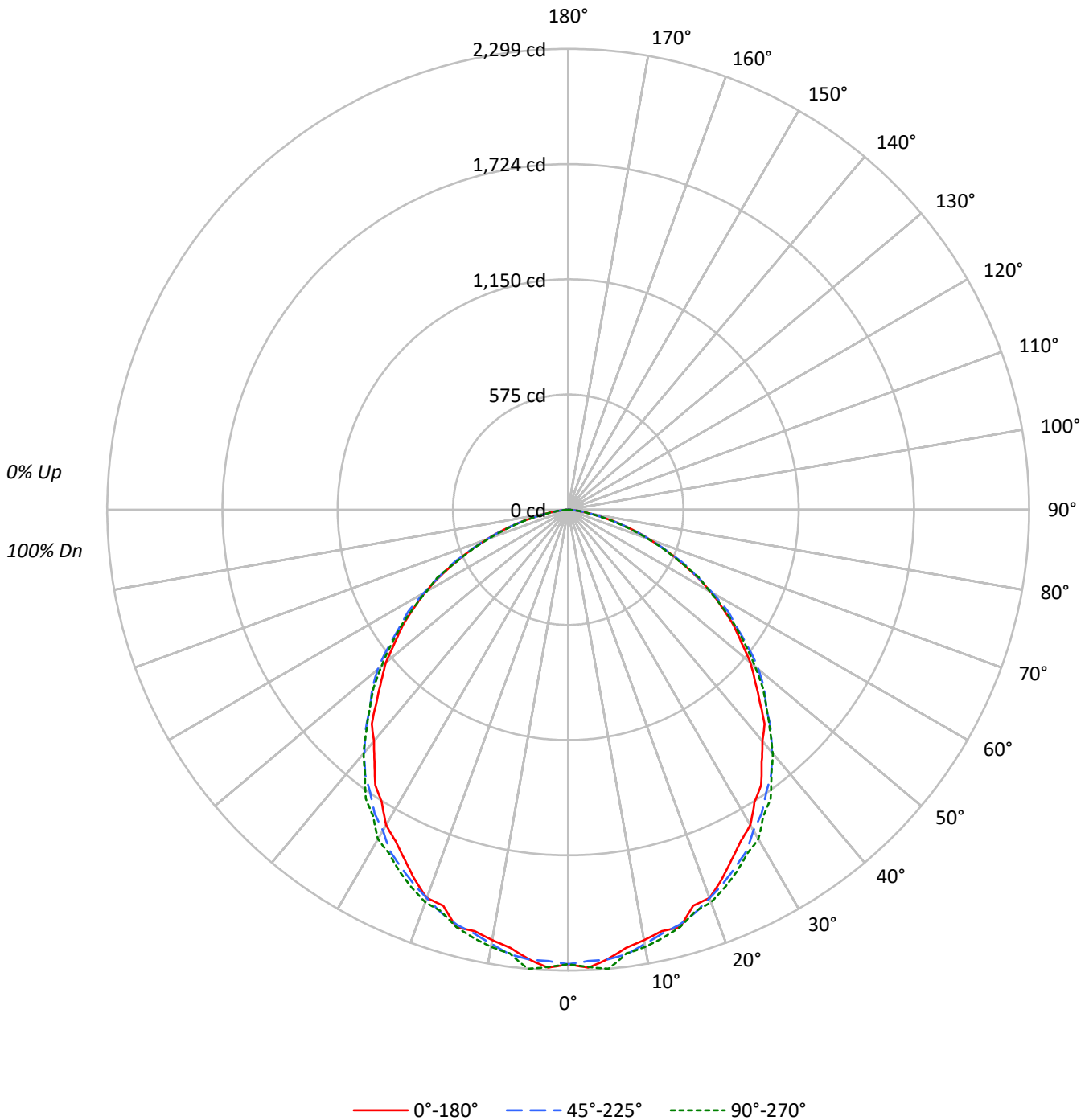
Lumens per Lamp: N/A
Luminaire Lumens: 5714.0 lumens
Efficiency: N/A
Efficacy: 122.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P589698

CATALOG NUMBER: FMR-24-2-LD4-4LO-40-UNV-81-94-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589698

CATALOG NUMBER: FMR-24-2-LD4-4LO-40-UNV-81-94-EDD

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°	6101	6101	6101
5°	6081	6083	6211
10°	5957	6010	6052
15°	6004	5972	6005
20°	5903	5903	5966
25°	5722	5847	5911
30°	5643	5742	5895
35°	5510	5654	5781
40°	5296	5551	5576
45°	5136	5318	5326
50°	4967	5191	5092
55°	4732	4825	4790
60°	4426	4470	4389
65°	3946	4046	3918
70°	3386	3397	3303
75°	2681	2675	2572
80°	1796	1746	1678
85°	976	966	905



TEST NUMBER: P589698

CATALOG NUMBER: FMR-24-2-LD4-4LO-40-UNV-81-94-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.3	3.7
10°-20°	604.4	10.6
20°-30°	905.5	15.8
30°-40°	1073.2	18.8
40°-50°	1075.2	18.8
50°-60°	912.7	16.0
60°-70°	615.3	10.8
70°-80°	270.4	4.7
80°-90°	43.9	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°	1723.2	30.2
0°-40°	2796.4	48.9
0°-60°	4784.3	83.7
0°-90°	5714.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5714.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2267	2267	2267	2267	2267	
5°	2251	2246	2252	2245	2299	212
15°	2155	2130	2144	2155	2156	601
25°	1927	1938	1969	1995	1991	891
35°	1677	1682	1721	1761	1760	1041
45°	1350	1375	1398	1434	1400	1044
55°	1009	1002	1028	1021	1021	897
65°	620	612	636	611	615	616
75°	258	253	257	239	247	276
85°	32	31	31	30	29	46
90°	0	0	0	0	0	



TEST NUMBER: P589698

CATALOG NUMBER: FMR-24-2-LD4-4LO-40-UNV-81-94-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2267.2	2267.2	2267.2	2267.2	2267.2
2.5°	2286.8	2269.5	2253.4	2272.1	2283.6
5°	2251.1	2245.8	2251.9	2245.2	2299.4
7.5°	2204.8	2225.0	2236.7	2229.4	2232.6
10°	2180.2	2173.2	2199.3	2217.4	2214.8
12.5°	2153.9	2164.4	2165.9	2185.5	2187.3
15°	2155.3	2130.5	2143.6	2154.8	2155.6
17.5°	2071.6	2098.6	2107.6	2133.1	2101.5
20°	2061.4	2041.8	2061.4	2087.4	2083.3
22.5°	1998.4	1976.5	2018.6	2041.8	2040.3
25°	1927.0	1937.6	1969.2	1994.9	1990.8
27.5°	1864.4	1876.7	1921.8	1957.2	1934.3
30°	1816.1	1809.9	1848.0	1879.6	1897.2
32.5°	1729.7	1752.0	1796.5	1827.8	1811.1
35°	1677.3	1682.3	1721.2	1761.0	1759.9
37.5°	1585.7	1608.8	1663.6	1674.7	1664.4
40°	1507.5	1530.7	1580.1	1592.1	1587.2
42.5°	1449.9	1454.0	1496.4	1510.2	1488.2
45°	1349.5	1374.6	1397.5	1433.5	1399.5
47.5°	1264.0	1275.7	1324.9	1334.5	1316.7
50°	1186.4	1190.5	1240.0	1228.0	1216.3
52.5°	1088.9	1106.2	1134.0	1131.7	1117.9
55°	1008.7	1002.0	1028.4	1021.3	1021.0
57.5°	912.4	924.1	945.8	934.7	916.8
60°	822.3	822.6	830.5	817.9	815.5
62.5°	721.9	725.4	727.1	711.6	736.8
65°	619.7	611.5	635.5	611.2	615.3
67.5°	525.7	529.8	527.5	512.3	518.1
70°	430.3	435.6	431.8	414.5	419.8
72.5°	343.1	336.6	340.7	319.1	329.0
75°	257.9	252.6	257.3	239.2	247.4
77.5°	175.6	179.7	176.8	167.1	172.7
80°	115.9	112.7	112.7	107.1	108.3
82.5°	67.6	64.4	63.5	61.8	64.4
85°	31.6	30.7	31.3	30.4	29.3
87.5°	11.4	11.7	11.7	11.1	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)