

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: P589042

Luminaire Tested: **FMR-24-2-LD4-2HI-40-UNV-93-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589042
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-LD4-2HI-40-UNV-93-94-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

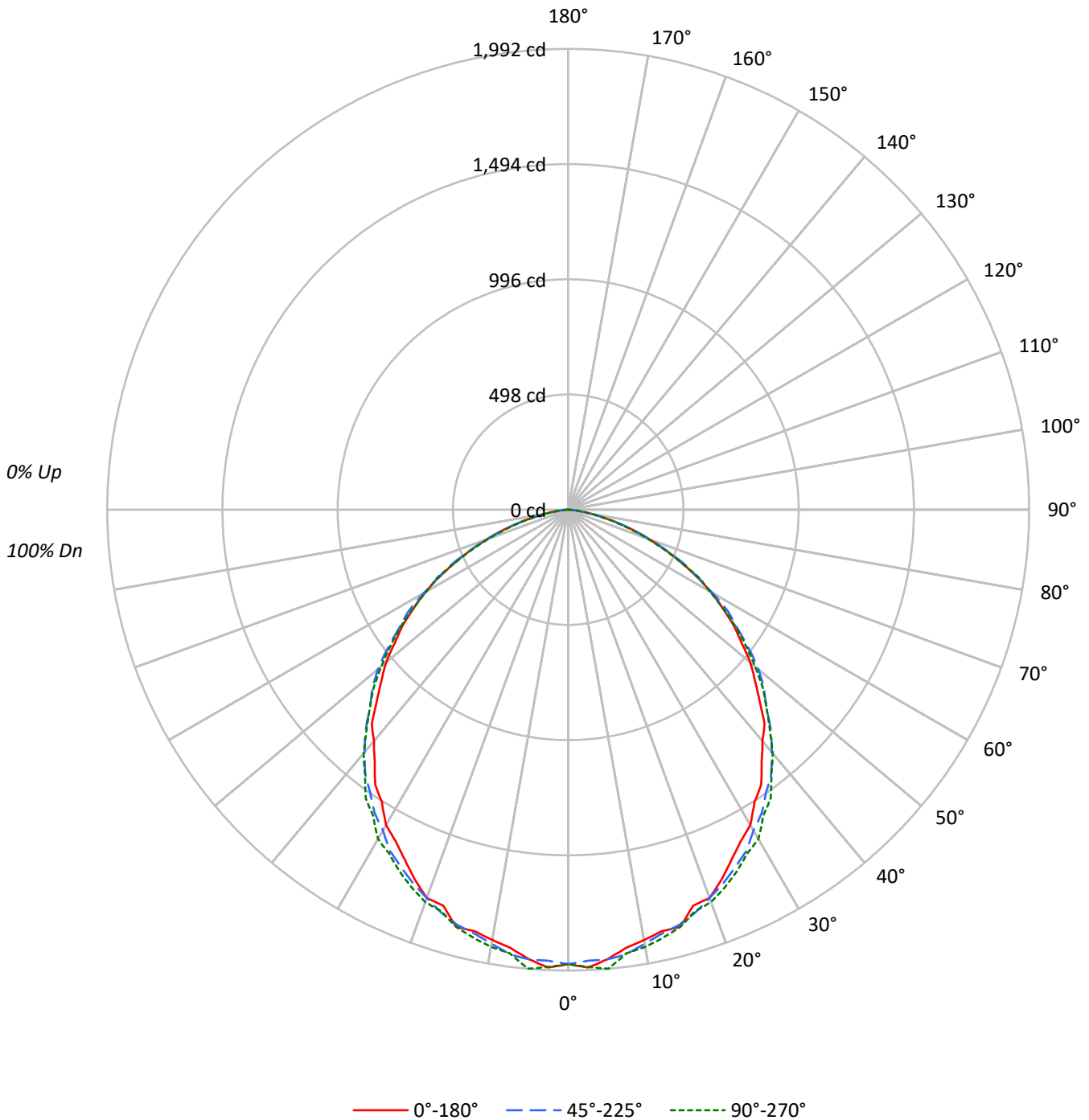
Lumens per Lamp: N/A
Luminaire Lumens: 4950.0 lumens
Efficiency: N/A
Efficacy: 114.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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: P589042

CATALOG NUMBER: FMR-24-2-LD4-2HI-40-UNV-93-94-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589042

CATALOG NUMBER: FMR-24-2-LD4-2HI-40-UNV-93-94-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	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					100			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5285	5285	5285
5°	5268	5270	5381
10°	5161	5206	5243
15°	5202	5173	5202
20°	5114	5114	5168
25°	4957	5065	5121
30°	4889	4974	5107
35°	4774	4898	5008
40°	4588	4809	4830
45°	4449	4607	4614
50°	4303	4497	4411
55°	4100	4180	4150
60°	3834	3872	3802
65°	3418	3505	3394
70°	2933	2943	2861
75°	2323	2318	2228
80°	1556	1512	1454
85°	846	837	784



TEST NUMBER: P589042

CATALOG NUMBER: FMR-24-2-LD4-2HI-40-UNV-93-94-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.7	3.7
10°-20°	523.6	10.6
20°-30°	784.5	15.8
30°-40°	929.7	18.8
40°-50°	931.5	18.8
50°-60°	790.7	16.0
60°-70°	533.1	10.8
70°-80°	234.2	4.7
80°-90°	38.0	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°	1492.8	30.2
0°-40°	2422.5	48.9
0°-60°	4144.6	83.7
0°-90°	4950.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4950.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1964	1964	1964	1964	1964	
5°	1950	1946	1951	1945	1992	184
15°	1867	1846	1857	1867	1867	520
25°	1669	1678	1706	1728	1725	772
35°	1453	1457	1491	1526	1525	902
45°	1169	1191	1211	1242	1212	904
55°	874	868	891	885	884	777
65°	537	530	550	530	533	534
75°	223	219	223	207	214	239
85°	27	27	27	26	25	40
90°	0	0	0	0	0	



TEST NUMBER: P589042

CATALOG NUMBER: FMR-24-2-LD4-2HI-40-UNV-93-94-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1964.0	1964.0	1964.0	1964.0	1964.0
2.5°	1981.0	1966.1	1952.1	1968.3	1978.2
5°	1950.1	1945.5	1950.8	1945.0	1991.9
7.5°	1910.0	1927.5	1937.7	1931.3	1934.1
10°	1888.7	1882.6	1905.2	1920.9	1918.6
12.5°	1865.9	1875.0	1876.3	1893.3	1894.8
15°	1867.2	1845.6	1857.0	1866.7	1867.4
17.5°	1794.6	1818.0	1825.8	1847.9	1820.5
20°	1785.8	1768.8	1785.8	1808.3	1804.8
22.5°	1731.2	1712.2	1748.7	1768.8	1767.5
25°	1669.4	1678.5	1705.9	1728.2	1724.6
27.5°	1615.1	1625.7	1664.8	1695.5	1675.7
30°	1573.3	1567.9	1600.9	1628.3	1643.5
32.5°	1498.4	1517.7	1556.3	1583.4	1568.9
35°	1453.1	1457.4	1491.1	1525.6	1524.6
37.5°	1373.7	1393.7	1441.1	1450.8	1441.9
40°	1306.0	1326.0	1368.9	1379.3	1375.0
42.5°	1256.0	1259.6	1296.3	1308.3	1289.2
45°	1169.0	1190.8	1210.6	1241.8	1212.4
47.5°	1095.0	1105.1	1147.7	1156.1	1140.6
50°	1027.8	1031.3	1074.2	1063.8	1053.7
52.5°	943.3	958.3	982.4	980.4	968.5
55°	873.9	868.0	890.9	884.8	884.5
57.5°	790.4	800.6	819.3	809.7	794.2
60°	712.3	712.6	719.4	708.5	706.5
62.5°	625.3	628.4	629.9	616.5	638.3
65°	536.8	529.7	550.5	529.5	533.0
67.5°	455.4	459.0	457.0	443.8	448.8
70°	372.8	377.3	374.0	359.1	363.6
72.5°	297.2	291.6	295.2	276.4	285.0
75°	223.4	218.8	222.9	207.2	214.3
77.5°	152.2	155.7	153.2	144.8	149.6
80°	100.4	97.6	97.6	92.8	93.8
82.5°	58.6	55.8	55.0	53.5	55.8
85°	27.4	26.6	27.1	26.4	25.4
87.5°	9.9	10.1	10.1	9.6	9.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)