

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: P589729

Luminaire Tested: **FMR-24-2-LD4-4LO-50-UNV-81-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589729
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-81-88-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

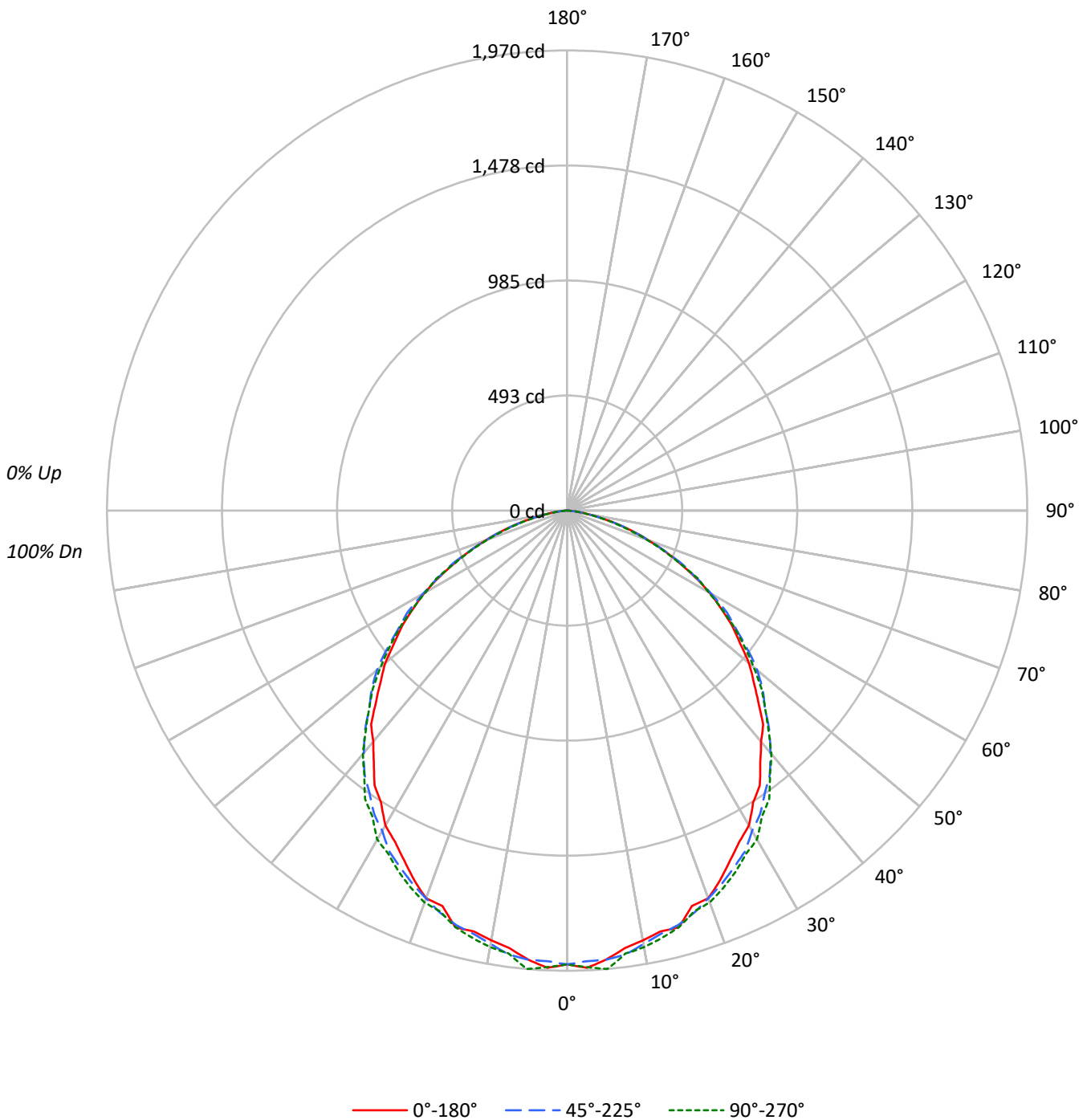
Lumens per Lamp: N/A
Luminaire Lumens: 4896.0 lumens
Efficiency: N/A
Efficacy: 104.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P589729

CATALOG NUMBER: FMR-24-2-LD4-4LO-50-UNV-81-88-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589729

CATALOG NUMBER: FMR-24-2-LD4-4LO-50-UNV-81-88-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°	5227	5227	5227
5°	5210	5212	5322
10°	5105	5149	5185
15°	5145	5117	5146
20°	5058	5058	5112
25°	4903	5010	5065
30°	4835	4920	5051
35°	4721	4845	4954
40°	4538	4756	4777
45°	4400	4557	4564
50°	4256	4448	4363
55°	4055	4134	4105
60°	3792	3830	3761
65°	3381	3467	3357
70°	2901	2911	2830
75°	2298	2293	2203
80°	1539	1497	1438
85°	837	827	775



TEST NUMBER: P589729

CATALOG NUMBER: FMR-24-2-LD4-4LO-50-UNV-81-88-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	182.7	3.7
10°-20°	517.9	10.6
20°-30°	775.9	15.8
30°-40°	919.6	18.8
40°-50°	921.3	18.8
50°-60°	782.0	16.0
60°-70°	527.2	10.8
70°-80°	231.7	4.7
80°-90°	37.6	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°	1476.5	30.2
0°-40°	2396.1	48.9
0°-60°	4099.4	83.7
0°-90°	4896.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4896.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1943	1943	1943	1943	1943	
5°	1929	1924	1930	1924	1970	182
15°	1847	1826	1837	1846	1847	515
25°	1651	1660	1687	1709	1706	763
35°	1437	1442	1475	1509	1508	892
45°	1156	1178	1197	1228	1199	894
55°	864	859	881	875	875	769
65°	531	524	544	524	527	528
75°	221	216	220	205	212	237
85°	27	26	27	26	25	39
90°	0	0	0	0	0	



TEST NUMBER: P589729

CATALOG NUMBER: FMR-24-2-LD4-4LO-50-UNV-81-88-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1942.6	1942.6	1942.6	1942.6	1942.6
2.5°	1959.4	1944.6	1930.8	1946.9	1956.7
5°	1928.8	1924.3	1929.6	1923.8	1970.2
7.5°	1889.2	1906.5	1916.5	1910.3	1913.0
10°	1868.1	1862.1	1884.4	1900.0	1897.7
12.5°	1845.5	1854.6	1855.8	1872.6	1874.1
15°	1846.8	1825.5	1836.8	1846.3	1847.0
17.5°	1775.1	1798.1	1805.9	1827.7	1800.6
20°	1766.3	1749.5	1766.3	1788.6	1785.1
22.5°	1712.4	1693.5	1729.7	1749.5	1748.2
25°	1651.2	1660.2	1687.3	1709.3	1705.8
27.5°	1597.5	1608.0	1646.6	1677.0	1657.4
30°	1556.1	1550.8	1583.4	1610.5	1625.6
32.5°	1482.1	1501.2	1539.3	1566.1	1551.8
35°	1437.2	1441.5	1474.8	1508.9	1507.9
37.5°	1358.7	1378.5	1425.4	1434.9	1426.2
40°	1291.7	1311.5	1353.9	1364.2	1360.0
42.5°	1242.3	1245.8	1282.2	1294.0	1275.2
45°	1156.3	1177.9	1197.4	1228.3	1199.2
47.5°	1083.0	1093.1	1135.2	1143.5	1128.2
50°	1016.6	1020.1	1062.5	1052.2	1042.2
52.5°	933.1	947.9	971.7	969.7	957.9
55°	864.3	858.6	881.1	875.1	874.9
57.5°	781.8	791.8	810.4	800.9	785.6
60°	704.6	704.8	711.6	700.8	698.8
62.5°	618.5	621.5	623.0	609.7	631.3
65°	531.0	524.0	544.5	523.7	527.2
67.5°	450.5	454.0	452.0	438.9	444.0
70°	368.7	373.2	370.0	355.2	359.7
72.5°	294.0	288.4	292.0	273.4	281.9
75°	221.0	216.5	220.5	204.9	211.9
77.5°	150.5	154.0	151.5	143.2	148.0
80°	99.3	96.6	96.6	91.8	92.8
82.5°	57.9	55.2	54.4	52.9	55.2
85°	27.1	26.3	26.8	26.1	25.1
87.5°	9.8	10.0	10.0	9.5	9.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)