

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: P589489

Luminaire Tested: **FMR-24-2-LD4-3STD-35-UNV-93-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589489
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-LD4-3STD-35-UNV-93-88-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

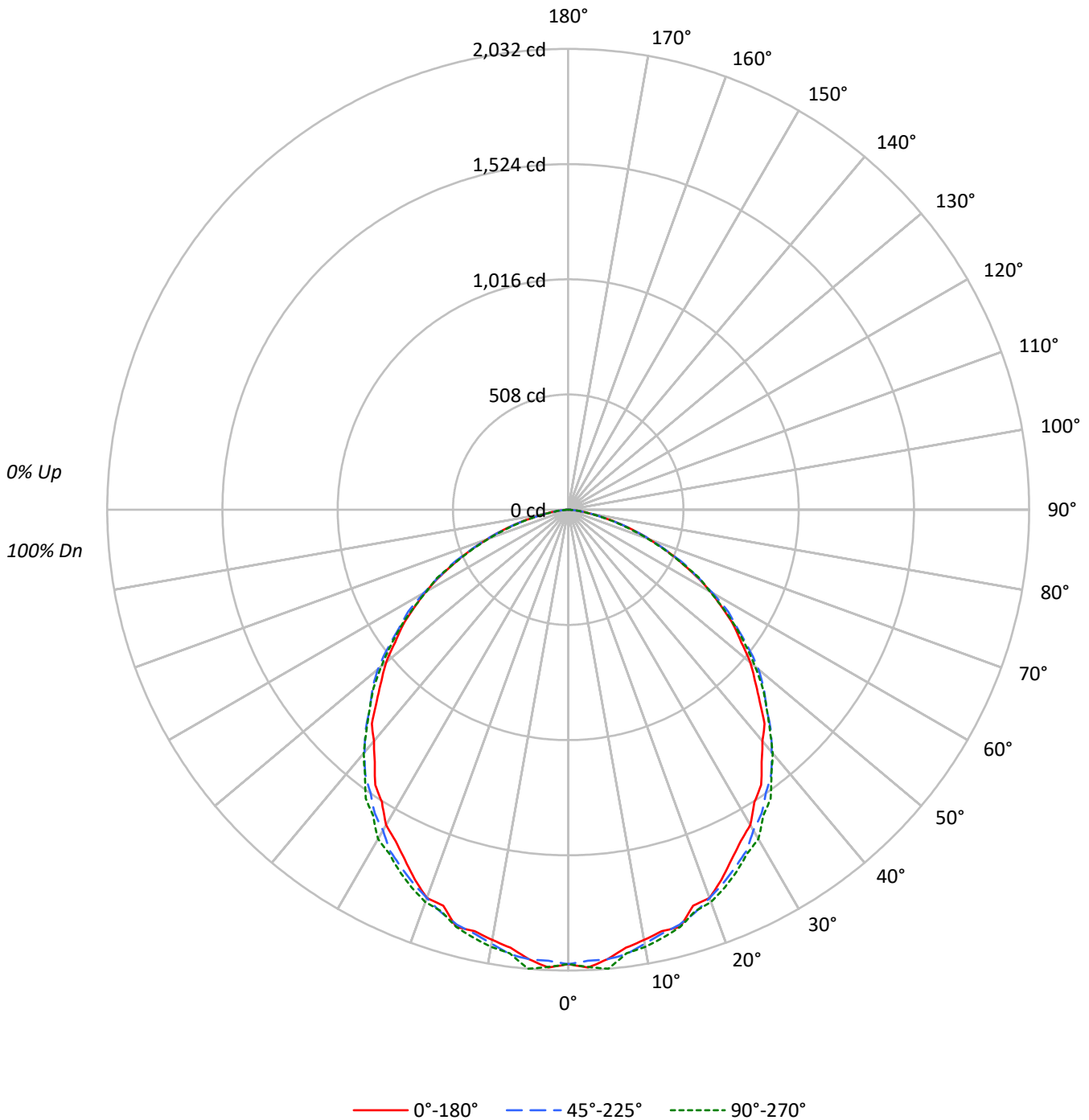
Lumens per Lamp: N/A
Luminaire Lumens: 5049.0 lumens
Efficiency: N/A
Efficacy: 101.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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: P589489

CATALOG NUMBER: FMR-24-2-LD4-3STD-35-UNV-93-88-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589489

CATALOG NUMBER: FMR-24-2-LD4-3STD-35-UNV-93-88-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°	5391	5391	5391
5°	5373	5375	5488
10°	5264	5310	5347
15°	5306	5277	5307
20°	5216	5216	5272
25°	5056	5166	5223
30°	4986	5074	5209
35°	4869	4996	5109
40°	4679	4905	4927
45°	4538	4699	4706
50°	4389	4587	4499
55°	4182	4263	4233
60°	3911	3949	3878
65°	3487	3575	3462
70°	2991	3002	2918
75°	2370	2364	2273
80°	1587	1543	1483
85°	861	855	800



TEST NUMBER: P589489

CATALOG NUMBER: FMR-24-2-LD4-3STD-35-UNV-93-88-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.4	3.7
10°-20°	534.1	10.6
20°-30°	800.2	15.8
30°-40°	948.3	18.8
40°-50°	950.1	18.8
50°-60°	806.5	16.0
60°-70°	543.7	10.8
70°-80°	238.9	4.7
80°-90°	38.8	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°	1522.7	30.2
0°-40°	2471.0	48.9
0°-60°	4227.5	83.7
0°-90°	5049.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5049.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2003	2003	2003	2003	2003	
5°	1989	1984	1990	1984	2032	188
15°	1904	1882	1894	1904	1905	531
25°	1703	1712	1740	1763	1759	787
35°	1482	1486	1521	1556	1555	920
45°	1192	1215	1235	1267	1237	922
55°	891	885	909	902	902	793
65°	548	540	562	540	544	545
75°	228	223	227	211	219	244
85°	28	27	28	27	26	41
90°	0	0	0	0	0	



TEST NUMBER: P589489

CATALOG NUMBER: FMR-24-2-LD4-3STD-35-UNV-93-88-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2003.3	2003.3	2003.3	2003.3	2003.3
2.5°	2020.6	2005.4	1991.2	2007.7	2017.8
5°	1989.1	1984.4	1989.9	1983.9	2031.8
7.5°	1948.2	1966.1	1976.4	1969.9	1972.8
10°	1926.5	1920.3	1943.3	1959.3	1957.0
12.5°	1903.2	1912.5	1913.8	1931.1	1932.7
15°	1904.5	1882.5	1894.2	1904.0	1904.8
17.5°	1830.5	1854.3	1862.3	1884.8	1856.9
20°	1821.5	1804.1	1821.5	1844.5	1840.9
22.5°	1765.9	1746.5	1783.7	1804.1	1802.9
25°	1702.8	1712.1	1740.0	1762.8	1759.1
27.5°	1647.4	1658.3	1698.1	1729.4	1709.2
30°	1604.7	1599.3	1632.9	1660.9	1676.4
32.5°	1528.4	1548.1	1587.4	1615.1	1600.3
35°	1482.1	1486.5	1520.9	1556.1	1555.1
37.5°	1401.2	1421.6	1470.0	1479.8	1470.7
40°	1332.1	1352.5	1396.2	1406.8	1402.5
42.5°	1281.1	1284.8	1322.3	1334.4	1315.0
45°	1192.4	1214.7	1234.8	1266.7	1236.6
47.5°	1116.9	1127.2	1170.7	1179.2	1163.4
50°	1048.3	1052.0	1095.7	1085.1	1074.7
52.5°	962.2	977.5	1002.0	1000.0	987.8
55°	891.3	885.4	908.7	902.5	902.2
57.5°	806.2	816.6	835.7	825.9	810.1
60°	726.6	726.8	733.8	722.7	720.6
62.5°	637.9	641.0	642.5	628.8	651.0
65°	547.6	540.3	561.5	540.1	543.7
67.5°	464.6	468.2	466.1	452.7	457.8
70°	380.2	384.9	381.5	366.3	370.9
72.5°	303.1	297.5	301.1	281.9	290.7
75°	227.9	223.2	227.4	211.3	218.6
77.5°	155.2	158.8	156.2	147.7	152.6
80°	102.4	99.6	99.6	94.7	95.7
82.5°	59.8	56.9	56.1	54.6	56.9
85°	27.9	27.2	27.7	26.9	25.9
87.5°	10.1	10.3	10.3	9.8	9.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)