

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: P589553

Luminaire Tested: **FMR-24-2-LD4-3STD-50-UNV-93-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589553
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-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

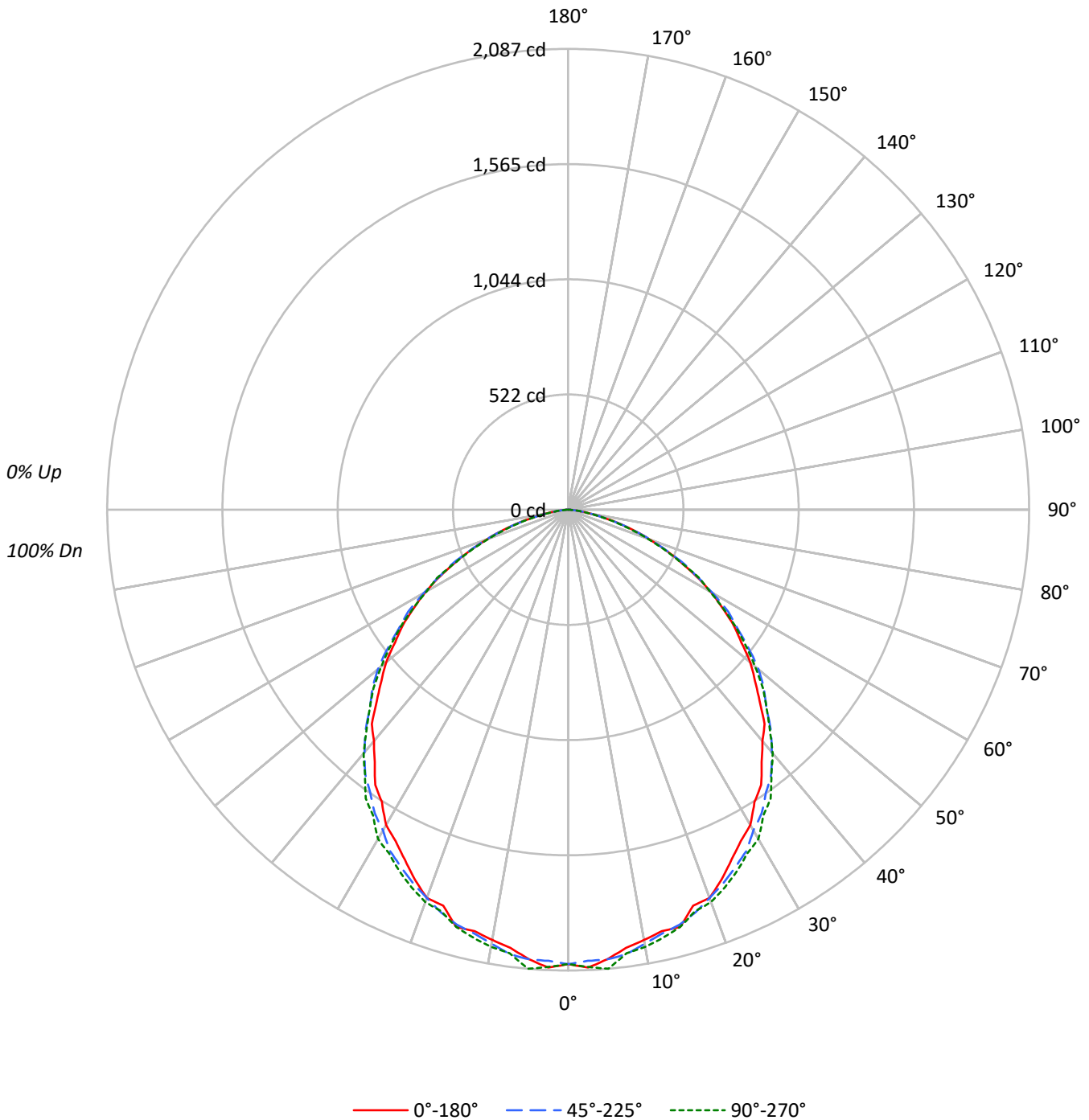
Lumens per Lamp: N/A
Luminaire Lumens: 5186.0 lumens
Efficiency: N/A
Efficacy: 103.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

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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°	5537	5537	5537
5°	5519	5521	5637
10°	5407	5454	5493
15°	5450	5420	5451
20°	5358	5358	5415
25°	5193	5306	5365
30°	5122	5212	5350
35°	5001	5132	5247
40°	4806	5038	5060
45°	4661	4827	4834
50°	4508	4711	4621
55°	4295	4379	4348
60°	4017	4056	3984
65°	3581	3673	3556
70°	3072	3083	2998
75°	2434	2428	2334
80°	1630	1585	1523
85°	886	877	821



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.6	3.7
10°-20°	548.6	10.6
20°-30°	821.9	15.8
30°-40°	974.1	18.8
40°-50°	975.9	18.8
50°-60°	828.3	16.0
60°-70°	558.5	10.8
70°-80°	245.4	4.7
80°-90°	39.9	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°	1564.0	30.2
0°-40°	2538.0	48.9
0°-60°	4342.2	83.7
0°-90°	5186.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5186.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2058	2058	2058	2058	2058	
5°	2043	2038	2044	2038	2087	193
15°	1956	1934	1946	1956	1956	545
25°	1749	1758	1787	1811	1807	809
35°	1522	1527	1562	1598	1597	945
45°	1225	1248	1268	1301	1270	947
55°	916	909	933	927	927	814
65°	562	555	577	555	558	559
75°	234	229	234	217	224	251
85°	29	28	28	28	27	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2057.7	2057.7	2057.7	2057.7	2057.7
2.5°	2075.5	2059.8	2045.2	2062.2	2072.6
5°	2043.1	2038.3	2043.9	2037.7	2086.9
7.5°	2001.1	2019.4	2030.0	2023.4	2026.3
10°	1978.8	1972.4	1996.0	2012.5	2010.1
12.5°	1954.9	1964.4	1965.7	1983.5	1985.1
15°	1956.2	1933.6	1945.6	1955.7	1956.5
17.5°	1880.2	1904.6	1912.9	1936.0	1907.3
20°	1870.9	1853.1	1870.9	1894.5	1890.8
22.5°	1813.8	1793.9	1832.1	1853.1	1851.8
25°	1749.0	1758.5	1787.2	1810.6	1806.9
27.5°	1692.1	1703.3	1744.2	1776.3	1755.6
30°	1648.3	1642.7	1677.2	1705.9	1721.9
32.5°	1569.9	1590.1	1630.5	1658.9	1643.7
35°	1522.3	1526.8	1562.2	1598.3	1597.3
37.5°	1439.2	1460.2	1509.8	1519.9	1510.6
40°	1368.2	1389.2	1434.1	1445.0	1440.5
42.5°	1315.9	1319.6	1358.1	1370.6	1350.7
45°	1224.8	1247.6	1268.3	1301.0	1270.2
47.5°	1147.2	1157.8	1202.5	1211.2	1195.0
50°	1076.8	1080.5	1125.4	1114.5	1103.9
52.5°	988.3	1004.0	1029.2	1027.1	1014.6
55°	915.5	909.4	933.3	926.9	926.7
57.5°	828.1	838.7	858.4	848.3	832.1
60°	746.3	746.6	753.7	742.3	740.2
62.5°	655.2	658.3	659.9	645.9	668.7
65°	562.4	555.0	576.8	554.7	558.5
67.5°	477.2	480.9	478.8	464.9	470.2
70°	390.5	395.3	391.9	376.2	381.0
72.5°	311.4	305.5	309.2	289.6	298.6
75°	234.1	229.3	233.5	217.1	224.5
77.5°	159.4	163.1	160.5	151.7	156.7
80°	105.2	102.3	102.3	97.2	98.3
82.5°	61.4	58.4	57.7	56.1	58.4
85°	28.7	27.9	28.4	27.6	26.6
87.5°	10.4	10.6	10.6	10.1	9.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)