

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: P589529

Luminaire Tested: **FMR-24-2-LD4-3STD-50-UNV-80-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589529
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-80-88-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

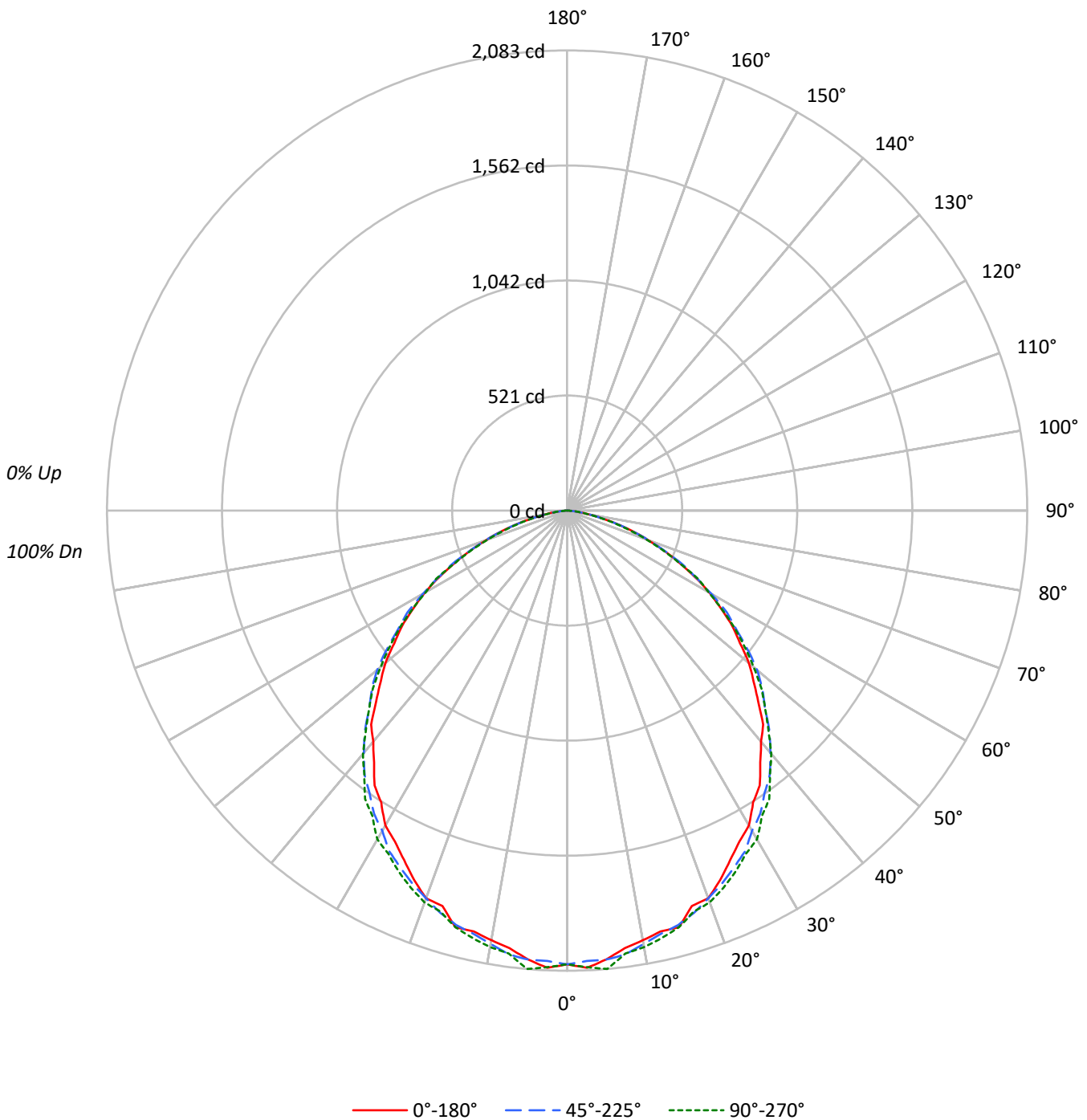
Lumens per Lamp: N/A
Luminaire Lumens: 5176.0 lumens
Efficiency: N/A
Efficacy: 103.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	5526	5526	5526
5°	5508	5510	5626
10°	5397	5444	5482
15°	5439	5410	5440
20°	5347	5347	5404
25°	5183	5296	5355
30°	5112	5202	5340
35°	4991	5122	5237
40°	4797	5028	5050
45°	4652	4818	4825
50°	4499	4702	4613
55°	4287	4370	4339
60°	4008	4049	3976
65°	3575	3666	3549
70°	3067	3077	2991
75°	2429	2424	2330
80°	1627	1582	1520
85°	883	877	818



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.2	3.7
10°-20°	547.5	10.6
20°-30°	820.3	15.8
30°-40°	972.2	18.8
40°-50°	974.0	18.8
50°-60°	826.8	16.0
60°-70°	557.4	10.8
70°-80°	244.9	4.7
80°-90°	39.8	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°	1561.0	30.2
0°-40°	2533.1	48.9
0°-60°	4333.9	83.7
0°-90°	5176.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5176.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2054	2054	2054	2054	2054	
5°	2039	2034	2040	2034	2083	192
15°	1952	1930	1942	1952	1953	544
25°	1746	1755	1784	1807	1803	807
35°	1519	1524	1559	1595	1594	943
45°	1222	1245	1266	1298	1268	946
55°	914	908	932	925	925	813
65°	561	554	576	554	557	558
75°	234	229	233	217	224	250
85°	29	28	28	28	26	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2053.7	2053.7	2053.7	2053.7	2053.7
2.5°	2071.5	2055.8	2041.2	2058.2	2068.6
5°	2039.1	2034.3	2039.9	2033.8	2082.9
7.5°	1997.2	2015.5	2026.1	2019.5	2022.4
10°	1975.0	1968.6	1992.2	2008.6	2006.2
12.5°	1951.1	1960.6	1962.0	1979.7	1981.3
15°	1952.4	1929.9	1941.8	1951.9	1952.7
17.5°	1876.6	1901.0	1909.2	1932.3	1903.6
20°	1867.3	1849.5	1867.3	1890.9	1887.2
22.5°	1810.3	1790.4	1828.6	1849.5	1848.2
25°	1745.6	1755.1	1783.8	1807.1	1803.4
27.5°	1688.8	1700.0	1740.8	1772.9	1752.2
30°	1645.1	1639.5	1674.0	1702.6	1718.5
32.5°	1566.9	1587.0	1627.3	1655.7	1640.6
35°	1519.4	1523.9	1559.2	1595.2	1594.2
37.5°	1436.4	1457.3	1506.9	1517.0	1507.7
40°	1365.6	1386.5	1431.4	1442.2	1437.7
42.5°	1313.4	1317.1	1355.5	1368.0	1348.1
45°	1222.4	1245.2	1265.9	1298.5	1267.8
47.5°	1145.0	1155.6	1200.1	1208.9	1192.7
50°	1074.7	1078.4	1123.2	1112.4	1101.8
52.5°	986.4	1002.1	1027.3	1025.1	1012.7
55°	913.8	907.7	931.5	925.2	924.9
57.5°	826.5	837.1	856.7	846.7	830.5
60°	744.8	745.1	752.3	740.9	738.8
62.5°	653.9	657.1	658.7	644.6	667.4
65°	561.4	553.9	575.7	553.7	557.4
67.5°	476.2	479.9	477.8	464.0	469.3
70°	389.8	394.6	391.1	375.5	380.2
72.5°	310.8	304.9	308.7	289.0	298.0
75°	233.6	228.8	233.1	216.6	224.1
77.5°	159.1	162.8	160.2	151.4	156.4
80°	105.0	102.1	102.1	97.1	98.1
82.5°	61.3	58.3	57.5	55.9	58.3
85°	28.6	27.8	28.4	27.6	26.5
87.5°	10.3	10.6	10.6	10.1	9.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)