

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: P589554

Luminaire Tested: **FMR-24-2-LD4-3STD-50-UNV-93-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589554
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-93-94-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

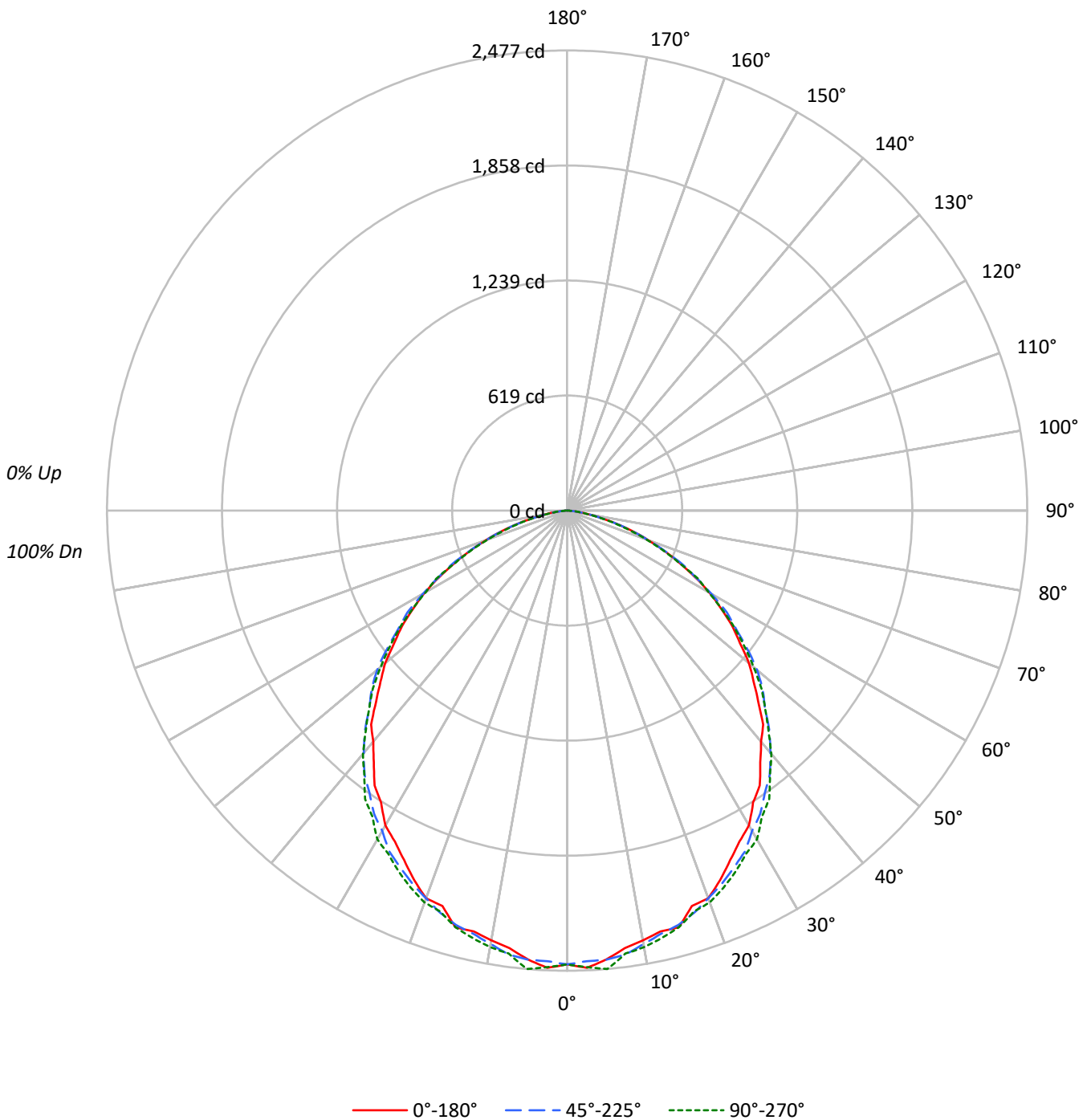
Lumens per Lamp: N/A
Luminaire Lumens: 6156.0 lumens
Efficiency: N/A
Efficacy: 123.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
Input Voltage (V): NR
Input Current (A_{in}): 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°	6573	6573	6573
5°	6551	6554	6692
10°	6418	6474	6520
15°	6469	6434	6470
20°	6360	6360	6428
25°	6164	6299	6368
30°	6080	6186	6351
35°	5936	6092	6229
40°	5706	5980	6007
45°	5533	5730	5738
50°	5351	5593	5486
55°	5099	5198	5161
60°	4768	4815	4729
65°	4251	4360	4221
70°	3648	3660	3558
75°	2888	2882	2771
80°	1936	1881	1808
85°	1053	1041	973



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	229.8	3.7
10°-20°	651.2	10.6
20°-30°	975.6	15.8
30°-40°	1156.3	18.8
40°-50°	1158.4	18.8
50°-60°	983.3	16.0
60°-70°	662.9	10.8
70°-80°	291.3	4.7
80°-90°	47.3	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°	1856.5	30.2
0°-40°	3012.8	48.9
0°-60°	5154.4	83.7
0°-90°	6156.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6156.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2442	2442	2442	2442	2442	
5°	2425	2420	2426	2419	2477	229
15°	2322	2295	2310	2321	2322	647
25°	2076	2087	2122	2149	2145	960
35°	1807	1812	1854	1897	1896	1122
45°	1454	1481	1506	1544	1508	1125
55°	1087	1080	1108	1100	1100	967
65°	668	659	685	658	663	664
75°	278	272	277	258	266	298
85°	34	33	34	33	32	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2442.5	2442.5	2442.5	2442.5	2442.5
2.5°	2463.7	2445.1	2427.7	2447.9	2460.2
5°	2425.2	2419.5	2426.1	2418.9	2477.2
7.5°	2375.4	2397.1	2409.7	2401.9	2405.3
10°	2348.9	2341.3	2369.4	2388.9	2386.1
12.5°	2320.5	2331.9	2333.4	2354.6	2356.4
15°	2322.1	2295.3	2309.5	2321.4	2322.4
17.5°	2231.9	2260.9	2270.7	2298.1	2264.0
20°	2220.8	2199.7	2220.8	2248.9	2244.5
22.5°	2153.0	2129.4	2174.8	2199.7	2198.1
25°	2076.1	2087.4	2121.5	2149.3	2144.8
27.5°	2008.6	2021.8	2070.4	2108.6	2084.0
30°	1956.6	1949.9	1990.9	2025.0	2043.9
32.5°	1863.5	1887.5	1935.4	1969.2	1951.2
35°	1807.1	1812.4	1854.4	1897.3	1896.0
37.5°	1708.4	1733.3	1792.3	1804.2	1793.2
40°	1624.2	1649.1	1702.4	1715.3	1709.9
42.5°	1562.0	1566.4	1612.2	1627.0	1603.3
45°	1453.9	1481.0	1505.6	1544.4	1507.8
47.5°	1361.8	1374.4	1427.4	1437.8	1418.5
50°	1278.2	1282.6	1335.9	1323.0	1310.4
52.5°	1173.2	1191.8	1221.7	1219.2	1204.4
55°	1086.8	1079.5	1107.9	1100.3	1100.0
57.5°	983.0	995.6	1019.0	1007.0	987.7
60°	885.9	886.2	894.7	881.1	878.6
62.5°	777.7	781.5	783.4	766.7	793.8
65°	667.6	658.8	684.7	658.5	662.9
67.5°	566.4	570.8	568.3	551.9	558.2
70°	463.6	469.3	465.2	446.6	452.2
72.5°	369.6	362.7	367.1	343.8	354.5
75°	277.8	272.2	277.2	257.7	266.5
77.5°	189.2	193.6	190.5	180.1	186.1
80°	124.9	121.4	121.4	115.4	116.7
82.5°	72.9	69.4	68.4	66.5	69.4
85°	34.1	33.1	33.7	32.8	31.5
87.5°	12.3	12.6	12.6	12.0	11.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)