

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: P589517

Luminaire Tested: **FMR-24-2-LD4-3STD-40-UNV-93-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589517
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-40-UNV-93-84-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

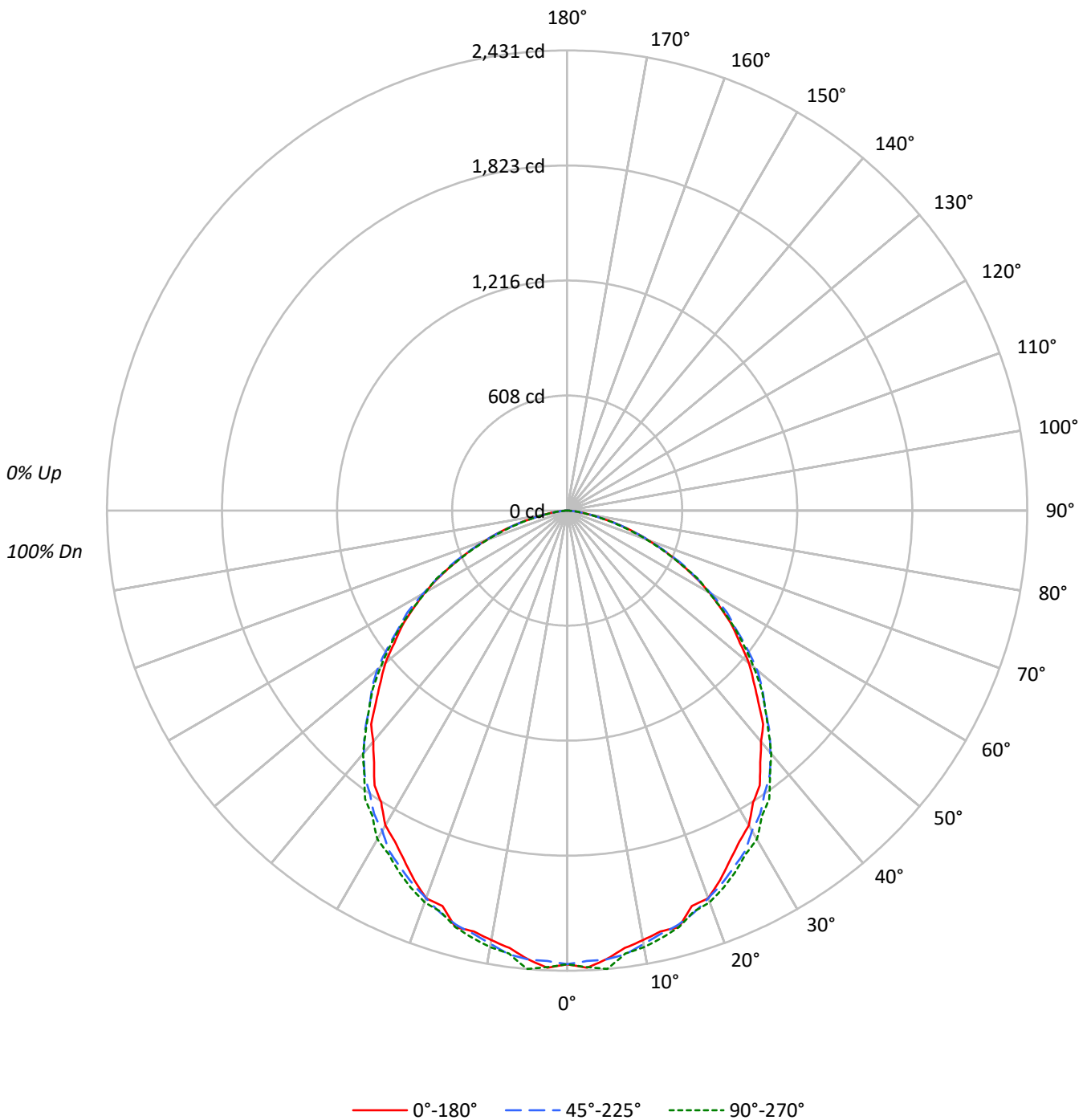
Lumens per Lamp: N/A
Luminaire Lumens: 6040.0 lumens
Efficiency: N/A
Efficacy: 120.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	6449	6449	6449
5°	6428	6430	6566
10°	6297	6352	6397
15°	6347	6313	6348
20°	6240	6240	6306
25°	6048	6180	6248
30°	5965	6070	6231
35°	5824	5977	6111
40°	5598	5867	5893
45°	5429	5622	5630
50°	5250	5487	5382
55°	5003	5100	5064
60°	4678	4724	4640
65°	4171	4278	4141
70°	3579	3591	3491
75°	2834	2828	2719
80°	1898	1846	1774
85°	1031	1022	954



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	225.4	3.7
10°-20°	638.9	10.6
20°-30°	957.2	15.8
30°-40°	1134.5	18.8
40°-50°	1136.6	18.8
50°-60°	964.8	16.0
60°-70°	650.4	10.8
70°-80°	285.8	4.7
80°-90°	46.4	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°	1821.5	30.2
0°-40°	2956.0	48.9
0°-60°	5057.3	83.7
0°-90°	6040.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6040.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2396	2396	2396	2396	2396	
5°	2380	2374	2380	2373	2431	224
15°	2278	2252	2266	2278	2279	635
25°	2037	2048	2082	2109	2104	942
35°	1773	1778	1819	1862	1860	1101
45°	1426	1453	1477	1515	1479	1103
55°	1066	1059	1087	1080	1079	949
65°	655	646	672	646	650	651
75°	273	267	272	253	262	292
85°	33	32	33	32	31	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2396.5	2396.5	2396.5	2396.5	2396.5
2.5°	2417.3	2399.0	2382.0	2401.8	2413.8
5°	2379.5	2373.9	2380.4	2373.3	2430.6
7.5°	2330.6	2352.0	2364.3	2356.6	2360.0
10°	2304.6	2297.2	2324.7	2343.9	2341.1
12.5°	2276.8	2287.9	2289.5	2310.2	2312.0
15°	2278.3	2252.0	2265.9	2277.7	2278.6
17.5°	2189.8	2218.3	2227.9	2254.8	2221.4
20°	2179.0	2158.3	2179.0	2206.5	2202.2
22.5°	2112.5	2089.3	2133.8	2158.3	2156.7
25°	2037.0	2048.1	2081.5	2108.8	2104.4
27.5°	1970.7	1983.7	2031.4	2068.8	2044.7
30°	1919.7	1913.2	1953.4	1986.8	2005.4
32.5°	1828.4	1851.9	1899.0	1932.1	1914.4
35°	1773.0	1778.3	1819.4	1861.5	1860.3
37.5°	1676.2	1700.6	1758.5	1770.2	1759.4
40°	1593.6	1618.0	1670.3	1683.0	1677.7
42.5°	1532.6	1536.9	1581.8	1596.3	1573.1
45°	1426.5	1453.1	1477.2	1515.3	1479.4
47.5°	1336.1	1348.5	1400.5	1410.7	1391.8
50°	1254.1	1258.4	1310.7	1298.1	1285.7
52.5°	1151.1	1169.3	1198.7	1196.2	1181.7
55°	1066.3	1059.2	1087.0	1079.6	1079.3
57.5°	964.5	976.9	999.8	988.0	969.1
60°	869.2	869.5	877.8	864.5	862.1
62.5°	763.0	766.8	768.6	752.2	778.8
65°	655.1	646.4	671.8	646.1	650.4
67.5°	555.7	560.1	557.6	541.5	547.7
70°	454.9	460.4	456.4	438.1	443.7
72.5°	362.6	355.8	360.2	337.3	347.8
75°	272.6	267.0	272.0	252.8	261.5
77.5°	185.7	190.0	186.9	176.7	182.6
80°	122.5	119.1	119.1	113.3	114.5
82.5°	71.5	68.1	67.1	65.3	68.1
85°	33.4	32.5	33.1	32.2	30.9
87.5°	12.1	12.4	12.4	11.8	11.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)