

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: P589523

Luminaire Tested: **FMR-24-2-LD4-3STD-40-UNV-93-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589523
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-93-96-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

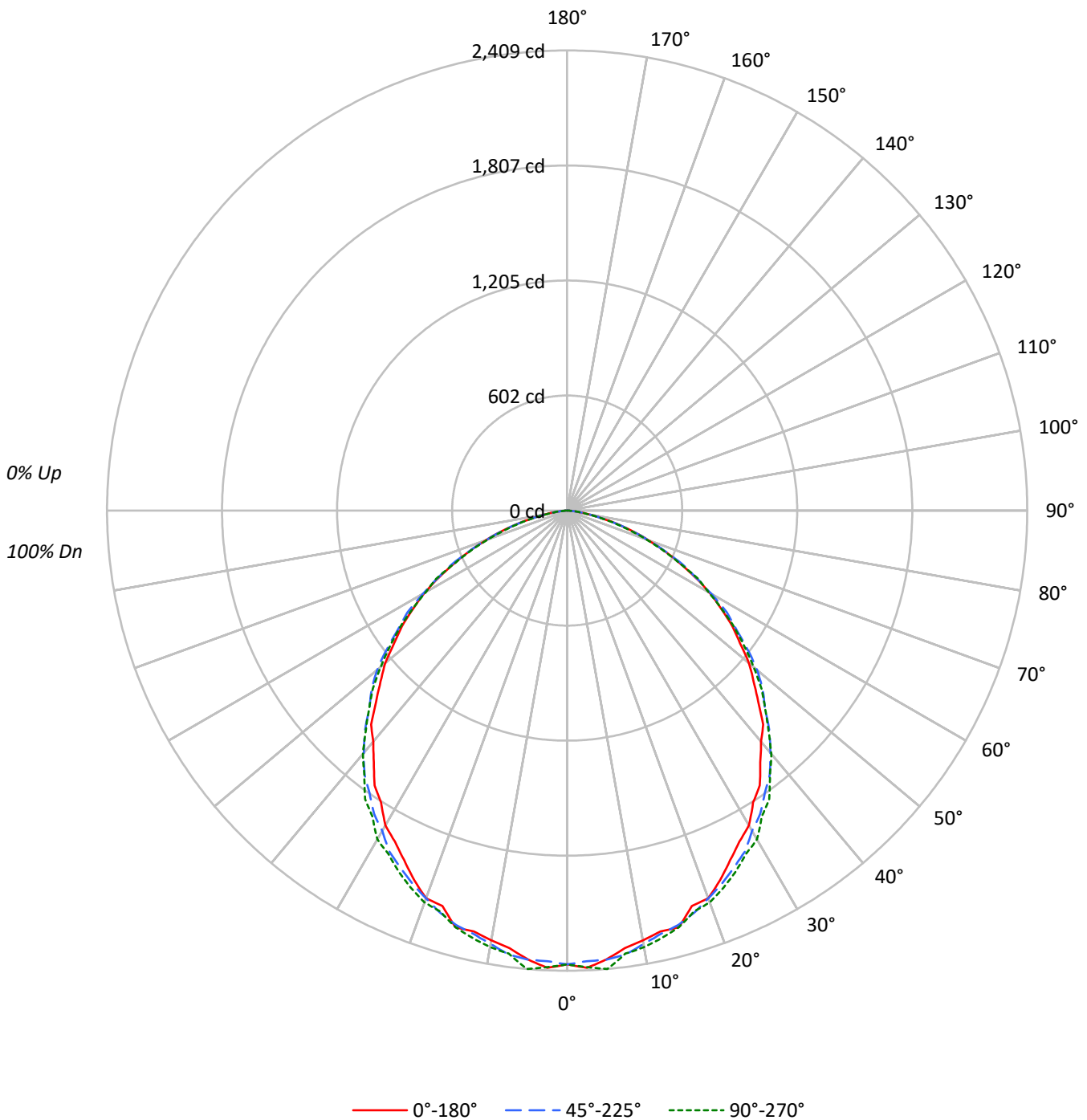
Lumens per Lamp: N/A
Luminaire Lumens: 5987.0 lumens
Efficiency: N/A
Efficacy: 119.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	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					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°	6392	6392	6392
5°	6371	6374	6508
10°	6242	6296	6341
15°	6291	6257	6292
20°	6185	6185	6251
25°	5995	6126	6194
30°	5913	6017	6177
35°	5774	5925	6058
40°	5549	5816	5842
45°	5381	5572	5581
50°	5204	5439	5335
55°	4959	5055	5019
60°	4637	4683	4599
65°	4134	4240	4105
70°	3548	3559	3460
75°	2809	2803	2695
80°	1883	1830	1759
85°	1022	1013	948



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	223.4	3.7
10°-20°	633.3	10.6
20°-30°	948.8	15.8
30°-40°	1124.5	18.8
40°-50°	1126.6	18.8
50°-60°	956.3	16.0
60°-70°	644.7	10.8
70°-80°	283.3	4.7
80°-90°	46.1	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°	1805.5	30.2
0°-40°	2930.0	48.9
0°-60°	5012.9	83.7
0°-90°	5987.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5987.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2376	2376	2376	2376	2376	
5°	2359	2353	2360	2352	2409	222
15°	2258	2232	2246	2258	2259	629
25°	2019	2030	2063	2090	2086	933
35°	1758	1763	1804	1845	1844	1091
45°	1414	1440	1464	1502	1466	1094
55°	1057	1050	1078	1070	1070	940
65°	649	641	666	640	645	646
75°	270	265	270	251	259	290
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°	2375.5	2375.5	2375.5	2375.5	2375.5
2.5°	2396.0	2377.9	2361.1	2380.7	2392.7
5°	2358.6	2353.1	2359.5	2352.5	2409.2
7.5°	2310.2	2331.3	2343.6	2335.9	2339.3
10°	2284.4	2277.0	2304.3	2323.3	2320.6
12.5°	2256.8	2267.8	2269.4	2289.9	2291.8
15°	2258.3	2232.3	2246.1	2257.7	2258.6
17.5°	2170.6	2198.8	2208.3	2235.0	2201.9
20°	2159.9	2139.3	2159.9	2187.2	2182.9
22.5°	2093.9	2070.9	2115.1	2139.3	2137.8
25°	2019.1	2030.1	2063.3	2090.2	2086.0
27.5°	1953.5	1966.3	2013.6	2050.7	2026.8
30°	1902.8	1896.4	1936.3	1969.4	1987.8
32.5°	1812.4	1835.7	1882.3	1915.1	1897.6
35°	1757.5	1762.7	1803.5	1845.2	1844.0
37.5°	1661.5	1685.7	1743.0	1754.7	1744.0
40°	1579.6	1603.8	1655.6	1668.2	1663.0
42.5°	1519.1	1523.4	1567.9	1582.3	1559.3
45°	1413.9	1440.3	1464.2	1502.0	1466.4
47.5°	1324.4	1336.7	1388.2	1398.3	1379.6
50°	1243.1	1247.4	1299.2	1286.7	1274.4
52.5°	1141.0	1159.1	1188.2	1185.8	1171.3
55°	1056.9	1049.9	1077.5	1070.1	1069.8
57.5°	956.0	968.3	991.0	979.3	960.6
60°	861.6	861.9	870.1	857.0	854.5
62.5°	756.4	760.0	761.9	745.6	772.0
65°	649.3	640.7	665.9	640.4	644.7
67.5°	550.9	555.2	552.7	536.7	542.9
70°	450.9	456.4	452.4	434.3	439.8
72.5°	359.5	352.7	357.0	334.3	344.7
75°	270.2	264.7	269.6	250.6	259.2
77.5°	184.0	188.3	185.3	175.1	181.0
80°	121.5	118.1	118.1	112.3	113.5
82.5°	70.9	67.5	66.6	64.7	67.5
85°	33.1	32.2	32.8	31.9	30.7
87.5°	12.0	12.3	12.3	11.7	11.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)