

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: P589491

Luminaire Tested: **FMR-24-2-LD4-3STD-35-UNV-93-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589491
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-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

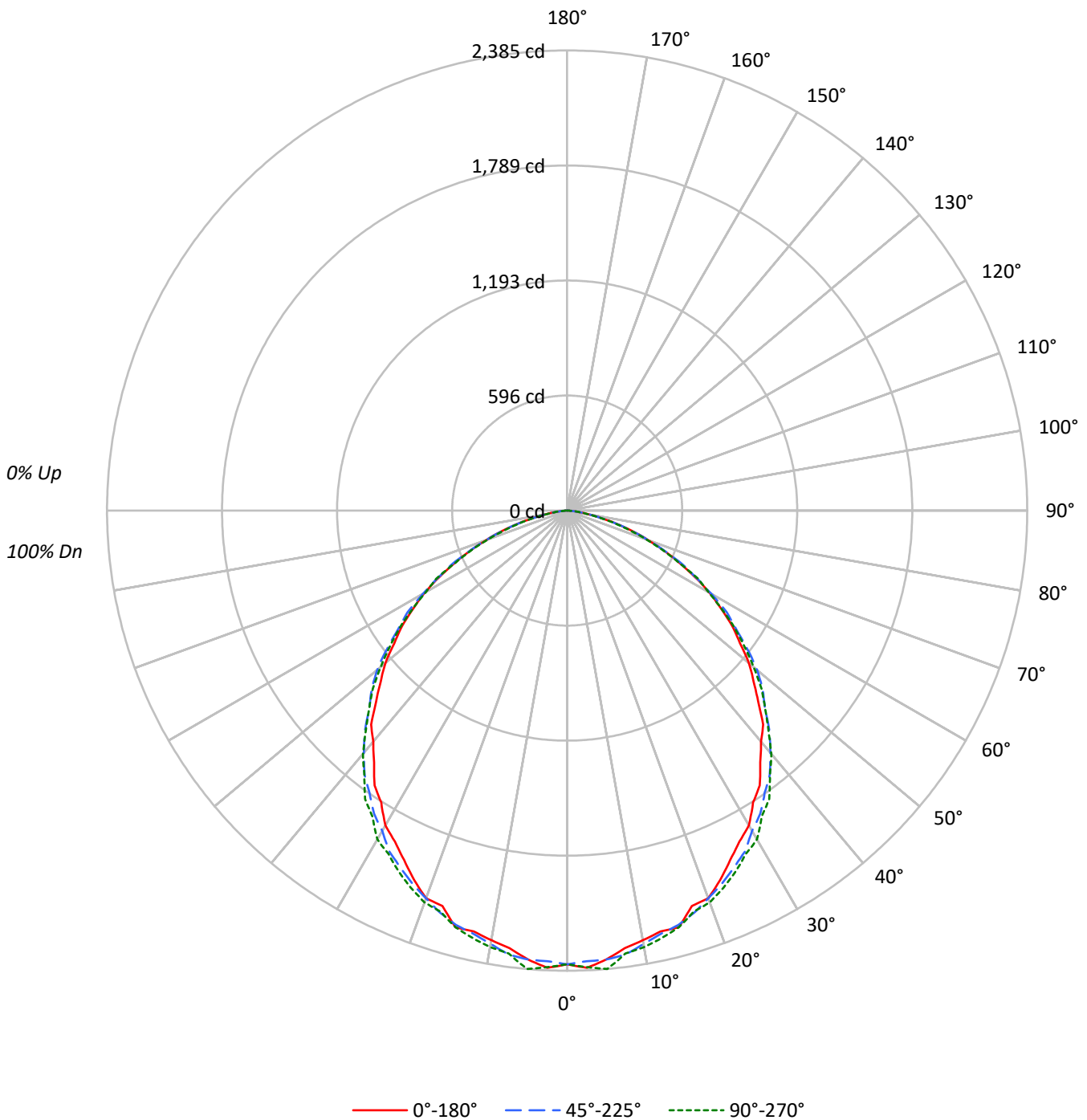
Lumens per Lamp: N/A
Luminaire Lumens: 5927.0 lumens
Efficiency: N/A
Efficacy: 118.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	6328	6328	6328
5°	6307	6310	6443
10°	6180	6233	6277
15°	6228	6194	6229
20°	6123	6123	6188
25°	5935	6065	6131
30°	5853	5956	6115
35°	5716	5865	5997
40°	5493	5758	5783
45°	5327	5517	5525
50°	5152	5385	5282
55°	4909	5005	4969
60°	4590	4636	4553
65°	4093	4197	4064
70°	3511	3524	3426
75°	2781	2775	2668
80°	1863	1812	1740
85°	1013	1003	939



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.2	3.7
10°-20°	626.9	10.6
20°-30°	939.3	15.8
30°-40°	1113.2	18.8
40°-50°	1115.3	18.8
50°-60°	946.7	16.0
60°-70°	638.3	10.8
70°-80°	280.5	4.7
80°-90°	45.6	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°	1787.4	30.2
0°-40°	2900.7	48.9
0°-60°	4962.7	83.7
0°-90°	5927.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5927.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2352	2352	2352	2352	2352	
5°	2335	2330	2336	2329	2385	220
15°	2236	2210	2224	2235	2236	623
25°	1999	2010	2043	2069	2065	924
35°	1740	1745	1785	1827	1826	1080
45°	1400	1426	1450	1487	1452	1083
55°	1046	1039	1067	1059	1059	931
65°	643	634	659	634	638	639
75°	268	262	267	248	257	287
85°	33	32	32	32	30	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2351.7	2351.7	2351.7	2351.7	2351.7
2.5°	2372.0	2354.1	2337.4	2356.8	2368.7
5°	2335.0	2329.5	2335.9	2328.9	2385.1
7.5°	2287.0	2308.0	2320.1	2312.5	2315.9
10°	2261.5	2254.2	2281.2	2300.1	2297.3
12.5°	2234.2	2245.1	2246.6	2267.0	2268.8
15°	2235.7	2209.9	2223.5	2235.1	2236.0
17.5°	2148.9	2176.8	2186.2	2212.6	2179.8
20°	2138.2	2117.9	2138.2	2165.2	2161.0
22.5°	2072.9	2050.2	2093.9	2117.9	2116.4
25°	1998.9	2009.8	2042.6	2069.3	2065.0
27.5°	1933.9	1946.6	1993.4	2030.1	2006.4
30°	1883.8	1877.4	1916.9	1949.7	1967.9
32.5°	1794.2	1817.3	1863.4	1895.9	1878.6
35°	1739.9	1745.0	1785.4	1826.7	1825.5
37.5°	1644.8	1668.8	1725.6	1737.1	1726.5
40°	1563.7	1587.7	1639.0	1651.5	1646.3
42.5°	1503.9	1508.2	1552.2	1566.5	1543.7
45°	1399.8	1425.9	1449.6	1486.9	1451.7
47.5°	1311.1	1323.3	1374.3	1384.3	1365.8
50°	1230.6	1234.9	1286.2	1273.8	1261.6
52.5°	1129.5	1147.5	1176.3	1173.9	1159.6
55°	1046.3	1039.4	1066.7	1059.4	1059.1
57.5°	946.4	958.6	981.1	969.5	951.0
60°	852.9	853.2	861.4	848.4	845.9
62.5°	748.8	752.4	754.2	738.1	764.3
65°	642.8	634.3	659.2	634.0	638.2
67.5°	545.3	549.6	547.2	531.4	537.4
70°	446.3	451.8	447.9	430.0	435.4
72.5°	355.9	349.2	353.4	331.0	341.3
75°	267.5	262.0	266.9	248.1	256.6
77.5°	182.2	186.4	183.4	173.4	179.1
80°	120.2	116.9	116.9	111.1	112.3
82.5°	70.1	66.8	65.9	64.1	66.8
85°	32.8	31.9	32.5	31.6	30.4
87.5°	11.8	12.1	12.1	11.5	10.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)