

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: P589748

Luminaire Tested: **FMR-24-2-LD4-4LO-50-UNV-93-97-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589748
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-LD4-4LO-50-UNV-93-97-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Summary

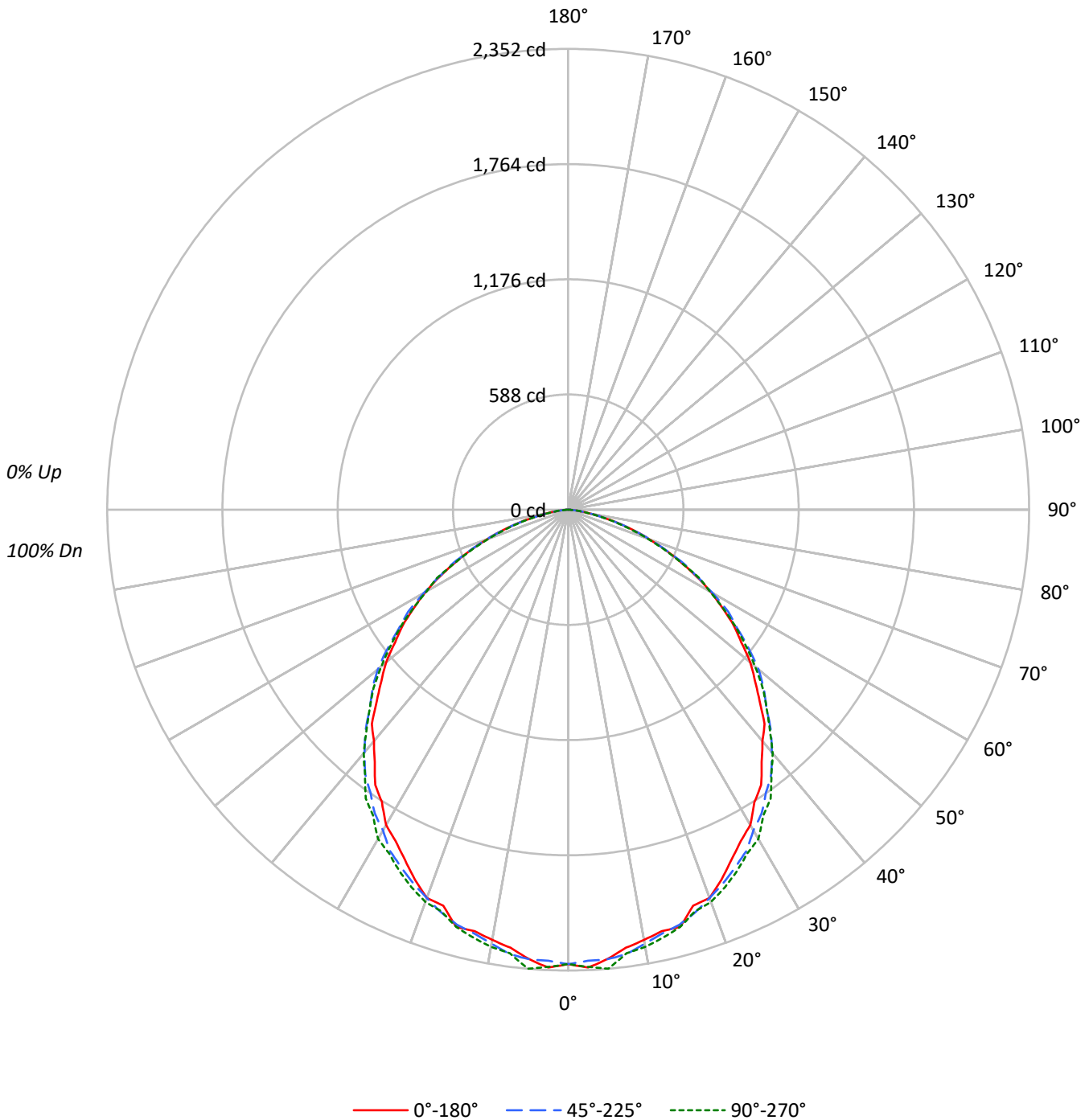
Lumens per Lamp: N/A
Luminaire Lumens: 5844.0 lumens
Efficiency: N/A
Efficacy: 124.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	6240	6240	6240
5°	6219	6222	6353
10°	6093	6146	6190
15°	6141	6108	6142
20°	6037	6037	6102
25°	5852	5980	6046
30°	5771	5873	6029
35°	5636	5783	5913
40°	5416	5677	5702
45°	5253	5439	5447
50°	5080	5309	5208
55°	4840	4934	4899
60°	4526	4571	4489
65°	4036	4139	4007
70°	3463	3474	3378
75°	2743	2737	2630
80°	1838	1787	1717
85°	997	988	923



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	218.1	3.7
10°-20°	618.2	10.6
20°-30°	926.1	15.8
30°-40°	1097.7	18.8
40°-50°	1099.7	18.8
50°-60°	933.5	16.0
60°-70°	629.3	10.8
70°-80°	276.5	4.7
80°-90°	44.9	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°	1762.4	30.2
0°-40°	2860.1	48.9
0°-60°	4893.2	83.7
0°-90°	5844.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5844.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2319	2319	2319	2319	2319	
5°	2302	2297	2303	2296	2352	217
15°	2204	2179	2192	2204	2205	614
25°	1971	1982	2014	2040	2036	911
35°	1716	1721	1760	1801	1800	1065
45°	1380	1406	1429	1466	1431	1068
55°	1032	1025	1052	1045	1044	918
65°	634	625	650	625	629	630
75°	264	258	263	245	253	283
85°	32	31	32	31	30	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2318.8	2318.8	2318.8	2318.8	2318.8
2.5°	2338.8	2321.1	2304.7	2323.8	2335.5
5°	2302.3	2296.9	2303.2	2296.3	2351.7
7.5°	2255.0	2275.6	2287.6	2280.1	2283.4
10°	2229.8	2222.6	2249.3	2267.9	2265.2
12.5°	2202.9	2213.7	2215.2	2235.2	2237.0
15°	2204.4	2178.9	2192.4	2203.8	2204.7
17.5°	2118.8	2146.3	2155.6	2181.6	2149.3
20°	2108.3	2088.2	2108.3	2134.9	2130.7
22.5°	2043.9	2021.5	2064.6	2088.2	2086.7
25°	1970.9	1981.6	2014.0	2040.3	2036.1
27.5°	1906.8	1919.4	1965.5	2001.7	1978.3
30°	1857.4	1851.1	1890.0	1922.4	1940.3
32.5°	1769.1	1791.8	1837.3	1869.4	1852.3
35°	1715.5	1720.6	1760.4	1801.1	1799.9
37.5°	1621.8	1645.4	1701.4	1712.8	1702.3
40°	1541.8	1565.5	1616.1	1628.4	1623.3
42.5°	1482.9	1487.1	1530.5	1544.5	1522.1
45°	1380.2	1405.9	1429.3	1466.1	1431.4
47.5°	1292.8	1304.7	1355.0	1364.9	1346.6
50°	1213.4	1217.6	1268.2	1255.9	1244.0
52.5°	1113.7	1131.4	1159.8	1157.4	1143.4
55°	1031.7	1024.8	1051.7	1044.6	1044.3
57.5°	933.2	945.2	967.3	955.9	937.7
60°	841.0	841.3	849.4	836.5	834.1
62.5°	738.3	741.9	743.7	727.8	753.6
65°	633.8	625.4	650.0	625.1	629.3
67.5°	537.7	541.9	539.5	523.9	529.9
70°	440.1	445.5	441.6	423.9	429.3
72.5°	350.9	344.3	348.5	326.3	336.5
75°	263.8	258.4	263.2	244.6	253.0
77.5°	179.6	183.8	180.8	170.9	176.6
80°	118.6	115.3	115.3	109.6	110.8
82.5°	69.2	65.9	65.0	63.2	65.9
85°	32.3	31.4	32.0	31.1	29.9
87.5°	11.7	12.0	12.0	11.4	10.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)