

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: P589658

Luminaire Tested: **FMR-24-2-LD4-4LO-35-UNV-80-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589658
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-35-UNV-80-94-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

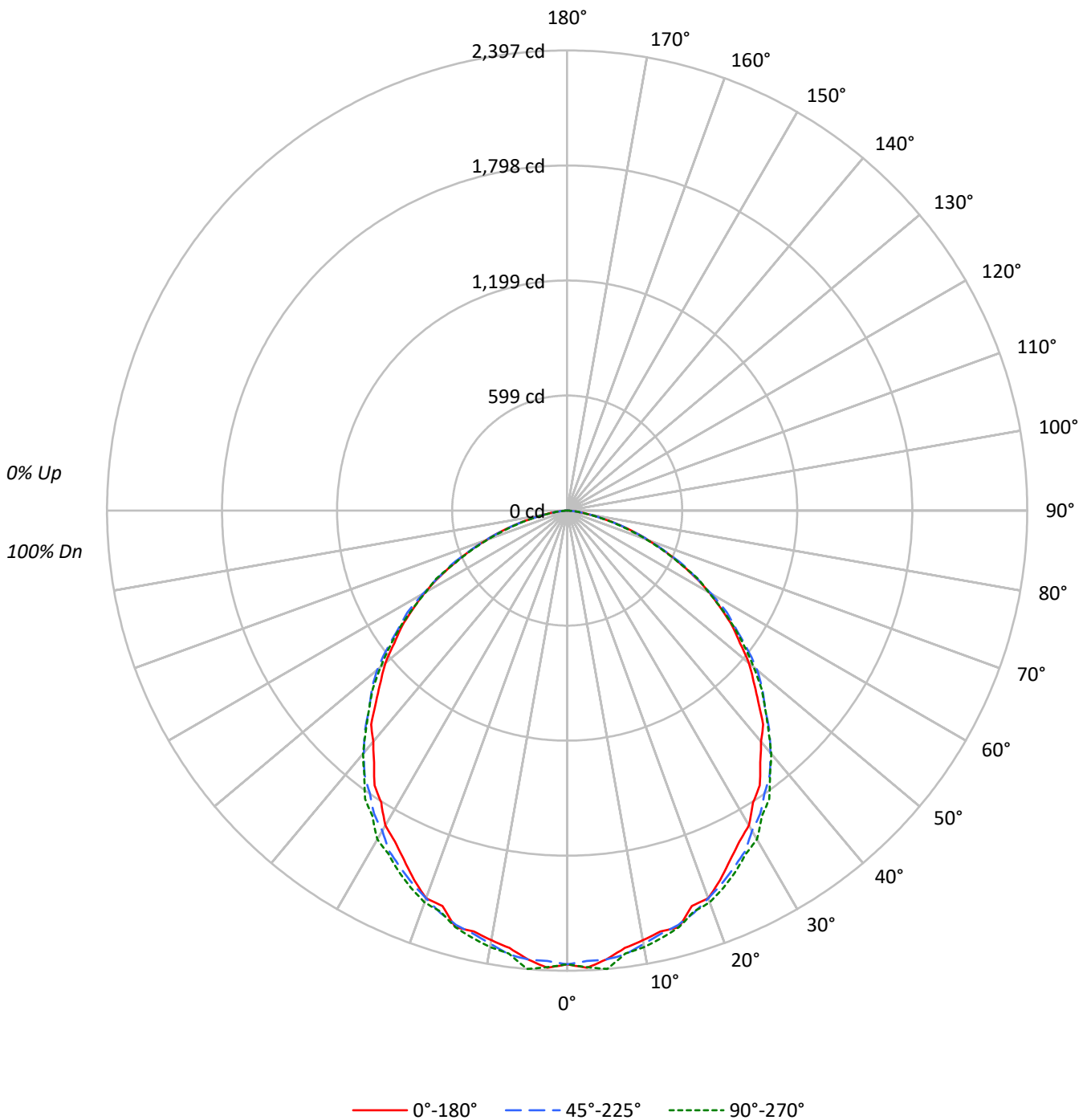
Lumens per Lamp: N/A
Luminaire Lumens: 5956.0 lumens
Efficiency: N/A
Efficacy: 127.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
Input Voltage (V): NR
Input Current (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																		
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	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°	6359	6359	6359
5°	6338	6341	6474
10°	6210	6264	6308
15°	6259	6225	6260
20°	6153	6153	6219
25°	5964	6095	6162
30°	5882	5986	6145
35°	5744	5894	6026
40°	5520	5786	5812
45°	5353	5544	5552
50°	5177	5411	5308
55°	4933	5029	4993
60°	4613	4659	4575
65°	4113	4218	4084
70°	3529	3541	3442
75°	2795	2789	2680
80°	1872	1821	1750
85°	1019	1007	942



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	222.3	3.7
10°-20°	630.0	10.6
20°-30°	943.9	15.8
30°-40°	1118.7	18.8
40°-50°	1120.8	18.8
50°-60°	951.4	16.0
60°-70°	641.4	10.8
70°-80°	281.8	4.7
80°-90°	45.8	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°	1796.2	30.2
0°-40°	2914.9	48.9
0°-60°	4987.0	83.7
0°-90°	5956.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5956.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2363	2363	2363	2363	2363	
5°	2346	2341	2347	2340	2397	221
15°	2247	2221	2234	2246	2247	626
25°	2009	2020	2053	2079	2075	929
35°	1748	1754	1794	1836	1834	1086
45°	1407	1433	1457	1494	1459	1088
55°	1052	1044	1072	1065	1064	935
65°	646	637	662	637	641	642
75°	269	263	268	249	258	288
85°	33	32	33	32	30	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2363.2	2363.2	2363.2	2363.2	2363.2
2.5°	2383.6	2365.6	2348.8	2368.4	2380.3
5°	2346.4	2340.9	2347.3	2340.3	2396.8
7.5°	2298.2	2319.3	2331.5	2323.8	2327.2
10°	2272.6	2265.2	2292.4	2311.3	2308.6
12.5°	2245.1	2256.1	2257.6	2278.1	2279.9
15°	2246.6	2220.7	2234.4	2246.0	2246.9
17.5°	2159.4	2187.4	2196.9	2223.4	2190.5
20°	2148.7	2128.2	2148.7	2175.8	2171.6
22.5°	2083.1	2060.2	2104.1	2128.2	2126.7
25°	2008.6	2019.6	2052.6	2079.4	2075.2
27.5°	1943.3	1956.2	2003.1	2040.1	2016.3
30°	1893.0	1886.6	1926.3	1959.2	1977.5
32.5°	1803.0	1826.2	1872.5	1905.2	1887.8
35°	1748.4	1753.6	1794.1	1835.6	1834.4
37.5°	1652.9	1677.0	1734.0	1745.6	1734.9
40°	1571.4	1595.5	1647.1	1659.6	1654.4
42.5°	1511.3	1515.6	1559.8	1574.1	1551.3
45°	1406.6	1432.9	1456.7	1494.2	1458.8
47.5°	1317.5	1329.7	1381.0	1391.1	1372.5
50°	1236.7	1240.9	1292.5	1280.0	1267.8
52.5°	1135.1	1153.1	1182.1	1179.6	1165.3
55°	1051.5	1044.4	1071.9	1064.6	1064.3
57.5°	951.1	963.3	985.9	974.3	955.7
60°	857.1	857.4	865.6	852.5	850.1
62.5°	752.4	756.1	757.9	741.8	768.0
65°	645.9	637.4	662.4	637.1	641.4
67.5°	548.0	552.3	549.8	534.0	540.1
70°	448.5	454.0	450.1	432.1	437.5
72.5°	357.6	350.9	355.2	332.6	343.0
75°	268.8	263.3	268.2	249.3	257.8
77.5°	183.1	187.3	184.3	174.2	180.0
80°	120.8	117.5	117.5	111.7	112.9
82.5°	70.5	67.1	66.2	64.4	67.1
85°	33.0	32.0	32.6	31.7	30.5
87.5°	11.9	12.2	12.2	11.6	11.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)