

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: P589686

Luminaire Tested: **FMR-24-2-LD4-4LO-40-UNV-80-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589686
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-40-UNV-80-85-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

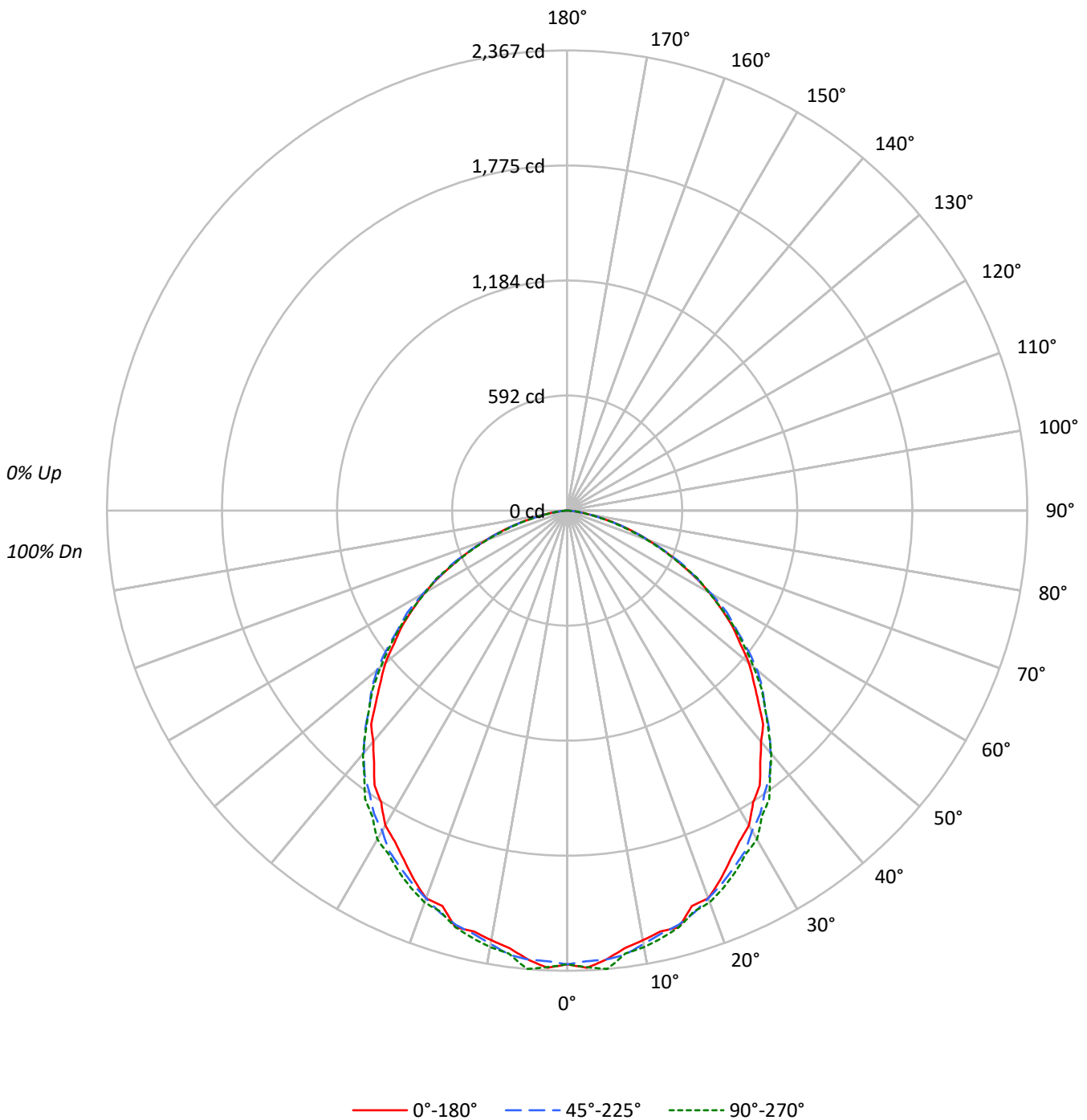
Lumens per Lamp: N/A
Luminaire Lumens: 5882.0 lumens
Efficiency: N/A
Efficacy: 125.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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				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°	6280	6280	6280
5°	6260	6262	6394
10°	6133	6186	6230
15°	6181	6148	6182
20°	6077	6077	6141
25°	5890	6019	6085
30°	5809	5911	6068
35°	5672	5821	5951
40°	5452	5714	5739
45°	5286	5475	5483
50°	5113	5344	5241
55°	4872	4967	4931
60°	4555	4601	4518
65°	4062	4166	4033
70°	3485	3497	3400
75°	2760	2754	2647
80°	1849	1798	1728
85°	1003	994	929



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.5	3.7
10°-20°	622.2	10.6
20°-30°	932.2	15.8
30°-40°	1104.8	18.8
40°-50°	1106.8	18.8
50°-60°	939.5	16.0
60°-70°	633.4	10.8
70°-80°	278.3	4.7
80°-90°	45.2	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°	1773.9	30.2
0°-40°	2878.7	48.9
0°-60°	4925.0	83.7
0°-90°	5882.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5882.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2334	2334	2334	2334	2334	
5°	2317	2312	2318	2311	2367	218
15°	2219	2193	2207	2218	2219	618
25°	1984	1994	2027	2054	2049	917
35°	1727	1732	1772	1813	1812	1072
45°	1389	1415	1439	1476	1441	1075
55°	1038	1032	1059	1051	1051	924
65°	638	630	654	629	633	634
75°	266	260	265	246	255	285
85°	32	32	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°	2333.8	2333.8	2333.8	2333.8	2333.8
2.5°	2354.0	2336.2	2319.7	2339.0	2350.7
5°	2317.3	2311.8	2318.2	2311.2	2367.0
7.5°	2269.6	2290.4	2302.5	2295.0	2298.3
10°	2244.3	2237.1	2263.9	2282.6	2279.9
12.5°	2217.2	2228.1	2229.6	2249.8	2251.6
15°	2218.7	2193.1	2206.7	2218.1	2219.0
17.5°	2132.5	2160.3	2169.6	2195.8	2163.3
20°	2122.0	2101.8	2122.0	2148.8	2144.6
22.5°	2057.2	2034.6	2078.0	2101.8	2100.3
25°	1983.7	1994.5	2027.1	2053.6	2049.4
27.5°	1919.2	1931.8	1978.3	2014.7	1991.2
30°	1869.5	1863.1	1902.3	1934.9	1952.9
32.5°	1780.6	1803.5	1849.3	1881.5	1864.4
35°	1726.6	1731.8	1771.8	1812.8	1811.6
37.5°	1632.3	1656.1	1712.5	1723.9	1713.4
40°	1551.9	1575.7	1626.6	1639.0	1633.8
42.5°	1492.5	1496.7	1540.4	1554.6	1532.0
45°	1389.1	1415.1	1438.6	1475.6	1440.7
47.5°	1301.2	1313.2	1363.8	1373.8	1355.4
50°	1221.3	1225.5	1276.4	1264.1	1252.0
52.5°	1121.0	1138.7	1167.4	1165.0	1150.8
55°	1038.4	1031.5	1058.6	1051.4	1051.1
57.5°	939.3	951.3	973.6	962.2	943.8
60°	846.4	846.7	854.9	841.9	839.5
62.5°	743.1	746.7	748.5	732.5	758.5
65°	637.9	629.5	654.2	629.2	633.4
67.5°	541.2	545.4	543.0	527.3	533.4
70°	443.0	448.4	444.5	426.7	432.1
72.5°	353.2	346.5	350.8	328.5	338.7
75°	265.5	260.1	264.9	246.2	254.6
77.5°	180.8	185.0	182.0	172.1	177.8
80°	119.3	116.0	116.0	110.3	111.5
82.5°	69.6	66.3	65.4	63.6	66.3
85°	32.5	31.6	32.2	31.3	30.1
87.5°	11.8	12.1	12.1	11.5	10.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)