

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: P589657

Luminaire Tested: **FMR-24-2-LD4-4LO-35-UNV-80-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589657
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-80-88-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

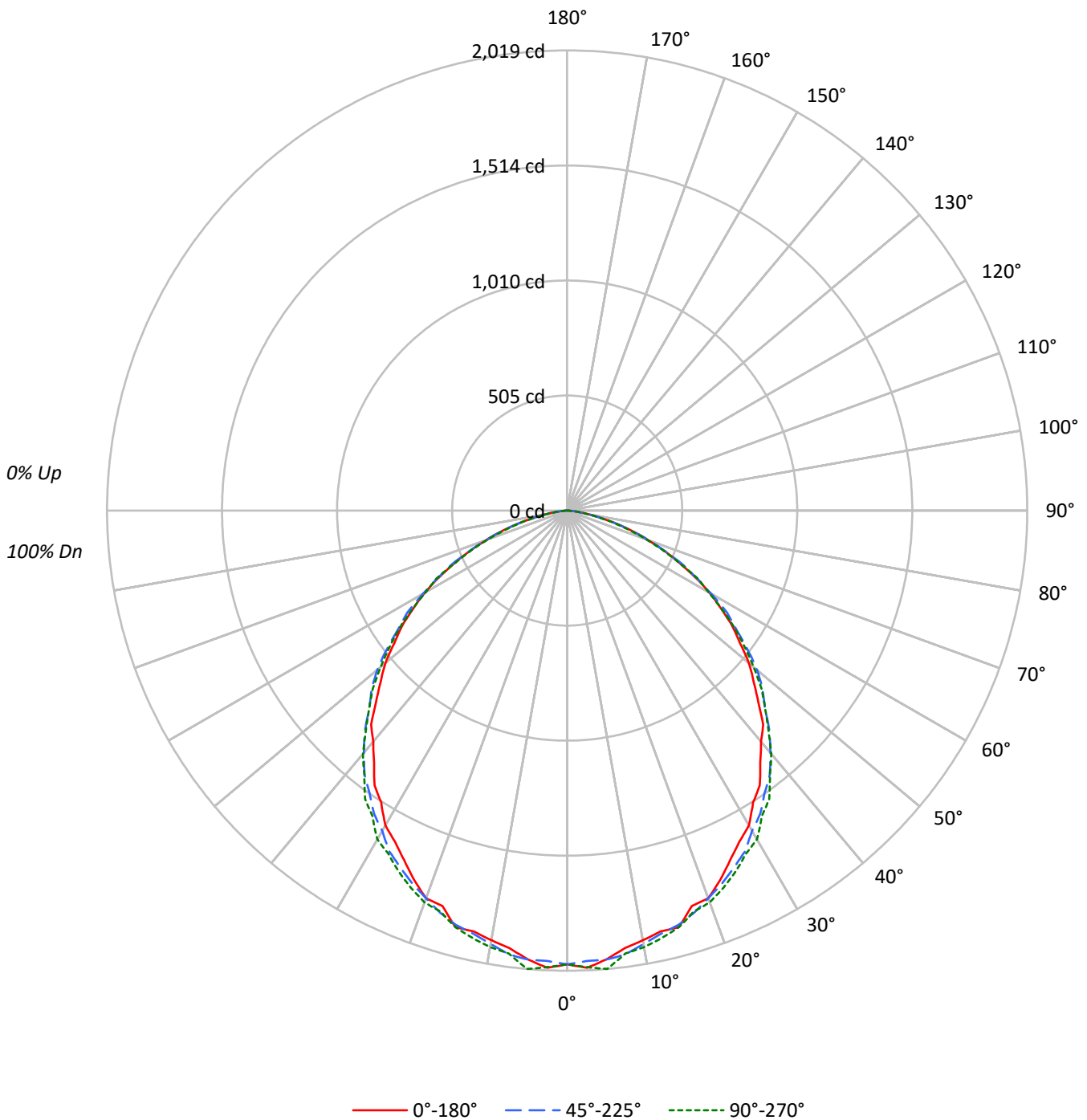
Lumens per Lamp: N/A
Luminaire Lumens: 5017.0 lumens
Efficiency: N/A
Efficacy: 107.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	5357	5357	5357
5°	5339	5341	5454
10°	5231	5276	5314
15°	5272	5244	5273
20°	5183	5183	5238
25°	5024	5134	5190
30°	4955	5042	5176
35°	4838	4965	5076
40°	4650	4874	4895
45°	4509	4669	4676
50°	4361	4558	4471
55°	4155	4236	4206
60°	3886	3925	3854
65°	3465	3553	3440
70°	2972	2983	2900
75°	2354	2349	2258
80°	1578	1534	1474
85°	858	849	794



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	187.2	3.7
10°-20°	530.7	10.6
20°-30°	795.1	15.8
30°-40°	942.3	18.8
40°-50°	944.1	18.8
50°-60°	801.4	16.0
60°-70°	540.3	10.8
70°-80°	237.4	4.7
80°-90°	38.6	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°	1513.0	30.2
0°-40°	2455.3	48.9
0°-60°	4200.8	83.7
0°-90°	5017.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5017.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1991	1991	1991	1991	1991	
5°	1976	1972	1977	1971	2019	186
15°	1892	1871	1882	1892	1893	527
25°	1692	1701	1729	1752	1748	782
35°	1473	1477	1511	1546	1545	914
45°	1185	1207	1227	1259	1229	917
55°	886	880	903	897	896	788
65°	544	537	558	537	540	541
75°	226	222	226	210	217	243
85°	28	27	28	27	26	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1990.6	1990.6	1990.6	1990.6	1990.6
2.5°	2007.8	1992.7	1978.5	1995.0	2005.0
5°	1976.5	1971.9	1977.3	1971.3	2018.9
7.5°	1935.9	1953.6	1963.9	1957.5	1960.3
10°	1914.3	1908.1	1931.0	1946.9	1944.6
12.5°	1891.2	1900.4	1901.7	1918.9	1920.5
15°	1892.4	1870.6	1882.2	1891.9	1892.7
17.5°	1818.9	1842.6	1850.5	1872.9	1845.1
20°	1809.9	1792.7	1809.9	1832.8	1829.2
22.5°	1754.7	1735.4	1772.4	1792.7	1791.4
25°	1692.0	1701.2	1729.0	1751.6	1748.0
27.5°	1637.0	1647.8	1687.3	1718.4	1698.4
30°	1594.6	1589.2	1622.6	1650.3	1665.7
32.5°	1518.7	1538.3	1577.3	1604.8	1590.2
35°	1472.7	1477.1	1511.3	1546.2	1545.2
37.5°	1392.3	1412.6	1460.6	1470.4	1461.4
40°	1323.7	1344.0	1387.4	1397.9	1393.6
42.5°	1273.0	1276.6	1313.9	1326.0	1306.7
45°	1184.9	1207.0	1227.0	1258.6	1228.8
47.5°	1109.8	1120.1	1163.3	1171.8	1156.1
50°	1041.7	1045.3	1088.7	1078.2	1067.9
52.5°	956.1	971.3	995.7	993.6	981.6
55°	885.7	879.8	902.9	896.7	896.5
57.5°	801.1	811.4	830.4	820.7	805.0
60°	722.0	722.2	729.2	718.1	716.1
62.5°	633.8	636.9	638.4	624.8	646.9
65°	544.1	536.9	558.0	536.7	540.3
67.5°	461.6	465.2	463.1	449.8	454.9
70°	377.8	382.4	379.1	363.9	368.6
72.5°	301.2	295.6	299.2	280.2	288.9
75°	226.4	221.8	225.9	210.0	217.2
77.5°	154.2	157.8	155.2	146.8	151.6
80°	101.8	99.0	99.0	94.1	95.1
82.5°	59.4	56.5	55.8	54.2	56.5
85°	27.8	27.0	27.5	26.7	25.7
87.5°	10.0	10.3	10.3	9.8	9.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)