

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: P589002

Luminaire Tested: **FMR-24-2-LD4-2HI-35-UNV-82-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589002
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-LD4-2HI-35-UNV-82-94-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

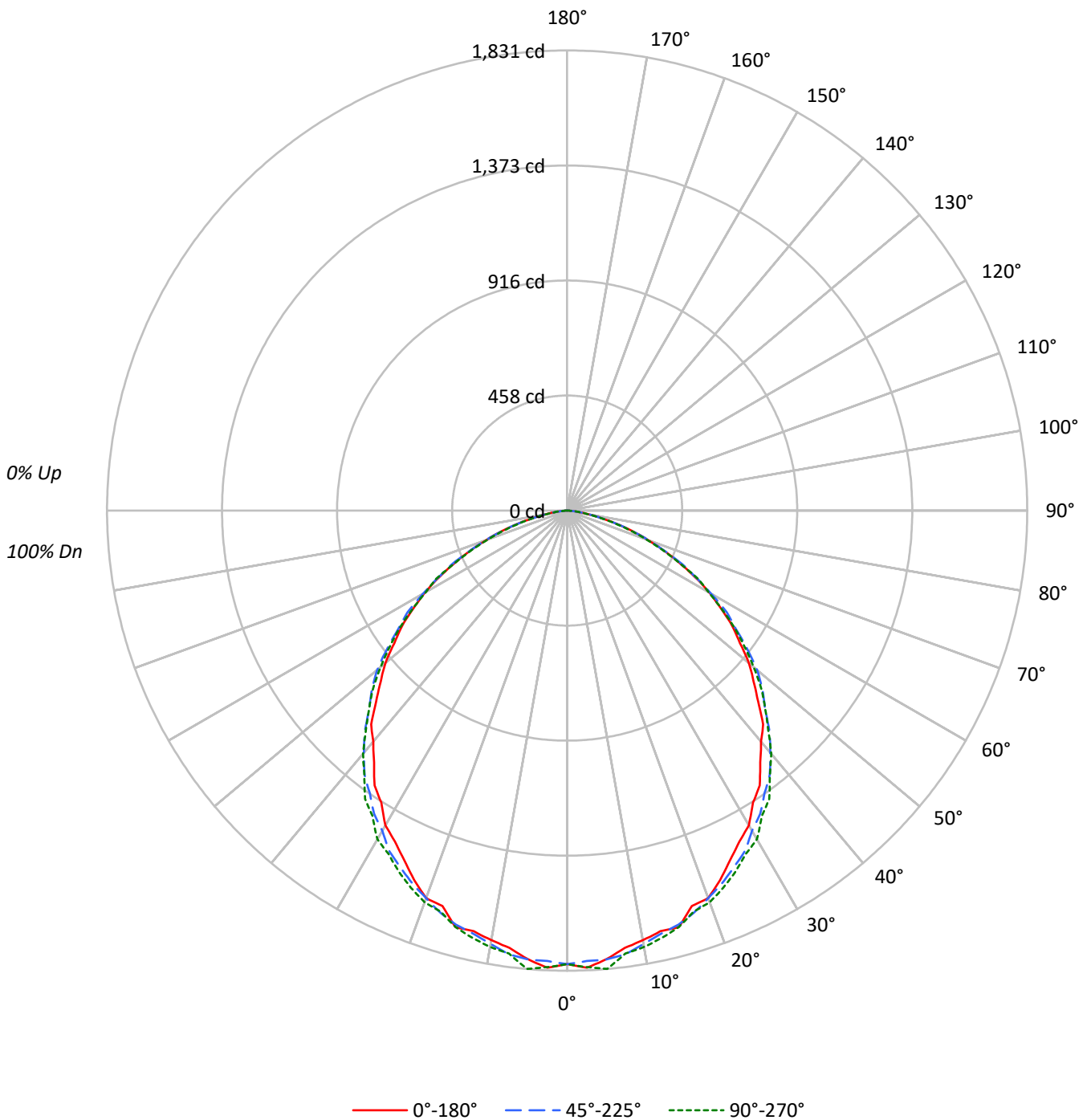
Lumens per Lamp: N/A
Luminaire Lumens: 4549.0 lumens
Efficiency: N/A
Efficacy: 105.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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

TEST NUMBER: P589002

CATALOG NUMBER: FMR-24-2-LD4-2HI-35-UNV-82-94-EDD

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	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					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°	4857	4857	4857
5°	4841	4843	4945
10°	4743	4784	4818
15°	4780	4754	4781
20°	4700	4700	4750
25°	4555	4655	4706
30°	4492	4571	4693
35°	4387	4502	4603
40°	4216	4419	4439
45°	4088	4234	4240
50°	3954	4133	4054
55°	3768	3841	3814
60°	3523	3558	3495
65°	3142	3221	3119
70°	2696	2704	2629
75°	2135	2129	2047
80°	1430	1390	1336
85°	778	769	719



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.8	3.7
10°-20°	481.2	10.6
20°-30°	720.9	15.8
30°-40°	854.4	18.8
40°-50°	856.0	18.8
50°-60°	726.6	16.0
60°-70°	489.9	10.8
70°-80°	215.3	4.7
80°-90°	35.0	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°	1371.9	30.2
0°-40°	2226.3	48.9
0°-60°	3808.9	83.7
0°-90°	4549.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4549.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1805	1805	1805	1805	1805	
5°	1792	1788	1793	1787	1831	169
15°	1716	1696	1707	1715	1716	478
25°	1534	1542	1568	1588	1585	709
35°	1335	1339	1370	1402	1401	829
45°	1074	1094	1113	1141	1114	831
55°	803	798	819	813	813	714
65°	493	487	506	487	490	491
75°	205	201	205	190	197	220
85°	25	24	25	24	23	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1804.9	1804.9	1804.9	1804.9	1804.9
2.5°	1820.5	1806.8	1794.0	1808.9	1818.0
5°	1792.1	1787.9	1792.8	1787.4	1830.6
7.5°	1755.3	1771.4	1780.7	1774.9	1777.4
10°	1735.7	1730.1	1750.9	1765.3	1763.2
12.5°	1714.7	1723.1	1724.3	1739.9	1741.3
15°	1715.9	1696.1	1706.6	1715.4	1716.1
17.5°	1649.3	1670.7	1677.9	1698.2	1673.0
20°	1641.1	1625.5	1641.1	1661.8	1658.6
22.5°	1591.0	1573.5	1607.1	1625.5	1624.3
25°	1534.1	1542.5	1567.7	1588.2	1584.9
27.5°	1484.3	1494.0	1529.9	1558.1	1540.0
30°	1445.8	1440.9	1471.2	1496.4	1510.4
32.5°	1377.1	1394.8	1430.2	1455.1	1441.8
35°	1335.3	1339.3	1370.3	1402.0	1401.1
37.5°	1262.4	1280.8	1324.4	1333.2	1325.1
40°	1200.2	1218.6	1258.0	1267.5	1263.6
42.5°	1154.3	1157.5	1191.3	1202.3	1184.8
45°	1074.3	1094.4	1112.6	1141.2	1114.2
47.5°	1006.3	1015.6	1054.8	1062.4	1048.2
50°	944.5	947.8	987.2	977.6	968.3
52.5°	866.9	880.7	902.8	900.9	890.0
55°	803.1	797.7	818.7	813.1	812.9
57.5°	726.4	735.7	753.0	744.1	729.9
60°	654.6	654.9	661.1	651.1	649.3
62.5°	574.7	577.5	578.9	566.5	586.6
65°	493.4	486.8	505.9	486.6	489.9
67.5°	418.5	421.8	419.9	407.8	412.5
70°	342.6	346.8	343.7	330.0	334.2
72.5°	273.1	268.0	271.3	254.0	261.9
75°	205.3	201.1	204.8	190.4	196.9
77.5°	139.8	143.1	140.8	133.1	137.5
80°	92.3	89.7	89.7	85.3	86.2
82.5°	53.8	51.3	50.6	49.2	51.3
85°	25.2	24.5	24.9	24.2	23.3
87.5°	9.1	9.3	9.3	8.9	8.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)