

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: P589047

Luminaire Tested: **FMR-24-2-LD4-2HI-50-UNV-80-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589047
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-50-UNV-80-86-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

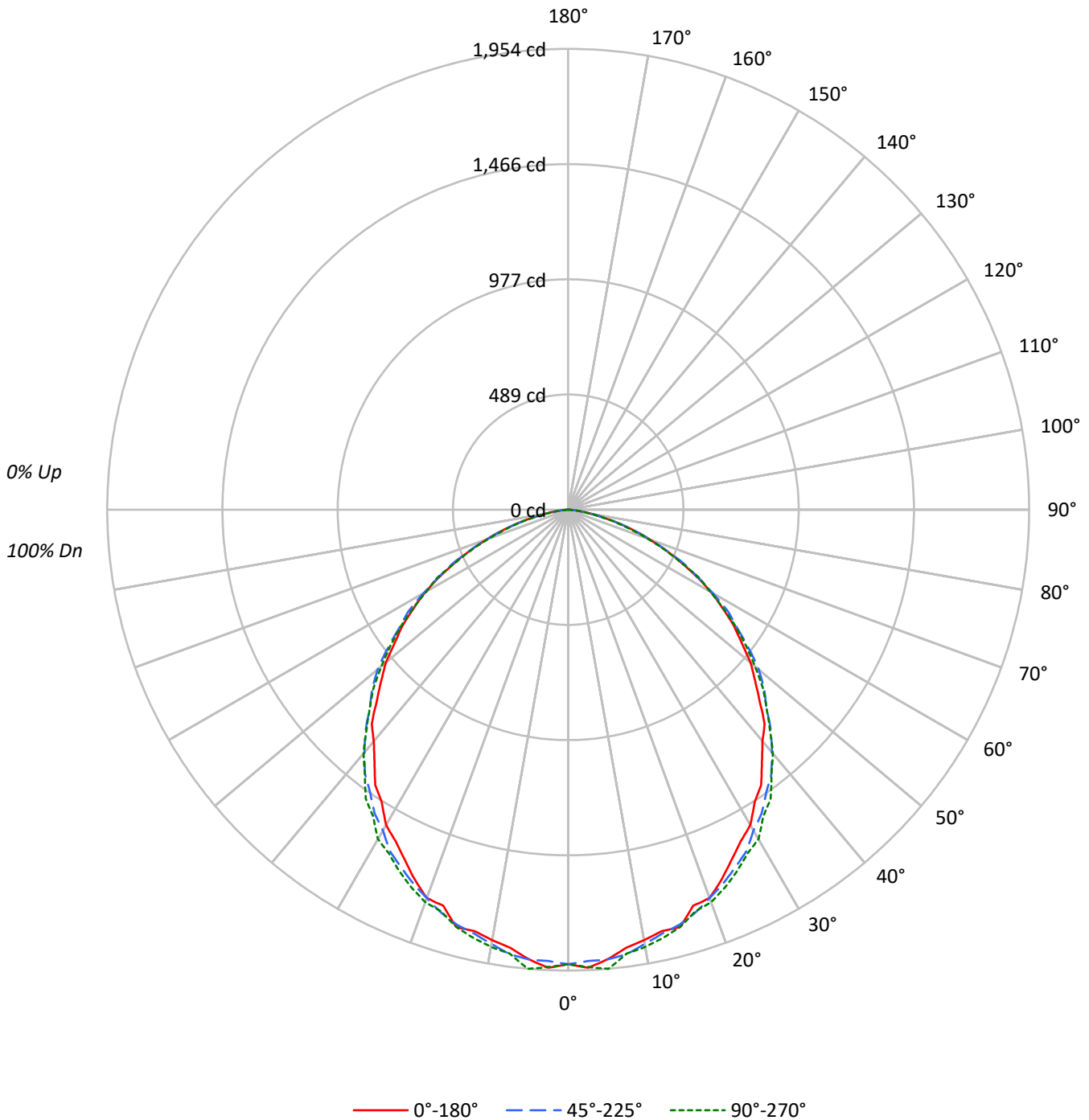
Lumens per Lamp: N/A
Luminaire Lumens: 4857.0 lumens
Efficiency: N/A
Efficacy: 112.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

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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	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					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5186	5186	5186
5°	5169	5171	5280
10°	5064	5108	5144
15°	5104	5076	5105
20°	5018	5018	5071
25°	4863	4970	5024
30°	4797	4881	5011
35°	4684	4806	4914
40°	4501	4718	4739
45°	4365	4521	4527
50°	4222	4412	4328
55°	4023	4101	4072
60°	3761	3799	3731
65°	3354	3440	3330
70°	2878	2888	2807
75°	2279	2274	2187
80°	1526	1485	1427
85°	831	821	769



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.3	3.7
10°-20°	513.8	10.6
20°-30°	769.7	15.8
30°-40°	912.3	18.8
40°-50°	914.0	18.8
50°-60°	775.8	16.0
60°-70°	523.0	10.8
70°-80°	229.8	4.7
80°-90°	37.4	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°	1464.7	30.2
0°-40°	2377.0	48.9
0°-60°	4066.8	83.7
0°-90°	4857.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4857.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1927	1927	1927	1927	1927	
5°	1913	1909	1914	1908	1954	180
15°	1832	1811	1822	1832	1832	510
25°	1638	1647	1674	1696	1692	757
35°	1426	1430	1463	1497	1496	885
45°	1147	1168	1188	1218	1190	887
55°	857	852	874	868	868	763
65°	527	520	540	520	523	524
75°	219	215	219	203	210	235
85°	27	26	27	26	25	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1927.1	1927.1	1927.1	1927.1	1927.1
2.5°	1943.8	1929.1	1915.4	1931.4	1941.1
5°	1913.4	1909.0	1914.2	1908.5	1954.5
7.5°	1874.1	1891.3	1901.3	1895.0	1897.8
10°	1853.2	1847.3	1869.4	1884.8	1882.6
12.5°	1830.8	1839.8	1841.0	1857.7	1859.2
15°	1832.1	1810.9	1822.1	1831.6	1832.3
17.5°	1760.9	1783.8	1791.5	1813.2	1786.3
20°	1752.2	1735.5	1752.2	1774.4	1770.9
22.5°	1698.7	1680.1	1715.9	1735.5	1734.3
25°	1638.0	1647.0	1673.8	1695.7	1692.2
27.5°	1584.8	1595.2	1633.5	1663.6	1644.2
30°	1543.7	1538.5	1570.8	1597.7	1612.6
32.5°	1470.3	1489.2	1527.0	1553.7	1539.5
35°	1425.8	1430.0	1463.1	1496.9	1495.9
37.5°	1347.9	1367.5	1414.1	1423.5	1414.8
40°	1281.4	1301.1	1343.1	1353.3	1349.1
42.5°	1232.4	1235.9	1272.0	1283.7	1265.0
45°	1147.1	1168.5	1187.9	1218.5	1189.6
47.5°	1074.4	1084.4	1126.2	1134.4	1119.2
50°	1008.5	1012.0	1054.0	1043.8	1033.9
52.5°	925.6	940.3	963.9	962.0	950.3
55°	857.4	851.7	874.1	868.1	867.9
57.5°	775.6	785.5	803.9	794.5	779.3
60°	698.9	699.2	705.9	695.2	693.2
62.5°	613.6	616.6	618.1	604.9	626.3
65°	526.8	519.8	540.2	519.5	523.0
67.5°	446.9	450.4	448.4	435.4	440.4
70°	365.8	370.2	367.0	352.3	356.8
72.5°	291.6	286.1	289.6	271.2	279.7
75°	219.2	214.7	218.7	203.3	210.3
77.5°	149.3	152.8	150.3	142.1	146.8
80°	98.5	95.8	95.8	91.1	92.1
82.5°	57.5	54.7	54.0	52.5	54.7
85°	26.9	26.1	26.6	25.9	24.9
87.5°	9.7	10.0	10.0	9.5	9.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)