

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: P589062

Luminaire Tested: **FMR-24-2-LD4-2HI-50-UNV-82-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589062
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-82-85-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

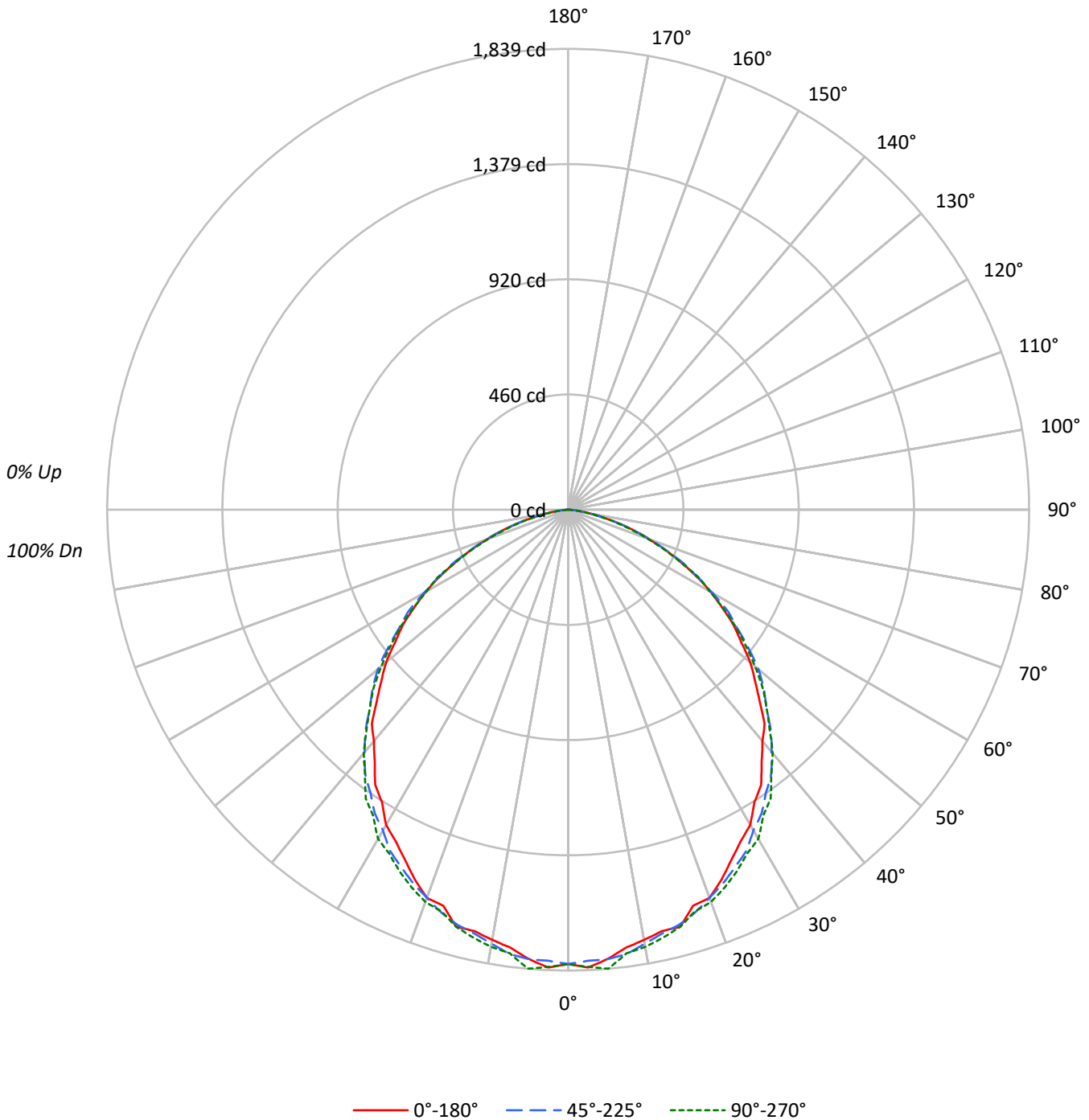
Lumens per Lamp: N/A
Luminaire Lumens: 4569.0 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P589062

CATALOG NUMBER: FMR-24-2-LD4-2HI-50-UNV-82-85-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589062

CATALOG NUMBER: FMR-24-2-LD4-2HI-50-UNV-82-85-EDD

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°	4878	4878	4878
5°	4862	4864	4967
10°	4764	4805	4839
15°	4801	4775	4802
20°	4720	4720	4771
25°	4575	4675	4727
30°	4512	4592	4714
35°	4406	4521	4623
40°	4235	4438	4458
45°	4107	4252	4259
50°	3972	4151	4072
55°	3784	3858	3830
60°	3539	3574	3510
65°	3155	3236	3133
70°	2707	2717	2641
75°	2144	2139	2057
80°	1437	1396	1342
85°	781	772	722



TEST NUMBER: P589062

CATALOG NUMBER: FMR-24-2-LD4-2HI-50-UNV-82-85-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.5	3.7
10°-20°	483.3	10.6
20°-30°	724.1	15.8
30°-40°	858.2	18.8
40°-50°	859.8	18.8
50°-60°	729.8	16.0
60°-70°	492.0	10.8
70°-80°	216.2	4.7
80°-90°	35.1	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°	1377.9	30.2
0°-40°	2236.1	48.9
0°-60°	3825.6	83.7
0°-90°	4569.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4569.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1813	1813	1813	1813	1813	
5°	1800	1796	1801	1795	1839	170
15°	1723	1704	1714	1723	1724	480
25°	1541	1549	1575	1595	1592	712
35°	1341	1345	1376	1408	1407	833
45°	1079	1099	1117	1146	1119	835
55°	807	801	822	817	816	718
65°	496	489	508	489	492	493
75°	206	202	206	191	198	221
85°	25	25	25	24	23	37
90°	0	0	0	0	0	



TEST NUMBER: P589062

CATALOG NUMBER: FMR-24-2-LD4-2HI-50-UNV-82-85-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1812.9	1812.9	1812.9	1812.9	1812.9
2.5°	1828.5	1814.7	1801.9	1816.8	1826.0
5°	1800.0	1795.8	1800.7	1795.3	1838.6
7.5°	1763.0	1779.2	1788.5	1782.7	1785.2
10°	1743.3	1737.7	1758.6	1773.1	1771.0
12.5°	1722.3	1730.7	1731.9	1747.6	1749.0
15°	1723.4	1703.6	1714.1	1723.0	1723.7
17.5°	1656.5	1678.0	1685.3	1705.7	1680.4
20°	1648.3	1632.6	1648.3	1669.1	1665.9
22.5°	1598.0	1580.4	1614.1	1632.6	1631.5
25°	1540.9	1549.3	1574.6	1595.2	1591.9
27.5°	1490.8	1500.6	1536.7	1565.0	1546.7
30°	1452.2	1447.2	1477.7	1503.0	1517.0
32.5°	1383.1	1400.9	1436.5	1461.5	1448.2
35°	1341.2	1345.2	1376.3	1408.2	1407.2
37.5°	1268.0	1286.4	1330.2	1339.1	1330.9
40°	1205.5	1223.9	1263.5	1273.1	1269.1
42.5°	1159.3	1162.6	1196.6	1207.6	1190.0
45°	1079.1	1099.2	1117.4	1146.2	1119.1
47.5°	1010.7	1020.1	1059.4	1067.1	1052.8
50°	948.7	952.0	991.5	981.9	972.6
52.5°	870.7	884.5	906.8	904.9	893.9
55°	806.6	801.2	822.3	816.7	816.4
57.5°	729.6	739.0	756.3	747.4	733.1
60°	657.5	657.7	664.1	654.0	652.1
62.5°	577.2	580.0	581.4	569.0	589.2
65°	495.5	489.0	508.2	488.7	492.0
67.5°	420.4	423.7	421.8	409.6	414.3
70°	344.1	348.3	345.3	331.4	335.7
72.5°	274.3	269.2	272.5	255.1	263.1
75°	206.2	202.0	205.7	191.2	197.8
77.5°	140.4	143.7	141.4	133.7	138.1
80°	92.7	90.1	90.1	85.7	86.6
82.5°	54.1	51.5	50.8	49.4	51.5
85°	25.3	24.6	25.0	24.3	23.4
87.5°	9.1	9.4	9.4	8.9	8.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)