

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: P589454

Luminaire Tested: **FMR-24-2-LD4-3LO-50-UNV-93-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589454
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-LD4-3LO-50-UNV-93-85-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

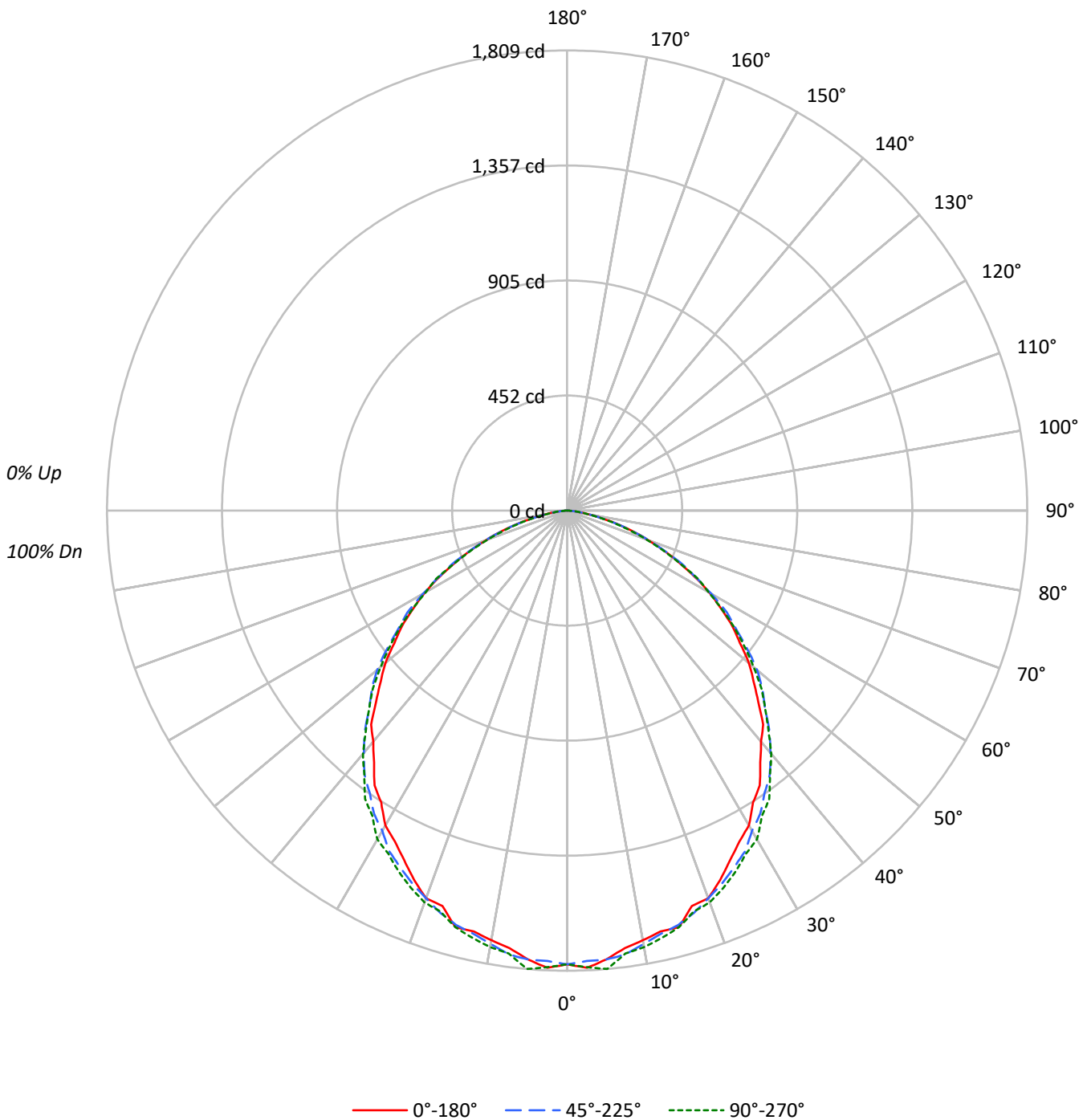
Lumens per Lamp: N/A
Luminaire Lumens: 4495.0 lumens
Efficiency: N/A
Efficacy: 128.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
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°	4799	4799	4799
5°	4783	4785	4886
10°	4686	4727	4761
15°	4724	4698	4724
20°	4644	4644	4693
25°	4501	4600	4650
30°	4439	4517	4637
35°	4335	4448	4548
40°	4166	4366	4386
45°	4040	4184	4190
50°	3907	4084	4006
55°	3723	3795	3768
60°	3482	3516	3453
65°	3104	3183	3082
70°	2663	2673	2598
75°	2110	2104	2023
80°	1413	1375	1320
85°	769	760	710



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.8	3.7
10°-20°	475.5	10.6
20°-30°	712.3	15.8
30°-40°	844.3	18.8
40°-50°	845.8	18.8
50°-60°	718.0	16.0
60°-70°	484.1	10.8
70°-80°	212.7	4.7
80°-90°	34.6	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°	1355.6	30.2
0°-40°	2199.9	48.9
0°-60°	3763.7	83.7
0°-90°	4495.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4495.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1784	1784	1784	1784	1784	
5°	1771	1767	1772	1766	1809	167
15°	1696	1676	1686	1695	1696	472
25°	1516	1524	1549	1569	1566	701
35°	1320	1323	1354	1385	1384	819
45°	1062	1081	1099	1128	1101	821
55°	794	788	809	803	803	706
65°	488	481	500	481	484	485
75°	203	199	202	188	195	217
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°	1783.5	1783.5	1783.5	1783.5	1783.5
2.5°	1798.9	1785.3	1772.7	1787.4	1796.4
5°	1770.8	1766.7	1771.5	1766.2	1808.8
7.5°	1734.5	1750.3	1759.6	1753.8	1756.3
10°	1715.1	1709.6	1730.1	1744.4	1742.3
12.5°	1694.4	1702.7	1703.8	1719.3	1720.6
15°	1695.5	1676.0	1686.3	1695.1	1695.8
17.5°	1629.7	1650.9	1658.0	1678.0	1653.2
20°	1621.6	1606.2	1621.6	1642.1	1638.9
22.5°	1572.1	1554.8	1588.0	1606.2	1605.0
25°	1515.9	1524.2	1549.1	1569.3	1566.1
27.5°	1466.6	1476.3	1511.8	1539.6	1521.7
30°	1428.6	1423.8	1453.7	1478.6	1492.4
32.5°	1360.7	1378.2	1413.2	1437.9	1424.7
35°	1319.5	1323.4	1354.0	1385.4	1384.4
37.5°	1247.4	1265.6	1308.7	1317.4	1309.4
40°	1185.9	1204.1	1243.0	1252.5	1248.6
42.5°	1140.6	1143.8	1177.2	1188.0	1170.7
45°	1061.6	1081.4	1099.3	1127.7	1101.0
47.5°	994.3	1003.6	1042.2	1049.8	1035.8
50°	933.3	936.5	975.5	966.0	956.8
52.5°	856.6	870.2	892.1	890.3	879.4
55°	793.5	788.2	809.0	803.4	803.2
57.5°	717.8	727.0	744.0	735.3	721.2
60°	646.9	647.1	653.3	643.4	641.6
62.5°	567.9	570.6	572.0	559.8	579.6
65°	487.5	481.1	499.9	480.8	484.0
67.5°	413.6	416.8	415.0	403.0	407.6
70°	338.5	342.7	339.7	326.1	330.2
72.5°	269.9	264.8	268.0	251.0	258.8
75°	202.9	198.7	202.4	188.1	194.6
77.5°	138.2	141.4	139.1	131.5	135.9
80°	91.2	88.7	88.7	84.3	85.2
82.5°	53.2	50.7	50.0	48.6	50.7
85°	24.9	24.2	24.6	23.9	23.0
87.5°	9.0	9.2	9.2	8.8	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)