

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: P589390

Luminaire Tested: **FMR-24-2-LD4-3LO-35-UNV-93-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589390
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-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

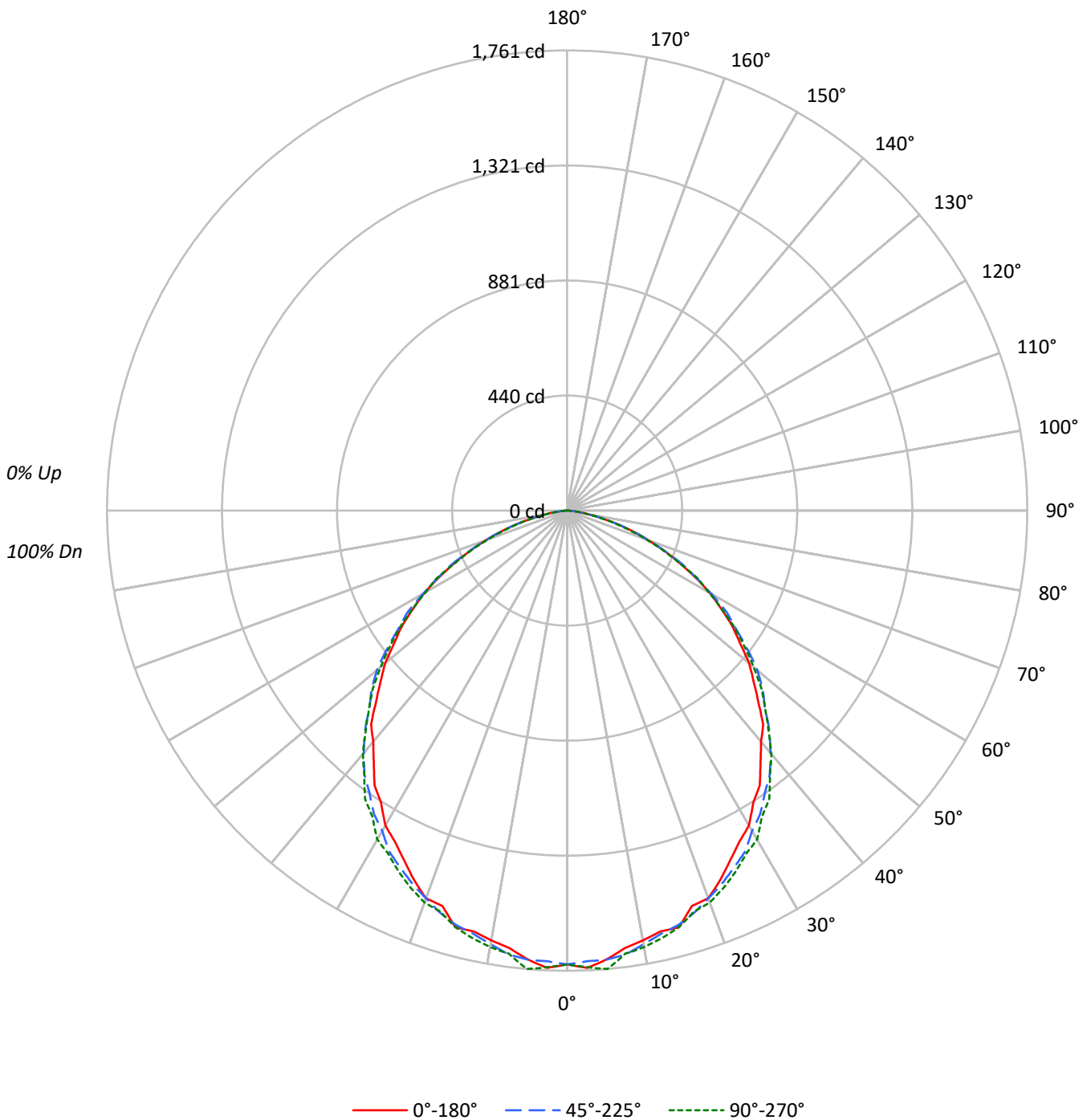
Lumens per Lamp: N/A
Luminaire Lumens: 4377.0 lumens
Efficiency: N/A
Efficacy: 124.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	4673	4673	4673
5°	4658	4660	4758
10°	4564	4603	4636
15°	4600	4575	4600
20°	4522	4522	4570
25°	4383	4479	4528
30°	4323	4399	4516
35°	4221	4331	4429
40°	4057	4252	4271
45°	3934	4074	4080
50°	3805	3977	3900
55°	3625	3696	3669
60°	3390	3423	3362
65°	3023	3100	3001
70°	2593	2602	2530
75°	2053	2049	1970
80°	1376	1337	1286
85°	747	741	692



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.4	3.7
10°-20°	463.0	10.6
20°-30°	693.6	15.8
30°-40°	822.1	18.8
40°-50°	823.6	18.8
50°-60°	699.1	16.0
60°-70°	471.3	10.8
70°-80°	207.1	4.7
80°-90°	33.7	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°	1320.0	30.2
0°-40°	2142.1	48.9
0°-60°	3664.9	83.7
0°-90°	4377.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4377.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1737	1737	1737	1737	1737	
5°	1724	1720	1725	1720	1761	163
15°	1651	1632	1642	1651	1651	460
25°	1476	1484	1508	1528	1525	682
35°	1285	1289	1318	1349	1348	798
45°	1034	1053	1070	1098	1072	800
55°	773	768	788	782	782	687
65°	475	468	487	468	471	472
75°	198	194	197	183	190	212
85°	24	24	24	23	22	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1736.7	1736.7	1736.7	1736.7	1736.7
2.5°	1751.7	1738.5	1726.1	1740.5	1749.2
5°	1724.4	1720.3	1725.0	1719.9	1761.3
7.5°	1688.9	1704.4	1713.4	1707.8	1710.2
10°	1670.1	1664.7	1684.7	1698.6	1696.5
12.5°	1649.9	1658.0	1659.1	1674.1	1675.5
15°	1651.0	1632.0	1642.1	1650.6	1651.3
17.5°	1586.9	1607.5	1614.5	1634.0	1609.8
20°	1579.0	1564.0	1579.0	1599.0	1595.9
22.5°	1530.8	1514.0	1546.3	1564.0	1562.9
25°	1476.1	1484.2	1508.4	1528.1	1525.0
27.5°	1428.1	1437.6	1472.1	1499.2	1481.7
30°	1391.1	1386.4	1415.6	1439.8	1453.3
32.5°	1325.0	1342.0	1376.1	1400.1	1387.3
35°	1284.9	1288.7	1318.5	1349.0	1348.1
37.5°	1214.7	1232.4	1274.3	1282.8	1275.0
40°	1154.8	1172.5	1210.4	1219.6	1215.8
42.5°	1110.6	1113.8	1146.3	1156.8	1140.0
45°	1033.7	1053.0	1070.5	1098.1	1072.1
47.5°	968.2	977.2	1014.9	1022.3	1008.6
50°	908.8	912.0	949.9	940.7	931.7
52.5°	834.1	847.4	868.7	866.9	856.3
55°	772.7	767.5	787.7	782.3	782.1
57.5°	698.9	707.9	724.5	716.0	702.3
60°	629.9	630.1	636.1	626.5	624.7
62.5°	553.0	555.6	557.0	545.1	564.4
65°	474.7	468.4	486.8	468.2	471.3
67.5°	402.7	405.9	404.1	392.4	396.9
70°	329.6	333.7	330.7	317.5	321.5
72.5°	262.8	257.9	261.0	244.4	252.0
75°	197.5	193.5	197.1	183.2	189.5
77.5°	134.5	137.7	135.4	128.0	132.3
80°	88.8	86.3	86.3	82.1	83.0
82.5°	51.8	49.3	48.7	47.3	49.3
85°	24.2	23.5	24.0	23.3	22.4
87.5°	8.7	9.0	9.0	8.5	8.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)