

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: P589427

Luminaire Tested: **FMR-24-2-LD4-3LO-40-UNV-93-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589427
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-40-UNV-93-96-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

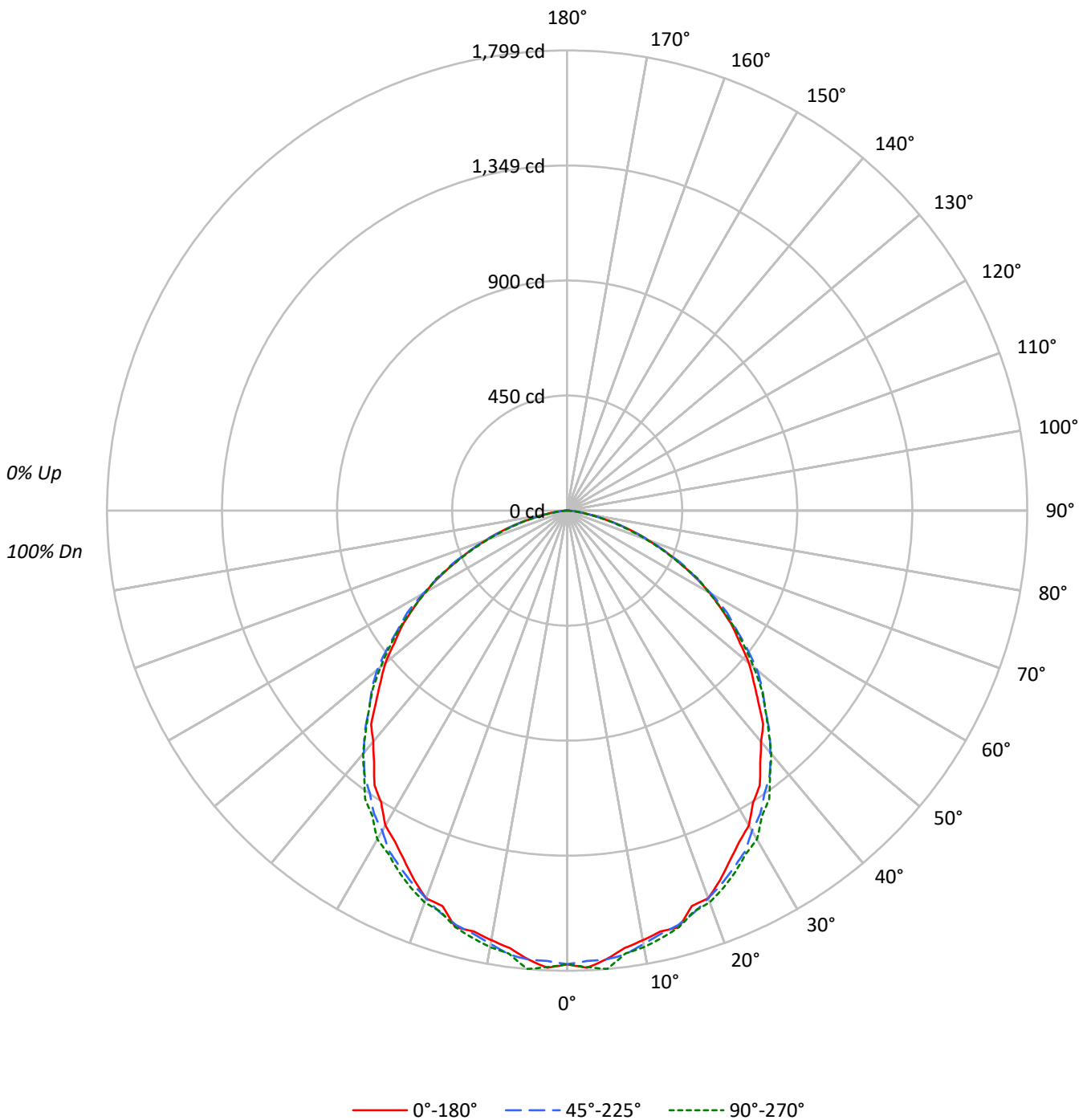
Lumens per Lamp: N/A
Luminaire Lumens: 4470.0 lumens
Efficiency: N/A
Efficacy: 127.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
Input Voltage (V): NR
Input Current (A_{in}): 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: P589427

CATALOG NUMBER: FMR-24-2-LD4-3LO-40-UNV-93-96-EDD

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	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°	4773	4773	4773
5°	4757	4759	4859
10°	4661	4701	4734
15°	4697	4672	4698
20°	4618	4618	4667
25°	4476	4574	4624
30°	4415	4492	4612
35°	4311	4423	4523
40°	4143	4342	4362
45°	4018	4160	4166
50°	3885	4061	3983
55°	3702	3774	3747
60°	3462	3497	3434
65°	3087	3166	3065
70°	2648	2658	2584
75°	2097	2093	2012
80°	1406	1367	1313
85°	763	756	707



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.8	3.7
10°-20°	472.8	10.6
20°-30°	708.4	15.8
30°-40°	839.6	18.8
40°-50°	841.1	18.8
50°-60°	714.0	16.0
60°-70°	481.4	10.8
70°-80°	211.5	4.7
80°-90°	34.4	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°	1348.1	30.2
0°-40°	2187.6	48.9
0°-60°	3742.7	83.7
0°-90°	4470.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4470.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1774	1774	1774	1774	1774	
5°	1761	1757	1762	1756	1799	166
15°	1686	1667	1677	1686	1686	470
25°	1508	1516	1540	1561	1557	697
35°	1312	1316	1346	1378	1377	815
45°	1056	1075	1093	1121	1095	817
55°	789	784	804	799	799	702
65°	485	478	497	478	481	482
75°	202	198	201	187	194	216
85°	25	24	24	24	23	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1773.6	1773.6	1773.6	1773.6	1773.6
2.5°	1788.9	1775.4	1762.8	1777.5	1786.4
5°	1761.0	1756.9	1761.7	1756.4	1798.8
7.5°	1724.8	1740.6	1749.8	1744.0	1746.6
10°	1705.6	1700.1	1720.5	1734.7	1732.6
12.5°	1685.0	1693.2	1694.4	1709.7	1711.1
15°	1686.1	1666.6	1676.9	1685.6	1686.3
17.5°	1620.6	1641.7	1648.8	1668.7	1644.0
20°	1612.6	1597.3	1612.6	1633.0	1629.8
22.5°	1563.4	1546.2	1579.2	1597.3	1596.1
25°	1507.5	1515.7	1540.5	1560.6	1557.4
27.5°	1458.5	1468.1	1503.4	1531.1	1513.2
30°	1420.7	1415.9	1445.7	1470.4	1484.1
32.5°	1353.1	1370.5	1405.4	1429.9	1416.8
35°	1312.2	1316.0	1346.5	1377.6	1376.7
37.5°	1240.5	1258.6	1301.4	1310.1	1302.1
40°	1179.3	1197.4	1236.1	1245.5	1241.6
42.5°	1134.2	1137.4	1170.6	1181.4	1164.2
45°	1055.7	1075.4	1093.2	1121.4	1094.8
47.5°	988.8	998.0	1036.4	1044.0	1030.0
50°	928.1	931.3	970.0	960.6	951.5
52.5°	851.9	865.4	887.1	885.3	874.5
55°	789.1	783.9	804.5	799.0	798.7
57.5°	713.8	722.9	739.9	731.2	717.2
60°	643.3	643.5	649.7	639.8	638.0
62.5°	564.7	567.5	568.8	556.7	576.4
65°	484.8	478.4	497.2	478.1	481.4
67.5°	411.3	414.5	412.7	400.7	405.3
70°	336.6	340.7	337.8	324.3	328.4
72.5°	268.4	263.3	266.6	249.6	257.4
75°	201.7	197.6	201.3	187.1	193.5
77.5°	137.4	140.6	138.3	130.8	135.1
80°	90.7	88.2	88.2	83.8	84.7
82.5°	52.9	50.4	49.7	48.3	50.4
85°	24.7	24.0	24.5	23.8	22.9
87.5°	8.9	9.2	9.2	8.7	8.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)