

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: P589386

Luminaire Tested: **FMR-24-2-LD4-3LO-35-UNV-82-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589386
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-82-94-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

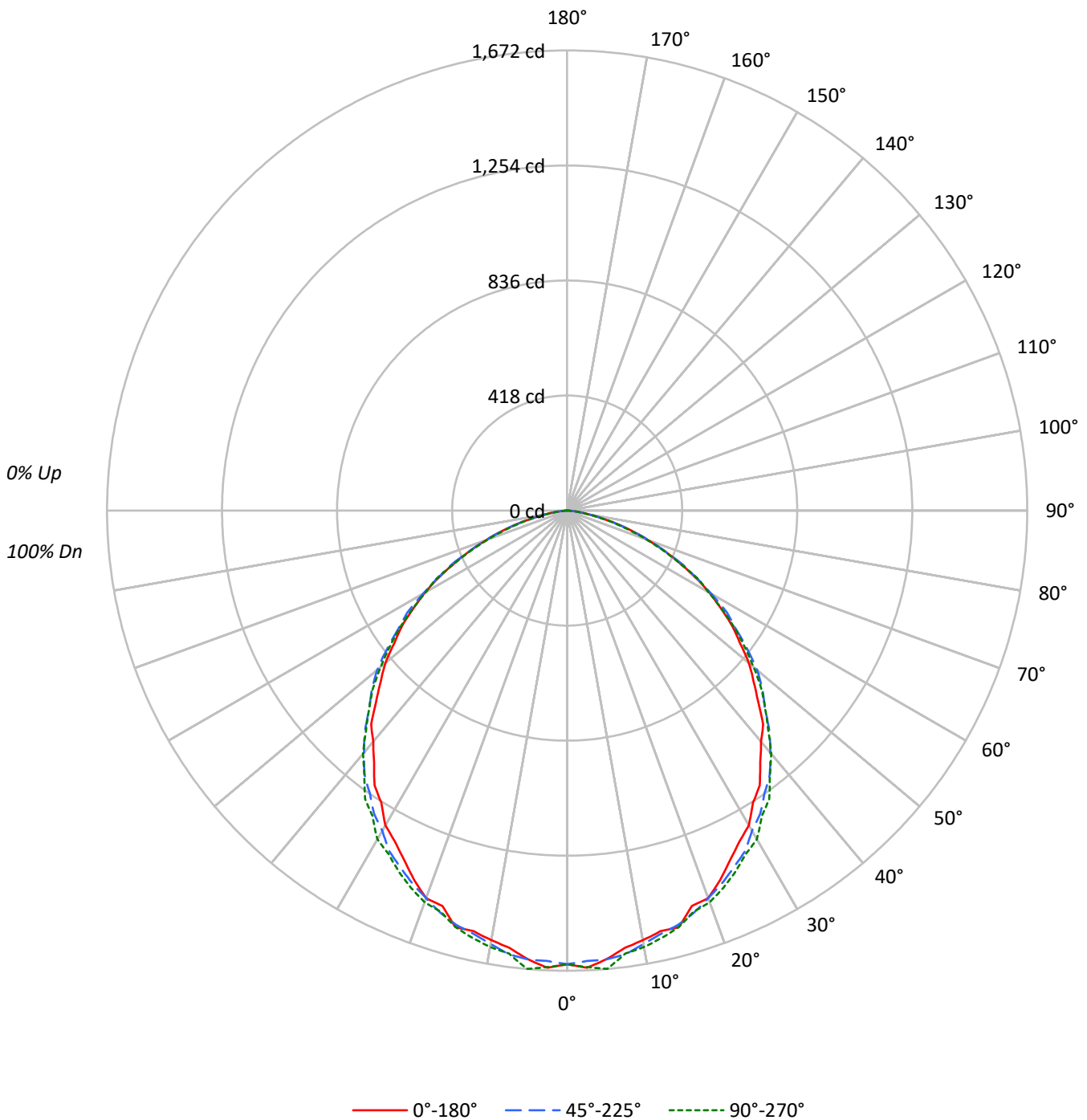
Lumens per Lamp: N/A
Luminaire Lumens: 4154.0 lumens
Efficiency: N/A
Efficacy: 118.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	4435	4435	4435
5°	4421	4422	4515
10°	4331	4369	4400
15°	4365	4342	4366
20°	4292	4292	4337
25°	4160	4251	4297
30°	4103	4175	4286
35°	4006	4111	4203
40°	3850	4035	4053
45°	3733	3866	3872
50°	3611	3774	3702
55°	3440	3507	3483
60°	3217	3249	3191
65°	2869	2942	2848
70°	2461	2470	2401
75°	1949	1945	1869
80°	1306	1269	1220
85°	710	704	658



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.0	3.7
10°-20°	439.4	10.6
20°-30°	658.3	15.8
30°-40°	780.2	18.8
40°-50°	781.7	18.8
50°-60°	663.5	16.0
60°-70°	447.3	10.8
70°-80°	196.6	4.7
80°-90°	31.9	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°	1252.7	30.2
0°-40°	2033.0	48.9
0°-60°	3478.1	83.7
0°-90°	4154.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4154.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1648	1648	1648	1648	1648	
5°	1636	1633	1637	1632	1672	154
15°	1567	1549	1558	1566	1567	437
25°	1401	1409	1432	1450	1447	648
35°	1219	1223	1251	1280	1279	757
45°	981	999	1016	1042	1017	759
55°	733	728	748	742	742	652
65°	450	445	462	444	447	448
75°	188	184	187	174	180	201
85°	23	22	23	22	21	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1648.2	1648.2	1648.2	1648.2	1648.2
2.5°	1662.5	1649.9	1638.2	1651.8	1660.1
5°	1636.5	1632.7	1637.1	1632.2	1671.6
7.5°	1602.9	1617.6	1626.1	1620.7	1623.1
10°	1585.0	1579.9	1598.8	1612.0	1610.1
12.5°	1565.8	1573.5	1574.6	1588.8	1590.1
15°	1566.9	1548.8	1558.4	1566.5	1567.1
17.5°	1506.0	1525.6	1532.2	1550.7	1527.8
20°	1498.6	1484.3	1498.6	1517.5	1514.6
22.5°	1452.8	1436.9	1467.5	1484.3	1483.3
25°	1400.9	1408.6	1431.6	1450.3	1447.3
27.5°	1355.4	1364.3	1397.1	1422.8	1406.2
30°	1320.3	1315.8	1343.5	1366.4	1379.2
32.5°	1257.5	1273.7	1306.0	1328.8	1316.6
35°	1219.4	1223.0	1251.3	1280.3	1279.4
37.5°	1152.8	1169.6	1209.4	1217.5	1210.0
40°	1096.0	1112.8	1148.7	1157.5	1153.8
42.5°	1054.0	1057.0	1087.9	1097.9	1081.9
45°	981.0	999.3	1015.9	1042.1	1017.4
47.5°	918.9	927.4	963.2	970.2	957.2
50°	862.5	865.5	901.5	892.7	884.2
52.5°	791.6	804.2	824.4	822.7	812.7
55°	733.3	728.4	747.6	742.5	742.3
57.5°	663.3	671.8	687.6	679.5	666.5
60°	597.8	598.0	603.7	594.6	592.9
62.5°	524.8	527.3	528.6	517.3	535.6
65°	450.5	444.6	462.0	444.3	447.3
67.5°	382.2	385.2	383.5	372.4	376.7
70°	312.8	316.7	313.9	301.3	305.2
72.5°	249.4	244.7	247.7	232.0	239.2
75°	187.5	183.7	187.1	173.9	179.8
77.5°	127.7	130.7	128.5	121.5	125.6
80°	84.3	81.9	81.9	77.9	78.7
82.5°	49.2	46.8	46.2	44.9	46.8
85°	23.0	22.3	22.8	22.1	21.3
87.5°	8.3	8.5	8.5	8.1	7.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)