

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: P589174

Luminaire Tested: **FMR-24-2-LD4-2STD-35-UNV-80-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589174
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-LD4-2STD-35-UNV-80-85-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

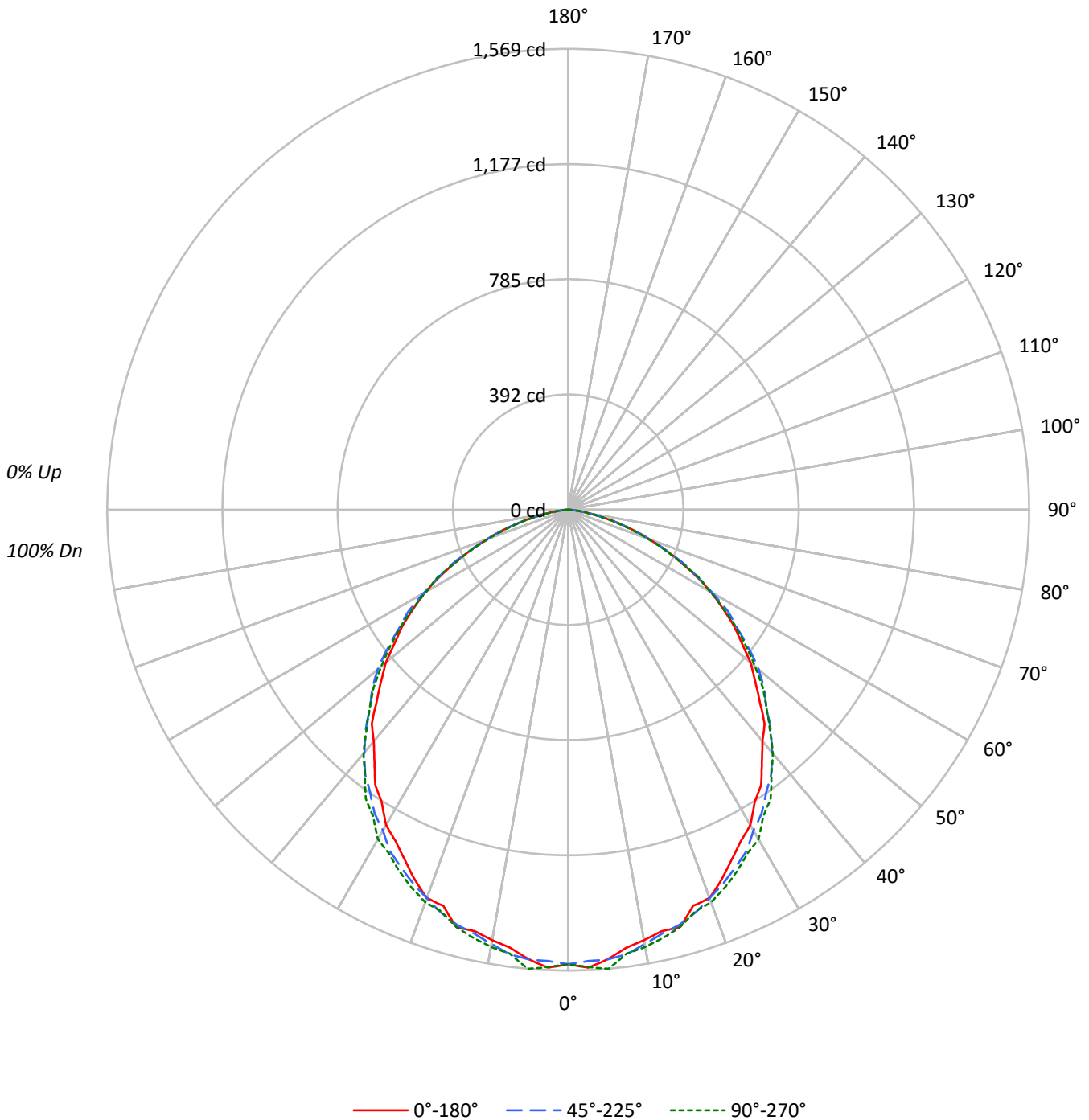
Lumens per Lamp: N/A
Luminaire Lumens: 3900.0 lumens
Efficiency: N/A
Efficacy: 117.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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: P589174

CATALOG NUMBER: FMR-24-2-LD4-2STD-35-UNV-80-85-EDD

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°	4164	4164	4164
5°	4150	4152	4239
10°	4066	4102	4131
15°	4098	4076	4099
20°	4029	4029	4072
25°	3905	3991	4035
30°	3851	3919	4024
35°	3761	3859	3946
40°	3615	3789	3805
45°	3505	3630	3635
50°	3390	3543	3476
55°	3230	3293	3270
60°	3020	3050	2996
65°	2693	2762	2674
70°	2311	2319	2254
75°	1830	1826	1755
80°	1226	1192	1145
85°	667	661	618



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.6	3.7
10°-20°	412.5	10.6
20°-30°	618.1	15.8
30°-40°	732.5	18.8
40°-50°	733.9	18.8
50°-60°	622.9	16.0
60°-70°	420.0	10.8
70°-80°	184.5	4.7
80°-90°	30.0	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°	1176.1	30.2
0°-40°	1908.7	48.9
0°-60°	3265.5	83.7
0°-90°	3900.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3900.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1547	1547	1547	1547	1547	
5°	1536	1533	1537	1532	1569	145
15°	1471	1454	1463	1471	1471	410
25°	1315	1322	1344	1362	1359	608
35°	1145	1148	1175	1202	1201	711
45°	921	938	954	978	955	713
55°	688	684	702	697	697	612
65°	423	417	434	417	420	421
75°	176	172	176	163	169	189
85°	22	21	21	21	20	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1547.4	1547.4	1547.4	1547.4	1547.4
2.5°	1560.8	1549.0	1538.0	1550.8	1558.6
5°	1536.4	1532.8	1537.0	1532.4	1569.4
7.5°	1504.9	1518.7	1526.6	1521.6	1523.8
10°	1488.1	1483.3	1501.1	1513.5	1511.7
12.5°	1470.1	1477.3	1478.3	1491.7	1492.9
15°	1471.1	1454.1	1463.1	1470.7	1471.3
17.5°	1414.0	1432.3	1438.5	1455.9	1434.3
20°	1407.0	1393.6	1407.0	1424.7	1421.9
22.5°	1364.0	1349.0	1377.8	1393.6	1392.6
25°	1315.3	1322.5	1344.0	1361.6	1358.8
27.5°	1272.5	1280.9	1311.7	1335.8	1320.3
30°	1239.5	1235.3	1261.3	1282.9	1294.9
32.5°	1180.6	1195.8	1226.1	1247.5	1236.1
35°	1144.8	1148.2	1174.8	1202.0	1201.2
37.5°	1082.3	1098.1	1135.4	1143.0	1136.0
40°	1029.0	1044.7	1078.5	1086.7	1083.3
42.5°	989.6	992.4	1021.4	1030.7	1015.8
45°	921.1	938.2	953.8	978.4	955.2
47.5°	862.7	870.7	904.3	910.9	898.7
50°	809.8	812.6	846.3	838.1	830.2
52.5°	743.2	755.0	774.0	772.4	763.0
55°	688.5	683.9	701.9	697.1	696.9
57.5°	622.8	630.8	645.5	637.9	625.8
60°	561.2	561.4	566.8	558.2	556.6
62.5°	492.7	495.1	496.3	485.7	502.9
65°	423.0	417.4	433.8	417.2	420.0
67.5°	358.8	361.6	360.0	349.6	353.6
70°	293.7	297.3	294.7	282.9	286.5
72.5°	234.2	229.8	232.6	217.8	224.6
75°	176.0	172.4	175.6	163.2	168.8
77.5°	119.9	122.7	120.7	114.1	117.9
80°	79.1	76.9	76.9	73.1	73.9
82.5°	46.2	44.0	43.4	42.2	44.0
85°	21.6	21.0	21.4	20.8	20.0
87.5°	7.8	8.0	8.0	7.6	7.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)