

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: P589255

Luminaire Tested: **FMR-24-2-LD4-2STD-50-UNV-82-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589255
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-50-UNV-82-86-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

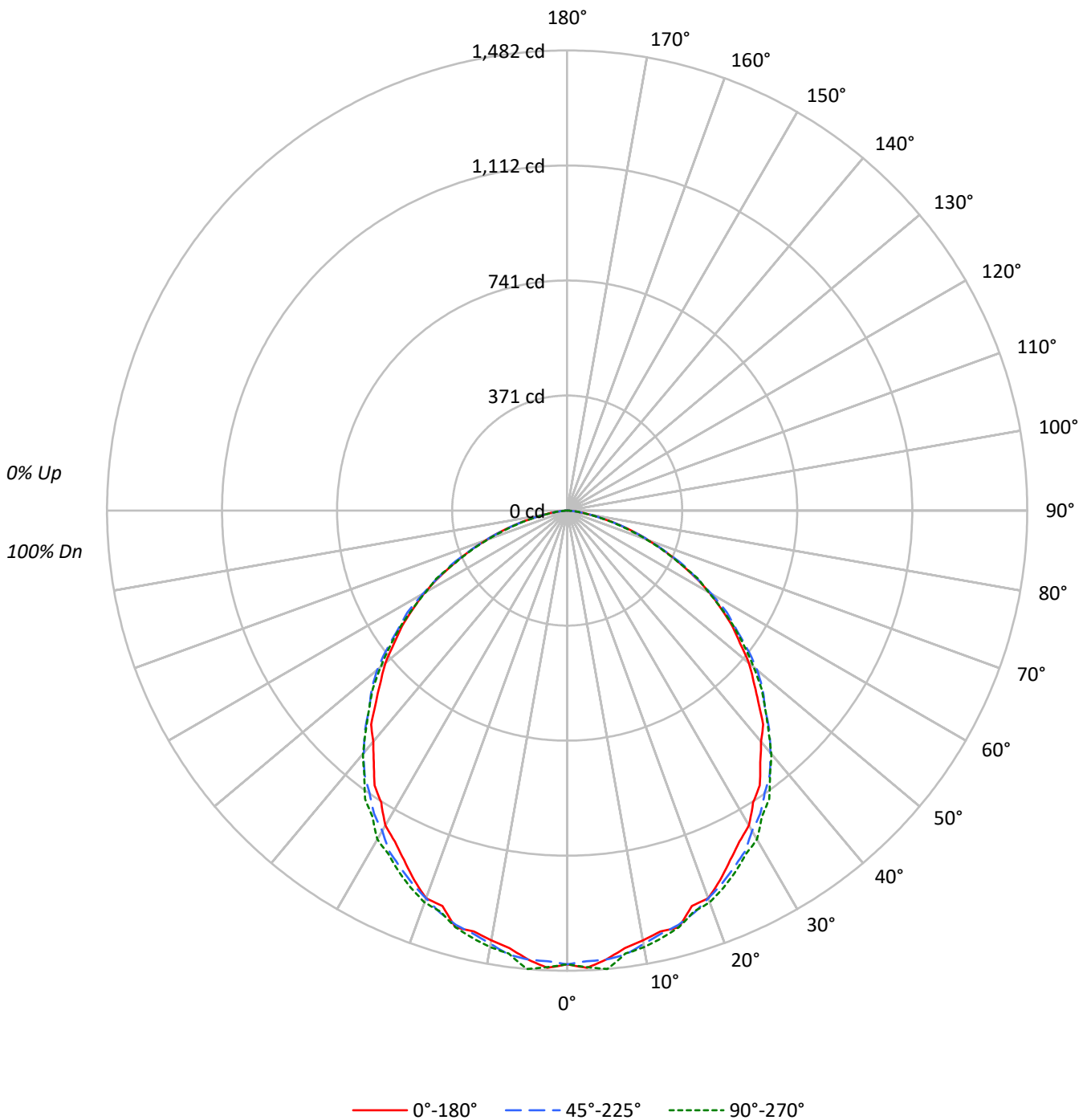
Lumens per Lamp: N/A
Luminaire Lumens: 3683.0 lumens
Efficiency: N/A
Efficacy: 110.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

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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°	3932	3932	3932
5°	3919	3921	4004
10°	3840	3873	3901
15°	3870	3849	3871
20°	3805	3805	3845
25°	3688	3768	3810
30°	3637	3701	3800
35°	3551	3644	3726
40°	3413	3578	3594
45°	3310	3428	3433
50°	3201	3346	3282
55°	3050	3110	3088
60°	2852	2881	2829
65°	2543	2608	2525
70°	2183	2190	2129
75°	1728	1724	1657
80°	1158	1125	1082
85°	630	624	584



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.5	3.7
10°-20°	389.6	10.6
20°-30°	583.7	15.8
30°-40°	691.8	18.8
40°-50°	693.0	18.8
50°-60°	588.3	16.0
60°-70°	396.6	10.8
70°-80°	174.3	4.7
80°-90°	28.3	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°	1110.7	30.2
0°-40°	1802.5	48.9
0°-60°	3083.8	83.7
0°-90°	3683.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3683.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1461	1461	1461	1461	1461	
5°	1451	1448	1452	1447	1482	137
15°	1389	1373	1382	1389	1389	387
25°	1242	1249	1269	1286	1283	574
35°	1081	1084	1109	1135	1134	671
45°	870	886	901	924	902	673
55°	650	646	663	658	658	578
65°	399	394	410	394	397	397
75°	166	163	166	154	159	178
85°	20	20	20	20	19	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1461.3	1461.3	1461.3	1461.3	1461.3
2.5°	1474.0	1462.8	1452.5	1464.5	1471.9
5°	1450.9	1447.5	1451.5	1447.2	1482.1
7.5°	1421.1	1434.2	1441.7	1437.0	1439.1
10°	1405.3	1400.8	1417.5	1429.2	1427.5
12.5°	1388.3	1395.1	1396.0	1408.7	1409.8
15°	1389.2	1373.2	1381.7	1388.9	1389.4
17.5°	1335.3	1352.6	1358.5	1374.9	1354.5
20°	1328.7	1316.0	1328.7	1345.5	1342.8
22.5°	1288.1	1274.0	1301.1	1316.0	1315.1
25°	1242.1	1248.9	1269.2	1285.8	1283.2
27.5°	1201.7	1209.6	1238.7	1261.5	1246.8
30°	1170.6	1166.6	1191.1	1211.5	1222.8
32.5°	1114.9	1129.2	1157.9	1178.1	1167.4
35°	1081.1	1084.3	1109.4	1135.1	1134.3
37.5°	1022.1	1037.0	1072.3	1079.4	1072.8
40°	971.7	986.6	1018.5	1026.2	1023.0
42.5°	934.5	937.2	964.5	973.4	959.2
45°	869.8	886.0	900.8	924.0	902.1
47.5°	814.7	822.3	854.0	860.2	848.7
50°	764.7	767.4	799.2	791.5	784.0
52.5°	701.9	713.0	730.9	729.4	720.6
55°	650.2	645.8	662.8	658.3	658.1
57.5°	588.1	595.7	609.6	602.5	590.9
60°	530.0	530.2	535.3	527.2	525.7
62.5°	465.3	467.5	468.7	458.7	474.9
65°	399.4	394.2	409.6	394.0	396.6
67.5°	338.9	341.5	340.0	330.2	334.0
70°	277.4	280.8	278.3	267.2	270.6
72.5°	221.1	217.0	219.6	205.7	212.1
75°	166.2	162.8	165.8	154.2	159.4
77.5°	113.2	115.8	114.0	107.7	111.3
80°	74.7	72.6	72.6	69.1	69.8
82.5°	43.6	41.5	40.9	39.8	41.5
85°	20.4	19.8	20.2	19.6	18.9
87.5°	7.4	7.5	7.5	7.2	6.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)