

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: P588872

Luminaire Tested: **FMR-24-2-LD4-1LO-50-UNV-82-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588872
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-LD4-1LO-50-UNV-82-87-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

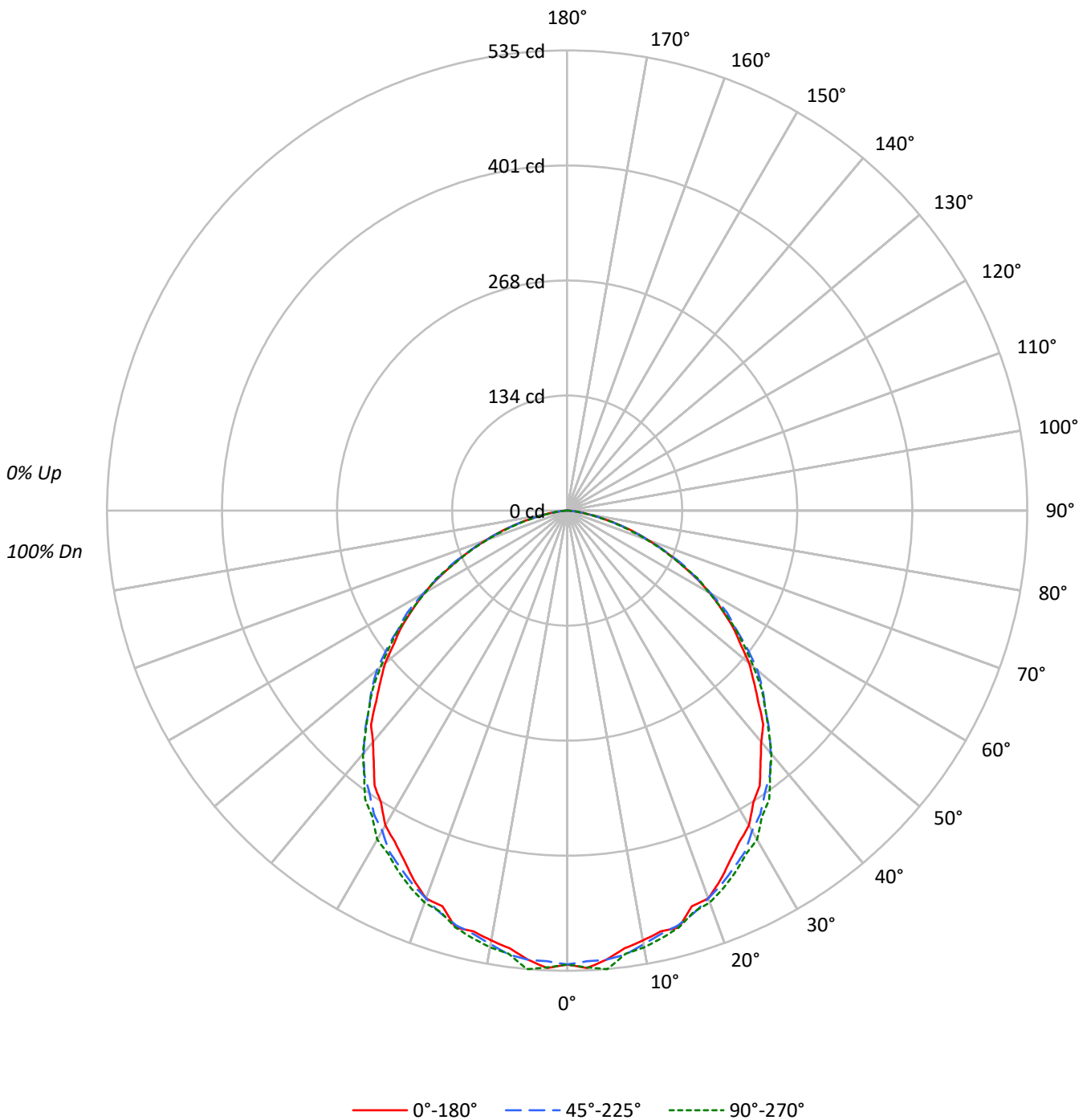
Lumens per Lamp: N/A
Luminaire Lumens: 1330.0 lumens
Efficiency: N/A
Efficacy: 113.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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°	1420	1420	1420
5°	1415	1416	1446
10°	1387	1399	1409
15°	1398	1390	1398
20°	1374	1374	1389
25°	1332	1361	1376
30°	1313	1336	1372
35°	1282	1316	1346
40°	1233	1292	1298
45°	1195	1238	1240
50°	1156	1208	1185
55°	1102	1123	1115
60°	1030	1040	1021
65°	918	942	912
70°	788	791	769
75°	624	623	599
80°	418	406	391
85°	228	225	210



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.6	3.7
10°-20°	140.7	10.6
20°-30°	210.8	15.8
30°-40°	249.8	18.8
40°-50°	250.3	18.8
50°-60°	212.4	16.0
60°-70°	143.2	10.8
70°-80°	62.9	4.7
80°-90°	10.2	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°	401.1	30.2
0°-40°	650.9	48.9
0°-60°	1113.6	83.7
0°-90°	1330.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1330.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	528	528	528	528	528	
5°	524	523	524	523	535	49
15°	502	496	499	502	502	140
25°	448	451	458	464	463	207
35°	390	392	401	410	410	242
45°	314	320	325	334	326	243
55°	235	233	239	238	238	209
65°	144	142	148	142	143	143
75°	60	59	60	56	58	64
85°	7	7	7	7	7	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	527.7	527.7	527.7	527.7	527.7
2.5°	532.3	528.3	524.5	528.9	531.5
5°	524.0	522.7	524.2	522.6	535.2
7.5°	513.2	517.9	520.6	518.9	519.7
10°	507.5	505.8	511.9	516.1	515.5
12.5°	501.3	503.8	504.1	508.7	509.1
15°	501.7	495.9	499.0	501.5	501.8
17.5°	482.2	488.5	490.6	496.5	489.1
20°	479.8	475.2	479.8	485.9	484.9
22.5°	465.2	460.1	469.9	475.2	474.9
25°	448.5	451.0	458.3	464.3	463.4
27.5°	434.0	436.8	447.3	455.6	450.2
30°	422.7	421.3	430.1	437.5	441.6
32.5°	402.6	407.8	418.1	425.4	421.6
35°	390.4	391.6	400.6	409.9	409.6
37.5°	369.1	374.5	387.2	389.8	387.4
40°	350.9	356.3	367.8	370.6	369.4
42.5°	337.5	338.4	348.3	351.5	346.4
45°	314.1	320.0	325.3	333.7	325.8
47.5°	294.2	296.9	308.4	310.6	306.5
50°	276.2	277.1	288.6	285.8	283.1
52.5°	253.5	257.5	264.0	263.4	260.2
55°	234.8	233.2	239.4	237.7	237.7
57.5°	212.4	215.1	220.1	217.6	213.4
60°	191.4	191.5	193.3	190.4	189.8
62.5°	168.0	168.8	169.2	165.6	171.5
65°	144.2	142.3	147.9	142.3	143.2
67.5°	122.4	123.3	122.8	119.2	120.6
70°	100.2	101.4	100.5	96.5	97.7
72.5°	79.9	78.4	79.3	74.3	76.6
75°	60.0	58.8	59.9	55.7	57.6
77.5°	40.9	41.8	41.2	38.9	40.2
80°	27.0	26.2	26.2	24.9	25.2
82.5°	15.7	15.0	14.8	14.4	15.0
85°	7.4	7.2	7.3	7.1	6.8
87.5°	2.7	2.7	2.7	2.6	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)