

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: P588807

Luminaire Tested: **FMR-24-2-LD4-1LO-35-UNV-82-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588807
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-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

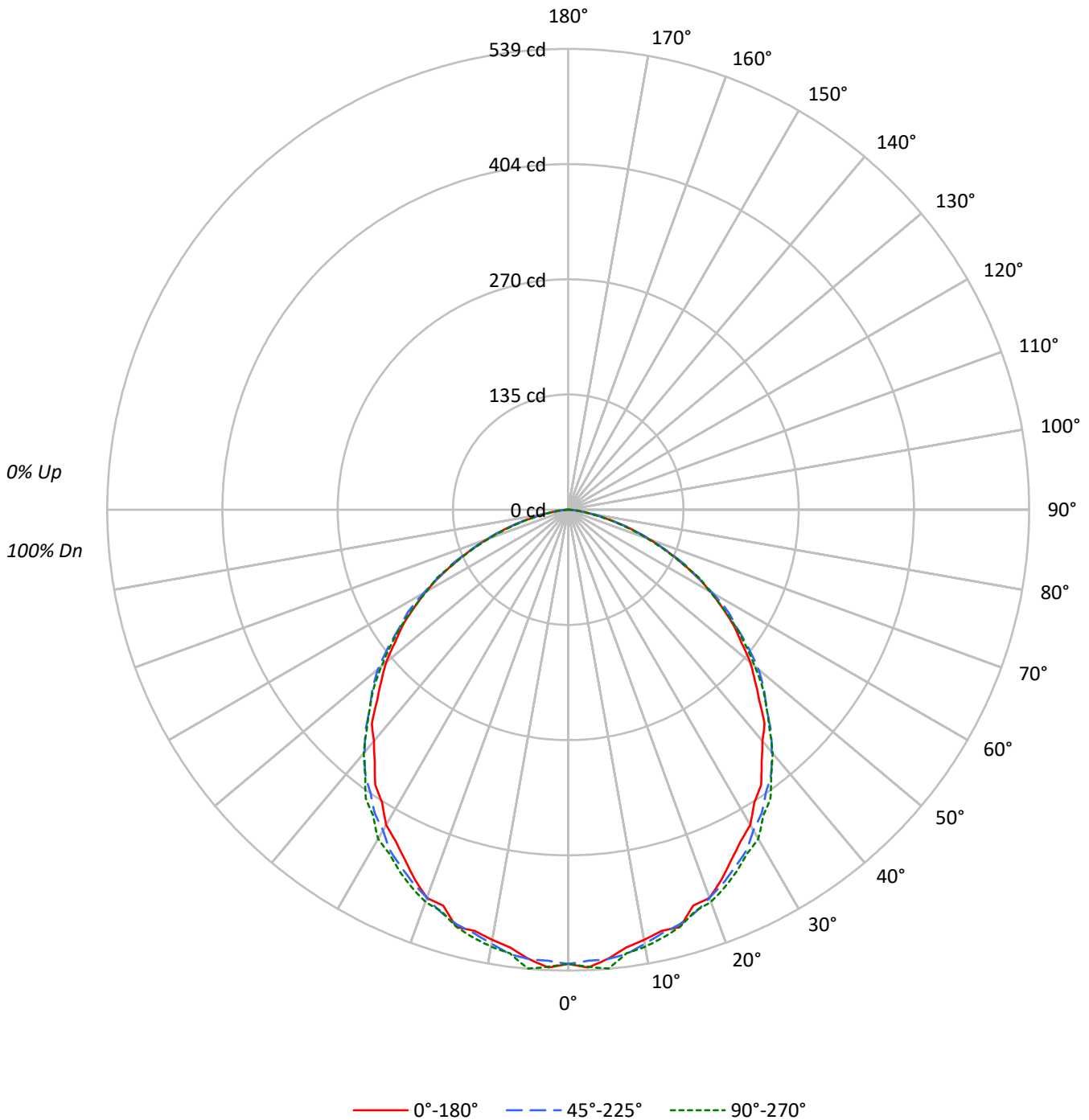
Lumens per Lamp: N/A
Luminaire Lumens: 1339.0 lumens
Efficiency: N/A
Efficacy: 114.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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

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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°	1430	1430	1430
5°	1425	1425	1455
10°	1396	1408	1418
15°	1407	1399	1407
20°	1383	1383	1398
25°	1341	1370	1385
30°	1322	1346	1381
35°	1291	1325	1355
40°	1241	1301	1306
45°	1203	1246	1248
50°	1164	1217	1193
55°	1109	1131	1123
60°	1037	1047	1028
65°	925	948	918
70°	793	796	774
75°	628	627	603
80°	422	409	394
85°	228	225	213



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.0	3.7
10°-20°	141.6	10.6
20°-30°	212.2	15.8
30°-40°	251.5	18.8
40°-50°	252.0	18.8
50°-60°	213.9	16.0
60°-70°	144.2	10.8
70°-80°	63.4	4.7
80°-90°	10.3	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°	403.8	30.2
0°-40°	655.3	48.9
0°-60°	1121.1	83.7
0°-90°	1339.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1339.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	531	531	531	531	531	
5°	528	526	528	526	539	50
15°	505	499	502	505	505	141
25°	452	454	461	468	466	209
35°	393	394	403	413	412	244
45°	316	322	328	336	328	245
55°	236	235	241	239	239	210
65°	145	143	149	143	144	144
75°	60	59	60	56	58	65
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°	531.3	531.3	531.3	531.3	531.3
2.5°	535.9	531.8	528.1	532.4	535.1
5°	527.5	526.3	527.7	526.1	538.8
7.5°	516.7	521.4	524.1	522.4	523.2
10°	510.9	509.3	515.4	519.6	519.0
12.5°	504.7	507.2	507.5	512.1	512.6
15°	505.1	499.2	502.3	504.9	505.1
17.5°	485.5	491.8	493.9	499.9	492.5
20°	483.1	478.5	483.1	489.2	488.2
22.5°	468.3	463.2	473.0	478.5	478.1
25°	451.6	454.0	461.4	467.5	466.5
27.5°	436.9	439.8	450.3	458.6	453.3
30°	425.6	424.1	433.1	440.5	444.6
32.5°	405.3	410.6	421.0	428.3	424.4
35°	393.1	394.2	403.3	412.7	412.4
37.5°	371.6	377.0	389.8	392.4	390.0
40°	353.3	358.7	370.3	373.1	371.9
42.5°	339.8	340.7	350.7	353.9	348.7
45°	316.2	322.1	327.5	335.9	328.0
47.5°	296.2	298.9	310.5	312.7	308.5
50°	278.0	279.0	290.6	287.8	285.0
52.5°	255.2	259.2	265.7	265.2	262.0
55°	236.4	234.8	241.0	239.3	239.3
57.5°	213.8	216.6	221.6	219.0	214.8
60°	192.7	192.8	194.6	191.7	191.1
62.5°	169.2	170.0	170.4	166.8	172.7
65°	145.2	143.3	148.9	143.2	144.2
67.5°	123.2	124.2	123.6	120.0	121.4
70°	100.8	102.1	101.2	97.1	98.4
72.5°	80.4	78.9	79.8	74.8	77.1
75°	60.4	59.2	60.3	56.0	58.0
77.5°	41.2	42.1	41.4	39.2	40.5
80°	27.2	26.4	26.4	25.1	25.4
82.5°	15.8	15.1	14.9	14.5	15.1
85°	7.4	7.2	7.3	7.1	6.9
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)