

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: P588835

Luminaire Tested: **FMR-24-2-LD4-1LO-40-UNV-81-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588835
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-40-UNV-81-96-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

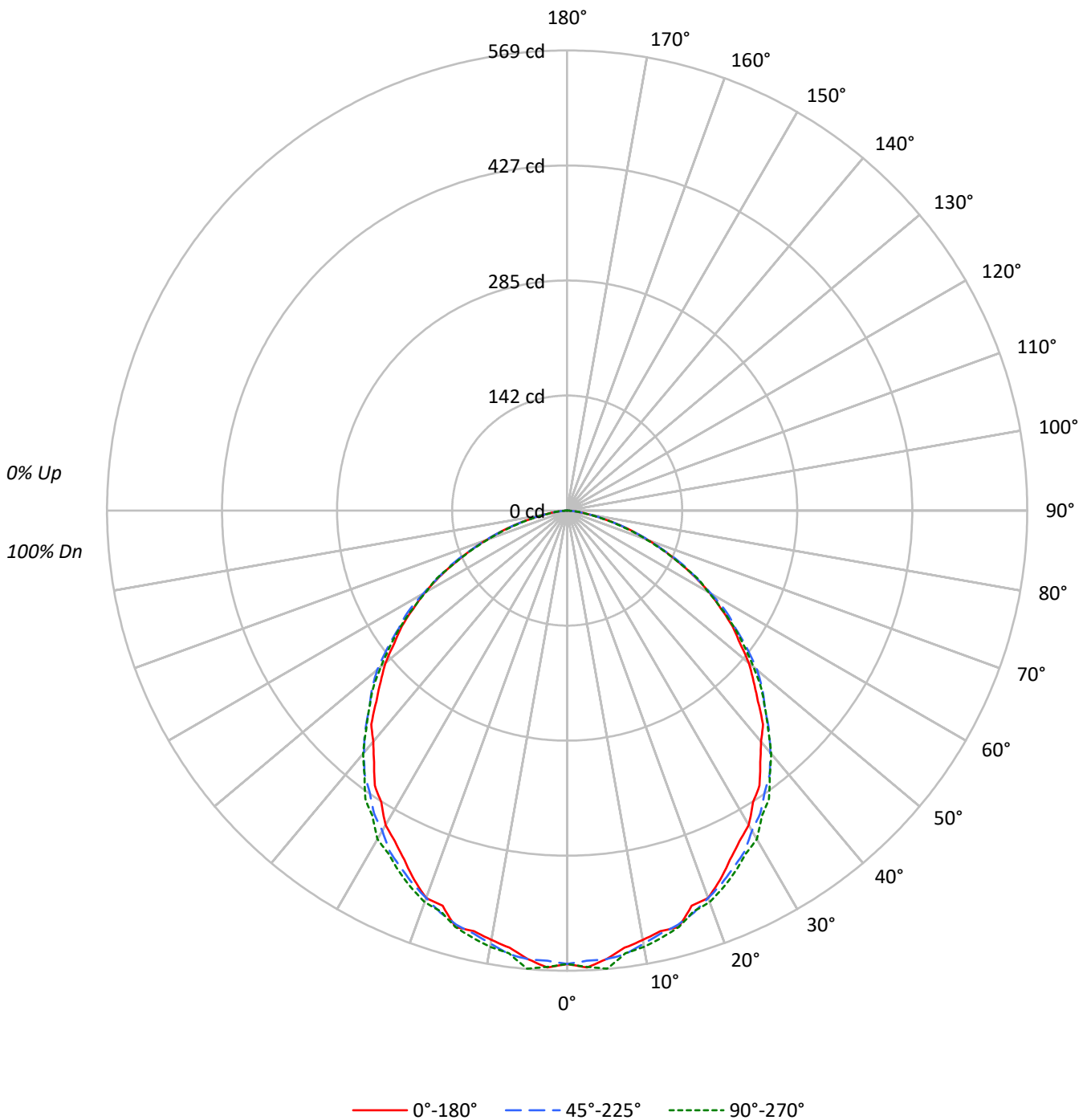
Lumens per Lamp: N/A
Luminaire Lumens: 1413.0 lumens
Efficiency: N/A
Efficacy: 120.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	1509	1509	1509
5°	1504	1504	1536
10°	1473	1486	1497
15°	1485	1477	1485
20°	1460	1460	1475
25°	1415	1446	1462
30°	1395	1420	1458
35°	1363	1398	1430
40°	1310	1372	1379
45°	1270	1315	1317
50°	1228	1284	1259
55°	1170	1193	1185
60°	1094	1105	1086
65°	975	1001	969
70°	837	840	817
75°	663	661	636
80°	445	432	415
85°	241	238	222



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.7	3.7
10°-20°	149.5	10.6
20°-30°	223.9	15.8
30°-40°	265.4	18.8
40°-50°	265.9	18.8
50°-60°	225.7	16.0
60°-70°	152.2	10.8
70°-80°	66.9	4.7
80°-90°	10.9	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°	426.1	30.2
0°-40°	691.5	48.9
0°-60°	1183.1	83.7
0°-90°	1413.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1413.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	561	561	561	561	561	
5°	557	555	557	555	569	52
15°	533	527	530	533	533	148
25°	476	479	487	493	492	220
35°	415	416	426	436	435	258
45°	334	340	346	354	346	258
55°	249	248	254	253	252	222
65°	153	151	157	151	152	152
75°	64	62	64	59	61	68
85°	8	8	8	8	7	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	560.6	560.6	560.6	560.6	560.6
2.5°	565.5	561.2	557.2	561.9	564.7
5°	556.7	555.4	556.9	555.2	568.6
7.5°	545.2	550.2	553.1	551.3	552.1
10°	539.1	537.4	543.8	548.3	547.7
12.5°	532.6	535.2	535.6	540.4	540.9
15°	533.0	526.8	530.1	532.8	533.1
17.5°	512.3	518.9	521.2	527.5	519.7
20°	509.8	504.9	509.8	516.2	515.2
22.5°	494.2	488.8	499.2	504.9	504.5
25°	476.5	479.1	487.0	493.3	492.3
27.5°	461.0	464.1	475.2	484.0	478.3
30°	449.1	447.6	457.0	464.8	469.1
32.5°	427.7	433.2	444.2	452.0	447.9
35°	414.8	416.0	425.6	435.5	435.2
37.5°	392.1	397.8	411.4	414.1	411.6
40°	372.8	378.5	390.7	393.7	392.5
42.5°	358.5	359.5	370.0	373.4	368.0
45°	333.7	339.9	345.6	354.5	346.1
47.5°	312.6	315.5	327.6	330.0	325.6
50°	293.4	294.4	306.6	303.7	300.8
52.5°	269.3	273.6	280.4	279.9	276.4
55°	249.4	247.8	254.3	252.6	252.5
57.5°	225.6	228.5	233.9	231.1	226.7
60°	203.3	203.4	205.4	202.3	201.7
62.5°	178.5	179.4	179.8	176.0	182.2
65°	153.2	151.2	157.2	151.1	152.2
67.5°	130.0	131.0	130.4	126.7	128.1
70°	106.4	107.7	106.8	102.5	103.8
72.5°	84.8	83.2	84.3	78.9	81.4
75°	63.8	62.5	63.6	59.1	61.2
77.5°	43.4	44.4	43.7	41.3	42.7
80°	28.7	27.9	27.9	26.5	26.8
82.5°	16.7	15.9	15.7	15.3	15.9
85°	7.8	7.6	7.7	7.5	7.2
87.5°	2.8	2.9	2.9	2.8	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)