

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: P588842

Luminaire Tested: **FMR-24-2-LD4-1LO-40-UNV-82-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588842
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-82-94-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

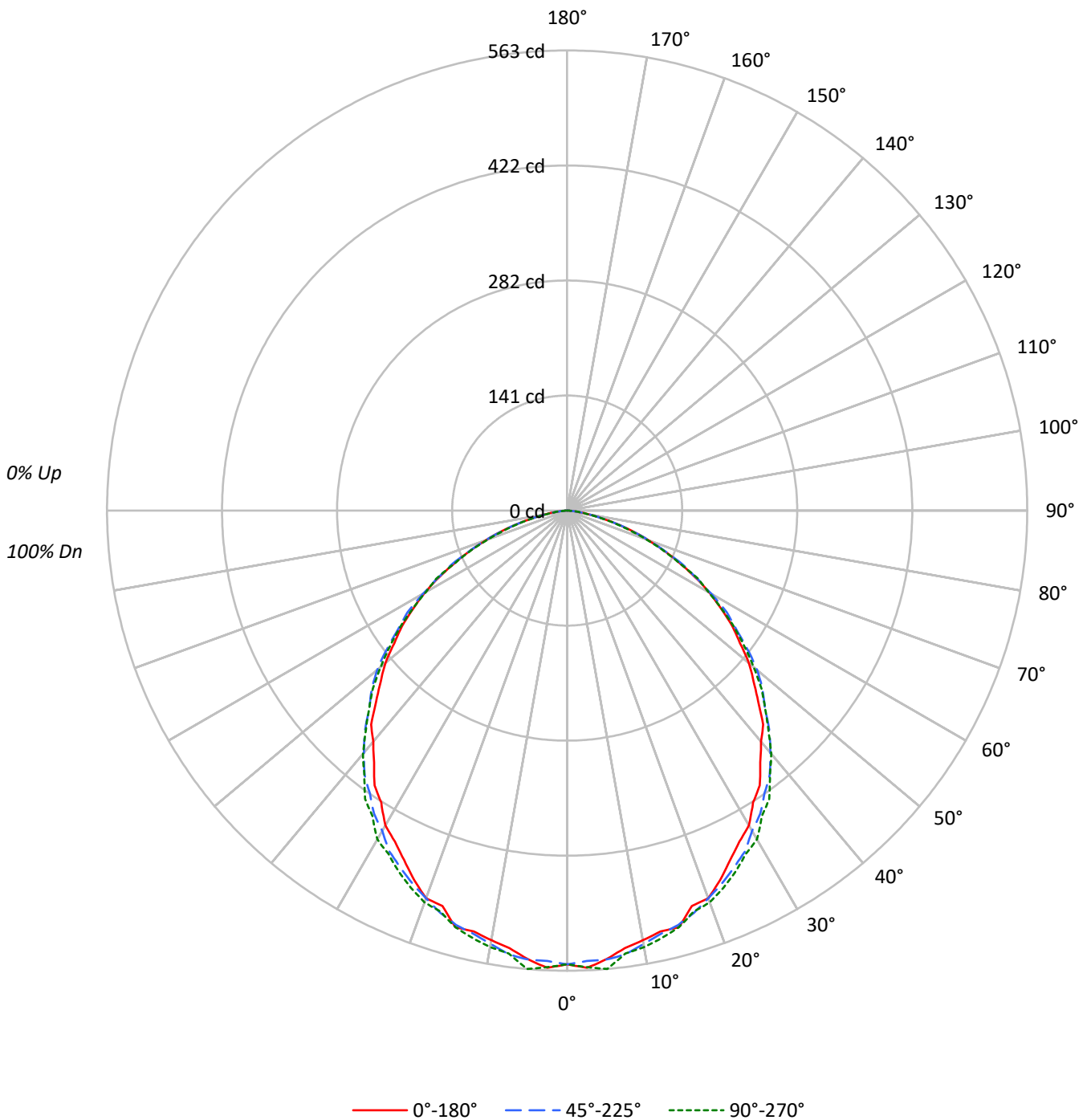
Lumens per Lamp: N/A
Luminaire Lumens: 1399.0 lumens
Efficiency: N/A
Efficacy: 119.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	1494	1494	1494
5°	1489	1489	1521
10°	1459	1471	1482
15°	1470	1462	1470
20°	1445	1445	1461
25°	1401	1431	1447
30°	1381	1406	1443
35°	1349	1384	1416
40°	1297	1359	1365
45°	1257	1302	1304
50°	1216	1271	1247
55°	1159	1181	1173
60°	1083	1094	1075
65°	966	991	960
70°	829	832	809
75°	656	655	630
80°	440	428	411
85°	238	238	222



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.2	3.7
10°-20°	148.0	10.6
20°-30°	221.7	15.8
30°-40°	262.8	18.8
40°-50°	263.3	18.8
50°-60°	223.5	16.0
60°-70°	150.6	10.8
70°-80°	66.2	4.7
80°-90°	10.8	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°	421.9	30.2
0°-40°	684.7	48.9
0°-60°	1171.4	83.7
0°-90°	1399.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1399.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	555	555	555	555	555	
5°	551	550	551	550	563	52
15°	528	522	525	528	528	147
25°	472	474	482	488	487	218
35°	411	412	421	431	431	255
45°	330	337	342	351	343	256
55°	247	245	252	250	250	220
65°	152	150	156	150	151	151
75°	63	62	63	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°	555.1	555.1	555.1	555.1	555.1
2.5°	559.9	555.7	551.7	556.3	559.1
5°	551.1	549.9	551.4	549.7	563.0
7.5°	539.8	544.8	547.6	545.8	546.6
10°	533.8	532.1	538.5	542.9	542.3
12.5°	527.4	529.9	530.3	535.1	535.5
15°	527.7	521.6	524.8	527.6	527.8
17.5°	507.2	513.8	516.0	522.3	514.5
20°	504.7	499.9	504.7	511.1	510.1
22.5°	489.3	483.9	494.2	499.9	499.5
25°	471.8	474.4	482.1	488.4	487.4
27.5°	456.5	459.5	470.5	479.2	473.6
30°	444.6	443.1	452.5	460.2	464.5
32.5°	423.5	428.9	439.8	447.5	443.4
35°	410.7	411.9	421.4	431.2	430.9
37.5°	388.2	393.9	407.3	410.0	407.5
40°	369.1	374.8	386.9	389.8	388.6
42.5°	355.0	356.0	366.4	369.7	364.4
45°	330.4	336.6	342.2	351.0	342.7
47.5°	309.5	312.3	324.4	326.7	322.4
50°	290.5	291.5	303.6	300.7	297.8
52.5°	266.6	270.8	277.7	277.1	273.7
55°	247.0	245.3	251.8	250.1	250.0
57.5°	223.4	226.3	231.6	228.8	224.5
60°	201.3	201.4	203.3	200.2	199.7
62.5°	176.7	177.6	178.0	174.2	180.4
65°	151.7	149.7	155.6	149.6	150.7
67.5°	128.7	129.7	129.2	125.4	126.9
70°	105.4	106.6	105.7	101.5	102.8
72.5°	84.0	82.4	83.4	78.1	80.6
75°	63.1	61.9	63.0	58.6	60.6
77.5°	43.0	44.0	43.3	40.9	42.3
80°	28.4	27.6	27.6	26.2	26.5
82.5°	16.6	15.8	15.6	15.1	15.8
85°	7.7	7.5	7.7	7.5	7.2
87.5°	2.8	2.9	2.9	2.7	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)