

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: P588870

Luminaire Tested: **FMR-24-2-LD4-1LO-50-UNV-82-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588870
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-82-85-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

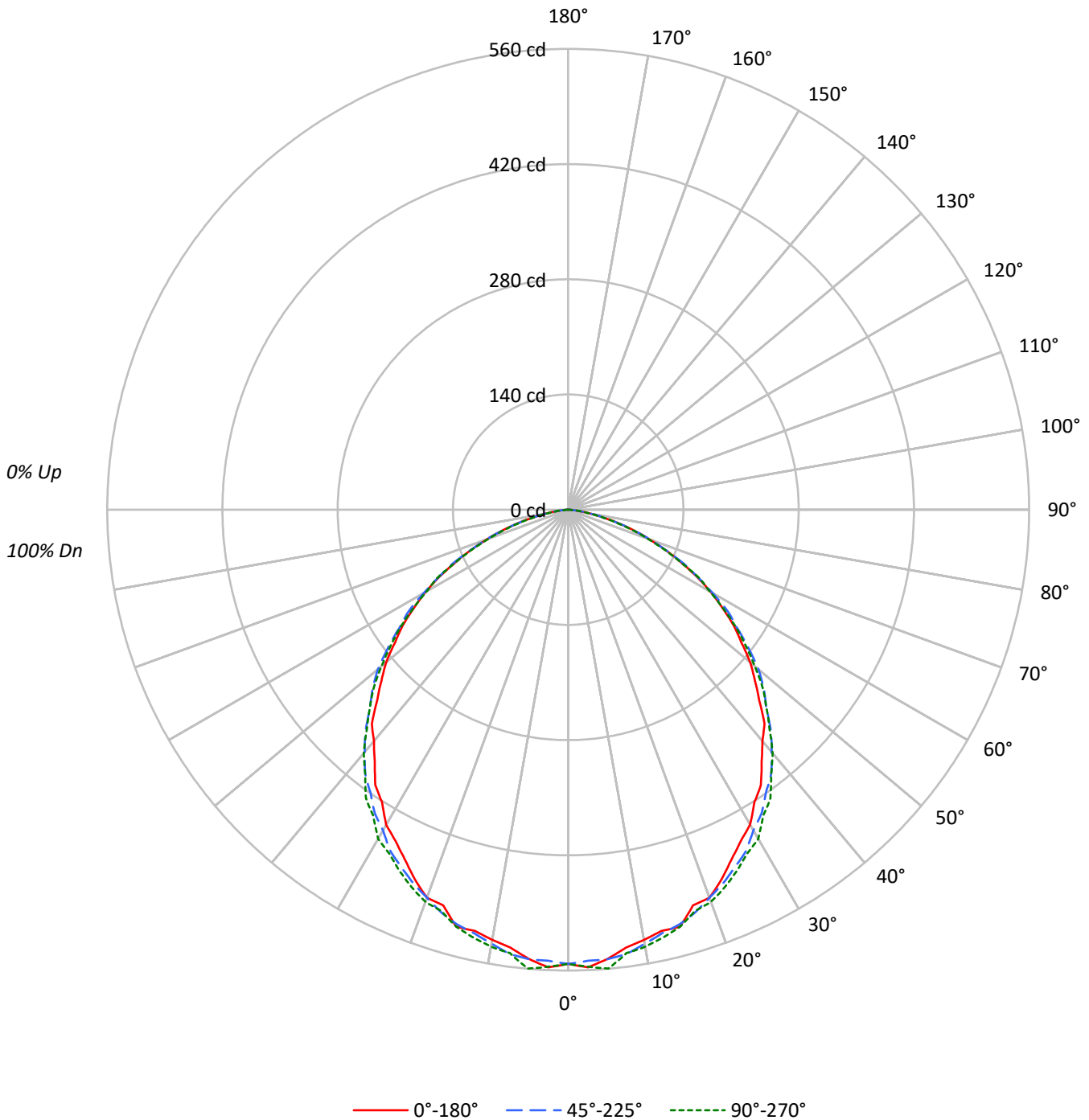
Lumens per Lamp: N/A
Luminaire Lumens: 1391.0 lumens
Efficiency: N/A
Efficacy: 118.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	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					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°	1485	1485	1485
5°	1480	1481	1512
10°	1450	1463	1473
15°	1462	1454	1462
20°	1437	1437	1452
25°	1393	1423	1439
30°	1374	1398	1435
35°	1341	1376	1407
40°	1289	1351	1357
45°	1250	1295	1297
50°	1209	1264	1240
55°	1152	1174	1166
60°	1077	1088	1068
65°	961	985	954
70°	825	827	804
75°	653	651	626
80°	437	425	409
85°	238	235	219



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.9	3.7
10°-20°	147.1	10.6
20°-30°	220.4	15.8
30°-40°	261.3	18.8
40°-50°	261.8	18.8
50°-60°	222.2	16.0
60°-70°	149.8	10.8
70°-80°	65.8	4.7
80°-90°	10.7	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°	419.5	30.2
0°-40°	680.8	48.9
0°-60°	1164.7	83.7
0°-90°	1391.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1391.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	552	552	552	552	552	
5°	548	547	548	547	560	52
15°	525	519	522	524	525	146
25°	469	472	479	486	485	217
35°	408	410	419	429	428	254
45°	328	335	340	349	341	254
55°	246	244	250	249	249	218
65°	151	149	155	149	150	150
75°	63	62	63	58	60	67
85°	8	8	8	7	7	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	551.9	551.9	551.9	551.9	551.9
2.5°	556.7	552.5	548.6	553.1	555.9
5°	548.0	546.7	548.2	546.6	559.8
7.5°	536.7	541.7	544.5	542.7	543.5
10°	530.7	529.0	535.4	539.8	539.2
12.5°	524.3	526.9	527.3	532.0	532.5
15°	524.7	518.6	521.8	524.5	524.8
17.5°	504.3	510.9	513.1	519.3	511.6
20°	501.8	497.0	501.8	508.2	507.2
22.5°	486.5	481.2	491.4	497.0	496.7
25°	469.1	471.7	479.4	485.6	484.6
27.5°	453.9	456.9	467.8	476.4	470.9
30°	442.1	440.6	449.9	457.6	461.8
32.5°	421.1	426.5	437.3	445.0	440.9
35°	408.3	409.5	419.0	428.7	428.4
37.5°	386.0	391.6	405.0	407.7	405.2
40°	367.0	372.6	384.7	387.6	386.4
42.5°	353.0	354.0	364.3	367.6	362.3
45°	328.5	334.6	340.2	349.0	340.7
47.5°	307.7	310.6	322.5	324.9	320.5
50°	288.8	289.8	301.9	298.9	296.1
52.5°	265.1	269.3	276.1	275.5	272.1
55°	245.6	243.9	250.3	248.6	248.6
57.5°	222.1	225.0	230.2	227.5	223.2
60°	200.2	200.2	202.2	199.1	198.5
62.5°	175.7	176.6	177.0	173.2	179.4
65°	150.9	148.9	154.7	148.8	149.8
67.5°	128.0	129.0	128.4	124.7	126.1
70°	104.8	106.0	105.1	100.9	102.2
72.5°	83.5	81.9	82.9	77.7	80.1
75°	62.8	61.5	62.6	58.2	60.2
77.5°	42.8	43.8	43.0	40.7	42.0
80°	28.2	27.4	27.4	26.1	26.4
82.5°	16.5	15.7	15.5	15.0	15.7
85°	7.7	7.5	7.6	7.4	7.1
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)