

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P560242

Luminaire Tested: FSR-12-2-LD4-2HI-40-UNV-80-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560242
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-12-2-LD4-2HI-40-UNV-80-85-EDD-90
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONM
SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3113.0 lumens
Efficiency: N/A
Efficacy: 72.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

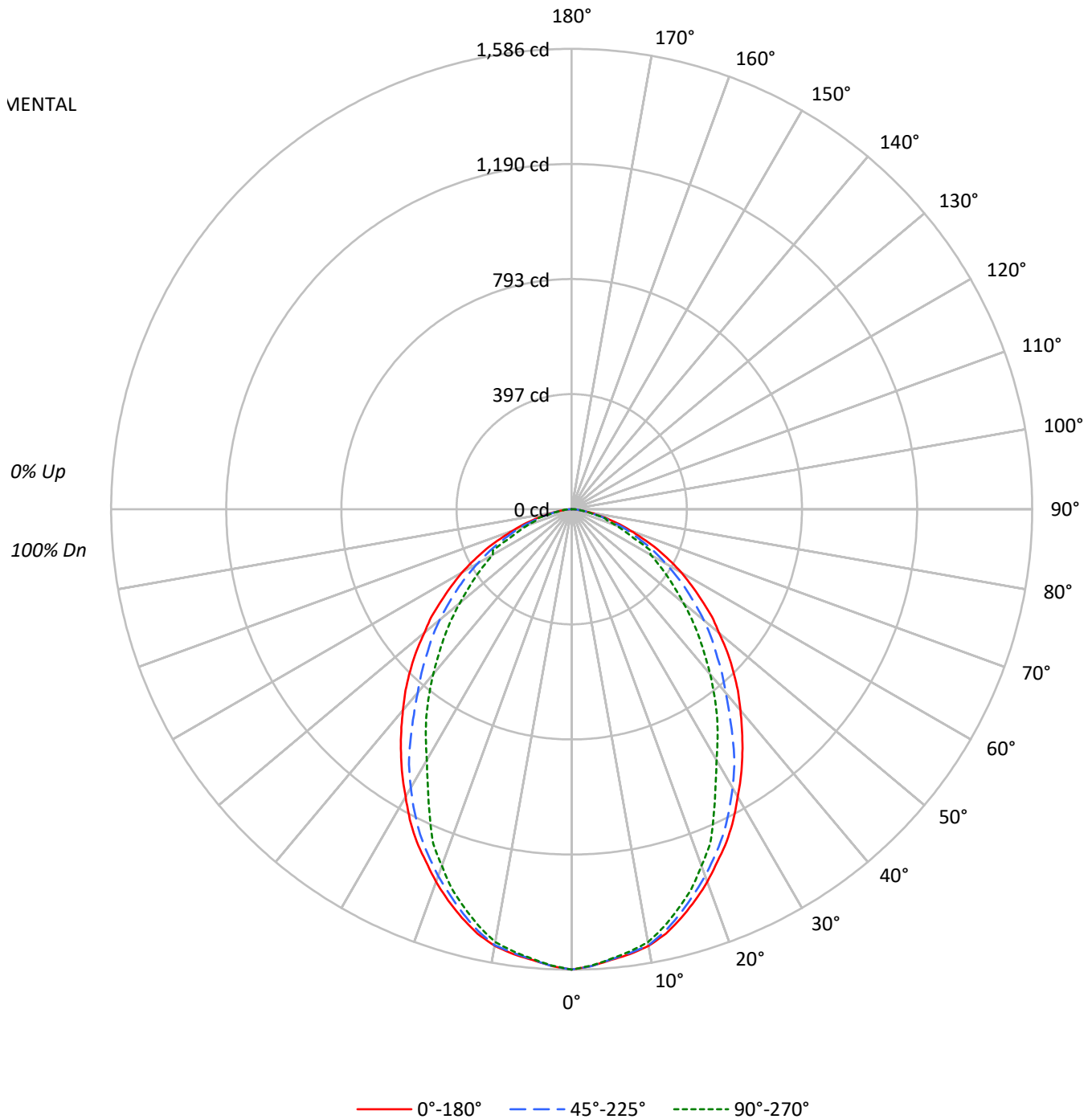
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																												
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																												
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																												
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																												
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																												
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																												
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																												
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																												
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																												
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8534	8534	8534
5°	8418	8408	8399
10°	8346	8335	8275
15°	8120	8038	7926
20°	7822	7696	7486
25°	7501	7337	6880
30°	7109	6881	6198
35°	6733	6359	5733
40°	6350	5795	5216
45°	5985	5358	4716
50°	5541	4973	4206
55°	5126	4507	3767
60°	4696	4026	3374
65°	4132	3525	2988
70°	3404	3087	2538
75°	2707	2364	2479
80°	1819	1705	1590
85°	1130	1359	1587

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5985 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.6	4.7
10°-20°	405.1	13.0
20°-30°	560.8	18.0
30°-40°	598.0	19.2
40°-50°	545.6	17.5
50°-60°	427.4	13.7
60°-70°	278.6	8.9
70°-80°	123.4	4.0
80°-90°	26.5	0.9
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°	1113.5	35.8
0°-40°	1711.6	55.0
0°-60°	2684.5	86.2
0°-90°	3113.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3113.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1586	1586	1586	1586	1586	
5°	1558	1556	1556	1555	1555	148
15°	1457	1457	1443	1428	1423	410
25°	1263	1256	1236	1192	1159	580
35°	1025	1017	968	895	873	641
45°	786	770	704	645	620	606
55°	546	530	480	424	402	490
65°	324	306	277	282	235	320
75°	130	121	114	108	119	139
85°	18	20	22	24	26	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1585.7	1585.7	1585.7	1585.7	1585.7
2.5°	1574.7	1574.7	1574.7	1572.9	1572.9
5°	1558.2	1556.4	1556.4	1554.6	1554.6
7.5°	1545.4	1543.6	1541.7	1539.9	1536.2
10°	1527.1	1527.1	1525.2	1516.1	1514.2
12.5°	1497.7	1495.9	1488.6	1475.7	1472.1
15°	1457.4	1457.4	1442.7	1428.1	1422.6
17.5°	1413.4	1411.6	1393.2	1378.6	1371.2
20°	1365.7	1362.1	1343.7	1319.9	1307.1
22.5°	1312.6	1312.6	1290.6	1259.4	1246.6
25°	1263.1	1255.7	1235.6	1191.6	1158.6
27.5°	1206.2	1195.2	1173.2	1110.9	1072.4
30°	1143.9	1138.4	1107.3	1026.6	997.3
32.5°	1085.3	1076.1	1043.1	958.8	934.9
35°	1024.8	1017.4	967.9	894.6	872.6
37.5°	964.3	955.1	892.8	834.1	806.6
40°	903.8	892.8	824.9	771.8	742.4
42.5°	846.9	832.3	766.3	709.4	676.5
45°	786.4	769.9	703.9	645.3	619.6
47.5°	725.9	711.3	650.8	590.3	561.0
50°	661.8	649.0	594.0	533.5	502.3
52.5°	608.6	588.5	535.3	474.8	449.1
55°	546.3	529.8	480.3	423.5	401.5
57.5°	489.5	473.0	427.1	374.0	355.6
60°	436.3	412.5	374.0	328.1	313.5
62.5°	377.6	359.3	326.3	287.8	306.1
65°	324.5	306.1	276.8	282.3	234.6
67.5°	265.8	256.6	231.0	205.3	198.0
70°	216.3	205.3	196.2	168.7	161.3
72.5°	172.3	161.3	148.5	133.8	128.3
75°	130.2	121.0	113.7	108.2	119.2
77.5°	89.8	86.2	80.7	75.2	73.3
80°	58.7	56.8	55.0	53.2	51.3
82.5°	34.8	34.8	34.8	34.8	34.8
85°	18.3	20.2	22.0	23.8	25.7
87.5°	11.0	11.0	12.8	14.7	16.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)