

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: P561278

Luminaire Tested: FSR-12-4-LD4-1STD-50-UNV-80-97-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P561278
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-12-4-LD4-1STD-50-UNV-80-97-EDD-90
Description: 1X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2836.0 lumens
Efficiency: N/A
Efficacy: 85.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

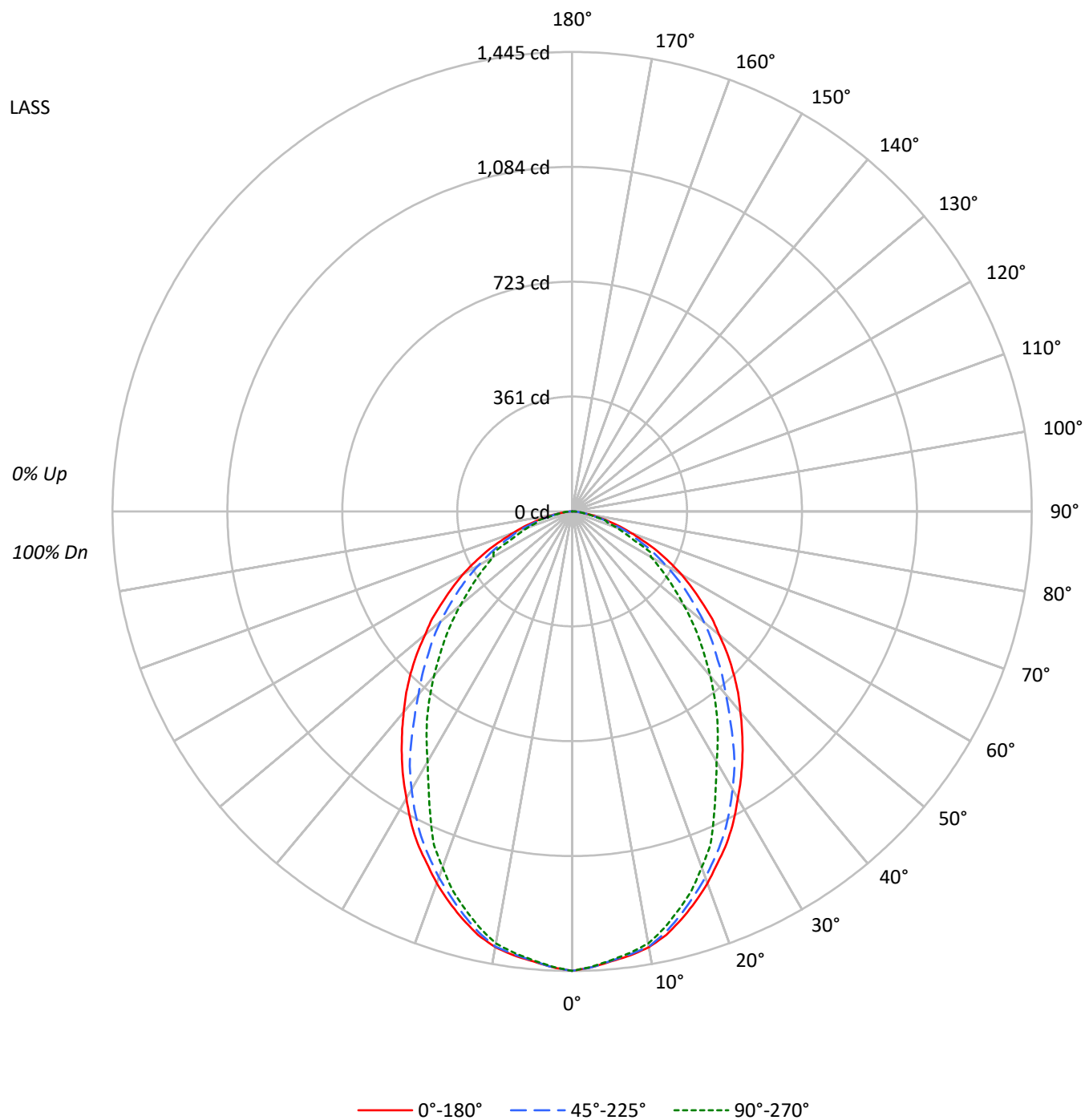
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3887	3887	3887
5°	3835	3830	3826
10°	3801	3797	3769
15°	3699	3662	3611
20°	3563	3506	3410
25°	3417	3342	3134
30°	3238	3134	2823
35°	3067	2897	2612
40°	2892	2640	2376
45°	2727	2441	2148
50°	2524	2265	1916
55°	2335	2053	1716
60°	2139	1834	1537
65°	1882	1606	1361
70°	1551	1406	1157
75°	1233	1076	1129
80°	828	776	725
85°	516	618	722

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2727 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.5	4.7
10°-20°	369.1	13.0
20°-30°	510.9	18.0
30°-40°	544.8	19.2
40°-50°	497.0	17.5
50°-60°	389.4	13.7
60°-70°	253.8	8.9
70°-80°	112.4	4.0
80°-90°	24.1	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°	1014.5	35.8
0°-40°	1559.3	55.0
0°-60°	2445.7	86.2
0°-90°	2836.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2836.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1445	1445	1445	1445	1445	
5°	1420	1418	1418	1416	1416	135
15°	1328	1328	1314	1301	1296	373
25°	1151	1144	1126	1086	1056	528
35°	934	927	882	815	795	584
45°	716	701	641	588	564	552
55°	498	483	438	386	366	446
65°	296	279	252	257	214	291
75°	119	110	104	98	109	127
85°	17	18	20	22	23	23
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1444.6	1444.6	1444.6	1444.6	1444.6
2.5°	1434.6	1434.6	1434.6	1432.9	1432.9
5°	1419.6	1417.9	1417.9	1416.2	1416.2
7.5°	1407.9	1406.2	1404.5	1402.9	1399.5
10°	1391.2	1391.2	1389.5	1381.2	1379.5
12.5°	1364.5	1362.8	1356.1	1344.4	1341.1
15°	1327.7	1327.7	1314.4	1301.0	1296.0
17.5°	1287.6	1286.0	1269.3	1255.9	1249.2
20°	1244.2	1240.9	1224.2	1202.5	1190.8
22.5°	1195.8	1195.8	1175.7	1147.3	1135.7
25°	1150.7	1144.0	1125.6	1085.6	1055.5
27.5°	1098.9	1088.9	1068.9	1012.1	977.0
30°	1042.1	1037.1	1008.7	935.2	908.5
32.5°	988.7	980.3	950.3	873.5	851.7
35°	933.6	926.9	881.8	815.0	795.0
37.5°	878.5	870.1	813.3	759.9	734.8
40°	823.4	813.3	751.5	703.1	676.4
42.5°	771.6	758.2	698.1	646.3	616.3
45°	716.5	701.4	641.3	587.9	564.5
47.5°	661.4	648.0	592.9	537.8	511.0
50°	602.9	591.2	541.1	486.0	457.6
52.5°	554.5	536.1	487.7	432.6	409.2
55°	497.7	482.7	437.6	385.8	365.7
57.5°	445.9	430.9	389.1	340.7	324.0
60°	397.5	375.8	340.7	298.9	285.6
62.5°	344.0	327.3	297.3	262.2	278.9
65°	295.6	278.9	252.2	257.2	213.8
67.5°	242.2	233.8	210.4	187.0	180.4
70°	197.1	187.0	178.7	153.6	147.0
72.5°	157.0	147.0	135.3	121.9	116.9
75°	118.6	110.2	103.5	98.5	108.6
77.5°	81.8	78.5	73.5	68.5	66.8
80°	53.4	51.8	50.1	48.4	46.8
82.5°	31.7	31.7	31.7	31.7	31.7
85°	16.7	18.4	20.0	21.7	23.4
87.5°	10.0	10.0	11.7	13.4	15.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)