

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: P561275

Luminaire Tested: FSR-12-4-LD4-1STD-50-UNV-80-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P561275
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-80-94-EDD
Description: 1X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3419.0 lumens
Efficiency: N/A
Efficacy: 102.7 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

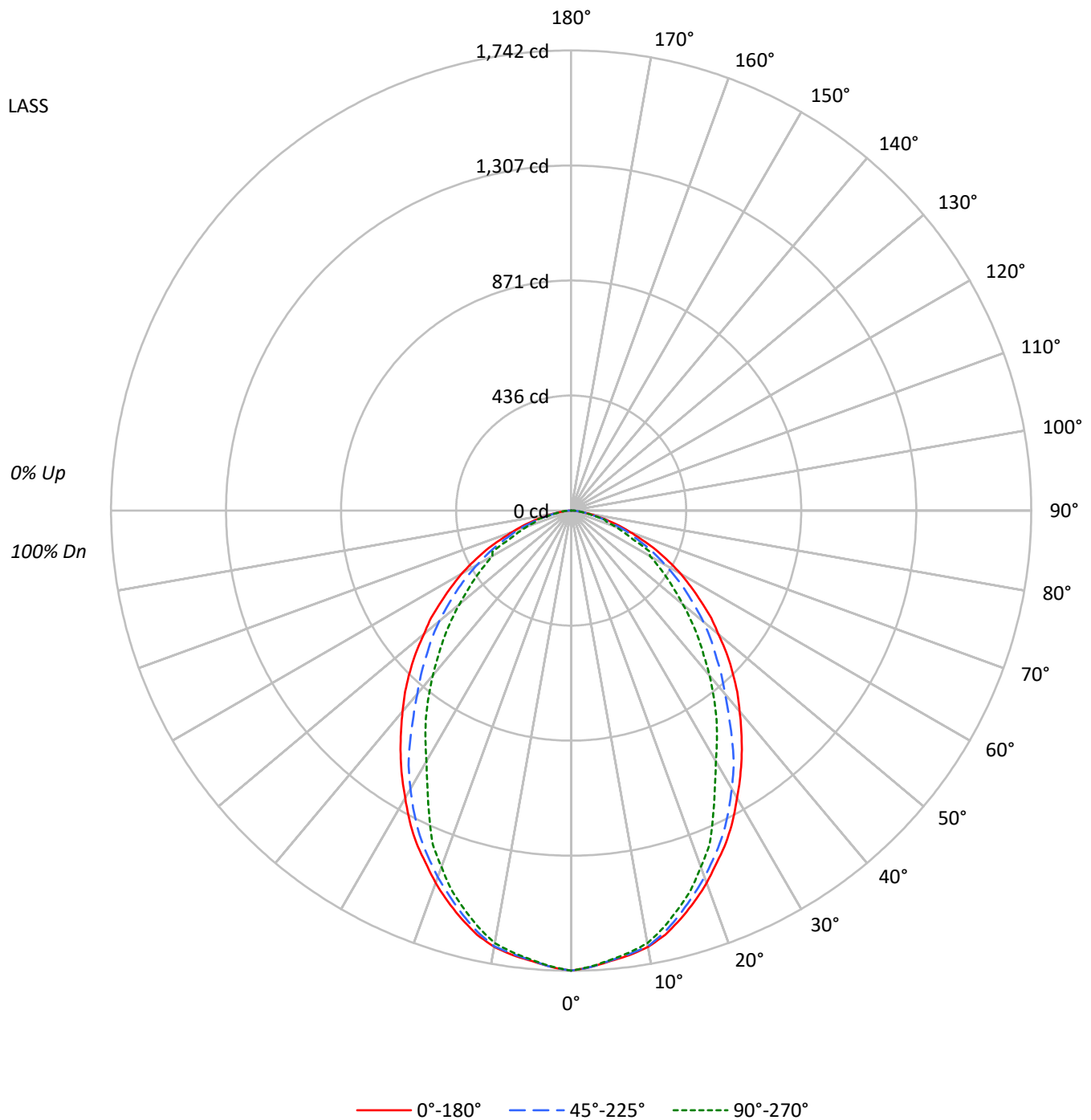
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	4687	4687	4687
5°	4623	4618	4612
10°	4583	4577	4544
15°	4459	4414	4353
20°	4296	4226	4111
25°	4119	4029	3778
30°	3904	3779	3403
35°	3697	3492	3148
40°	3487	3183	2864
45°	3287	2942	2590
50°	3043	2731	2310
55°	2815	2475	2069
60°	2579	2210	1853
65°	2269	1936	1641
70°	1869	1695	1394
75°	1487	1298	1361
80°	998	936	874
85°	621	747	871

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3287 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.1	4.7
10°-20°	444.9	13.0
20°-30°	616.0	18.0
30°-40°	656.8	19.2
40°-50°	599.2	17.5
50°-60°	469.4	13.7
60°-70°	305.9	8.9
70°-80°	135.5	4.0
80°-90°	29.1	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°	1223.0	35.8
0°-40°	1879.8	55.0
0°-60°	2948.4	86.2
0°-90°	3419.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3419.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1742	1742	1742	1742	1742	
5°	1711	1709	1709	1707	1707	162
15°	1601	1601	1584	1568	1562	450
25°	1387	1379	1357	1309	1272	637
35°	1126	1117	1063	982	958	704
45°	864	846	773	709	680	665
55°	600	582	528	465	441	538
65°	356	336	304	310	258	351
75°	143	133	125	119	131	153
85°	20	22	24	26	28	28
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1741.6	1741.6	1741.6	1741.6	1741.6
2.5°	1729.5	1729.5	1729.5	1727.5	1727.5
5°	1711.4	1709.4	1709.4	1707.4	1707.4
7.5°	1697.3	1695.3	1693.3	1691.3	1687.2
10°	1677.2	1677.2	1675.2	1665.1	1663.1
12.5°	1644.9	1642.9	1634.9	1620.8	1616.8
15°	1600.7	1600.7	1584.5	1568.4	1562.4
17.5°	1552.3	1550.3	1530.2	1514.1	1506.0
20°	1500.0	1496.0	1475.8	1449.6	1435.6
22.5°	1441.6	1441.6	1417.4	1383.2	1369.1
25°	1387.2	1379.2	1357.0	1308.7	1272.5
27.5°	1324.8	1312.7	1288.6	1220.1	1177.8
30°	1256.4	1250.3	1216.1	1127.5	1095.3
32.5°	1191.9	1181.9	1145.6	1053.0	1026.8
35°	1125.5	1117.4	1063.1	982.5	958.4
37.5°	1059.0	1049.0	980.5	916.1	885.9
40°	992.6	980.5	906.0	847.6	815.4
42.5°	930.2	914.1	841.6	779.2	742.9
45°	863.7	845.6	773.1	708.7	680.5
47.5°	797.3	781.2	714.8	648.3	616.1
50°	726.8	712.7	652.3	585.9	551.7
52.5°	668.4	646.3	587.9	521.5	493.3
55°	600.0	581.9	527.5	465.1	440.9
57.5°	537.6	519.5	469.1	410.7	390.6
60°	479.2	453.0	410.7	360.4	344.3
62.5°	414.8	394.6	358.4	316.1	336.2
65°	356.4	336.2	304.0	310.1	257.7
67.5°	291.9	281.9	253.7	225.5	217.4
70°	237.6	225.5	215.4	185.2	177.2
72.5°	189.3	177.2	163.1	147.0	140.9
75°	143.0	132.9	124.8	118.8	130.9
77.5°	98.7	94.6	88.6	82.5	80.5
80°	64.4	62.4	60.4	58.4	56.4
82.5°	38.3	38.3	38.3	38.3	38.3
85°	20.1	22.1	24.2	26.2	28.2
87.5°	12.1	12.1	14.1	16.1	18.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)