

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: P562235

Luminaire Tested: FSR-24-4-LD4-1LO-50-UNV-80-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562235
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-24-4-LD4-1LO-50-UNV-80-94-EDD
Description: 2X4 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: 3000.0 lumens
Efficiency: N/A
Efficacy: 128.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

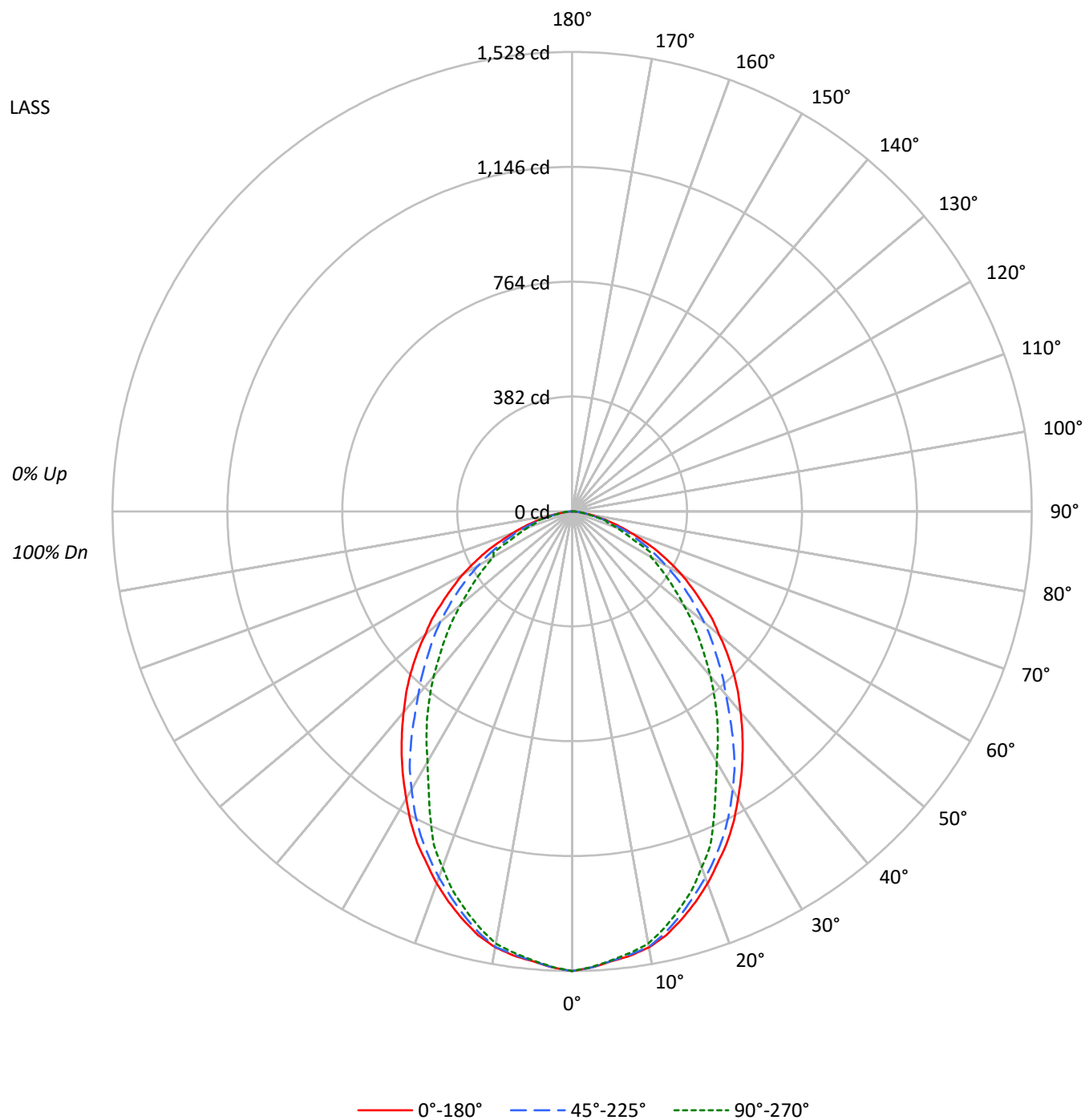
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					0
RW	70	50	30	10	70	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°	2056	2056	2056
5°	2028	2026	2023
10°	2011	2008	1994
15°	1956	1937	1910
20°	1885	1854	1804
25°	1807	1768	1658
30°	1713	1658	1493
35°	1622	1532	1381
40°	1530	1396	1257
45°	1442	1291	1136
50°	1335	1198	1013
55°	1235	1086	908
60°	1132	970	813
65°	996	849	720
70°	820	744	612
75°	652	569	597
80°	438	411	384
85°	273	327	381

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1442 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.3	4.7
10°-20°	390.4	13.0
20°-30°	540.5	18.0
30°-40°	576.3	19.2
40°-50°	525.8	17.5
50°-60°	411.9	13.7
60°-70°	268.5	8.9
70°-80°	118.9	4.0
80°-90°	25.5	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°	1073.1	35.8
0°-40°	1649.4	55.0
0°-60°	2587.1	86.2
0°-90°	3000.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3000.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1528	1528	1528	1528	1528	
5°	1502	1500	1500	1498	1498	143
15°	1404	1404	1390	1376	1371	395
25°	1217	1210	1191	1148	1116	559
35°	988	980	933	862	841	617
45°	758	742	678	622	597	584
55°	526	511	463	408	387	472
65°	313	295	267	272	226	308
75°	125	117	110	104	115	134
85°	18	19	21	23	25	25
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1528.2	1528.2	1528.2	1528.2	1528.2
2.5°	1517.6	1517.6	1517.6	1515.8	1515.8
5°	1501.7	1499.9	1499.9	1498.1	1498.1
7.5°	1489.3	1487.5	1485.8	1484.0	1480.5
10°	1471.6	1471.6	1469.9	1461.0	1459.3
12.5°	1443.4	1441.6	1434.5	1422.2	1418.6
15°	1404.5	1404.5	1390.4	1376.2	1370.9
17.5°	1362.1	1360.3	1342.7	1328.5	1321.5
20°	1316.2	1312.6	1295.0	1272.0	1259.6
22.5°	1264.9	1264.9	1243.7	1213.7	1201.3
25°	1217.2	1210.2	1190.7	1148.3	1116.5
27.5°	1162.5	1151.9	1130.7	1070.6	1033.5
30°	1102.4	1097.1	1067.1	989.3	961.1
32.5°	1045.9	1037.0	1005.2	924.0	901.0
35°	987.6	980.5	932.8	862.1	840.9
37.5°	929.3	920.4	860.4	803.8	777.3
40°	871.0	860.4	795.0	743.8	715.5
42.5°	816.2	802.1	738.5	683.7	651.9
45°	757.9	742.0	678.4	621.9	597.1
47.5°	699.6	685.5	627.2	568.9	540.6
50°	637.8	625.4	572.4	514.1	484.1
52.5°	586.5	567.1	515.9	457.6	432.8
55°	526.5	510.6	462.9	408.1	386.9
57.5°	471.7	455.8	411.6	360.4	342.7
60°	420.5	397.5	360.4	316.2	302.1
62.5°	363.9	346.3	314.5	277.4	295.0
65°	312.7	295.0	266.8	272.1	226.1
67.5°	256.2	247.3	222.6	197.9	190.8
70°	208.5	197.9	189.0	162.5	155.5
72.5°	166.1	155.5	143.1	129.0	123.7
75°	125.4	116.6	109.5	104.2	114.8
77.5°	86.6	83.0	77.7	72.4	70.7
80°	56.5	54.8	53.0	51.2	49.5
82.5°	33.6	33.6	33.6	33.6	33.6
85°	17.7	19.4	21.2	23.0	24.7
87.5°	10.6	10.6	12.4	14.1	15.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)