

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: P562172

Luminaire Tested: FSR-24-4-LD4-1LO-40-UNV-80-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562172
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-40-UNV-80-96-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2451.0 lumens
Efficiency: N/A
Efficacy: 104.7 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

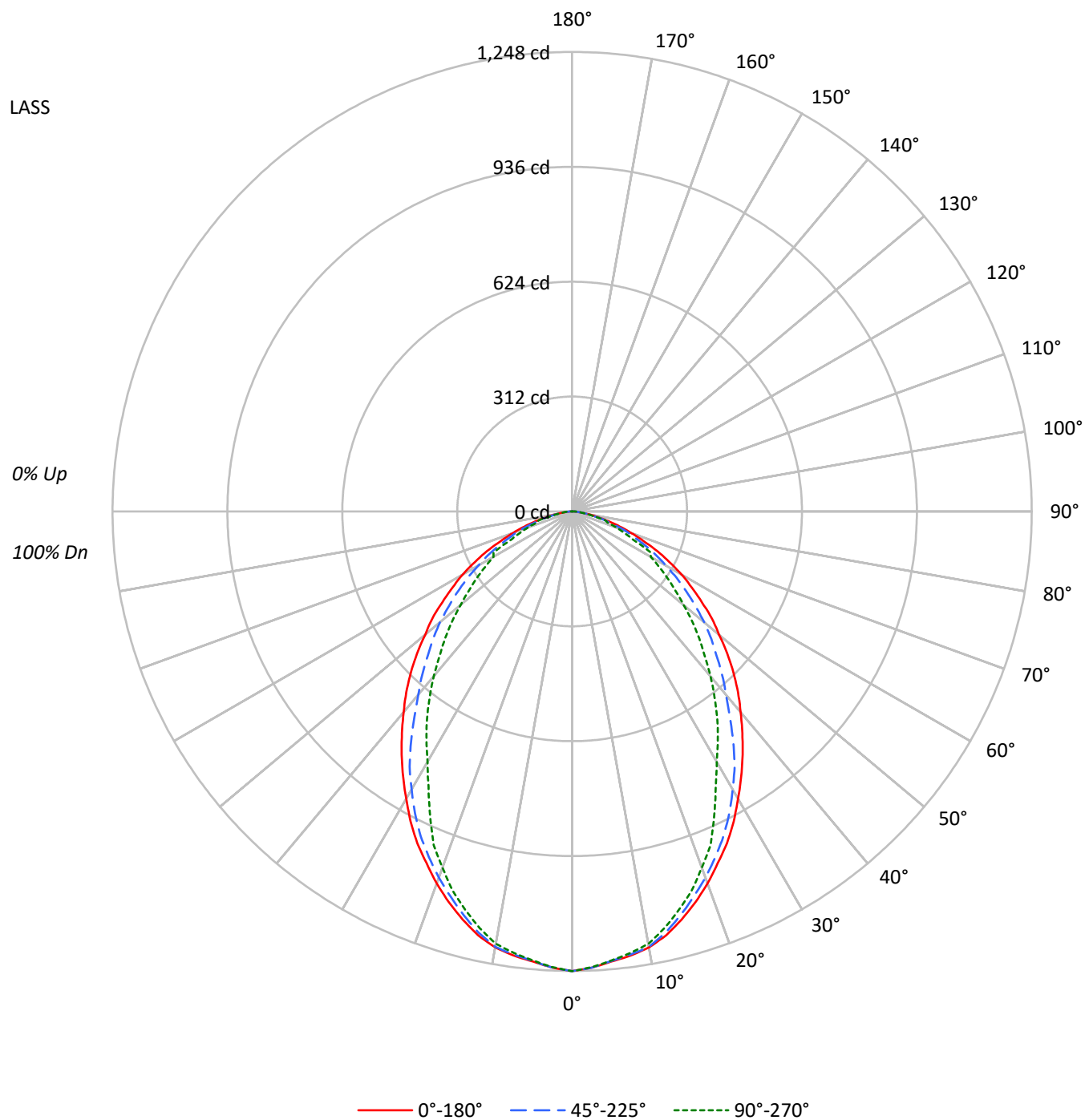
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P562172

CATALOG NUMBER: FSR-24-4-LD4-1LO-40-UNV-80-96-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P562172

CATALOG NUMBER: FSR-24-4-LD4-1LO-40-UNV-80-96-EDD-90

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	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°	1680	1680	1680
5°	1657	1655	1653
10°	1643	1641	1629
15°	1598	1582	1560
20°	1540	1515	1474
25°	1476	1444	1354
30°	1399	1354	1220
35°	1325	1252	1128
40°	1250	1141	1027
45°	1178	1055	928
50°	1091	979	828
55°	1009	887	742
60°	924	792	664
65°	813	694	588
70°	670	607	500
75°	533	465	488
80°	358	336	313
85°	222	267	312

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1178 cd/sqm

TEST NUMBER: P562172

CATALOG NUMBER: FSR-24-4-LD4-1LO-40-UNV-80-96-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.2	4.7
10°-20°	319.0	13.0
20°-30°	441.6	18.0
30°-40°	470.8	19.2
40°-50°	429.6	17.5
50°-60°	336.5	13.7
60°-70°	219.3	8.9
70°-80°	97.2	4.0
80°-90°	20.9	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°	876.7	35.8
0°-40°	1347.6	55.0
0°-60°	2113.7	86.2
0°-90°	2451.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2451.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1248	1248	1248	1248	1248	
5°	1227	1225	1225	1224	1224	116
15°	1148	1148	1136	1124	1120	323
25°	994	989	973	938	912	457
35°	807	801	762	704	687	504
45°	619	606	554	508	488	477
55°	430	417	378	333	316	386
65°	256	241	218	222	185	252
75°	102	95	90	85	94	110
85°	14	16	17	19	20	20
90°	0	0	0	0	0	

TEST NUMBER: P562172

CATALOG NUMBER: FSR-24-4-LD4-1LO-40-UNV-80-96-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1248.5	1248.5	1248.5	1248.5	1248.5
2.5°	1239.8	1239.8	1239.8	1238.4	1238.4
5°	1226.9	1225.4	1225.4	1224.0	1224.0
7.5°	1216.8	1215.3	1213.9	1212.4	1209.5
10°	1202.3	1202.3	1200.9	1193.7	1192.2
12.5°	1179.2	1177.8	1172.0	1161.9	1159.0
15°	1147.5	1147.5	1135.9	1124.4	1120.0
17.5°	1112.8	1111.4	1097.0	1085.4	1079.6
20°	1075.3	1072.4	1058.0	1039.2	1029.1
22.5°	1033.4	1033.4	1016.1	991.6	981.5
25°	994.5	988.7	972.8	938.2	912.2
27.5°	949.7	941.1	923.8	874.7	844.4
30°	900.7	896.3	871.8	808.3	785.2
32.5°	854.5	847.3	821.3	754.9	736.1
35°	806.8	801.1	762.1	704.4	687.0
37.5°	759.2	752.0	702.9	656.7	635.1
40°	711.6	702.9	649.5	607.7	584.6
42.5°	666.8	655.3	603.3	558.6	532.6
45°	619.2	606.2	554.3	508.1	487.9
47.5°	571.6	560.0	512.4	464.8	441.7
50°	521.1	510.9	467.6	420.0	395.5
52.5°	479.2	463.3	421.5	373.8	353.6
55°	430.1	417.1	378.2	333.4	316.1
57.5°	385.4	372.4	336.3	294.4	280.0
60°	343.5	324.8	294.4	258.4	246.8
62.5°	297.3	282.9	256.9	226.6	241.0
65°	255.5	241.0	217.9	222.3	184.8
67.5°	209.3	202.1	181.9	161.7	155.9
70°	170.3	161.7	154.4	132.8	127.0
72.5°	135.7	127.0	116.9	105.4	101.0
75°	102.5	95.3	89.5	85.2	93.8
77.5°	70.7	67.8	63.5	59.2	57.7
80°	46.2	44.7	43.3	41.9	40.4
82.5°	27.4	27.4	27.4	27.4	27.4
85°	14.4	15.9	17.3	18.8	20.2
87.5°	8.7	8.7	10.1	11.5	13.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)