

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: P562237

Luminaire Tested: FSR-24-4-LD4-1LO-50-UNV-80-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562237
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-80-96-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 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: 2967.0 lumens
Efficiency: N/A
Efficacy: 126.8 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

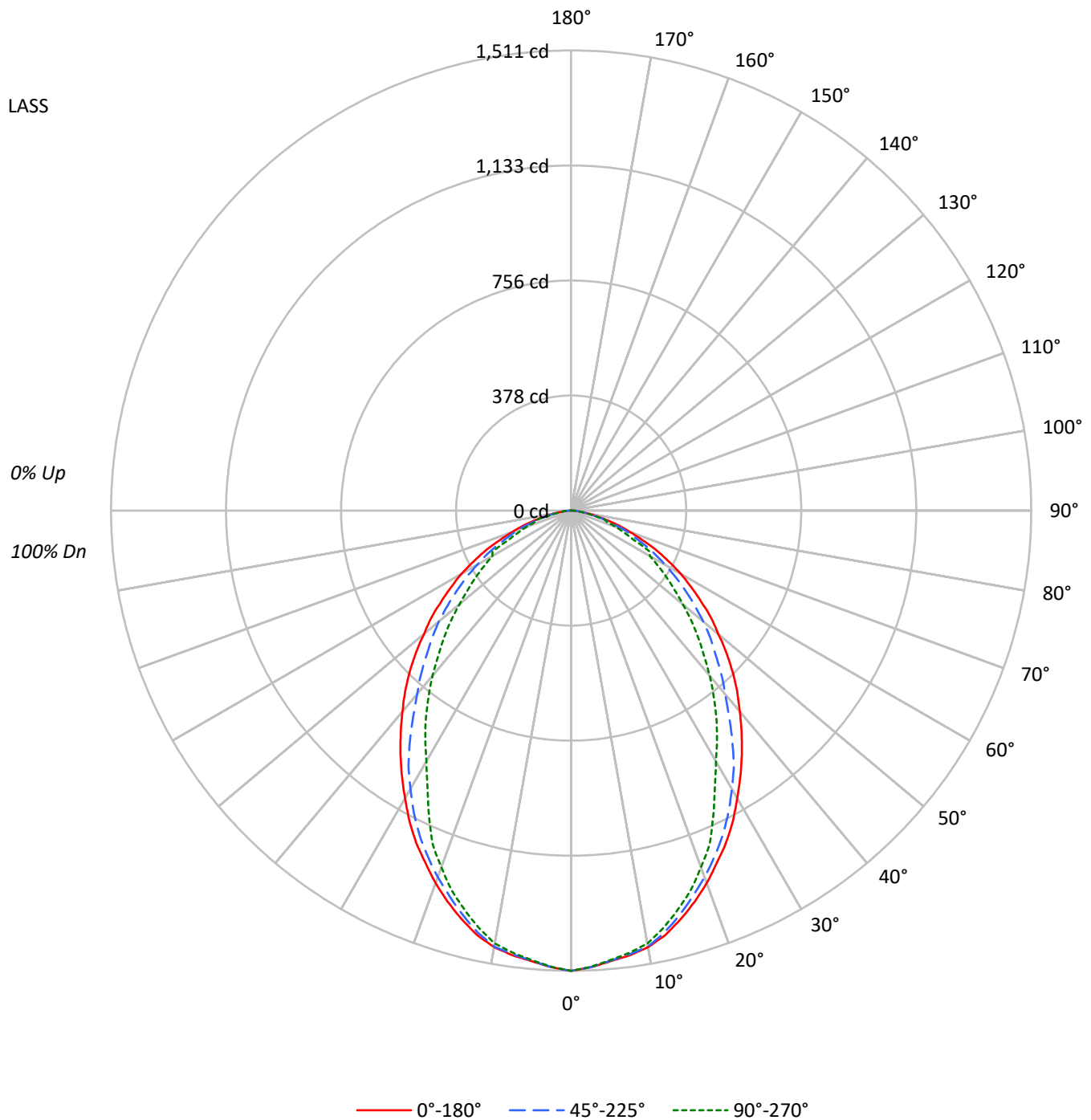
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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				10	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°	2034	2034	2034
5°	2006	2004	2001
10°	1988	1986	1972
15°	1935	1915	1889
20°	1864	1834	1784
25°	1787	1748	1639
30°	1694	1640	1477
35°	1604	1515	1366
40°	1513	1381	1243
45°	1426	1277	1124
50°	1320	1185	1002
55°	1221	1074	897
60°	1119	959	804
65°	985	840	712
70°	811	736	605
75°	645	563	591
80°	433	406	379
85°	270	324	378

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1426 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.7	4.7
10°-20°	386.1	13.0
20°-30°	534.5	18.0
30°-40°	570.0	19.2
40°-50°	520.0	17.5
50°-60°	407.4	13.7
60°-70°	265.5	8.9
70°-80°	117.6	4.0
80°-90°	25.3	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°	1061.3	35.8
0°-40°	1631.3	55.0
0°-60°	2558.6	86.2
0°-90°	2967.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2967.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1511	1511	1511	1511	1511	
5°	1485	1483	1483	1482	1482	141
15°	1389	1389	1375	1361	1356	390
25°	1204	1197	1178	1136	1104	553
35°	977	970	922	853	832	611
45°	750	734	671	615	591	577
55°	521	505	458	404	383	467
65°	309	292	264	269	224	305
75°	124	115	108	103	114	133
85°	18	19	21	23	24	24
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1511.4	1511.4	1511.4	1511.4	1511.4
2.5°	1500.9	1500.9	1500.9	1499.1	1499.1
5°	1485.1	1483.4	1483.4	1481.6	1481.6
7.5°	1472.9	1471.2	1469.4	1467.7	1464.2
10°	1455.4	1455.4	1453.7	1445.0	1443.2
12.5°	1427.5	1425.7	1418.7	1406.5	1403.0
15°	1389.0	1389.0	1375.1	1361.1	1355.8
17.5°	1347.1	1345.4	1327.9	1313.9	1306.9
20°	1301.7	1298.2	1280.7	1258.0	1245.8
22.5°	1251.0	1251.0	1230.0	1200.3	1188.1
25°	1203.8	1196.8	1177.6	1135.7	1104.2
27.5°	1149.7	1139.2	1118.2	1058.8	1022.1
30°	1090.3	1085.0	1055.3	978.4	950.5
32.5°	1034.4	1025.6	994.2	913.8	891.1
35°	976.7	969.7	922.5	852.6	831.7
37.5°	919.0	910.3	850.9	795.0	768.8
40°	861.4	850.9	786.3	735.6	707.6
42.5°	807.2	793.2	730.3	676.2	644.7
45°	749.6	733.8	670.9	615.0	590.6
47.5°	691.9	677.9	620.3	562.6	534.7
50°	630.7	618.5	566.1	508.4	478.7
52.5°	580.1	560.9	510.2	452.5	428.1
55°	520.7	504.9	457.8	403.6	382.6
57.5°	466.5	450.8	407.1	356.4	339.0
60°	415.8	393.1	356.4	312.8	298.8
62.5°	359.9	342.5	311.0	274.3	291.8
65°	309.3	291.8	263.8	269.1	223.6
67.5°	253.3	244.6	220.2	195.7	188.7
70°	206.2	195.7	187.0	160.7	153.8
72.5°	164.2	153.8	141.5	127.5	122.3
75°	124.1	115.3	108.3	103.1	113.6
77.5°	85.6	82.1	76.9	71.6	69.9
80°	55.9	54.2	52.4	50.7	48.9
82.5°	33.2	33.2	33.2	33.2	33.2
85°	17.5	19.2	21.0	22.7	24.5
87.5°	10.5	10.5	12.2	14.0	15.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)