

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: P562236

Luminaire Tested: FSR-24-4-LD4-1LO-50-UNV-80-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562236
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-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 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: 2581.0 lumens
Efficiency: N/A
Efficacy: 110.3 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

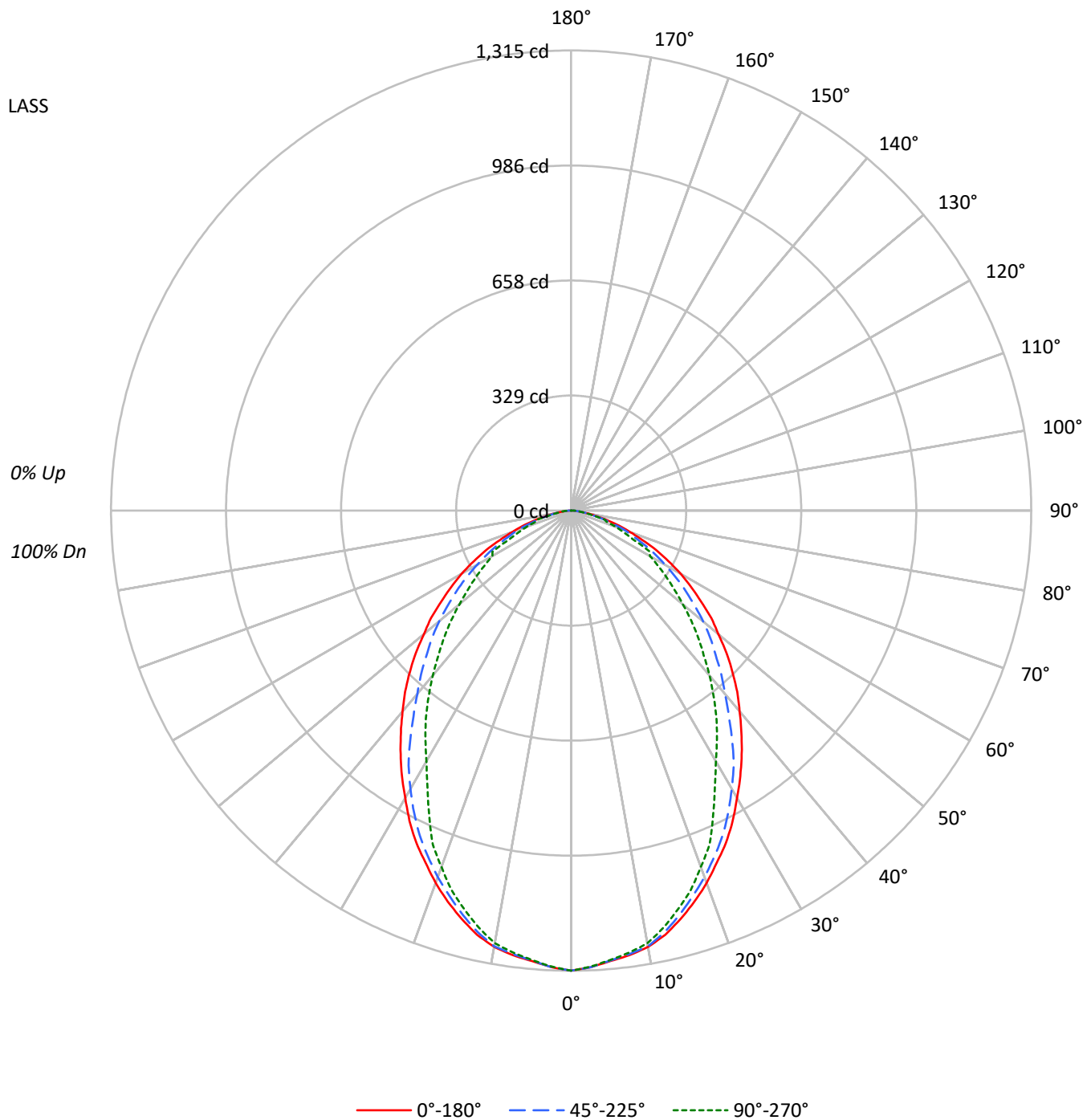
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	1769	1769	1769
5°	1745	1743	1741
10°	1730	1728	1715
15°	1683	1666	1643
20°	1621	1595	1552
25°	1555	1521	1426
30°	1473	1426	1285
35°	1396	1318	1188
40°	1316	1201	1081
45°	1241	1110	977
50°	1149	1031	872
55°	1062	934	781
60°	973	834	699
65°	856	731	619
70°	706	640	526
75°	561	490	514
80°	377	353	330
85°	235	281	329

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1241 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.4	4.7
10°-20°	335.9	13.0
20°-30°	465.0	18.0
30°-40°	495.8	19.2
40°-50°	452.3	17.5
50°-60°	354.4	13.7
60°-70°	230.9	8.9
70°-80°	102.3	4.0
80°-90°	22.0	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°	923.2	35.8
0°-40°	1419.1	55.0
0°-60°	2225.8	86.2
0°-90°	2581.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2581.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1315	1315	1315	1315	1315	
5°	1292	1290	1290	1289	1289	123
15°	1208	1208	1196	1184	1180	340
25°	1047	1041	1024	988	961	481
35°	850	844	802	742	724	531
45°	652	638	584	535	514	502
55°	453	439	398	351	333	406
65°	269	254	230	234	194	265
75°	108	100	94	90	99	116
85°	15	17	18	20	21	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1314.7	1314.7	1314.7	1314.7	1314.7
2.5°	1305.6	1305.6	1305.6	1304.1	1304.1
5°	1291.9	1290.4	1290.4	1288.9	1288.9
7.5°	1281.3	1279.8	1278.2	1276.7	1273.7
10°	1266.1	1266.1	1264.6	1257.0	1255.5
12.5°	1241.8	1240.3	1234.2	1223.5	1220.5
15°	1208.3	1208.3	1196.2	1184.0	1179.5
17.5°	1171.9	1170.3	1155.1	1143.0	1136.9
20°	1132.3	1129.3	1114.1	1094.3	1083.7
22.5°	1088.3	1088.3	1070.0	1044.2	1033.5
25°	1047.2	1041.1	1024.4	987.9	960.6
27.5°	1000.1	991.0	972.7	921.1	889.2
30°	948.4	943.9	918.0	851.2	826.8
32.5°	899.8	892.2	864.8	794.9	775.2
35°	849.6	843.6	802.5	741.7	723.5
37.5°	799.5	791.9	740.2	691.6	668.8
40°	749.3	740.2	684.0	639.9	615.6
42.5°	702.2	690.0	635.3	588.2	560.8
45°	652.0	638.4	583.6	535.0	513.7
47.5°	601.9	589.7	539.6	489.4	465.1
50°	548.7	538.1	492.5	442.3	416.5
52.5°	504.6	487.9	443.8	393.7	372.4
55°	452.9	439.3	398.2	351.1	332.9
57.5°	405.8	392.1	354.1	310.1	294.9
60°	361.7	342.0	310.1	272.1	259.9
62.5°	313.1	297.9	270.5	238.6	253.8
65°	269.0	253.8	229.5	234.1	194.5
67.5°	220.4	212.8	191.5	170.2	164.2
70°	179.4	170.2	162.6	139.8	133.8
72.5°	142.9	133.8	123.1	111.0	106.4
75°	107.9	100.3	94.2	89.7	98.8
77.5°	74.5	71.4	66.9	62.3	60.8
80°	48.6	47.1	45.6	44.1	42.6
82.5°	28.9	28.9	28.9	28.9	28.9
85°	15.2	16.7	18.2	19.8	21.3
87.5°	9.1	9.1	10.6	12.2	13.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)