

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: P590012

Luminaire Tested: FSR-24-2-LD4-1LO-50-UNV-80-97-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590012
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-1LO-50-UNV-80-97-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 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: 1430.0 lumens
Efficiency: N/A
Efficacy: 122.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

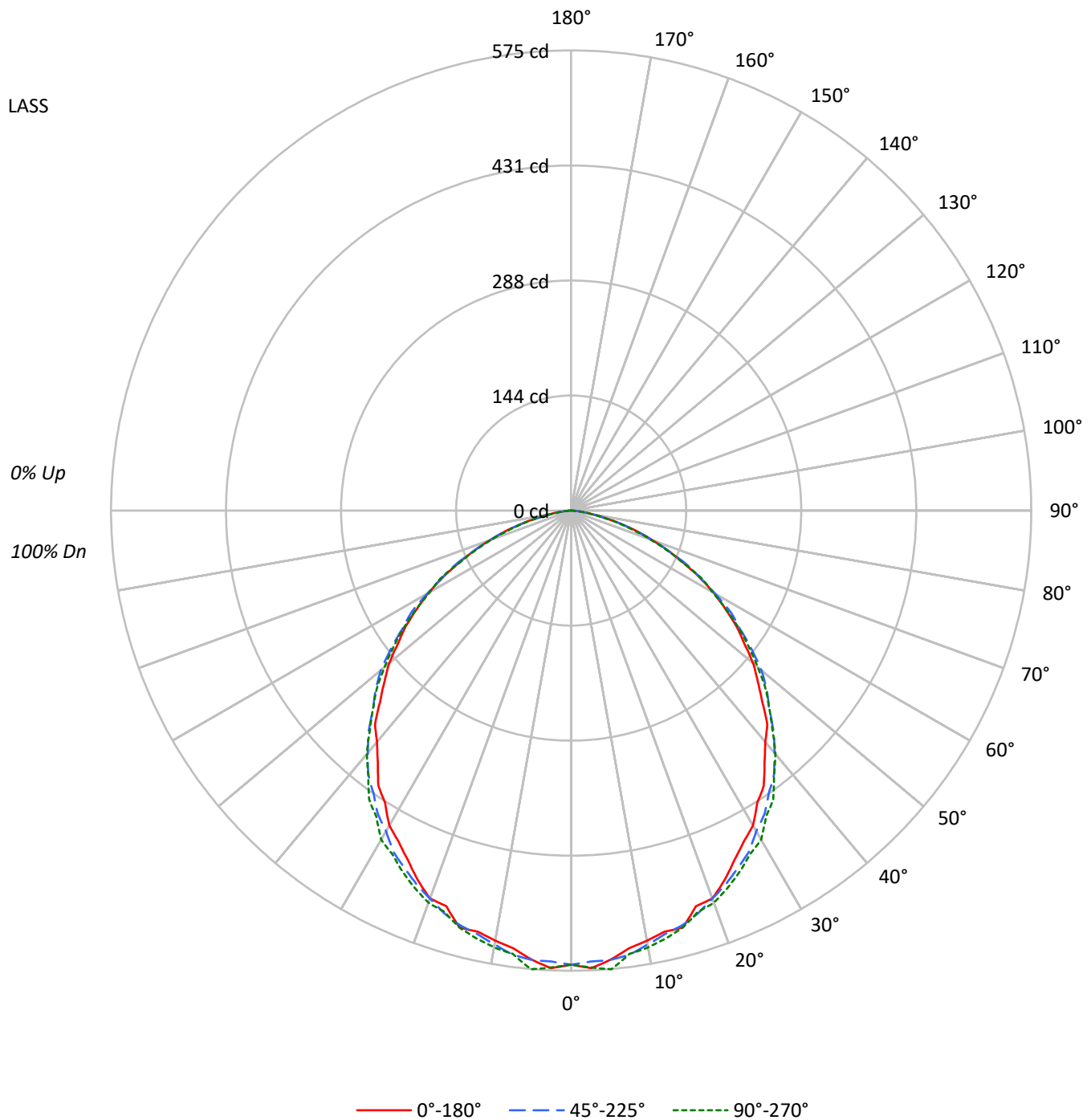
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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					100			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88					86				
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75					73				
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64					62				
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55					53				
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48					46				
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43					41				
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38					36				
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34					32				
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31					29				
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28					26				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1527	1527	1527
5°	1522	1522	1554
10°	1491	1504	1515
15°	1503	1495	1503
20°	1477	1477	1493
25°	1432	1463	1479
30°	1412	1437	1475
35°	1379	1415	1447
40°	1325	1389	1395
45°	1285	1331	1333
50°	1243	1299	1274
55°	1184	1208	1199
60°	1108	1118	1098
65°	988	1012	981
70°	847	851	827
75°	671	670	644
80°	449	437	420
85°	244	241	225

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1365 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.4	3.7
10°-20°	151.3	10.6
20°-30°	226.6	15.8
30°-40°	268.6	18.8
40°-50°	269.1	18.8
50°-60°	228.4	16.0
60°-70°	154.0	10.8
70°-80°	67.7	4.7
80°-90°	11.0	0.8
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°	431.3	30.2
0°-40°	699.8	48.9
0°-60°	1197.3	83.7
0°-90°	1430.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1430.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	567	567	567	567	567	
5°	563	562	564	562	575	53
15°	539	533	536	539	540	150
25°	482	485	493	499	498	223
35°	420	421	431	441	440	261
45°	338	344	350	359	350	261
55°	252	251	257	256	256	225
65°	155	153	159	153	154	154
75°	64	63	64	60	62	69
85°	8	8	8	8	7	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	567.4	567.4	567.4	567.4	567.4
2.5°	572.3	568.0	563.9	568.6	571.5
5°	563.4	562.0	563.6	561.9	575.4
7.5°	551.8	556.8	559.8	557.9	558.7
10°	545.6	543.9	550.4	554.9	554.3
12.5°	539.0	541.7	542.0	546.9	547.4
15°	539.4	533.2	536.5	539.3	539.5
17.5°	518.5	525.2	527.5	533.8	525.9
20°	515.9	511.0	515.9	522.4	521.4
22.5°	500.1	494.6	505.2	511.0	510.6
25°	482.3	484.9	492.8	499.3	498.2
27.5°	466.6	469.7	480.9	489.8	484.1
30°	454.5	453.0	462.5	470.4	474.8
32.5°	432.9	438.5	449.6	457.4	453.3
35°	419.8	421.0	430.8	440.7	440.4
37.5°	396.8	402.6	416.3	419.1	416.5
40°	377.3	383.1	395.4	398.5	397.2
42.5°	362.8	363.9	374.5	377.9	372.4
45°	337.7	344.0	349.7	358.7	350.2
47.5°	316.3	319.3	331.6	334.0	329.5
50°	296.9	297.9	310.3	307.3	304.4
52.5°	272.5	276.8	283.8	283.2	279.8
55°	252.4	250.8	257.4	255.6	255.5
57.5°	228.3	231.3	236.7	233.9	229.4
60°	205.8	205.9	207.8	204.7	204.1
62.5°	180.7	181.5	182.0	178.1	184.4
65°	155.1	153.0	159.0	153.0	154.0
67.5°	131.6	132.6	132.0	128.2	129.7
70°	107.7	109.0	108.1	103.7	105.1
72.5°	85.9	84.2	85.3	79.9	82.3
75°	64.5	63.2	64.4	59.9	61.9
77.5°	44.0	45.0	44.2	41.8	43.2
80°	29.0	28.2	28.2	26.8	27.1
82.5°	16.9	16.1	15.9	15.5	16.1
85°	7.9	7.7	7.8	7.6	7.3
87.5°	2.9	2.9	2.9	2.8	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)