

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: P559418

Luminaire Tested: FSR-12-1-LD4-2STD-35-UNV-80-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559418
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-12-1-LD4-2STD-35-UNV-80-94-EDD-90
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1320.0 lumens
Efficiency: N/A
Efficacy: 79.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

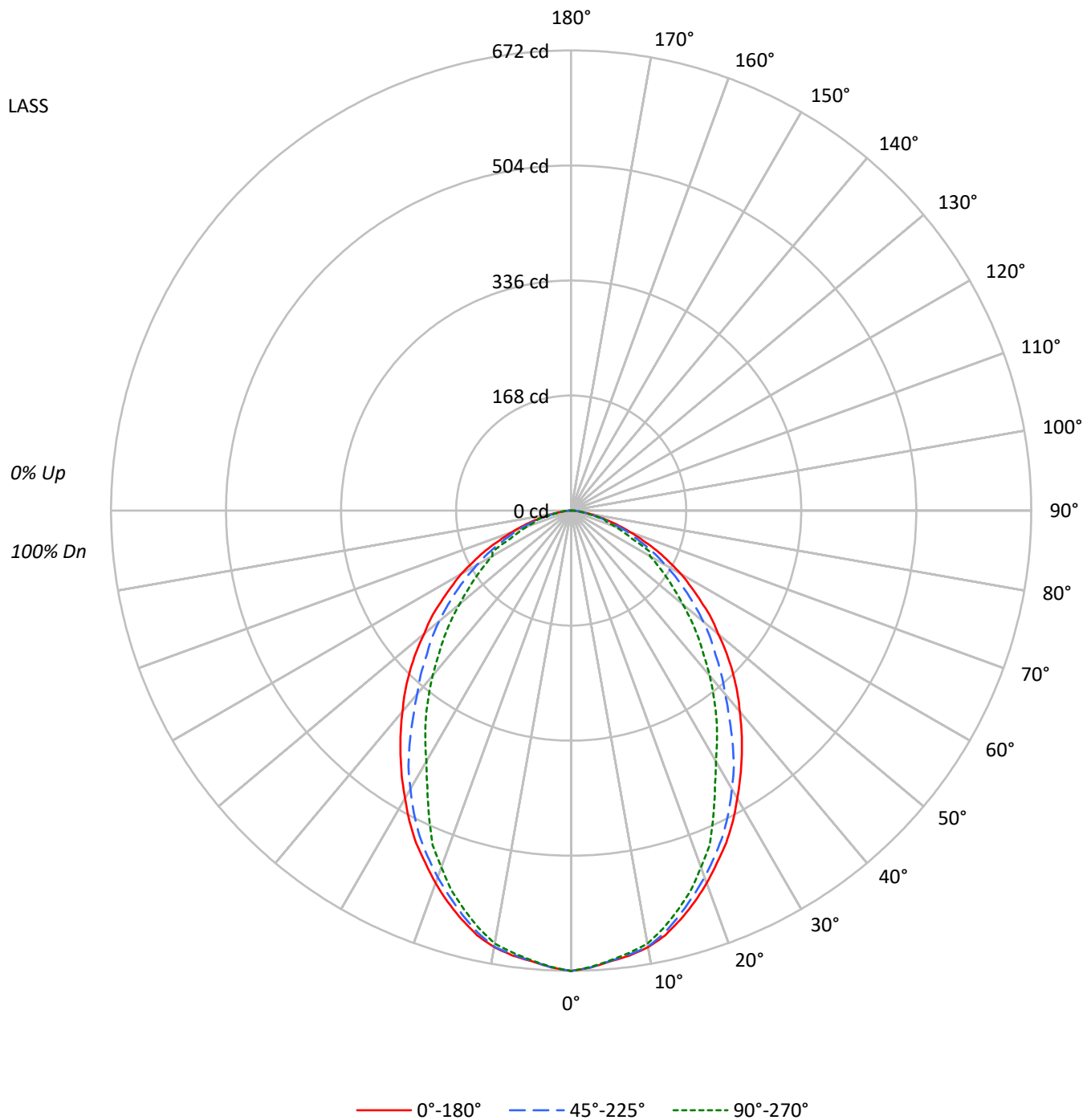
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87					87			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75					75			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65					65			
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56					56			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50					50			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44					44			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40					40			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36					36			
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33					33			
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30					30			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7238	7238	7238
5°	7139	7131	7123
10°	7077	7068	7018
15°	6887	6818	6722
20°	6633	6527	6348
25°	6361	6222	5835
30°	6029	5835	5256
35°	5709	5393	4862
40°	5384	4915	4423
45°	5077	4544	3999
50°	4699	4218	3567
55°	4346	3823	3194
60°	3983	3414	2861
65°	3505	2990	2534
70°	2886	2618	2153
75°	2296	2005	2100
80°	1543	1444	1351
85°	963	1149	1346

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5077 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.6	4.7
10°-20°	171.8	13.0
20°-30°	237.8	18.0
30°-40°	253.6	19.2
40°-50°	231.3	17.5
50°-60°	181.2	13.7
60°-70°	118.1	8.9
70°-80°	52.3	4.0
80°-90°	11.2	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°	472.2	35.8
0°-40°	725.8	55.0
0°-60°	1138.3	86.2
0°-90°	1320.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1320.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	672	672	672	672	672	
5°	661	660	660	659	659	63
15°	618	618	612	606	603	174
25°	536	532	524	505	491	246
35°	434	431	410	379	370	272
45°	334	326	298	274	263	257
55°	232	225	204	180	170	208
65°	138	130	117	120	100	136
75°	55	51	48	46	50	59
85°	8	9	9	10	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	672.4	672.4	672.4	672.4	672.4
2.5°	667.7	667.7	667.7	666.9	666.9
5°	660.7	660.0	660.0	659.2	659.2
7.5°	655.3	654.5	653.7	653.0	651.4
10°	647.5	647.5	646.7	642.9	642.1
12.5°	635.1	634.3	631.2	625.8	624.2
15°	618.0	618.0	611.8	605.5	603.2
17.5°	599.3	598.5	590.8	584.6	581.4
20°	579.1	577.6	569.8	559.7	554.2
22.5°	556.6	556.6	547.2	534.0	528.6
25°	535.6	532.5	523.9	505.3	491.3
27.5°	511.5	506.8	497.5	471.1	454.7
30°	485.1	482.7	469.5	435.3	422.9
32.5°	460.2	456.3	442.3	406.5	396.4
35°	434.5	431.4	410.4	379.3	370.0
37.5°	408.9	405.0	378.6	353.7	342.0
40°	383.2	378.6	349.8	327.3	314.8
42.5°	359.1	352.9	324.9	300.8	286.8
45°	333.5	326.5	298.5	273.6	262.7
47.5°	307.8	301.6	276.0	250.3	237.9
50°	280.6	275.2	251.9	226.2	213.0
52.5°	258.1	249.5	227.0	201.3	190.4
55°	231.6	224.6	203.7	179.6	170.2
57.5°	207.5	200.6	181.1	158.6	150.8
60°	185.0	174.9	158.6	139.1	132.9
62.5°	160.1	152.4	138.4	122.0	129.8
65°	137.6	129.8	117.4	119.7	99.5
67.5°	112.7	108.8	97.9	87.1	84.0
70°	91.7	87.1	83.2	71.5	68.4
72.5°	73.1	68.4	63.0	56.7	54.4
75°	55.2	51.3	48.2	45.9	50.5
77.5°	38.1	36.5	34.2	31.9	31.1
80°	24.9	24.1	23.3	22.5	21.8
82.5°	14.8	14.8	14.8	14.8	14.8
85°	7.8	8.6	9.3	10.1	10.9
87.5°	4.7	4.7	5.4	6.2	7.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)