

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: P559359

Luminaire Tested: FSR-12-1-LD4-2LO-50-UNV-80-97-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559359
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-LD4-2LO-50-UNV-80-97-EDD
Description: 1X1 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: 1154.0 lumens
Efficiency: N/A
Efficacy: 98.6 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

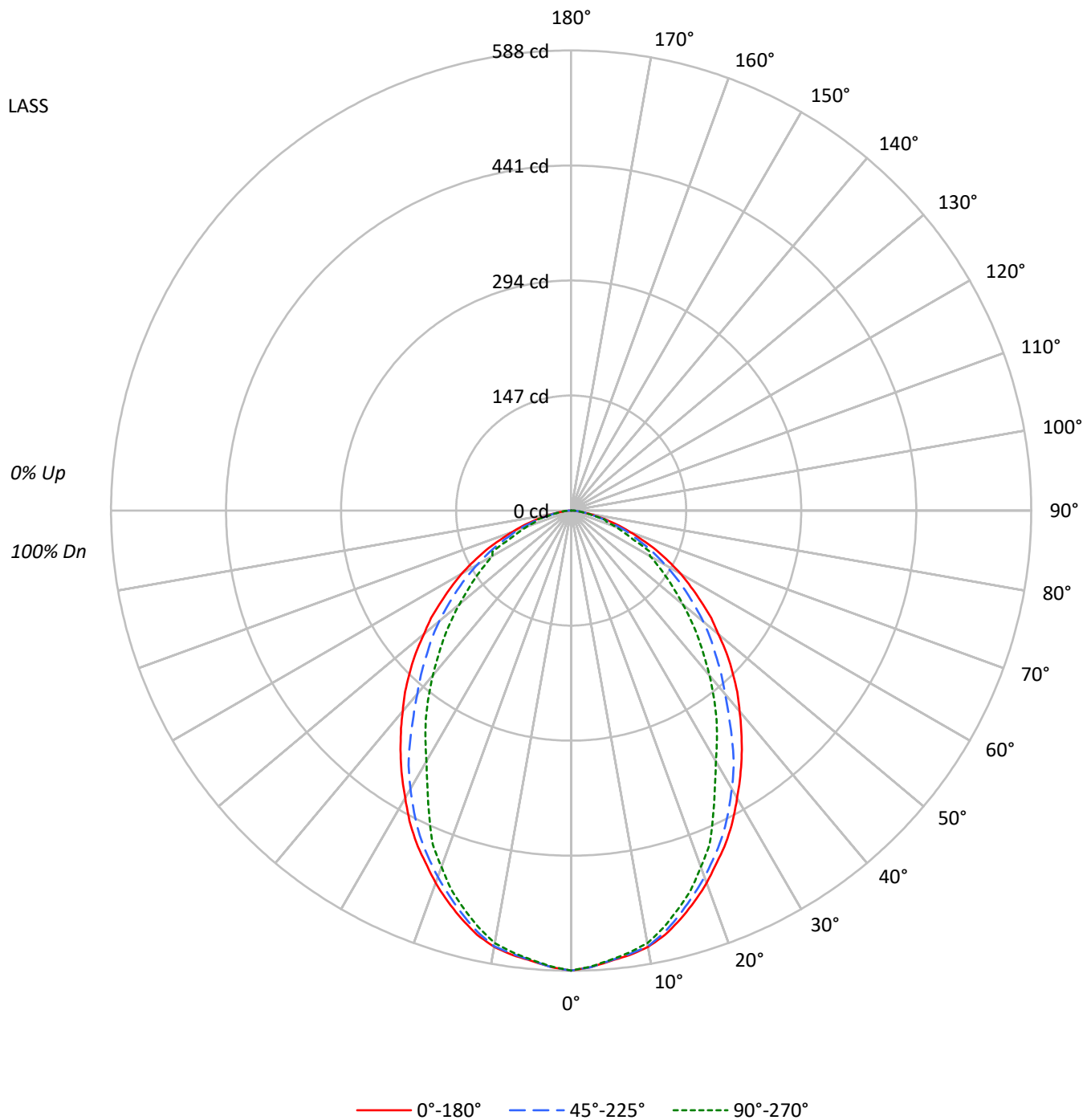
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	6327	6327	6327
5°	6241	6235	6227
10°	6187	6180	6135
15°	6021	5960	5877
20°	5800	5706	5550
25°	5561	5440	5101
30°	5271	5102	4595
35°	4992	4715	4251
40°	4707	4297	3867
45°	4437	3973	3497
50°	4108	3687	3118
55°	3800	3340	2792
60°	3481	2984	2502
65°	3064	2613	2216
70°	2524	2288	1882
75°	2005	1751	1838
80°	1345	1265	1178
85°	840	1013	1173

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4437 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.7	4.7
10°-20°	150.2	13.0
20°-30°	207.9	18.0
30°-40°	221.7	19.2
40°-50°	202.2	17.5
50°-60°	158.4	13.7
60°-70°	103.3	8.9
70°-80°	45.7	4.0
80°-90°	9.8	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°	412.8	35.8
0°-40°	634.5	55.0
0°-60°	995.2	86.2
0°-90°	1154.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1154.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	588	588	588	588	588	
5°	578	577	577	576	576	55
15°	540	540	535	529	527	152
25°	468	466	458	442	430	215
35°	380	377	359	332	324	238
45°	292	285	261	239	230	225
55°	202	196	178	157	149	182
65°	120	114	103	105	87	119
75°	48	45	42	40	44	52
85°	7	8	8	9	10	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	587.8	587.8	587.8	587.8	587.8
2.5°	583.8	583.8	583.8	583.1	583.1
5°	577.6	577.0	577.0	576.3	576.3
7.5°	572.9	572.2	571.5	570.8	569.5
10°	566.1	566.1	565.4	562.0	561.3
12.5°	555.2	554.5	551.8	547.1	545.7
15°	540.3	540.3	534.8	529.4	527.4
17.5°	524.0	523.3	516.5	511.0	508.3
20°	506.3	504.9	498.1	489.3	484.5
22.5°	486.6	486.6	478.4	466.9	462.1
25°	468.2	465.5	458.0	441.7	429.5
27.5°	447.2	443.1	434.9	411.8	397.6
30°	424.1	422.0	410.5	380.6	369.7
32.5°	402.3	398.9	386.7	355.4	346.6
35°	379.9	377.2	358.8	331.6	323.5
37.5°	357.5	354.1	331.0	309.2	299.0
40°	335.0	331.0	305.8	286.1	275.2
42.5°	314.0	308.5	284.1	263.0	250.8
45°	291.5	285.4	261.0	239.2	229.7
47.5°	269.1	263.7	241.2	218.8	207.9
50°	245.3	240.6	220.2	197.8	186.2
52.5°	225.6	218.1	198.4	176.0	166.5
55°	202.5	196.4	178.0	157.0	148.8
57.5°	181.4	175.3	158.3	138.6	131.8
60°	161.7	152.9	138.6	121.6	116.2
62.5°	140.0	133.2	121.0	106.7	113.5
65°	120.3	113.5	102.6	104.7	87.0
67.5°	98.5	95.1	85.6	76.1	73.4
70°	80.2	76.1	72.7	62.5	59.8
72.5°	63.9	59.8	55.0	49.6	47.6
75°	48.2	44.9	42.1	40.1	44.2
77.5°	33.3	31.9	29.9	27.9	27.2
80°	21.7	21.1	20.4	19.7	19.0
82.5°	12.9	12.9	12.9	12.9	12.9
85°	6.8	7.5	8.2	8.8	9.5
87.5°	4.1	4.1	4.8	5.4	6.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)