

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: P559546

Luminaire Tested: FSR-12-1-LD4-2STD-50-UNV-80-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559546
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-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1410.0 lumens
Efficiency: N/A
Efficacy: 84.9 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

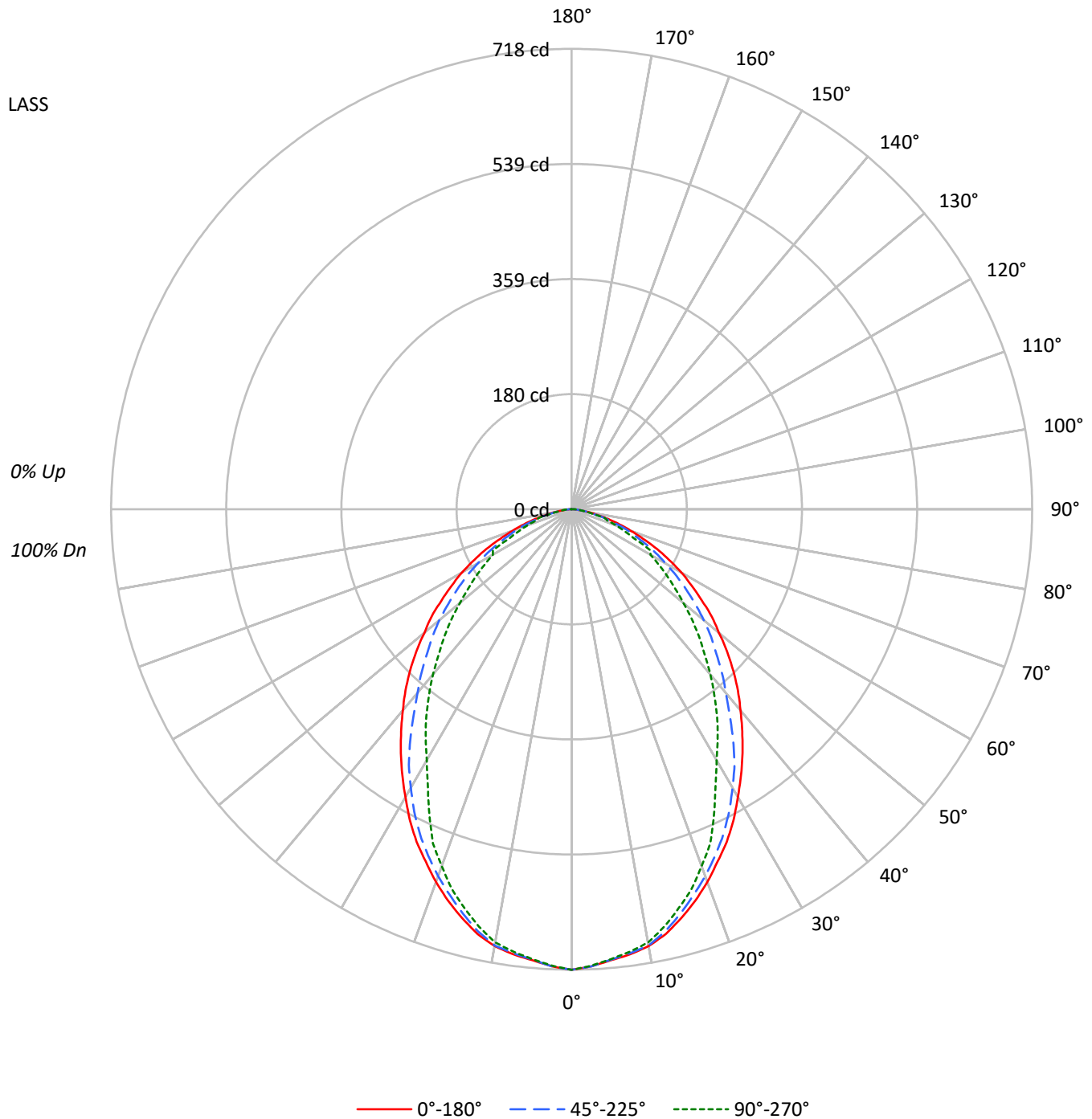
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	7731	7731	7731
5°	7626	7616	7608
10°	7560	7550	7497
15°	7356	7282	7180
20°	7086	6971	6781
25°	6795	6646	6233
30°	6440	6233	5614
35°	6100	5761	5193
40°	5753	5250	4725
45°	5422	4853	4273
50°	5019	4505	3810
55°	4643	4082	3412
60°	4254	3647	3057
65°	3744	3194	2707
70°	3084	2795	2301
75°	2454	2142	2246
80°	1649	1543	1438
85°	1025	1235	1433

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5422 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.9	4.7
10°-20°	183.5	13.0
20°-30°	254.0	18.0
30°-40°	270.9	19.2
40°-50°	247.1	17.5
50°-60°	193.6	13.7
60°-70°	126.2	8.9
70°-80°	55.9	4.0
80°-90°	12.0	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°	504.4	35.8
0°-40°	775.2	55.0
0°-60°	1215.9	86.2
0°-90°	1410.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1410.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	718	718	718	718	718	
5°	706	705	705	704	704	67
15°	660	660	654	647	644	186
25°	572	569	560	540	525	263
35°	464	461	438	405	395	290
45°	356	349	319	292	281	274
55°	247	240	218	192	182	222
65°	147	139	125	128	106	145
75°	59	55	52	49	54	63
85°	8	9	10	11	12	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	718.2	718.2	718.2	718.2	718.2
2.5°	713.3	713.3	713.3	712.4	712.4
5°	705.8	704.9	704.9	704.1	704.1
7.5°	700.0	699.1	698.3	697.5	695.8
10°	691.7	691.7	690.8	686.7	685.9
12.5°	678.4	677.5	674.2	668.4	666.8
15°	660.1	660.1	653.5	646.8	644.3
17.5°	640.2	639.4	631.1	624.4	621.1
20°	618.6	616.9	608.6	597.8	592.0
22.5°	594.5	594.5	584.6	570.4	564.6
25°	572.1	568.8	559.6	539.7	524.8
27.5°	546.4	541.4	531.4	503.2	485.7
30°	518.1	515.6	501.5	465.0	451.7
32.5°	491.6	487.4	472.5	434.3	423.5
35°	464.2	460.8	438.4	405.2	395.2
37.5°	436.8	432.6	404.4	377.8	365.3
40°	409.4	404.4	373.6	349.6	336.3
42.5°	383.6	377.0	347.1	321.3	306.4
45°	356.2	348.7	318.8	292.3	280.7
47.5°	328.8	322.2	294.8	267.4	254.1
50°	299.7	293.9	269.0	241.6	227.5
52.5°	275.7	266.5	242.5	215.1	203.4
55°	247.4	240.0	217.5	191.8	181.8
57.5°	221.7	214.2	193.5	169.4	161.1
60°	197.6	186.8	169.4	148.6	142.0
62.5°	171.0	162.7	147.8	130.4	138.7
65°	147.0	138.7	125.4	127.9	106.3
67.5°	120.4	116.2	104.6	93.0	89.7
70°	98.0	93.0	88.8	76.4	73.1
72.5°	78.1	73.1	67.3	60.6	58.1
75°	59.0	54.8	51.5	49.0	54.0
77.5°	40.7	39.0	36.5	34.0	33.2
80°	26.6	25.7	24.9	24.1	23.2
82.5°	15.8	15.8	15.8	15.8	15.8
85°	8.3	9.1	10.0	10.8	11.6
87.5°	5.0	5.0	5.8	6.6	7.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)