

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: P559356

Luminaire Tested: FSR-12-1-LD4-2LO-50-UNV-80-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559356
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-80-96-EDD-90
Description: 1X1 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: 1041.0 lumens
Efficiency: N/A
Efficacy: 89.0 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

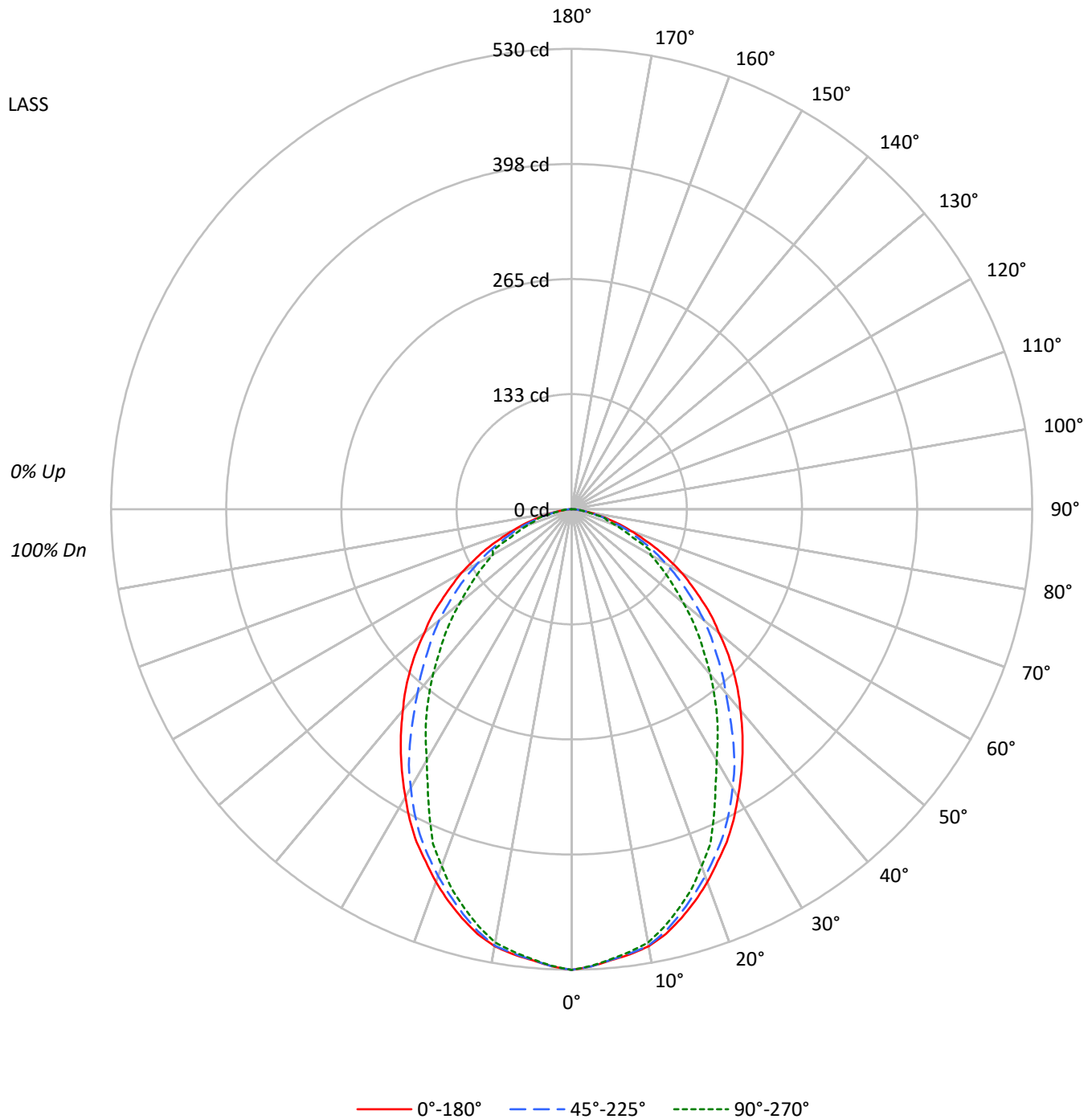
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	5708	5708	5708
5°	5631	5624	5616
10°	5582	5574	5535
15°	5431	5377	5301
20°	5231	5148	5007
25°	5017	4907	4601
30°	4754	4602	4145
35°	4503	4254	3834
40°	4246	3877	3489
45°	4004	3583	3154
50°	3706	3326	2813
55°	3429	3014	2520
60°	3141	2693	2256
65°	2763	2358	1999
70°	2275	2065	1696
75°	1809	1580	1655
80°	1215	1141	1066
85°	753	914	1062

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4004 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.4	4.7
10°-20°	135.5	13.0
20°-30°	187.5	18.0
30°-40°	200.0	19.2
40°-50°	182.4	17.5
50°-60°	142.9	13.7
60°-70°	93.2	8.9
70°-80°	41.3	4.0
80°-90°	8.9	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°	372.4	35.8
0°-40°	572.4	55.0
0°-60°	897.7	86.2
0°-90°	1041.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1041.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	530	530	530	530	530	
5°	521	520	520	520	520	49
15°	487	487	482	478	476	137
25°	422	420	413	398	387	194
35°	343	340	324	299	292	214
45°	263	258	235	216	207	203
55°	183	177	161	142	134	164
65°	108	102	93	94	78	107
75°	44	40	38	36	40	47
85°	6	7	7	8	9	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	530.3	530.3	530.3	530.3	530.3
2.5°	526.6	526.6	526.6	526.0	526.0
5°	521.1	520.5	520.5	519.8	519.8
7.5°	516.8	516.2	515.6	514.9	513.7
10°	510.7	510.7	510.0	507.0	506.4
12.5°	500.8	500.2	497.8	493.5	492.3
15°	487.4	487.4	482.5	477.6	475.7
17.5°	472.6	472.0	465.9	461.0	458.5
20°	456.7	455.5	449.4	441.4	437.1
22.5°	438.9	438.9	431.6	421.2	416.9
25°	422.4	419.9	413.2	398.5	387.4
27.5°	403.4	399.7	392.3	371.5	358.6
30°	382.5	380.7	370.3	343.3	333.5
32.5°	362.9	359.8	348.8	320.6	312.6
35°	342.7	340.2	323.7	299.2	291.8
37.5°	322.5	319.4	298.5	278.9	269.7
40°	302.2	298.5	275.9	258.1	248.3
42.5°	283.2	278.3	256.2	237.2	226.2
45°	263.0	257.5	235.4	215.8	207.2
47.5°	242.8	237.9	217.6	197.4	187.6
50°	221.3	217.0	198.6	178.4	168.0
52.5°	203.5	196.8	179.0	158.8	150.2
55°	182.7	177.2	160.6	141.6	134.3
57.5°	163.7	158.2	142.8	125.1	118.9
60°	145.9	137.9	125.1	109.7	104.8
62.5°	126.3	120.2	109.1	96.2	102.4
65°	108.5	102.4	92.6	94.4	78.5
67.5°	88.9	85.8	77.2	68.7	66.2
70°	72.3	68.7	65.6	56.4	53.9
72.5°	57.6	53.9	49.7	44.8	42.9
75°	43.5	40.5	38.0	36.2	39.8
77.5°	30.0	28.8	27.0	25.1	24.5
80°	19.6	19.0	18.4	17.8	17.2
82.5°	11.6	11.6	11.6	11.6	11.6
85°	6.1	6.7	7.4	8.0	8.6
87.5°	3.7	3.7	4.3	4.9	5.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)