

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: P559243

Luminaire Tested: FSR-12-1-LD4-2LO-35-UNV-81-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559243
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-35-UNV-81-94-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1119.0 lumens
Efficiency: N/A
Efficacy: 95.6 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

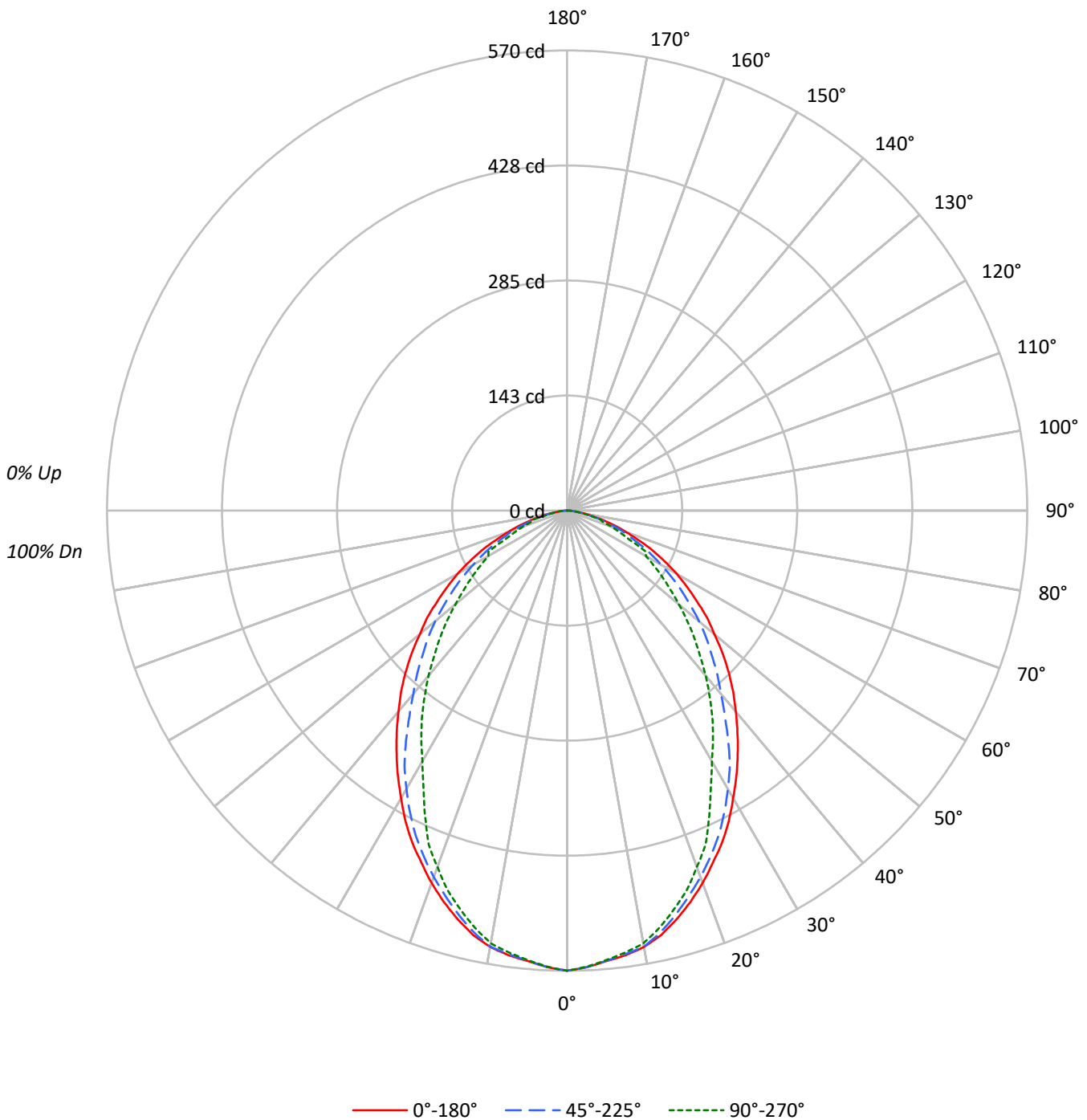
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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																												
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																												
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																												
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																												
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																												
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																												
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																												
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																												
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																												
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																												
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6135	6135	6135
5°	6052	6045	6038
10°	5999	5993	5949
15°	5838	5779	5699
20°	5623	5533	5381
25°	5392	5274	4947
30°	5111	4947	4456
35°	4841	4572	4122
40°	4565	4166	3750
45°	4303	3851	3390
50°	3984	3575	3024
55°	3686	3239	2708
60°	3376	2893	2426
65°	2970	2534	2147
70°	2448	2219	1825
75°	1946	1701	1780
80°	1308	1227	1147
85°	815	976	1136

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4303 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.1	4.7
10°-20°	145.6	13.0
20°-30°	201.6	18.0
30°-40°	215.0	19.2
40°-50°	196.1	17.5
50°-60°	153.6	13.7
60°-70°	100.1	8.9
70°-80°	44.4	4.0
80°-90°	9.5	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°	400.3	35.8
0°-40°	615.2	55.0
0°-60°	965.0	86.2
0°-90°	1119.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1119.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	570	570	570	570	570	
5°	560	560	560	559	559	53
15°	524	524	519	513	511	147
25°	454	451	444	428	416	208
35°	368	366	348	322	314	230
45°	283	277	253	232	223	218
55°	196	190	173	152	144	176
65°	117	110	100	102	84	115
75°	47	44	41	39	43	50
85°	7	7	8	9	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	570.0	570.0	570.0	570.0	570.0
2.5°	566.0	566.0	566.0	565.4	565.4
5°	560.1	559.5	559.5	558.8	558.8
7.5°	555.5	554.8	554.2	553.5	552.2
10°	548.9	548.9	548.3	545.0	544.3
12.5°	538.4	537.7	535.1	530.5	529.1
15°	523.9	523.9	518.6	513.3	511.4
17.5°	508.1	507.4	500.8	495.5	492.9
20°	490.9	489.6	483.0	474.5	469.8
22.5°	471.8	471.8	463.9	452.7	448.1
25°	454.0	451.4	444.1	428.3	416.5
27.5°	433.6	429.6	421.7	399.3	385.5
30°	411.2	409.2	398.0	369.0	358.5
32.5°	390.1	386.8	375.0	344.6	336.1
35°	368.4	365.7	347.9	321.6	313.7
37.5°	346.6	343.3	320.9	299.8	289.9
40°	324.9	320.9	296.5	277.4	266.9
42.5°	304.4	299.2	275.4	255.0	243.2
45°	282.7	276.8	253.0	232.0	222.7
47.5°	260.9	255.7	233.9	212.2	201.6
50°	237.9	233.3	213.5	191.8	180.6
52.5°	218.8	211.5	192.4	170.7	161.4
55°	196.4	190.4	172.6	152.2	144.3
57.5°	175.9	170.0	153.5	134.4	127.8
60°	156.8	148.3	134.4	118.0	112.7
62.5°	135.7	129.2	117.3	103.5	110.0
65°	116.6	110.0	99.5	101.5	84.3
67.5°	95.5	92.3	83.0	73.8	71.2
70°	77.8	73.8	70.5	60.6	58.0
72.5°	61.9	58.0	53.4	48.1	46.1
75°	46.8	43.5	40.9	38.9	42.8
77.5°	32.3	31.0	29.0	27.0	26.4
80°	21.1	20.4	19.8	19.1	18.5
82.5°	12.5	12.5	12.5	12.5	12.5
85°	6.6	7.2	7.9	8.6	9.2
87.5°	4.0	4.0	4.6	5.3	5.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)