

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: P559391

Luminaire Tested: FSR-12-1-LD4-2LO-50-UNV-82-97-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559391
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-82-97-EDD
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1096.0 lumens
Efficiency: N/A
Efficacy: 93.7 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

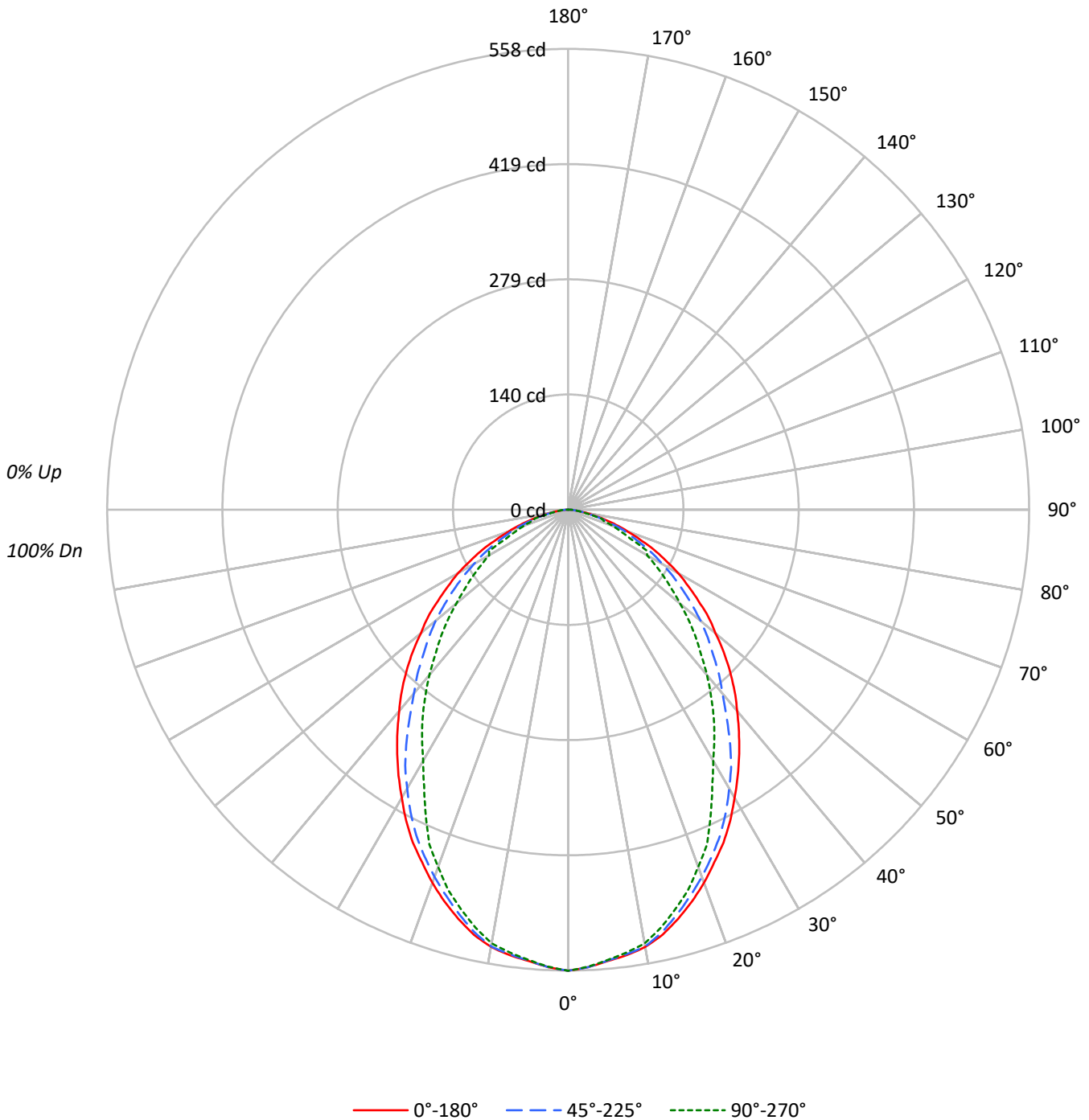
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	6009	6009	6009
5°	5928	5921	5914
10°	5876	5869	5827
15°	5718	5660	5581
20°	5507	5419	5271
25°	5282	5166	4844
30°	5005	4845	4364
35°	4741	4478	4037
40°	4471	4080	3673
45°	4215	3772	3322
50°	3902	3502	2961
55°	3609	3173	2652
60°	3307	2835	2377
65°	2909	2483	2104
70°	2398	2175	1788
75°	1905	1664	1747
80°	1283	1203	1122
85°	803	951	1112

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4215 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.0	4.7
10°-20°	142.6	13.0
20°-30°	197.5	18.0
30°-40°	210.5	19.2
40°-50°	192.1	17.5
50°-60°	150.5	13.7
60°-70°	98.1	8.9
70°-80°	43.5	4.0
80°-90°	9.3	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°	392.0	35.8
0°-40°	602.6	55.0
0°-60°	945.1	86.2
0°-90°	1096.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1096.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	558	558	558	558	558	
5°	549	548	548	547	547	52
15°	513	513	508	503	501	144
25°	445	442	435	420	408	204
35°	361	358	341	315	307	226
45°	277	271	248	227	218	213
55°	192	186	169	149	141	173
65°	114	108	98	99	83	113
75°	46	43	40	38	42	49
85°	6	7	8	8	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	558.3	558.3	558.3	558.3	558.3
2.5°	554.4	554.4	554.4	553.8	553.8
5°	548.6	548.0	548.0	547.3	547.3
7.5°	544.1	543.4	542.8	542.2	540.9
10°	537.6	537.6	537.0	533.8	533.1
12.5°	527.3	526.7	524.1	519.6	518.3
15°	513.1	513.1	507.9	502.8	500.8
17.5°	497.6	497.0	490.5	485.4	482.8
20°	480.8	479.5	473.1	464.7	460.2
22.5°	462.1	462.1	454.4	443.4	438.9
25°	444.7	442.1	435.0	419.5	407.9
27.5°	424.7	420.8	413.1	391.1	377.6
30°	402.7	400.8	389.8	361.4	351.1
32.5°	382.1	378.9	367.2	337.6	329.2
35°	360.8	358.2	340.8	315.0	307.2
37.5°	339.5	336.3	314.3	293.7	284.0
40°	318.2	314.3	290.4	271.7	261.4
42.5°	298.2	293.0	269.8	249.8	238.2
45°	276.9	271.1	247.8	227.2	218.2
47.5°	255.6	250.4	229.1	207.8	197.5
50°	233.0	228.5	209.1	187.8	176.8
52.5°	214.3	207.2	188.5	167.2	158.1
55°	192.3	186.5	169.1	149.1	141.3
57.5°	172.3	166.5	150.4	131.7	125.2
60°	153.6	145.2	131.7	115.5	110.4
62.5°	133.0	126.5	114.9	101.3	107.8
65°	114.2	107.8	97.5	99.4	82.6
67.5°	93.6	90.4	81.3	72.3	69.7
70°	76.2	72.3	69.1	59.4	56.8
72.5°	60.7	56.8	52.3	47.1	45.2
75°	45.8	42.6	40.0	38.1	42.0
77.5°	31.6	30.3	28.4	26.5	25.8
80°	20.7	20.0	19.4	18.7	18.1
82.5°	12.3	12.3	12.3	12.3	12.3
85°	6.5	7.1	7.7	8.4	9.0
87.5°	3.9	3.9	4.5	5.2	5.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)