

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: P558627

Luminaire Tested: FSR-12-1-LD4-1HI-50-UNV-93-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558627
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-LD4-1HI-50-UNV-93-85-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 974.0 lumens
Efficiency: N/A
Efficacy: 90.2 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

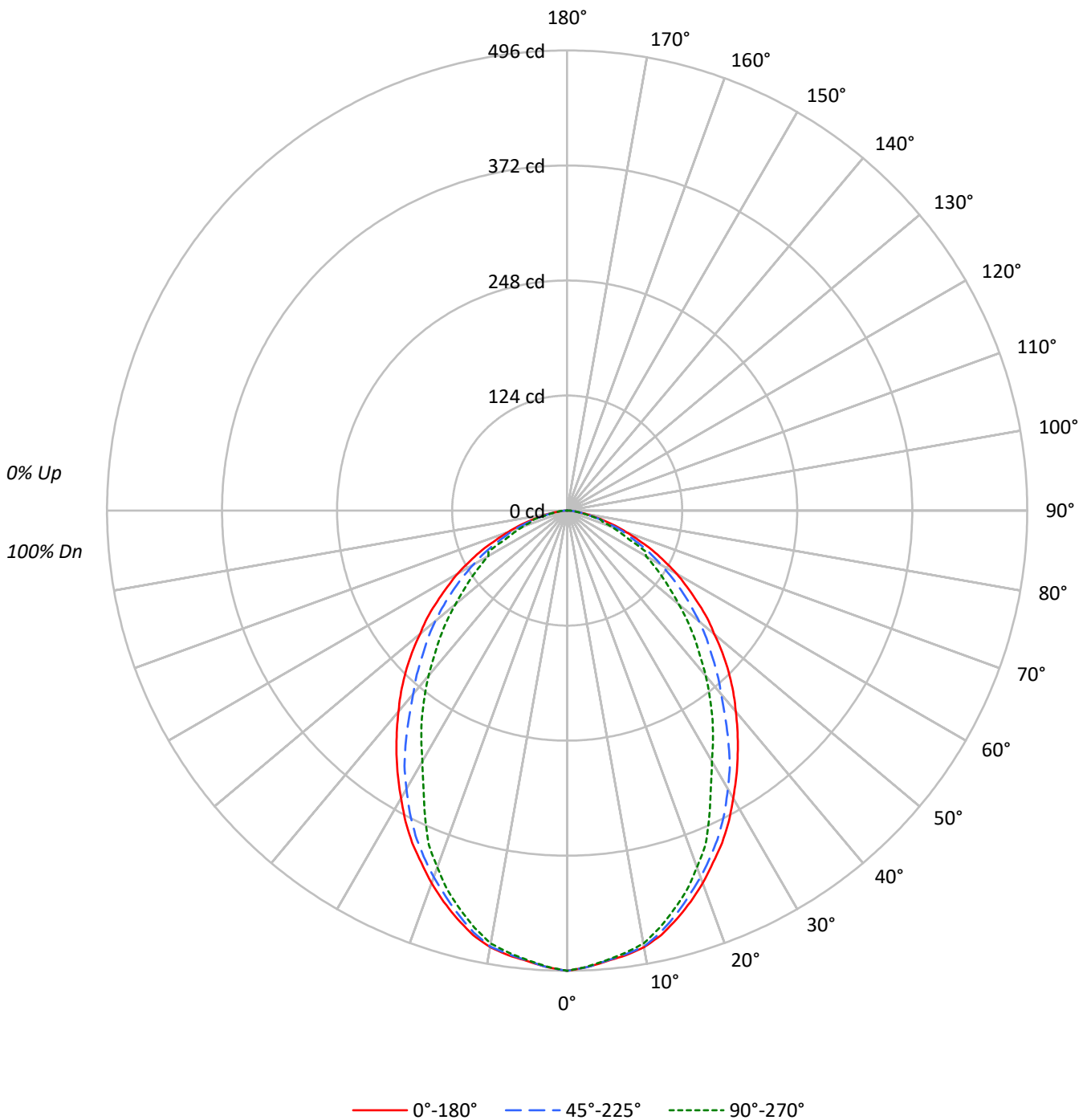
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	5340	5340	5340
5°	5267	5262	5256
10°	5222	5216	5179
15°	5081	5030	4960
20°	4895	4816	4685
25°	4694	4592	4305
30°	4448	4305	3878
35°	4213	3979	3587
40°	3974	3627	3264
45°	3746	3354	2952
50°	3468	3111	2632
55°	3207	2821	2357
60°	2939	2519	2112
65°	2585	2206	1869
70°	2131	1932	1589
75°	1693	1481	1551
80°	1141	1066	998
85°	704	852	988

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3746 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.2	4.7
10°-20°	126.7	13.0
20°-30°	175.5	18.0
30°-40°	187.1	19.2
40°-50°	170.7	17.5
50°-60°	133.7	13.7
60°-70°	87.2	8.9
70°-80°	38.6	4.0
80°-90°	8.3	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°	348.4	35.8
0°-40°	535.5	55.0
0°-60°	839.9	86.2
0°-90°	974.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	974.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	496	496	496	496	496	
5°	488	487	487	486	486	46
15°	456	456	451	447	445	128
25°	395	393	387	373	362	181
35°	321	318	303	280	273	200
45°	246	241	220	202	194	190
55°	171	166	150	132	126	153
65°	102	96	87	88	73	100
75°	41	38	36	34	37	44
85°	6	6	7	8	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	496.1	496.1	496.1	496.1	496.1
2.5°	492.7	492.7	492.7	492.1	492.1
5°	487.5	487.0	487.0	486.4	486.4
7.5°	483.5	483.0	482.4	481.8	480.7
10°	477.8	477.8	477.2	474.3	473.8
12.5°	468.6	468.0	465.7	461.7	460.6
15°	456.0	456.0	451.4	446.8	445.1
17.5°	442.2	441.7	435.9	431.3	429.0
20°	427.3	426.2	420.4	413.0	409.0
22.5°	410.7	410.7	403.8	394.0	390.0
25°	395.2	392.9	386.6	372.8	362.5
27.5°	377.4	374.0	367.1	347.6	335.5
30°	357.9	356.2	346.4	321.2	312.0
32.5°	339.6	336.7	326.4	300.0	292.5
35°	320.6	318.3	302.8	279.9	273.0
37.5°	301.7	298.8	279.3	261.0	252.4
40°	282.8	279.3	258.1	241.5	232.3
42.5°	265.0	260.4	239.8	222.0	211.6
45°	246.1	240.9	220.3	201.9	193.9
47.5°	227.1	222.5	203.6	184.7	175.5
50°	207.1	203.0	185.8	166.9	157.2
52.5°	190.4	184.1	167.5	148.6	140.5
55°	170.9	165.8	150.3	132.5	125.6
57.5°	153.1	148.0	133.6	117.0	111.3
60°	136.5	129.1	117.0	102.7	98.1
62.5°	118.2	112.4	102.1	90.1	95.8
65°	101.5	95.8	86.6	88.3	73.4
67.5°	83.2	80.3	72.3	64.2	61.9
70°	67.7	64.2	61.4	52.8	50.5
72.5°	53.9	50.5	46.5	41.9	40.2
75°	40.7	37.9	35.6	33.8	37.3
77.5°	28.1	27.0	25.2	23.5	22.9
80°	18.4	17.8	17.2	16.6	16.1
82.5°	10.9	10.9	10.9	10.9	10.9
85°	5.7	6.3	6.9	7.5	8.0
87.5°	3.4	3.4	4.0	4.6	5.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)