

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: P559372

Luminaire Tested: FSR-12-1-LD4-2LO-50-UNV-81-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559372
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-81-96-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 989.0 lumens
Efficiency: N/A
Efficacy: 84.5 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

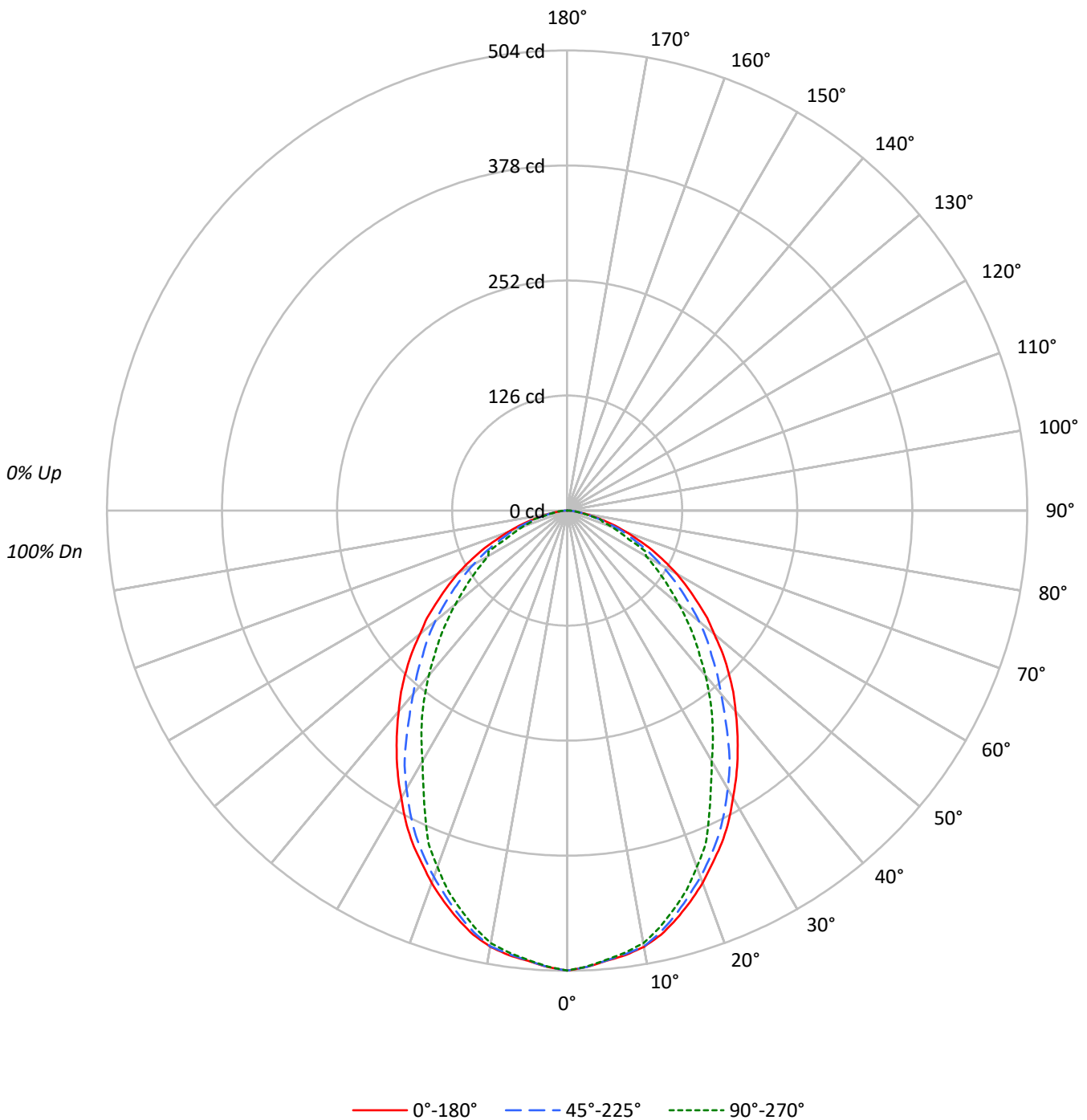
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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				
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	47	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°	5423	5423	5423
5°	5348	5343	5337
10°	5302	5297	5258
15°	5159	5108	5036
20°	4970	4890	4757
25°	4766	4662	4372
30°	4517	4373	3938
35°	4278	4041	3642
40°	4034	3683	3315
45°	3804	3404	2997
50°	3520	3160	2673
55°	3258	2864	2393
60°	2984	2558	2144
65°	2626	2239	1897
70°	2162	1961	1614
75°	1722	1501	1576
80°	1153	1085	1010
85°	716	865	1013

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3804 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.9	4.7
10°-20°	128.7	13.0
20°-30°	178.2	18.0
30°-40°	190.0	19.2
40°-50°	173.3	17.5
50°-60°	135.8	13.7
60°-70°	88.5	8.9
70°-80°	39.2	4.0
80°-90°	8.4	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°	353.8	35.8
0°-40°	543.7	55.0
0°-60°	852.9	86.2
0°-90°	989.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	989.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	504	504	504	504	504	
5°	495	494	494	494	494	47
15°	463	463	458	454	452	130
25°	401	399	392	379	368	184
35°	326	323	308	284	277	204
45°	250	245	224	205	197	192
55°	174	168	153	134	128	156
65°	103	97	88	90	74	102
75°	41	38	36	34	38	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°	503.8	503.8	503.8	503.8	503.8
2.5°	500.3	500.3	500.3	499.7	499.7
5°	495.0	494.5	494.5	493.9	493.9
7.5°	491.0	490.4	489.8	489.2	488.1
10°	485.1	485.1	484.6	481.7	481.1
12.5°	475.8	475.2	472.9	468.8	467.7
15°	463.0	463.0	458.4	453.7	451.9
17.5°	449.0	448.5	442.6	438.0	435.6
20°	433.9	432.7	426.9	419.3	415.3
22.5°	417.0	417.0	410.0	400.1	396.0
25°	401.3	398.9	392.5	378.6	368.1
27.5°	383.2	379.7	372.7	352.9	340.7
30°	363.4	361.7	351.8	326.1	316.8
32.5°	344.8	341.9	331.4	304.6	297.0
35°	325.6	323.2	307.5	284.2	277.2
37.5°	306.3	303.4	283.6	265.0	256.3
40°	287.1	283.6	262.1	245.2	235.9
42.5°	269.1	264.4	243.4	225.4	214.9
45°	249.9	244.6	223.6	205.0	196.9
47.5°	230.6	226.0	206.8	187.5	178.2
50°	210.2	206.2	188.7	169.5	159.6
52.5°	193.4	187.0	170.1	150.8	142.7
55°	173.6	168.3	152.6	134.5	127.5
57.5°	155.5	150.3	135.7	118.8	113.0
60°	138.6	131.0	118.8	104.3	99.6
62.5°	120.0	114.2	103.7	91.4	97.3
65°	103.1	97.3	87.9	89.7	74.5
67.5°	84.4	81.5	73.4	65.2	62.9
70°	68.7	65.2	62.3	53.6	51.3
72.5°	54.7	51.3	47.2	42.5	40.8
75°	41.4	38.4	36.1	34.4	37.9
77.5°	28.5	27.4	25.6	23.9	23.3
80°	18.6	18.1	17.5	16.9	16.3
82.5°	11.1	11.1	11.1	11.1	11.1
85°	5.8	6.4	7.0	7.6	8.2
87.5°	3.5	3.5	4.1	4.7	5.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)