

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: P559586

Luminaire Tested: FSR-12-1-LD4-2STD-50-UNV-93-85-EDD-90

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P559586  
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-LD4-2STD-50-UNV-93-85-EDD-90  
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

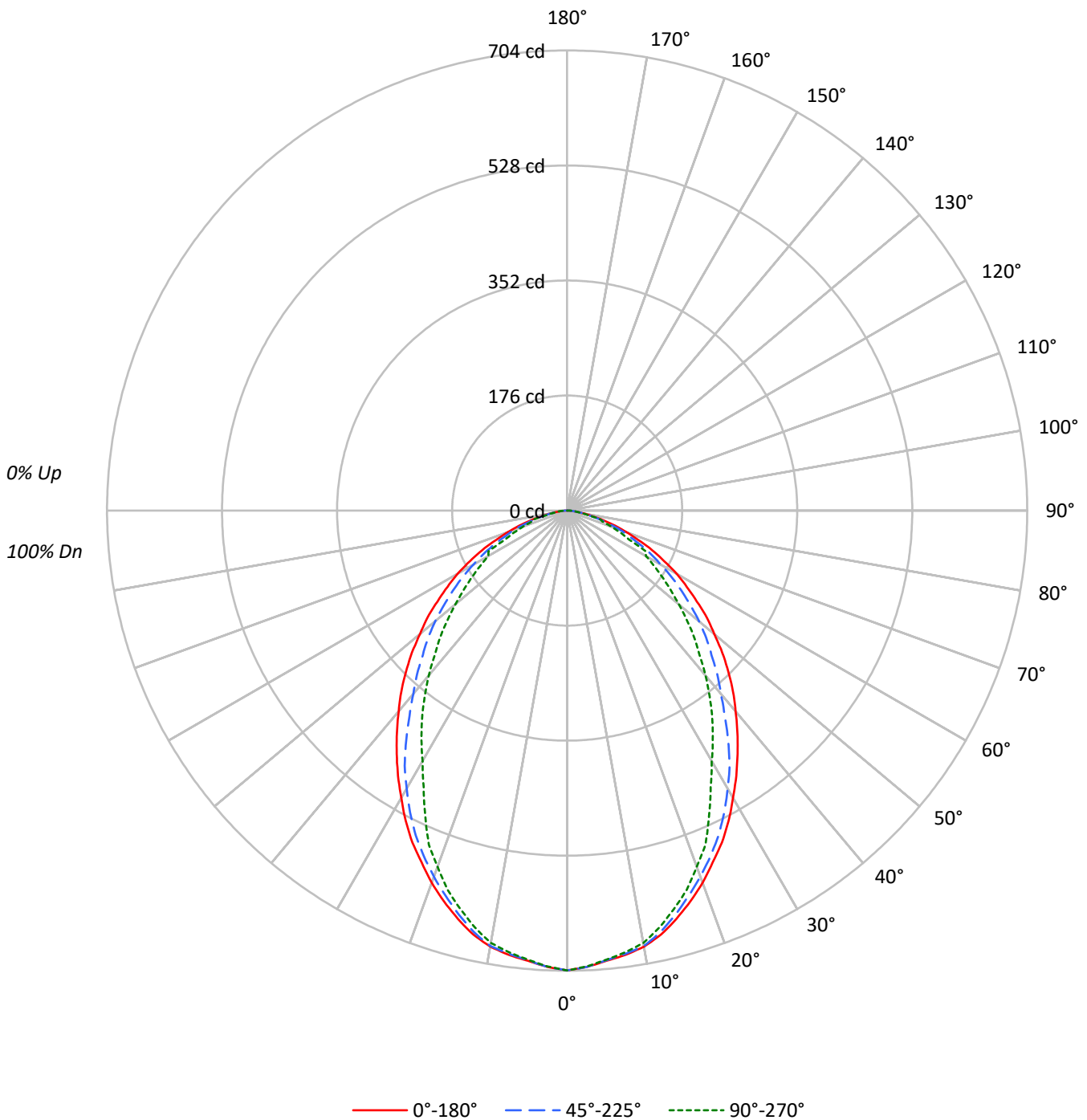
Lumens per Lamp: N/A  
Luminaire Lumens: 1381.0 lumens  
Efficiency: N/A  
Efficacy: 83.2 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 16.6  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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°	7572	7572	7572
5°	7470	7461	7451
10°	7404	7395	7342
15°	7204	7132	7033
20°	6940	6828	6641
25°	6654	6510	6105
30°	6308	6105	5499
35°	5974	5642	5087
40°	5633	5143	4628
45°	5311	4754	4185
50°	4917	4412	3731
55°	4547	3999	3342
60°	4168	3571	2995
65°	3665	3128	2651
70°	3021	2738	2253
75°	2400	2096	2200
80°	1612	1512	1413
85°	1000	1210	1408

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5311 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.5	4.7
10°-20°	179.7	13.0
20°-30°	248.8	18.0
30°-40°	265.3	19.2
40°-50°	242.0	17.5
50°-60°	189.6	13.7
60°-70°	123.6	8.9
70°-80°	54.7	4.0
80°-90°	11.8	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°	494.0	35.8
0°-40°	759.3	55.0
0°-60°	1190.9	86.2
0°-90°	1381.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1381.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	704	704	704	704	704	
5°	691	690	690	690	690	66
15°	646	646	640	634	631	182
25°	560	557	548	529	514	257
35°	455	451	429	397	387	284
45°	349	342	312	286	275	269
55°	242	235	213	188	178	217
65°	144	136	123	125	104	142
75°	58	54	50	48	53	62
85°	8	9	10	11	11	11
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	703.5	703.5	703.5	703.5	703.5
2.5°	698.6	698.6	698.6	697.8	697.8
5°	691.3	690.5	690.5	689.6	689.6
7.5°	685.6	684.8	683.9	683.1	681.5
10°	677.4	677.4	676.6	672.6	671.7
12.5°	664.4	663.6	660.4	654.7	653.0
15°	646.5	646.5	640.0	633.5	631.1
17.5°	627.0	626.2	618.1	611.6	608.3
20°	605.9	604.2	596.1	585.5	579.8
22.5°	582.3	582.3	572.5	558.7	553.0
25°	560.3	557.1	548.1	528.6	514.0
27.5°	535.1	530.2	520.5	492.8	475.8
30°	507.5	505.0	491.2	455.4	442.4
32.5°	481.4	477.4	462.7	425.3	414.8
35°	454.6	451.4	429.4	396.9	387.1
37.5°	427.8	423.7	396.1	370.0	357.8
40°	400.9	396.1	366.0	342.4	329.4
42.5°	375.7	369.2	339.9	314.7	300.1
45°	348.9	341.6	312.3	286.3	274.9
47.5°	322.0	315.5	288.7	261.9	248.9
50°	293.6	287.9	263.5	236.7	222.8
52.5°	270.0	261.1	237.5	210.6	199.2
55°	242.3	235.0	213.1	187.9	178.1
57.5°	217.1	209.8	189.5	165.9	157.8
60°	193.6	183.0	165.9	145.6	139.1
62.5°	167.5	159.4	144.8	127.7	135.8
65°	143.9	135.8	122.8	125.2	104.1
67.5°	117.9	113.9	102.5	91.1	87.8
70°	96.0	91.1	87.0	74.8	71.6
72.5°	76.4	71.6	65.9	59.4	56.9
75°	57.7	53.7	50.4	48.0	52.9
77.5°	39.8	38.2	35.8	33.3	32.5
80°	26.0	25.2	24.4	23.6	22.8
82.5°	15.5	15.5	15.5	15.5	15.5
85°	8.1	8.9	9.8	10.6	11.4
87.5°	4.9	4.9	5.7	6.5	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)