

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: P558587

Luminaire Tested: FSR-12-1-LD4-1HI-50-UNV-80-94-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558587  
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-80-94-EDD  
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

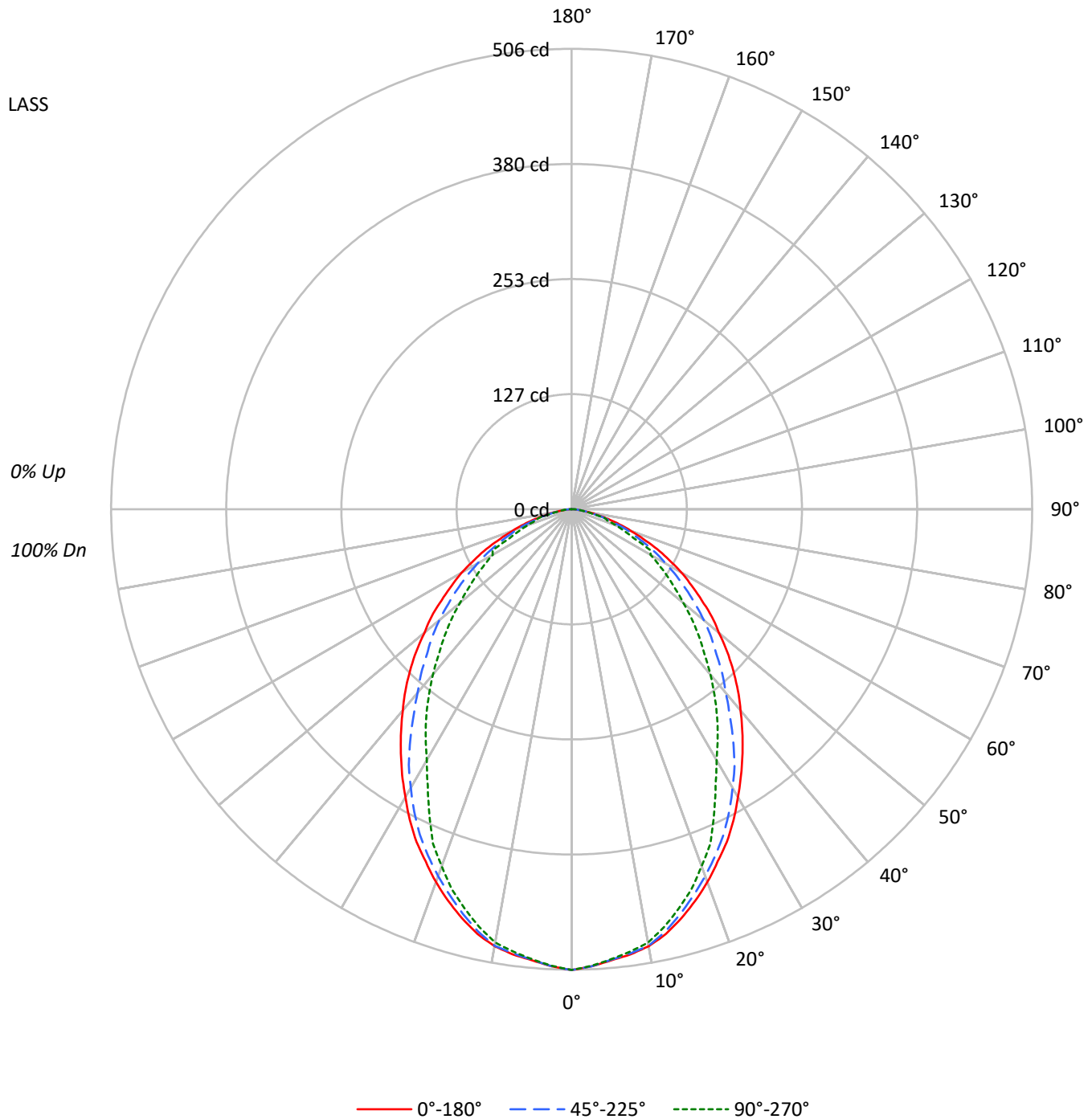
Lumens per Lamp: N/A  
Luminaire Lumens: 994.0 lumens  
Efficiency: N/A  
Efficacy: 92.0 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 10.8  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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°	5450	5450	5450
5°	5377	5370	5364
10°	5329	5323	5285
15°	5186	5134	5061
20°	4995	4915	4781
25°	4790	4685	4393
30°	4540	4395	3957
35°	4300	4062	3661
40°	4055	3701	3332
45°	3822	3422	3011
50°	3538	3177	2686
55°	3273	2879	2406
60°	2999	2570	2155
65°	2639	2252	1908
70°	2175	1970	1621
75°	1730	1510	1580
80°	1159	1091	1017
85°	729	865	1013

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3822 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.1	4.7
10°-20°	129.4	13.0
20°-30°	179.1	18.0
30°-40°	191.0	19.2
40°-50°	174.2	17.5
50°-60°	136.5	13.7
60°-70°	89.0	8.9
70°-80°	39.4	4.0
80°-90°	8.5	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°	355.6	35.8
0°-40°	546.5	55.0
0°-60°	857.2	86.2
0°-90°	994.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	994.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	506	506	506	506	506	
5°	498	497	497	496	496	47
15°	465	465	461	456	454	131
25°	403	401	394	380	370	185
35°	327	325	309	286	279	205
45°	251	246	225	206	198	193
55°	174	169	153	135	128	156
65°	104	98	88	90	75	102
75°	42	39	36	34	38	45
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°	506.3	506.3	506.3	506.3	506.3
2.5°	502.8	502.8	502.8	502.2	502.2
5°	497.6	497.0	497.0	496.4	496.4
7.5°	493.5	492.9	492.3	491.7	490.5
10°	487.6	487.6	487.0	484.1	483.5
12.5°	478.2	477.6	475.3	471.2	470.0
15°	465.4	465.4	460.7	456.0	454.2
17.5°	451.3	450.7	444.9	440.2	437.8
20°	436.1	434.9	429.1	421.5	417.4
22.5°	419.1	419.1	412.1	402.1	398.0
25°	403.3	401.0	394.5	380.5	369.9
27.5°	385.2	381.7	374.6	354.7	342.4
30°	365.3	363.5	353.6	327.8	318.4
32.5°	346.5	343.6	333.1	306.1	298.5
35°	327.2	324.9	309.1	285.7	278.6
37.5°	307.9	305.0	285.1	266.3	257.6
40°	288.6	285.1	263.4	246.4	237.1
42.5°	270.4	265.8	244.7	226.5	216.0
45°	251.1	245.8	224.8	206.0	197.8
47.5°	231.8	227.1	207.8	188.5	179.1
50°	211.3	207.2	189.7	170.3	160.4
52.5°	194.3	187.9	170.9	151.6	143.4
55°	174.4	169.2	153.4	135.2	128.2
57.5°	156.3	151.0	136.4	119.4	113.6
60°	139.3	131.7	119.4	104.8	100.1
62.5°	120.6	114.7	104.2	91.9	97.8
65°	103.6	97.8	88.4	90.1	74.9
67.5°	84.9	81.9	73.8	65.6	63.2
70°	69.1	65.6	62.6	53.9	51.5
72.5°	55.0	51.5	47.4	42.7	41.0
75°	41.6	38.6	36.3	34.5	38.0
77.5°	28.7	27.5	25.8	24.0	23.4
80°	18.7	18.1	17.6	17.0	16.4
82.5°	11.1	11.1	11.1	11.1	11.1
85°	5.9	6.4	7.0	7.6	8.2
87.5°	3.5	3.5	4.1	4.7	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)