

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: P558906

Luminaire Tested: FSR-12-1-LD4-1STD-40-UNV-80-94-EDD-90

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558906  
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-LD4-1STD-40-UNV-80-94-EDD-90  
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

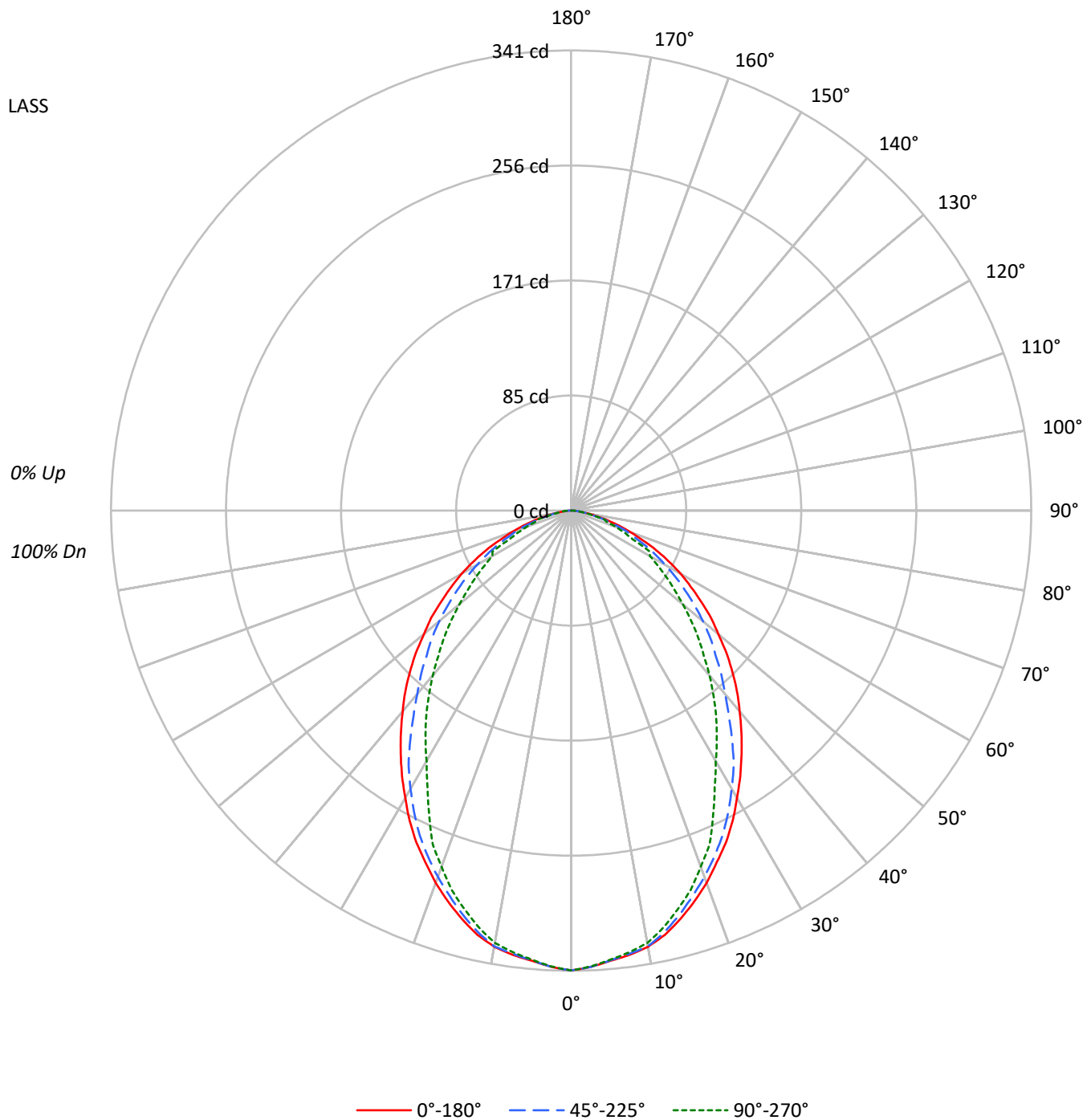
Lumens per Lamp: N/A  
Luminaire Lumens: 669.0 lumens  
Efficiency: N/A  
Efficacy: 80.6 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 8.3  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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																												
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°	3668	3668	3668
5°	3619	3614	3610
10°	3587	3583	3557
15°	3490	3456	3407
20°	3362	3308	3218
25°	3223	3153	2957
30°	3055	2958	2664
35°	2893	2733	2464
40°	2729	2491	2243
45°	2573	2303	2028
50°	2381	2137	1807
55°	2203	1937	1620
60°	2019	1731	1451
65°	1775	1515	1284
70°	1463	1328	1092
75°	1164	1015	1065
80°	781	731	682
85°	482	580	679

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2573 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.7	4.7
10°-20°	87.1	13.0
20°-30°	120.5	18.0
30°-40°	128.5	19.2
40°-50°	117.3	17.5
50°-60°	91.8	13.7
60°-70°	59.9	8.9
70°-80°	26.5	4.0
80°-90°	5.7	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°	239.3	35.8
0°-40°	367.8	55.0
0°-60°	576.9	86.2
0°-90°	669.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	669.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	341	341	341	341	341	
5°	335	334	334	334	334	32
15°	313	313	310	307	306	88
25°	271	270	266	256	249	125
35°	220	219	208	192	188	138
45°	169	166	151	139	133	130
55°	117	114	103	91	86	105
65°	70	66	60	61	50	69
75°	28	26	24	23	26	30
85°	4	4	5	5	6	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	340.8	340.8	340.8	340.8	340.8
2.5°	338.4	338.4	338.4	338.0	338.0
5°	334.9	334.5	334.5	334.1	334.1
7.5°	332.1	331.7	331.3	330.9	330.1
10°	328.2	328.2	327.8	325.8	325.4
12.5°	321.9	321.5	319.9	317.1	316.4
15°	313.2	313.2	310.1	306.9	305.7
17.5°	303.7	303.4	299.4	296.3	294.7
20°	293.5	292.7	288.8	283.7	280.9
22.5°	282.1	282.1	277.4	270.7	267.9
25°	271.4	269.9	265.5	256.1	249.0
27.5°	259.2	256.9	252.1	238.7	230.5
30°	245.8	244.7	238.0	220.6	214.3
32.5°	233.2	231.3	224.2	206.0	200.9
35°	220.2	218.7	208.0	192.3	187.5
37.5°	207.2	205.3	191.9	179.3	173.3
40°	194.2	191.9	177.3	165.9	159.6
42.5°	182.0	178.9	164.7	152.5	145.4
45°	169.0	165.5	151.3	138.7	133.2
47.5°	156.0	152.9	139.9	126.9	120.6
50°	142.2	139.5	127.6	114.6	107.9
52.5°	130.8	126.5	115.0	102.0	96.5
55°	117.4	113.9	103.2	91.0	86.3
57.5°	105.2	101.6	91.8	80.4	76.4
60°	93.8	88.6	80.4	70.5	67.4
62.5°	81.2	77.2	70.1	61.9	65.8
65°	69.7	65.8	59.5	60.7	50.4
67.5°	57.1	55.2	49.6	44.1	42.5
70°	46.5	44.1	42.2	36.2	34.7
72.5°	37.0	34.7	31.9	28.8	27.6
75°	28.0	26.0	24.4	23.2	25.6
77.5°	19.3	18.5	17.3	16.2	15.8
80°	12.6	12.2	11.8	11.4	11.0
82.5°	7.5	7.5	7.5	7.5	7.5
85°	3.9	4.3	4.7	5.1	5.5
87.5°	2.4	2.4	2.8	3.2	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)