

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: P558458

Luminaire Tested: FSR-12-1-LD4-1HI-35-UNV-80-94-EDD-90

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558458  
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-35-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 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

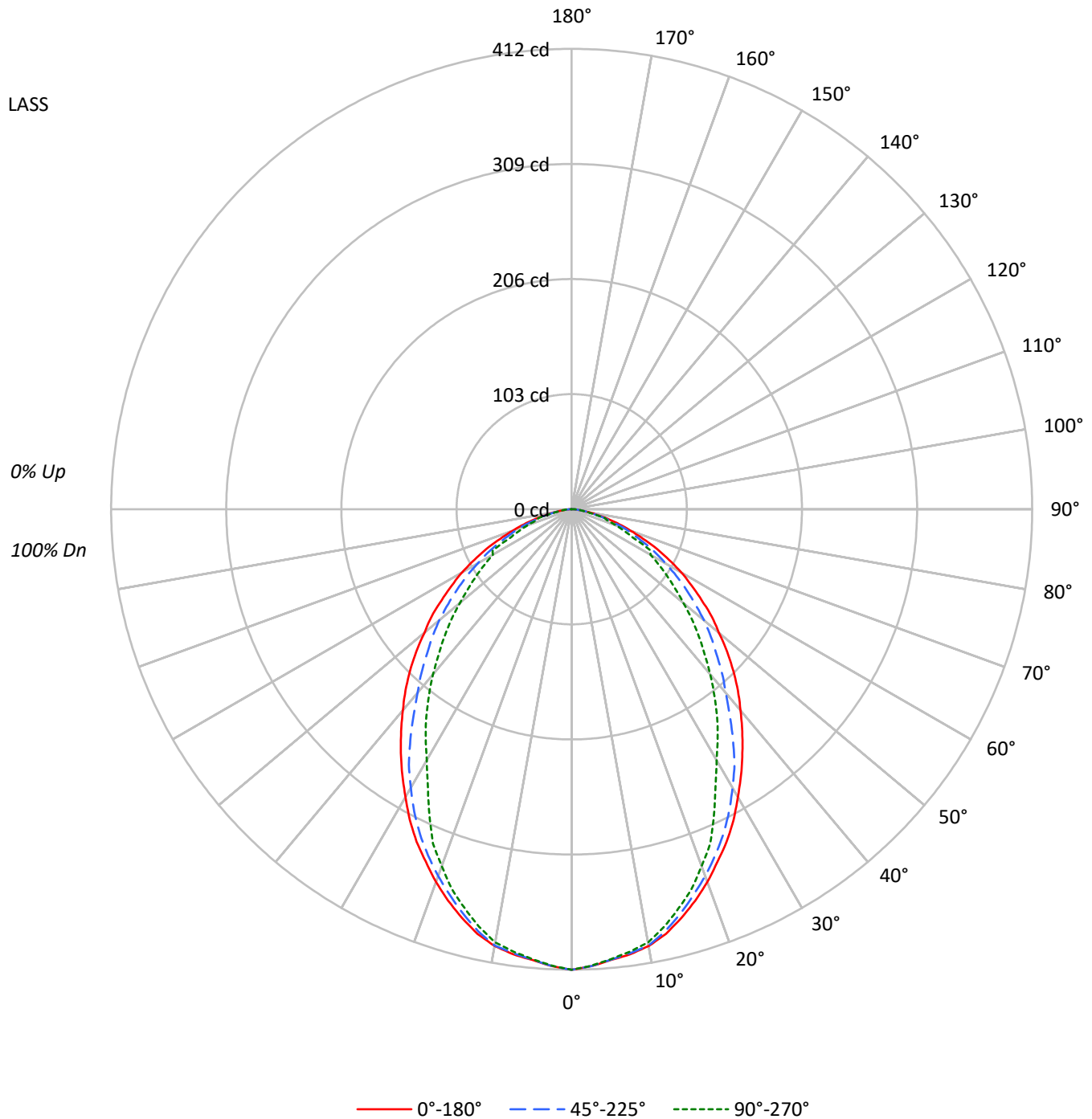
Lumens per Lamp: N/A  
Luminaire Lumens: 809.0 lumens  
Efficiency: N/A  
Efficacy: 74.9 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 10.8  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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°	4436	4436	4436
5°	4375	4371	4365
10°	4337	4333	4301
15°	4220	4178	4120
20°	4065	4000	3891
25°	3898	3814	3576
30°	3695	3577	3222
35°	3499	3305	2980
40°	3301	3013	2710
45°	3111	2784	2451
50°	2880	2586	2185
55°	2665	2342	1957
60°	2441	2093	1755
65°	2147	1831	1554
70°	1769	1605	1319
75°	1406	1227	1289
80°	942	886	824
85°	593	704	827

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3111 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.4	4.7
10°-20°	105.3	13.0
20°-30°	145.7	18.0
30°-40°	155.4	19.2
40°-50°	141.8	17.5
50°-60°	111.1	13.7
60°-70°	72.4	8.9
70°-80°	32.1	4.0
80°-90°	6.9	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°	289.4	35.8
0°-40°	444.8	55.0
0°-60°	697.6	86.2
0°-90°	809.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	809.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	412	412	412	412	412	
5°	405	404	404	404	404	38
15°	379	379	375	371	370	106
25°	328	326	321	310	301	151
35°	266	264	252	232	227	166
45°	204	200	183	168	161	157
55°	142	138	125	110	104	127
65°	84	80	72	73	61	83
75°	34	31	30	28	31	36
85°	5	5	6	6	7	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	412.1	412.1	412.1	412.1	412.1
2.5°	409.2	409.2	409.2	408.8	408.8
5°	404.9	404.5	404.5	404.0	404.0
7.5°	401.6	401.1	400.7	400.2	399.2
10°	396.8	396.8	396.4	394.0	393.5
12.5°	389.2	388.7	386.8	383.5	382.6
15°	378.7	378.7	374.9	371.1	369.7
17.5°	367.3	366.8	362.1	358.3	356.4
20°	354.9	354.0	349.2	343.0	339.7
22.5°	341.1	341.1	335.4	327.3	324.0
25°	328.2	326.3	321.1	309.7	301.1
27.5°	313.5	310.6	304.9	288.7	278.7
30°	297.3	295.8	287.8	266.8	259.2
32.5°	282.0	279.7	271.1	249.2	243.0
35°	266.3	264.4	251.5	232.5	226.8
37.5°	250.6	248.2	232.0	216.8	209.6
40°	234.9	232.0	214.4	200.6	192.9
42.5°	220.1	216.3	199.1	184.4	175.8
45°	204.4	200.1	182.9	167.7	161.0
47.5°	188.7	184.8	169.1	153.4	145.8
50°	172.0	168.6	154.4	138.6	130.5
52.5°	158.2	152.9	139.1	123.4	116.7
55°	142.0	137.7	124.8	110.1	104.3
57.5°	127.2	122.9	111.0	97.2	92.4
60°	113.4	107.2	97.2	85.3	81.5
62.5°	98.1	93.4	84.8	74.8	79.6
65°	84.3	79.6	71.9	73.4	61.0
67.5°	69.1	66.7	60.0	53.4	51.5
70°	56.2	53.4	51.0	43.8	41.9
72.5°	44.8	41.9	38.6	34.8	33.3
75°	33.8	31.4	29.5	28.1	31.0
77.5°	23.3	22.4	21.0	19.5	19.1
80°	15.2	14.8	14.3	13.8	13.3
82.5°	9.1	9.1	9.1	9.1	9.1
85°	4.8	5.2	5.7	6.2	6.7
87.5°	2.9	2.9	3.3	3.8	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)