

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: P559548

Luminaire Tested: FSR-12-1-LD4-2STD-50-UNV-80-96-EDD-90

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P559548  
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-80-96-EDD-90  
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

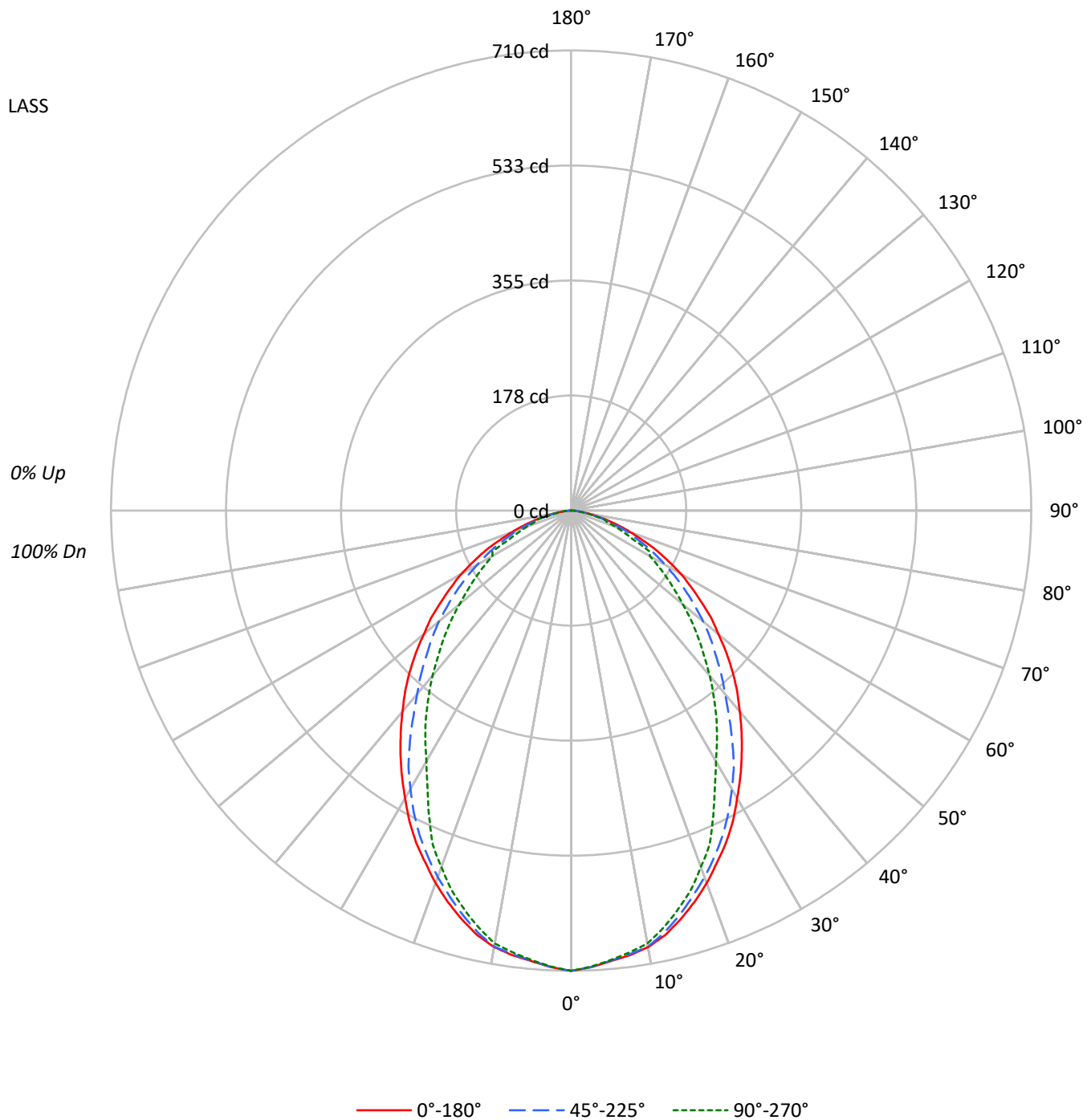
Lumens per Lamp: N/A  
Luminaire Lumens: 1394.0 lumens  
Efficiency: N/A  
Efficacy: 84.0 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 16.6  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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°	7643	7643	7643
5°	7540	7531	7521
10°	7474	7465	7412
15°	7272	7200	7098
20°	7006	6892	6704
25°	6717	6571	6162
30°	6366	6162	5551
35°	6030	5695	5135
40°	5687	5191	4672
45°	5361	4798	4224
50°	4962	4454	3766
55°	4590	4037	3374
60°	4207	3606	3023
65°	3701	3158	2677
70°	3050	2763	2272
75°	2425	2117	2221
80°	1630	1525	1426
85°	1013	1223	1420

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5361 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.1	4.7
10°-20°	181.4	13.0
20°-30°	251.1	18.0
30°-40°	267.8	19.2
40°-50°	244.3	17.5
50°-60°	191.4	13.7
60°-70°	124.7	8.9
70°-80°	55.3	4.0
80°-90°	11.9	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°	498.6	35.8
0°-40°	766.4	55.0
0°-60°	1202.1	86.2
0°-90°	1394.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1394.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	710	710	710	710	710	
5°	698	697	697	696	696	66
15°	653	653	646	640	637	183
25°	566	562	553	534	519	260
35°	459	456	433	401	391	287
45°	352	345	315	289	278	271
55°	245	237	215	190	180	219
65°	145	137	124	126	105	143
75°	58	54	51	48	53	62
85°	8	9	10	11	12	11
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	710.1	710.1	710.1	710.1	710.1
2.5°	705.2	705.2	705.2	704.3	704.3
5°	697.8	697.0	697.0	696.1	696.1
7.5°	692.0	691.2	690.4	689.6	687.9
10°	683.8	683.8	683.0	678.9	678.1
12.5°	670.7	669.9	666.6	660.8	659.2
15°	652.6	652.6	646.1	639.5	637.0
17.5°	632.9	632.1	623.9	617.3	614.0
20°	611.6	609.9	601.7	591.1	585.3
22.5°	587.8	587.8	577.9	564.0	558.2
25°	565.6	562.3	553.3	533.6	518.8
27.5°	540.2	535.2	525.4	497.5	480.2
30°	512.2	509.8	495.8	459.7	446.6
32.5°	486.0	481.9	467.1	429.3	418.7
35°	458.9	455.6	433.4	400.6	390.8
37.5°	431.8	427.7	399.8	373.5	361.2
40°	404.7	399.8	369.4	345.6	332.5
42.5°	379.3	372.7	343.1	317.7	302.9
45°	352.2	344.8	315.2	289.0	277.5
47.5°	325.1	318.5	291.4	264.3	251.2
50°	296.3	290.6	266.0	238.9	224.9
52.5°	272.5	263.5	239.7	212.6	201.1
55°	244.6	237.2	215.1	189.6	179.8
57.5°	219.2	211.8	191.3	167.5	159.3
60°	195.4	184.7	167.5	146.9	140.4
62.5°	169.1	160.9	146.1	128.9	137.1
65°	145.3	137.1	124.0	126.4	105.1
67.5°	119.0	114.9	103.4	91.9	88.7
70°	96.9	91.9	87.8	75.5	72.2
72.5°	77.2	72.2	66.5	59.9	57.5
75°	58.3	54.2	50.9	48.4	53.4
77.5°	40.2	38.6	36.1	33.7	32.8
80°	26.3	25.4	24.6	23.8	23.0
82.5°	15.6	15.6	15.6	15.6	15.6
85°	8.2	9.0	9.9	10.7	11.5
87.5°	4.9	4.9	5.7	6.6	7.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)