

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: P558780

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

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558780  
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-LD4-1LO-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**

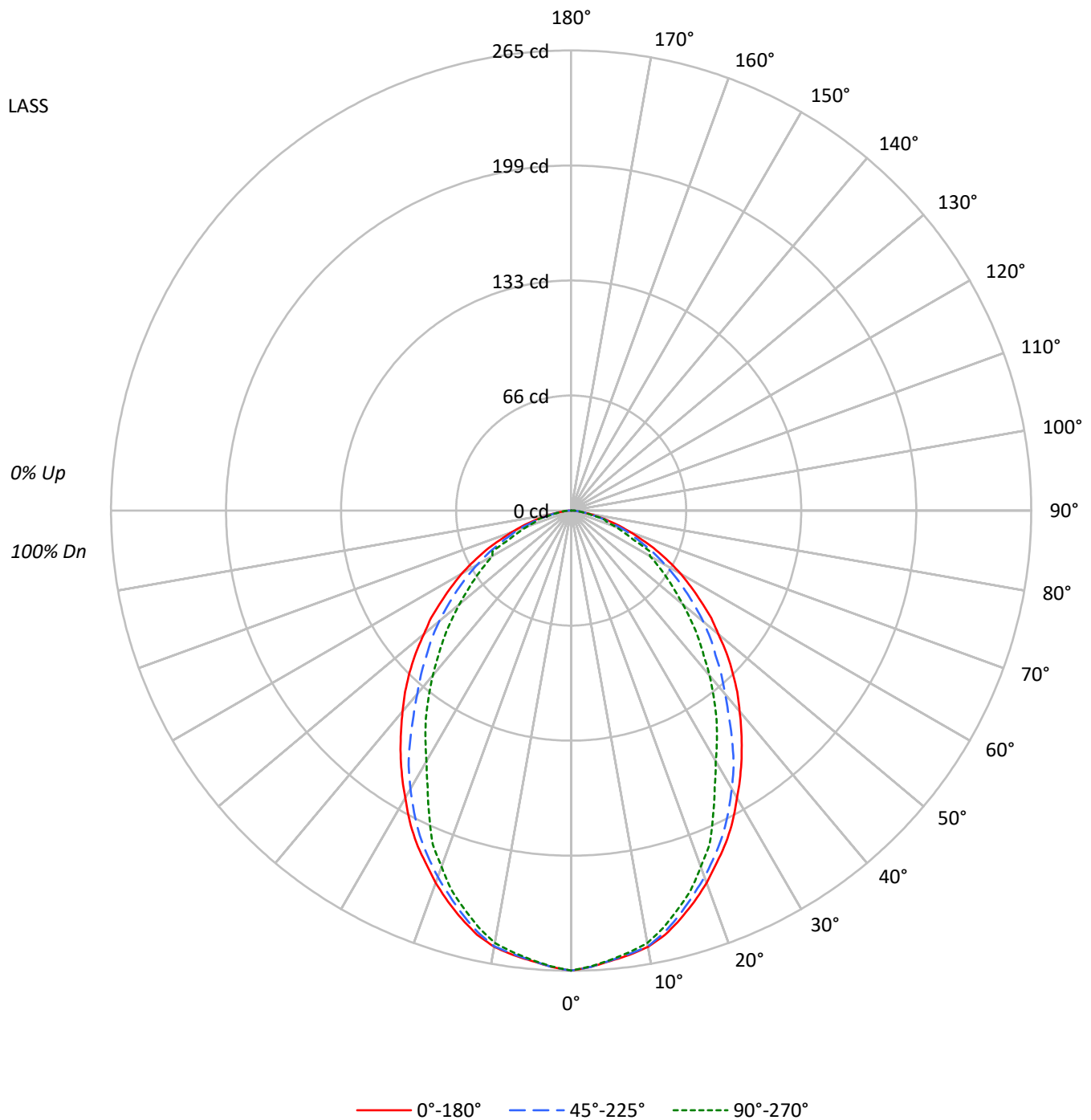
Lumens per Lamp: N/A  
Luminaire Lumens: 520.0 lumens  
Efficiency: N/A  
Efficacy: 89.7 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 5.8  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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°	2851	2851	2851
5°	2813	2809	2806
10°	2788	2785	2764
15°	2712	2686	2648
20°	2613	2572	2501
25°	2506	2451	2298
30°	2375	2299	2071
35°	2250	2125	1916
40°	2122	1936	1742
45°	2000	1790	1576
50°	1850	1661	1405
55°	1713	1505	1259
60°	1569	1345	1128
65°	1380	1177	998
70°	1136	1032	847
75°	902	790	828
80°	607	570	533
85°	383	457	531

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2000 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	24.7	4.7
10°-20°	67.7	13.0
20°-30°	93.7	18.0
30°-40°	99.9	19.2
40°-50°	91.1	17.5
50°-60°	71.4	13.7
60°-70°	46.5	8.9
70°-80°	20.6	4.0
80°-90°	4.4	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°	186.0	35.8
0°-40°	285.9	55.0
0°-60°	448.4	86.2
0°-90°	520.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	520.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	265	265	265	265	265	
5°	260	260	260	260	260	25
15°	243	243	241	238	238	68
25°	211	210	206	199	194	97
35°	171	170	162	149	146	107
45°	131	129	118	108	104	101
55°	91	88	80	71	67	82
65°	54	51	46	47	39	53
75°	22	20	19	18	20	23
85°	3	3	4	4	4	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	264.9	264.9	264.9	264.9	264.9
2.5°	263.0	263.0	263.0	262.7	262.7
5°	260.3	260.0	260.0	259.7	259.7
7.5°	258.1	257.8	257.5	257.2	256.6
10°	255.1	255.1	254.8	253.2	252.9
12.5°	250.2	249.9	248.7	246.5	245.9
15°	243.4	243.4	241.0	238.5	237.6
17.5°	236.1	235.8	232.7	230.3	229.1
20°	228.1	227.5	224.5	220.5	218.3
22.5°	219.3	219.3	215.6	210.4	208.2
25°	211.0	209.8	206.4	199.0	193.5
27.5°	201.5	199.7	196.0	185.6	179.1
30°	191.1	190.2	185.0	171.5	166.6
32.5°	181.3	179.8	174.2	160.2	156.2
35°	171.2	170.0	161.7	149.4	145.8
37.5°	161.1	159.5	149.1	139.3	134.7
40°	151.0	149.1	137.8	128.9	124.0
42.5°	141.5	139.0	128.0	118.5	113.0
45°	131.4	128.6	117.6	107.8	103.5
47.5°	121.3	118.8	108.7	98.6	93.7
50°	110.5	108.4	99.2	89.1	83.9
52.5°	101.7	98.3	89.4	79.3	75.0
55°	91.3	88.5	80.2	70.7	67.1
57.5°	81.8	79.0	71.3	62.5	59.4
60°	72.9	68.9	62.5	54.8	52.4
62.5°	63.1	60.0	54.5	48.1	51.1
65°	54.2	51.1	46.2	47.2	39.2
67.5°	44.4	42.9	38.6	34.3	33.1
70°	36.1	34.3	32.8	28.2	26.9
72.5°	28.8	26.9	24.8	22.4	21.4
75°	21.7	20.2	19.0	18.1	19.9
77.5°	15.0	14.4	13.5	12.6	12.2
80°	9.8	9.5	9.2	8.9	8.6
82.5°	5.8	5.8	5.8	5.8	5.8
85°	3.1	3.4	3.7	4.0	4.3
87.5°	1.8	1.8	2.1	2.4	2.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)