

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: P558768

Luminaire Tested: FSR-12-1-LD4-1LO-50-UNV-80-84-EDD-90

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558768  
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-80-84-EDD-90  
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRON  
SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

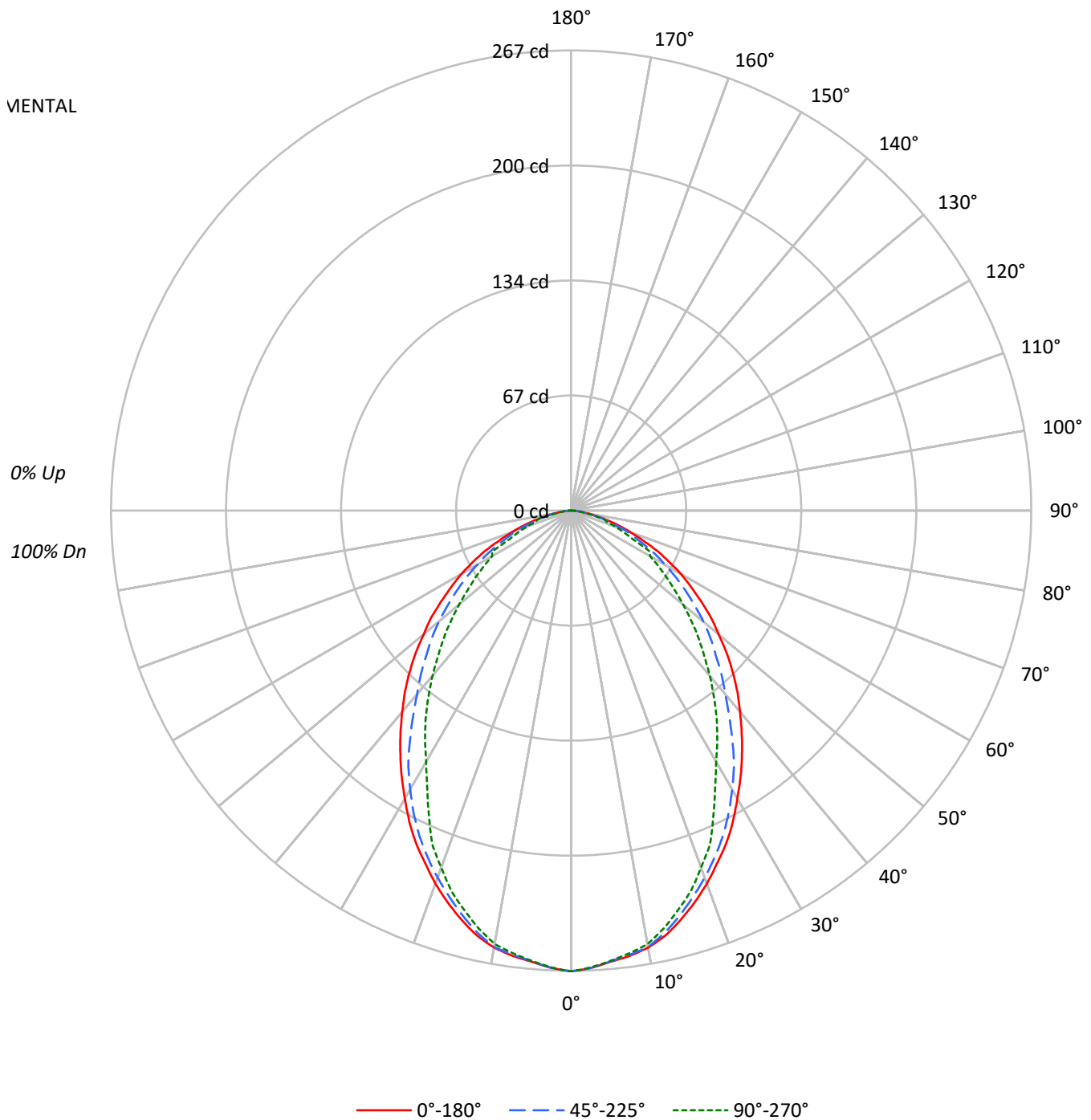
Lumens per Lamp: N/A  
Luminaire Lumens: 525.0 lumens  
Efficiency: N/A  
Efficacy: 90.5 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 5.8  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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°	2878	2878	2878
5°	2840	2836	2833
10°	2814	2811	2792
15°	2739	2711	2673
20°	2638	2596	2525
25°	2530	2475	2321
30°	2398	2321	2091
35°	2271	2144	1934
40°	2141	1955	1759
45°	2019	1807	1591
50°	1869	1678	1418
55°	1728	1520	1270
60°	1584	1358	1139
65°	1393	1189	1009
70°	1149	1042	856
75°	915	799	836
80°	614	576	539
85°	383	457	531

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2019 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	24.9	4.7
10°-20°	68.3	13.0
20°-30°	94.6	18.0
30°-40°	100.9	19.2
40°-50°	92.0	17.5
50°-60°	72.1	13.7
60°-70°	47.0	8.9
70°-80°	20.8	4.0
80°-90°	4.5	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°	187.8	35.8
0°-40°	288.7	55.0
0°-60°	452.7	86.2
0°-90°	525.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	525.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	267	267	267	267	267	
5°	263	262	262	262	262	25
15°	246	246	243	241	240	69
25°	213	212	208	201	195	98
35°	173	172	163	151	147	108
45°	133	130	119	109	104	102
55°	92	89	81	71	68	83
65°	55	52	47	48	40	54
75°	22	20	19	18	20	24
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°	267.4	267.4	267.4	267.4	267.4
2.5°	265.6	265.6	265.6	265.3	265.3
5°	262.8	262.5	262.5	262.2	262.2
7.5°	260.6	260.3	260.0	259.7	259.1
10°	257.5	257.5	257.2	255.7	255.4
12.5°	252.6	252.3	251.0	248.9	248.3
15°	245.8	245.8	243.3	240.8	239.9
17.5°	238.4	238.1	235.0	232.5	231.3
20°	230.3	229.7	226.6	222.6	220.4
22.5°	221.4	221.4	217.7	212.4	210.2
25°	213.0	211.8	208.4	201.0	195.4
27.5°	203.4	201.6	197.9	187.4	180.9
30°	192.9	192.0	186.7	173.1	168.2
32.5°	183.0	181.5	175.9	161.7	157.7
35°	172.8	171.6	163.2	150.9	147.2
37.5°	162.6	161.1	150.6	140.7	136.0
40°	152.4	150.6	139.1	130.2	125.2
42.5°	142.8	140.4	129.2	119.6	114.1
45°	132.6	129.8	118.7	108.8	104.5
47.5°	122.4	120.0	109.8	99.6	94.6
50°	111.6	109.4	100.2	90.0	84.7
52.5°	102.6	99.2	90.3	80.1	75.7
55°	92.1	89.3	81.0	71.4	67.7
57.5°	82.5	79.8	72.0	63.1	60.0
60°	73.6	69.6	63.1	55.3	52.9
62.5°	63.7	60.6	55.0	48.5	51.6
65°	54.7	51.6	46.7	47.6	39.6
67.5°	44.8	43.3	39.0	34.6	33.4
70°	36.5	34.6	33.1	28.4	27.2
72.5°	29.1	27.2	25.0	22.6	21.6
75°	22.0	20.4	19.2	18.2	20.1
77.5°	15.1	14.5	13.6	12.7	12.4
80°	9.9	9.6	9.3	9.0	8.7
82.5°	5.9	5.9	5.9	5.9	5.9
85°	3.1	3.4	3.7	4.0	4.3
87.5°	1.9	1.9	2.2	2.5	2.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)