

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: P558772

Luminaire Tested: FSR-12-1-LD4-1LO-50-UNV-80-86-EDD-90

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558772  
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-80-86-EDD-90  
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRON  
SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

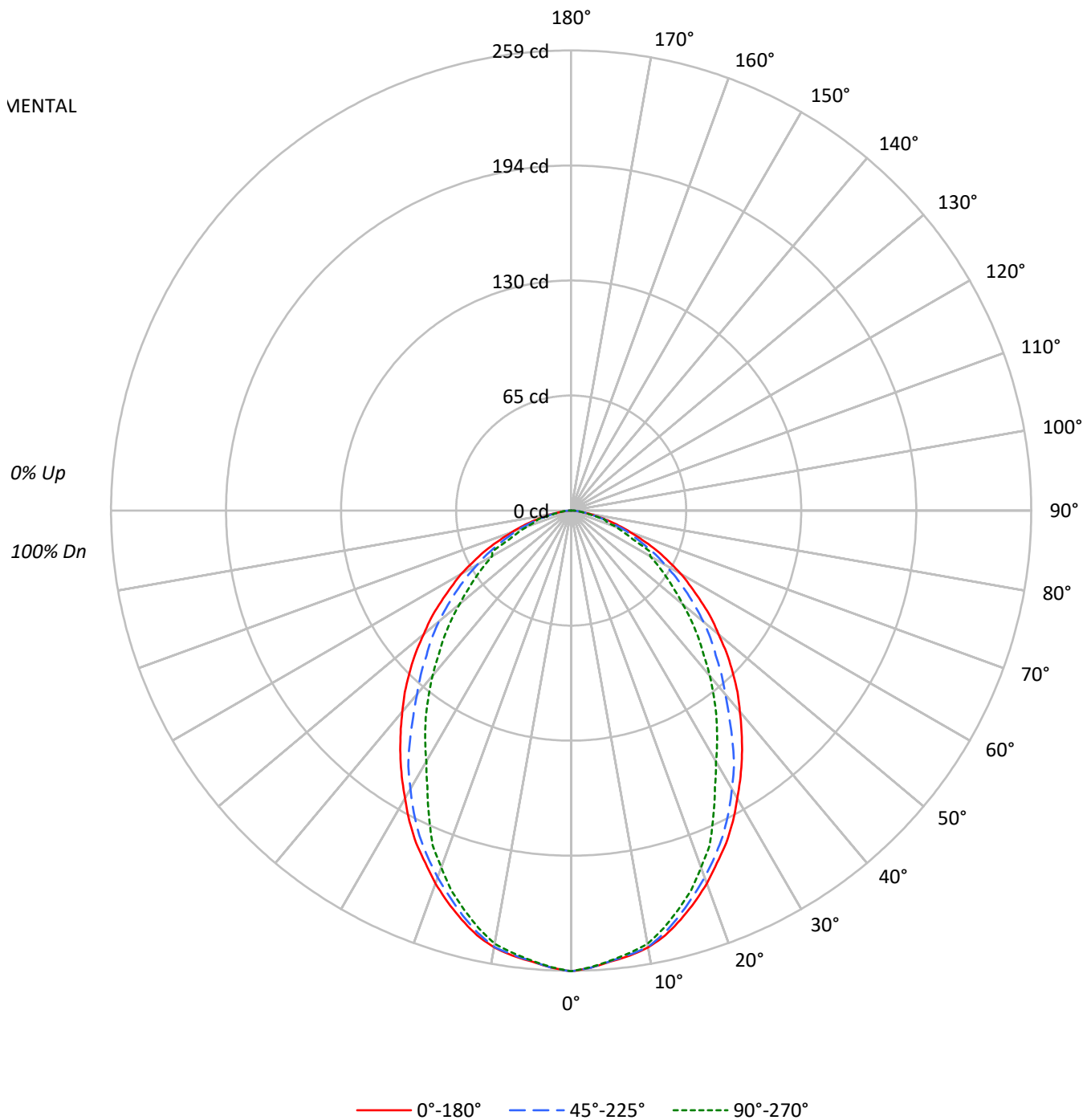
Lumens per Lamp: N/A  
Luminaire Lumens: 509.0 lumens  
Efficiency: N/A  
Efficacy: 87.8 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 5.8  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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	47	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°	2791	2791	2791
5°	2753	2750	2747
10°	2729	2726	2706
15°	2656	2629	2592
20°	2558	2517	2448
25°	2453	2399	2249
30°	2324	2250	2027
35°	2202	2080	1875
40°	2077	1896	1706
45°	1958	1752	1542
50°	1812	1626	1375
55°	1676	1473	1231
60°	1535	1315	1104
65°	1352	1154	978
70°	1114	1010	831
75°	886	774	811
80°	595	558	521
85°	371	445	519

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1958 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	24.1	4.7
10°-20°	66.2	13.0
20°-30°	91.7	18.0
30°-40°	97.8	19.2
40°-50°	89.2	17.5
50°-60°	69.9	13.7
60°-70°	45.6	9.0
70°-80°	20.2	4.0
80°-90°	4.3	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°	182.1	35.8
0°-40°	279.9	55.0
0°-60°	438.9	86.2
0°-90°	509.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	509.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	259	259	259	259	259	
5°	255	254	254	254	254	24
15°	238	238	236	234	233	67
25°	206	205	202	195	189	95
35°	168	166	158	146	143	105
45°	129	126	115	106	101	99
55°	89	87	78	69	66	80
65°	53	50	45	46	38	52
75°	21	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°	259.3	259.3	259.3	259.3	259.3
2.5°	257.5	257.5	257.5	257.2	257.2
5°	254.8	254.5	254.5	254.2	254.2
7.5°	252.7	252.4	252.1	251.8	251.2
10°	249.7	249.7	249.4	247.9	247.6
12.5°	244.9	244.6	243.4	241.3	240.7
15°	238.3	238.3	235.9	233.5	232.6
17.5°	231.1	230.8	227.8	225.4	224.2
20°	223.3	222.7	219.7	215.8	213.7
22.5°	214.6	214.6	211.0	205.9	203.8
25°	206.5	205.3	202.0	194.8	189.4
27.5°	197.2	195.4	191.8	181.6	175.3
30°	187.0	186.1	181.0	167.9	163.1
32.5°	177.4	175.9	170.6	156.8	152.9
35°	167.6	166.4	158.3	146.3	142.7
37.5°	157.7	156.2	146.0	136.4	131.9
40°	147.8	146.0	134.9	126.2	121.4
42.5°	138.5	136.1	125.3	116.0	110.6
45°	128.6	125.9	115.1	105.5	101.3
47.5°	118.7	116.3	106.4	96.5	91.7
50°	108.2	106.1	97.1	87.2	82.1
52.5°	99.5	96.2	87.5	77.6	73.4
55°	89.3	86.6	78.5	69.2	65.6
57.5°	80.0	77.3	69.8	61.1	58.2
60°	71.3	67.4	61.1	53.7	51.3
62.5°	61.7	58.7	53.4	47.1	50.1
65°	53.1	50.1	45.3	46.2	38.4
67.5°	43.5	42.0	37.8	33.6	32.4
70°	35.4	33.6	32.1	27.6	26.4
72.5°	28.2	26.4	24.3	21.9	21.0
75°	21.3	19.8	18.6	17.7	19.5
77.5°	14.7	14.1	13.2	12.3	12.0
80°	9.6	9.3	9.0	8.7	8.4
82.5°	5.7	5.7	5.7	5.7	5.7
85°	3.0	3.3	3.6	3.9	4.2
87.5°	1.8	1.8	2.1	2.4	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)