

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: P558589

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

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558589  
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-50-UNV-80-96-EDD  
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

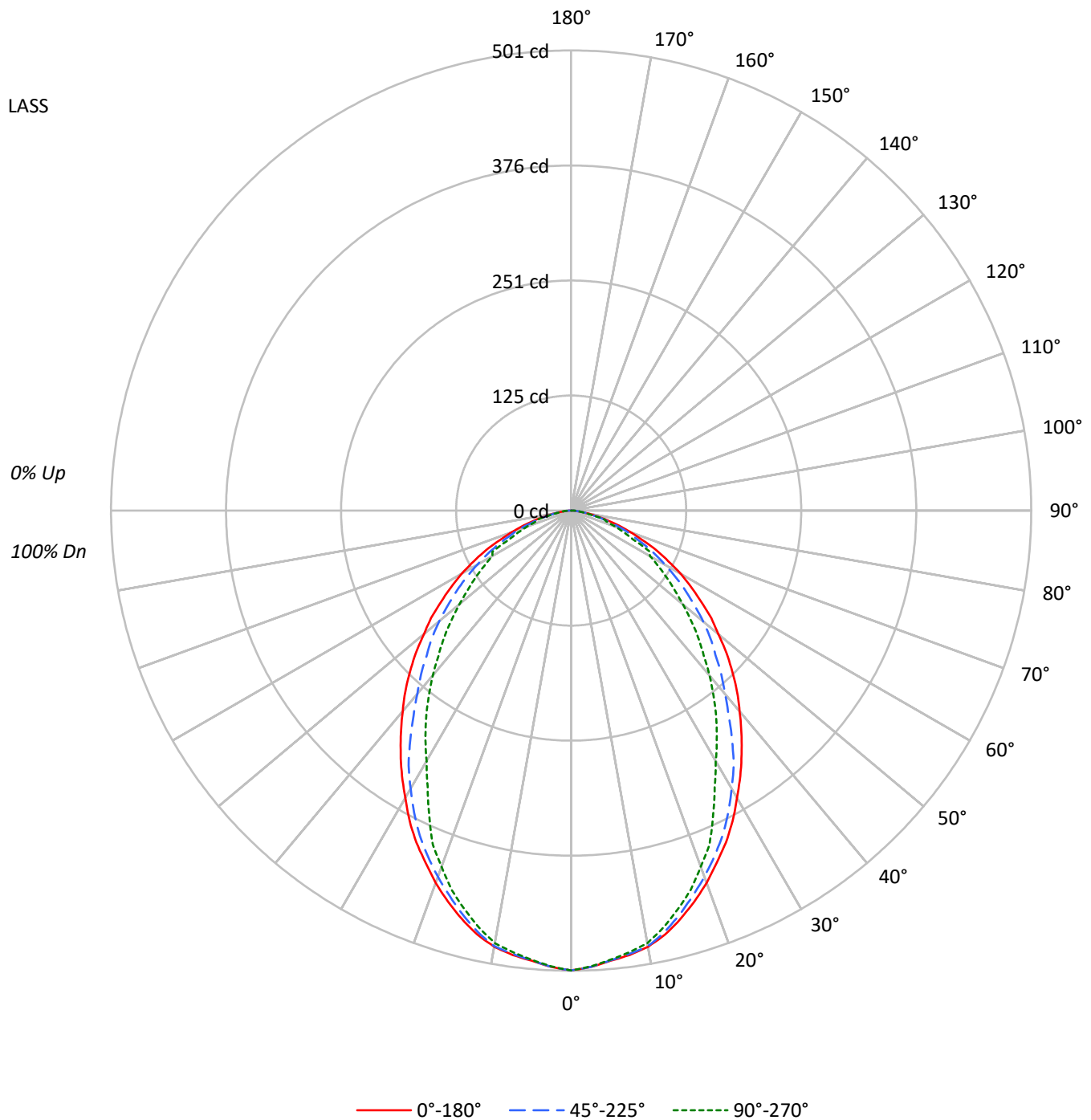
Lumens per Lamp: N/A  
Luminaire Lumens: 983.0 lumens  
Efficiency: N/A  
Efficacy: 91.0 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 10.8  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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°	5389	5389	5389
5°	5316	5311	5304
10°	5270	5264	5227
15°	5128	5077	5006
20°	4940	4860	4727
25°	4736	4634	4344
30°	4489	4345	3914
35°	4252	4016	3620
40°	4010	3660	3294
45°	3780	3384	2979
50°	3500	3141	2656
55°	3237	2847	2380
60°	2967	2542	2131
65°	2611	2226	1887
70°	2150	1948	1602
75°	1709	1493	1564
80°	1147	1079	1004
85°	716	852	1000

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3780 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.6	4.7
10°-20°	127.9	13.0
20°-30°	177.1	18.0
30°-40°	188.8	19.2
40°-50°	172.3	17.5
50°-60°	135.0	13.7
60°-70°	88.0	8.9
70°-80°	39.0	4.0
80°-90°	8.4	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°	351.6	35.8
0°-40°	540.5	55.0
0°-60°	847.7	86.2
0°-90°	983.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	983.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	501	501	501	501	501	
5°	492	492	492	491	491	47
15°	460	460	456	451	449	129
25°	399	396	390	376	366	183
35°	324	321	306	282	276	202
45°	248	243	222	204	196	191
55°	172	167	152	134	127	155
65°	102	97	87	89	74	101
75°	41	38	36	34	38	44
85°	6	6	7	8	8	8
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	500.7	500.7	500.7	500.7	500.7
2.5°	497.3	497.3	497.3	496.7	496.7
5°	492.0	491.5	491.5	490.9	490.9
7.5°	488.0	487.4	486.8	486.3	485.1
10°	482.2	482.2	481.6	478.7	478.2
12.5°	472.9	472.4	470.0	466.0	464.8
15°	460.2	460.2	455.6	450.9	449.2
17.5°	446.3	445.7	439.9	435.3	433.0
20°	431.3	430.1	424.3	416.8	412.7
22.5°	414.5	414.5	407.5	397.7	393.6
25°	398.8	396.5	390.2	376.3	365.8
27.5°	380.9	377.4	370.5	350.8	338.6
30°	361.2	359.5	349.6	324.2	314.9
32.5°	342.7	339.8	329.4	302.8	295.2
35°	323.6	321.3	305.6	282.5	275.5
37.5°	304.5	301.6	281.9	263.4	254.7
40°	285.4	281.9	260.5	243.7	234.4
42.5°	267.4	262.8	242.0	224.0	213.6
45°	248.3	243.1	222.3	203.8	195.7
47.5°	229.2	224.6	205.5	186.4	177.1
50°	209.0	204.9	187.6	168.5	158.6
52.5°	192.2	185.8	169.0	149.9	141.8
55°	172.5	167.3	151.7	133.7	126.8
57.5°	154.6	149.3	134.9	118.1	112.3
60°	137.8	130.2	118.1	103.6	99.0
62.5°	119.2	113.5	103.0	90.9	96.7
65°	102.5	96.7	87.4	89.1	74.1
67.5°	83.9	81.0	72.9	64.8	62.5
70°	68.3	64.8	61.9	53.3	50.9
72.5°	54.4	50.9	46.9	42.3	40.5
75°	41.1	38.2	35.9	34.2	37.6
77.5°	28.4	27.2	25.5	23.7	23.2
80°	18.5	17.9	17.4	16.8	16.2
82.5°	11.0	11.0	11.0	11.0	11.0
85°	5.8	6.4	6.9	7.5	8.1
87.5°	3.5	3.5	4.1	4.6	5.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)