

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: P558699

Luminaire Tested: FSR-12-1-LD4-1LO-35-UNV-93-94-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558699  
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-35-UNV-93-94-EDD  
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPER  
GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

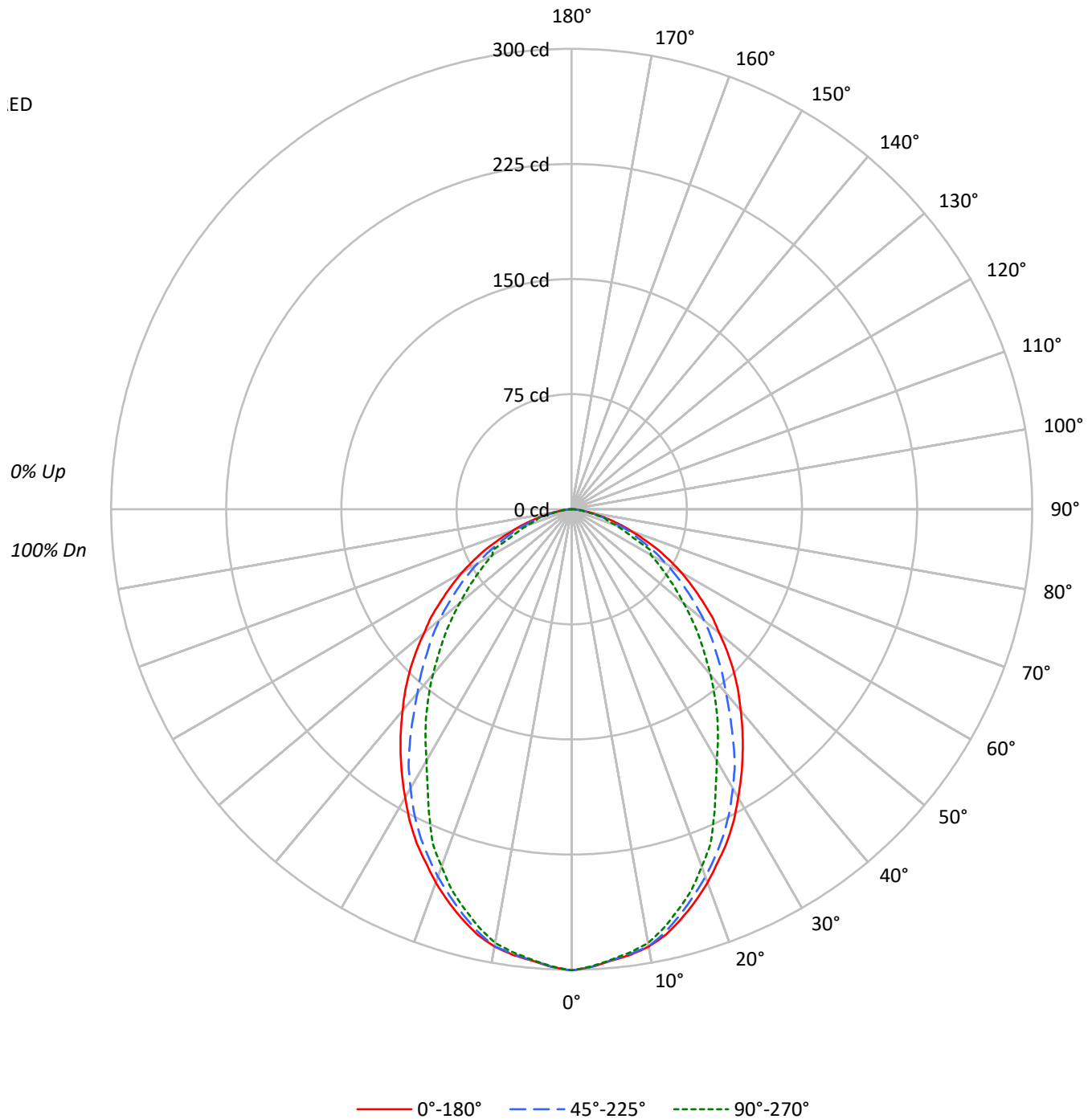
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 590.0 lumens  
Efficiency: N/A  
Efficacy: 101.7 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	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°	3235	3235	3235
5°	3191	3187	3183
10°	3163	3160	3137
15°	3078	3047	3004
20°	2964	2918	2837
25°	2843	2782	2608
30°	2695	2609	2349
35°	2552	2410	2173
40°	2407	2196	1977
45°	2270	2031	1787
50°	2100	1886	1594
55°	1942	1708	1428
60°	1780	1526	1279
65°	1566	1337	1133
70°	1290	1171	963
75°	1027	894	940
80°	688	645	601
85°	432	519	605

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2270 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.0	4.7
10°-20°	76.8	13.0
20°-30°	106.3	18.0
30°-40°	113.3	19.2
40°-50°	103.4	17.5
50°-60°	81.0	13.7
60°-70°	52.8	8.9
70°-80°	23.4	4.0
80°-90°	5.0	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°	211.1	35.8
0°-40°	324.4	55.0
0°-60°	508.8	86.2
0°-90°	590.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	590.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	300	300	300	300	300	
5°	295	295	295	295	295	28
15°	276	276	273	271	270	78
25°	239	238	234	226	220	110
35°	194	193	183	170	165	121
45°	149	146	133	122	117	115
55°	104	100	91	80	76	93
65°	62	58	52	54	44	61
75°	25	23	22	20	23	26
85°	4	4	4	4	5	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	300.5	300.5	300.5	300.5	300.5
2.5°	298.5	298.5	298.5	298.1	298.1
5°	295.3	295.0	295.0	294.6	294.6
7.5°	292.9	292.5	292.2	291.9	291.2
10°	289.4	289.4	289.1	287.3	287.0
12.5°	283.9	283.5	282.1	279.7	279.0
15°	276.2	276.2	273.4	270.7	269.6
17.5°	267.9	267.5	264.1	261.3	259.9
20°	258.8	258.2	254.7	250.2	247.7
22.5°	248.8	248.8	244.6	238.7	236.3
25°	239.4	238.0	234.2	225.8	219.6
27.5°	228.6	226.5	222.4	210.6	203.3
30°	216.8	215.8	209.9	194.6	189.0
32.5°	205.7	203.9	197.7	181.7	177.2
35°	194.2	192.8	183.4	169.6	165.4
37.5°	182.8	181.0	169.2	158.1	152.9
40°	171.3	169.2	156.3	146.3	140.7
42.5°	160.5	157.7	145.2	134.5	128.2
45°	149.1	145.9	133.4	122.3	117.4
47.5°	137.6	134.8	123.3	111.9	106.3
50°	125.4	123.0	112.6	101.1	95.2
52.5°	115.4	111.5	101.5	90.0	85.1
55°	103.5	100.4	91.0	80.3	76.1
57.5°	92.8	89.6	81.0	70.9	67.4
60°	82.7	78.2	70.9	62.2	59.4
62.5°	71.6	68.1	61.8	54.5	58.0
65°	61.5	58.0	52.5	53.5	44.5
67.5°	50.4	48.6	43.8	38.9	37.5
70°	41.0	38.9	37.2	32.0	30.6
72.5°	32.7	30.6	28.1	25.4	24.3
75°	24.7	22.9	21.5	20.5	22.6
77.5°	17.0	16.3	15.3	14.2	13.9
80°	11.1	10.8	10.4	10.1	9.7
82.5°	6.6	6.6	6.6	6.6	6.6
85°	3.5	3.8	4.2	4.5	4.9
87.5°	2.1	2.1	2.4	2.8	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)