

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: P558823

Luminaire Tested: FSR-12-1-LD4-1LO-50-UNV-93-87-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558823  
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-93-87-EDD  
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

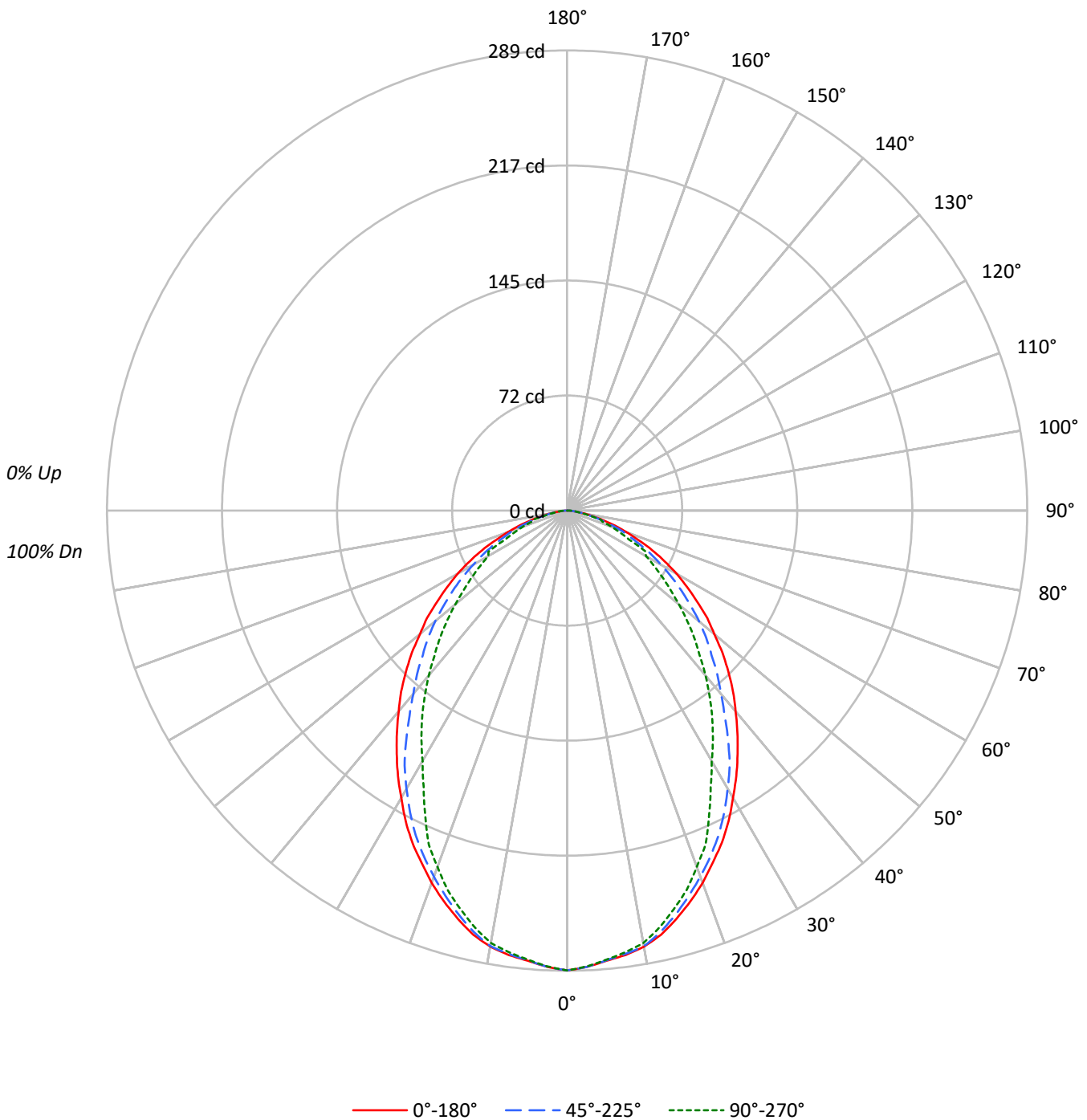
Lumens per Lamp: N/A  
Luminaire Lumens: 567.0 lumens  
Efficiency: N/A  
Efficacy: 97.8 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 5.8  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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	48	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°	3109	3109	3109
5°	3066	3063	3059
10°	3040	3036	3014
15°	2958	2929	2887
20°	2850	2803	2727
25°	2733	2672	2506
30°	2590	2507	2257
35°	2452	2317	2088
40°	2313	2112	1900
45°	2180	1952	1719
50°	2018	1812	1532
55°	1867	1642	1372
60°	1711	1466	1229
65°	1505	1284	1088
70°	1240	1124	925
75°	986	861	902
80°	663	620	576
85°	408	494	580

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2180 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.9	4.7
10°-20°	73.8	13.0
20°-30°	102.2	18.0
30°-40°	108.9	19.2
40°-50°	99.4	17.5
50°-60°	77.8	13.7
60°-70°	50.7	8.9
70°-80°	22.5	4.0
80°-90°	4.8	0.8
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°	202.8	35.8
0°-40°	311.7	55.0
0°-60°	489.0	86.2
0°-90°	567.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	567.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	289	289	289	289	289	
5°	284	284	284	283	283	27
15°	265	265	263	260	259	75
25°	230	229	225	217	211	106
35°	187	185	176	163	159	117
45°	143	140	128	118	113	110
55°	100	96	88	77	73	89
65°	59	56	50	51	43	58
75°	24	22	21	20	22	25
85°	3	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°	288.8	288.8	288.8	288.8	288.8
2.5°	286.8	286.8	286.8	286.5	286.5
5°	283.8	283.5	283.5	283.1	283.1
7.5°	281.5	281.1	280.8	280.5	279.8
10°	278.1	278.1	277.8	276.1	275.8
12.5°	272.8	272.5	271.1	268.8	268.1
15°	265.4	265.4	262.8	260.1	259.1
17.5°	257.4	257.1	253.8	251.1	249.8
20°	248.8	248.1	244.7	240.4	238.1
22.5°	239.1	239.1	235.1	229.4	227.1
25°	230.1	228.7	225.0	217.0	211.0
27.5°	219.7	217.7	213.7	202.3	195.3
30°	208.4	207.4	201.7	187.0	181.6
32.5°	197.7	196.0	190.0	174.6	170.3
35°	186.6	185.3	176.3	162.9	158.9
37.5°	175.6	174.0	162.6	151.9	146.9
40°	164.6	162.6	150.3	140.6	135.2
42.5°	154.3	151.6	139.6	129.2	123.2
45°	143.2	140.2	128.2	117.5	112.9
47.5°	132.2	129.6	118.5	107.5	102.2
50°	120.5	118.2	108.2	97.2	91.5
52.5°	110.9	107.2	97.5	86.5	81.8
55°	99.5	96.5	87.5	77.1	73.1
57.5°	89.2	86.1	77.8	68.1	64.8
60°	79.5	75.1	68.1	59.8	57.1
62.5°	68.8	65.4	59.4	52.4	55.8
65°	59.1	55.8	50.4	51.4	42.7
67.5°	48.4	46.7	42.1	37.4	36.1
70°	39.4	37.4	35.7	30.7	29.4
72.5°	31.4	29.4	27.0	24.4	23.4
75°	23.7	22.0	20.7	19.7	21.7
77.5°	16.4	15.7	14.7	13.7	13.4
80°	10.7	10.4	10.0	9.7	9.3
82.5°	6.3	6.3	6.3	6.3	6.3
85°	3.3	3.7	4.0	4.3	4.7
87.5°	2.0	2.0	2.3	2.7	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)