

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: P558888

Luminaire Tested: FSR-12-1-LD4-1STD-35-UNV-93-88-EDD-90

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558888  
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-LD4-1STD-35-UNV-93-88-EDD-90  
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

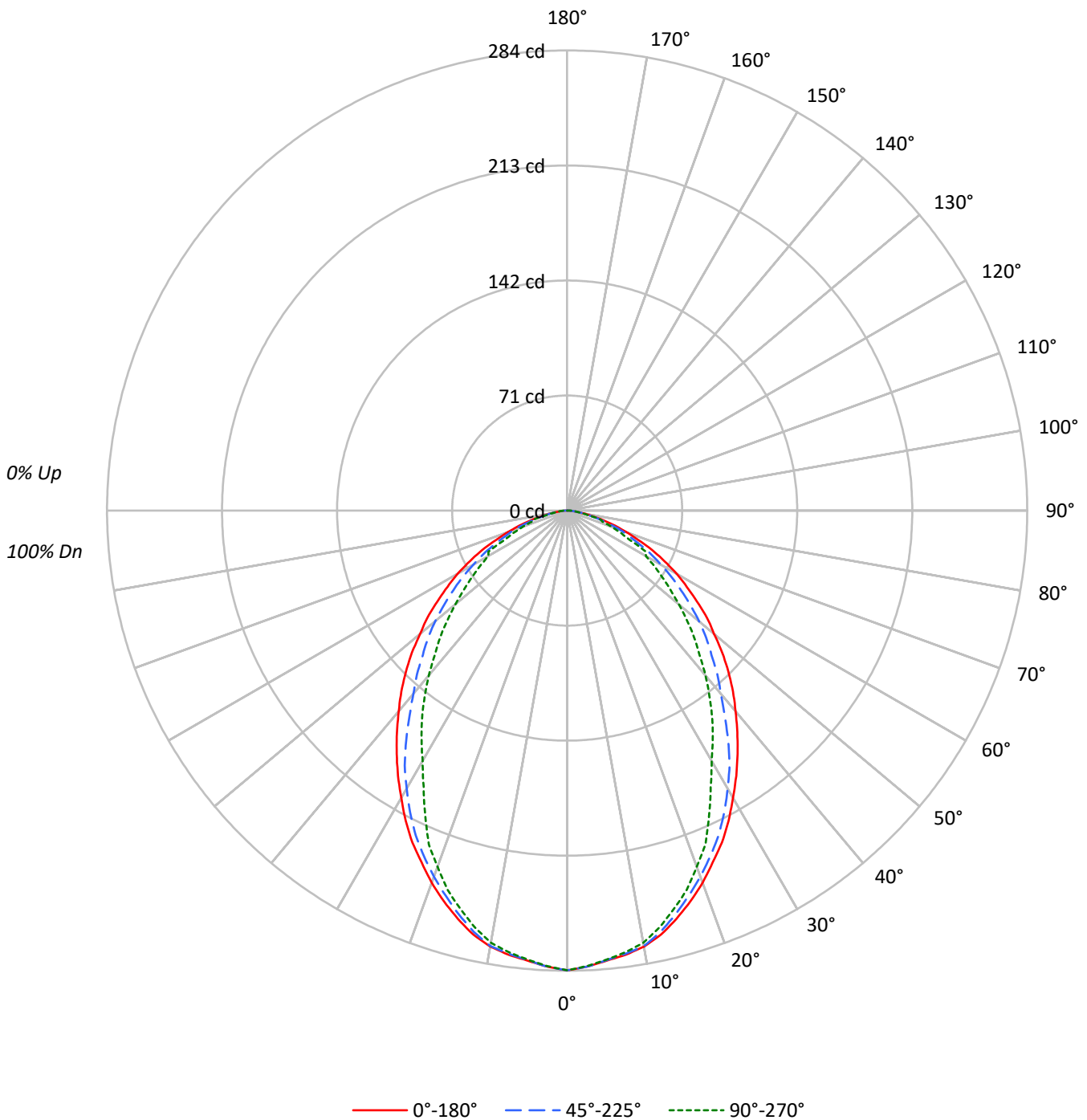
Lumens per Lamp: N/A  
Luminaire Lumens: 557.0 lumens  
Efficiency: N/A  
Efficacy: 67.1 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 8.3  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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				
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°	3054	3054	3054
5°	3012	3009	3006
10°	2986	2983	2961
15°	2906	2876	2836
20°	2800	2754	2679
25°	2684	2626	2462
30°	2544	2462	2217
35°	2410	2276	2051
40°	2272	2074	1866
45°	2142	1918	1688
50°	1983	1780	1505
55°	1833	1612	1347
60°	1681	1440	1208
65°	1480	1261	1070
70°	1218	1105	910
75°	969	844	886
80°	651	607	570
85°	408	482	568

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2142 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.4	4.7
10°-20°	72.5	13.0
20°-30°	100.4	18.0
30°-40°	107.0	19.2
40°-50°	97.6	17.5
50°-60°	76.5	13.7
60°-70°	49.8	8.9
70°-80°	22.1	4.0
80°-90°	4.7	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°	199.2	35.8
0°-40°	306.2	55.0
0°-60°	480.3	86.2
0°-90°	557.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	557.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	284	284	284	284	284	
5°	279	278	278	278	278	26
15°	261	261	258	256	254	73
25°	226	225	221	213	207	104
35°	183	182	173	160	156	115
45°	141	138	126	116	111	108
55°	98	95	86	76	72	88
65°	58	55	50	50	42	57
75°	23	22	20	19	21	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°	283.7	283.7	283.7	283.7	283.7
2.5°	281.8	281.8	281.8	281.4	281.4
5°	278.8	278.5	278.5	278.2	278.2
7.5°	276.5	276.2	275.9	275.5	274.9
10°	273.2	273.2	272.9	271.3	270.9
12.5°	268.0	267.7	266.3	264.0	263.4
15°	260.8	260.8	258.1	255.5	254.5
17.5°	252.9	252.6	249.3	246.7	245.4
20°	244.4	243.7	240.4	236.2	233.9
22.5°	234.9	234.9	230.9	225.3	223.0
25°	226.0	224.7	221.1	213.2	207.3
27.5°	215.8	213.9	209.9	198.8	191.9
30°	204.7	203.7	198.1	183.7	178.4
32.5°	194.2	192.5	186.6	171.5	167.3
35°	183.4	182.0	173.2	160.1	156.1
37.5°	172.5	170.9	159.7	149.2	144.3
40°	161.7	159.7	147.6	138.1	132.8
42.5°	151.5	148.9	137.1	126.9	121.0
45°	140.7	137.8	126.0	115.5	110.9
47.5°	129.9	127.3	116.4	105.6	100.4
50°	118.4	116.1	106.3	95.5	89.9
52.5°	108.9	105.3	95.8	85.0	80.4
55°	97.7	94.8	85.9	75.8	71.8
57.5°	87.6	84.6	76.4	66.9	63.6
60°	78.1	73.8	66.9	58.7	56.1
62.5°	67.6	64.3	58.4	51.5	54.8
65°	58.1	54.8	49.5	50.5	42.0
67.5°	47.6	45.9	41.3	36.7	35.4
70°	38.7	36.7	35.1	30.2	28.9
72.5°	30.8	28.9	26.6	23.9	23.0
75°	23.3	21.6	20.3	19.4	21.3
77.5°	16.1	15.4	14.4	13.4	13.1
80°	10.5	10.2	9.8	9.5	9.2
82.5°	6.2	6.2	6.2	6.2	6.2
85°	3.3	3.6	3.9	4.3	4.6
87.5°	2.0	2.0	2.3	2.6	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)