

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: P559846

Luminaire Tested: FSR-12-2-LD4-1LO-35-UNV-93-87-EDD-90

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P559846  
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-12-2-LD4-1LO-35-UNV-93-87-EDD-90  
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

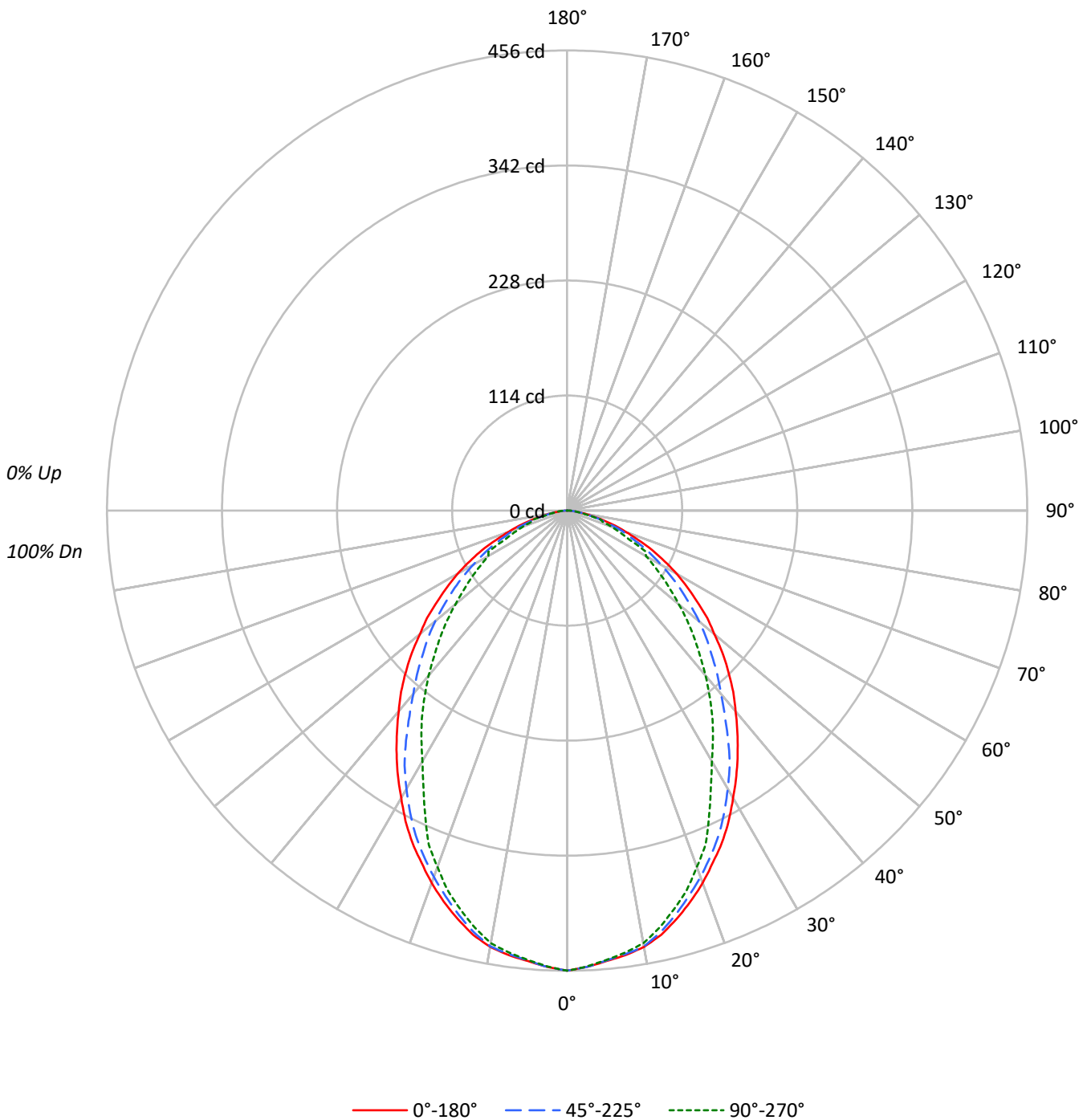
Lumens per Lamp: N/A  
Luminaire Lumens: 895.0 lumens  
Efficiency: N/A  
Efficacy: 76.5 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 11.7  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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°	2454	2454	2454
5°	2420	2418	2414
10°	2399	2396	2379
15°	2335	2311	2279
20°	2249	2212	2152
25°	2156	2109	1978
30°	2044	1978	1782
35°	1936	1828	1648
40°	1825	1666	1500
45°	1721	1541	1356
50°	1593	1430	1209
55°	1474	1296	1083
60°	1350	1157	970
65°	1188	1014	860
70°	979	887	730
75°	778	680	713
80°	524	490	459
85°	327	389	457

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1721 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.4	4.7
10°-20°	116.5	13.0
20°-30°	161.2	18.0
30°-40°	171.9	19.2
40°-50°	156.9	17.5
50°-60°	122.9	13.7
60°-70°	80.1	8.9
70°-80°	35.5	4.0
80°-90°	7.6	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°	320.1	35.8
0°-40°	492.1	55.0
0°-60°	771.8	86.2
0°-90°	895.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	895.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	456	456	456	456	456	
5°	448	448	448	447	447	43
15°	419	419	415	411	409	118
25°	363	361	355	343	333	167
35°	295	292	278	257	251	184
45°	226	221	202	186	178	174
55°	157	152	138	122	115	141
65°	93	88	80	81	68	92
75°	37	35	33	31	34	40
85°	5	6	6	7	7	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	455.9	455.9	455.9	455.9	455.9
2.5°	452.7	452.7	452.7	452.2	452.2
5°	448.0	447.5	447.5	446.9	446.9
7.5°	444.3	443.8	443.3	442.7	441.7
10°	439.0	439.0	438.5	435.9	435.3
12.5°	430.6	430.1	428.0	424.3	423.2
15°	419.0	419.0	414.8	410.6	409.0
17.5°	406.4	405.8	400.6	396.3	394.2
20°	392.7	391.6	386.3	379.5	375.8
22.5°	377.4	377.4	371.0	362.1	358.4
25°	363.1	361.0	355.2	342.6	333.1
27.5°	346.8	343.6	337.3	319.4	308.3
30°	328.9	327.3	318.3	295.1	286.7
32.5°	312.0	309.4	299.9	275.6	268.8
35°	294.6	292.5	278.3	257.2	250.9
37.5°	277.2	274.6	256.7	239.8	231.9
40°	259.8	256.7	237.2	221.9	213.5
42.5°	243.5	239.3	220.3	204.0	194.5
45°	226.1	221.4	202.4	185.5	178.1
47.5°	208.7	204.5	187.1	169.7	161.3
50°	190.3	186.6	170.8	153.4	144.4
52.5°	175.0	169.2	153.9	136.5	129.1
55°	157.1	152.3	138.1	121.7	115.4
57.5°	140.7	136.0	122.8	107.5	102.2
60°	125.4	118.6	107.5	94.3	90.1
62.5°	108.6	103.3	93.8	82.7	88.0
65°	93.3	88.0	79.6	81.2	67.5
67.5°	76.4	73.8	66.4	59.0	56.9
70°	62.2	59.0	56.4	48.5	46.4
72.5°	49.5	46.4	42.7	38.5	36.9
75°	37.4	34.8	32.7	31.1	34.3
77.5°	25.8	24.8	23.2	21.6	21.1
80°	16.9	16.3	15.8	15.3	14.8
82.5°	10.0	10.0	10.0	10.0	10.0
85°	5.3	5.8	6.3	6.9	7.4
87.5°	3.2	3.2	3.7	4.2	4.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)