

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: P558883

Luminaire Tested: FSR-12-1-LD4-1STD-35-UNV-93-85-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558883  
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-93-85-EDD  
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

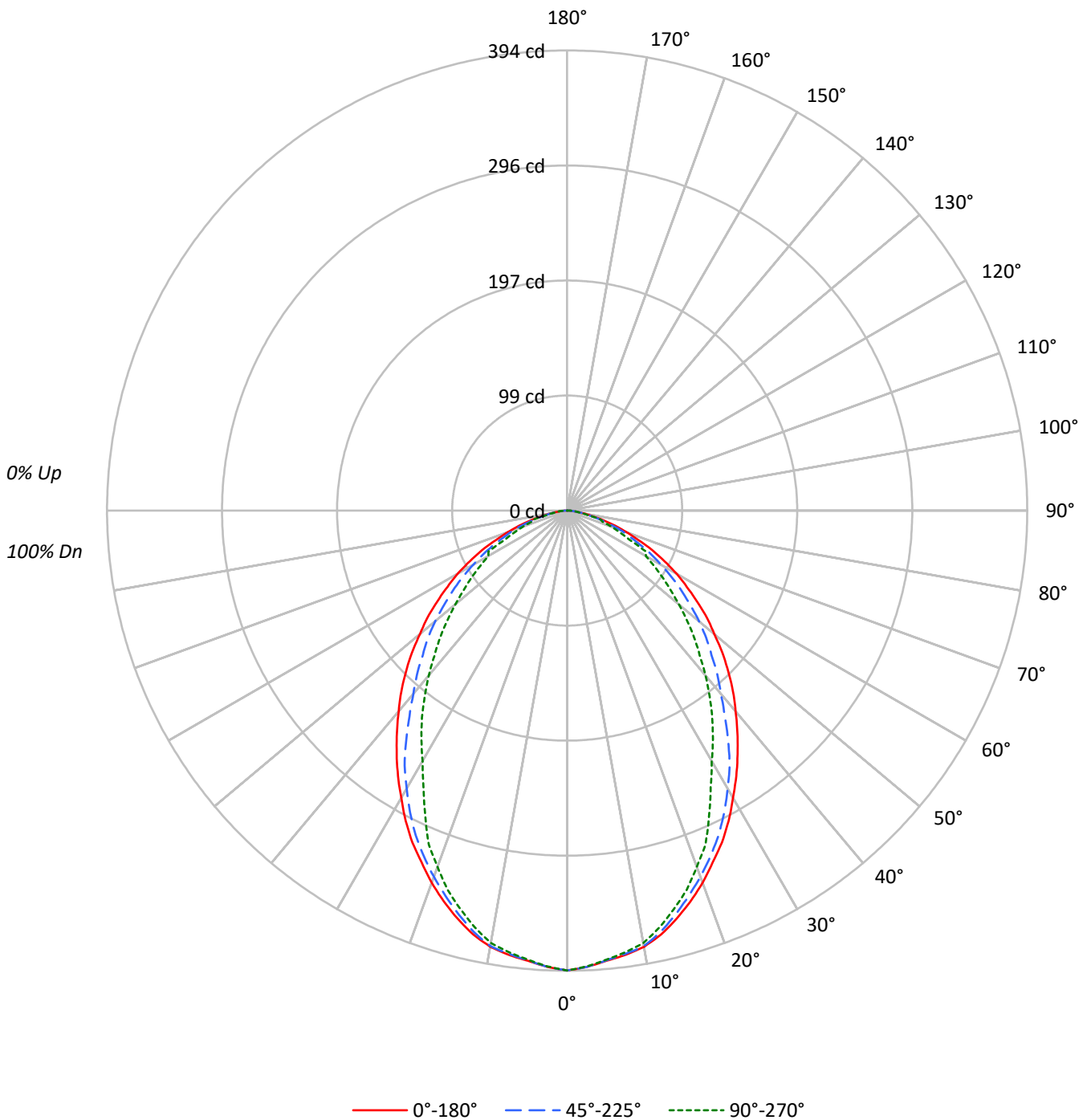
Lumens per Lamp: N/A  
Luminaire Lumens: 773.0 lumens  
Efficiency: N/A  
Efficacy: 93.1 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 8.3  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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°	4239	4239	4239
5°	4180	4176	4171
10°	4145	4139	4110
15°	4033	3992	3936
20°	3884	3822	3718
25°	3725	3644	3417
30°	3531	3417	3077
35°	3344	3159	2848
40°	3153	2878	2591
45°	2973	2661	2343
50°	2751	2470	2088
55°	2547	2239	1871
60°	2331	2000	1675
65°	2053	1750	1485
70°	1690	1533	1262
75°	1343	1173	1231
80°	905	849	787
85°	568	679	790

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2973 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.7	4.7
10°-20°	100.6	13.0
20°-30°	139.3	18.0
30°-40°	148.5	19.2
40°-50°	135.5	17.5
50°-60°	106.1	13.7
60°-70°	69.2	8.9
70°-80°	30.7	4.0
80°-90°	6.6	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°	276.5	35.8
0°-40°	425.0	55.0
0°-60°	666.6	86.2
0°-90°	773.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	773.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	394	394	394	394	394	
5°	387	386	386	386	386	37
15°	362	362	358	355	353	102
25°	314	312	307	296	288	144
35°	254	253	240	222	217	159
45°	195	191	175	160	154	150
55°	136	132	119	105	100	122
65°	81	76	69	70	58	79
75°	32	30	28	27	30	35
85°	5	5	6	6	6	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	393.8	393.8	393.8	393.8	393.8
2.5°	391.0	391.0	391.0	390.6	390.6
5°	386.9	386.5	386.5	386.0	386.0
7.5°	383.7	383.3	382.8	382.4	381.5
10°	379.2	379.2	378.7	376.5	376.0
12.5°	371.9	371.5	369.6	366.4	365.5
15°	361.9	361.9	358.2	354.6	353.2
17.5°	351.0	350.5	346.0	342.3	340.5
20°	339.1	338.2	333.7	327.8	324.6
22.5°	325.9	325.9	320.5	312.7	309.5
25°	313.6	311.8	306.8	295.9	287.7
27.5°	299.5	296.8	291.3	275.9	266.3
30°	284.1	282.7	274.9	254.9	247.6
32.5°	269.5	267.2	259.0	238.1	232.2
35°	254.5	252.6	240.4	222.1	216.7
37.5°	239.4	237.2	221.7	207.1	200.3
40°	224.4	221.7	204.8	191.6	184.4
42.5°	210.3	206.7	190.3	176.2	168.0
45°	195.3	191.2	174.8	160.2	153.9
47.5°	180.3	176.6	161.6	146.6	139.3
50°	164.3	161.1	147.5	132.5	124.7
52.5°	151.1	146.1	132.9	117.9	111.5
55°	135.7	131.6	119.3	105.2	99.7
57.5°	121.5	117.4	106.1	92.9	88.3
60°	108.3	102.4	92.9	81.5	77.8
62.5°	93.8	89.2	81.0	71.5	76.0
65°	80.6	76.0	68.7	70.1	58.3
67.5°	66.0	63.7	57.4	51.0	49.2
70°	53.7	51.0	48.7	41.9	40.1
72.5°	42.8	40.1	36.9	33.2	31.9
75°	32.3	30.0	28.2	26.9	29.6
77.5°	22.3	21.4	20.0	18.7	18.2
80°	14.6	14.1	13.7	13.2	12.7
82.5°	8.6	8.6	8.6	8.6	8.6
85°	4.6	5.0	5.5	5.9	6.4
87.5°	2.7	2.7	3.2	3.6	4.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)