

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: P558866

Luminaire Tested: FSR-12-1-LD4-1STD-35-UNV-82-85-EDD-90

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558866  
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-82-85-EDD-90  
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI  
LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

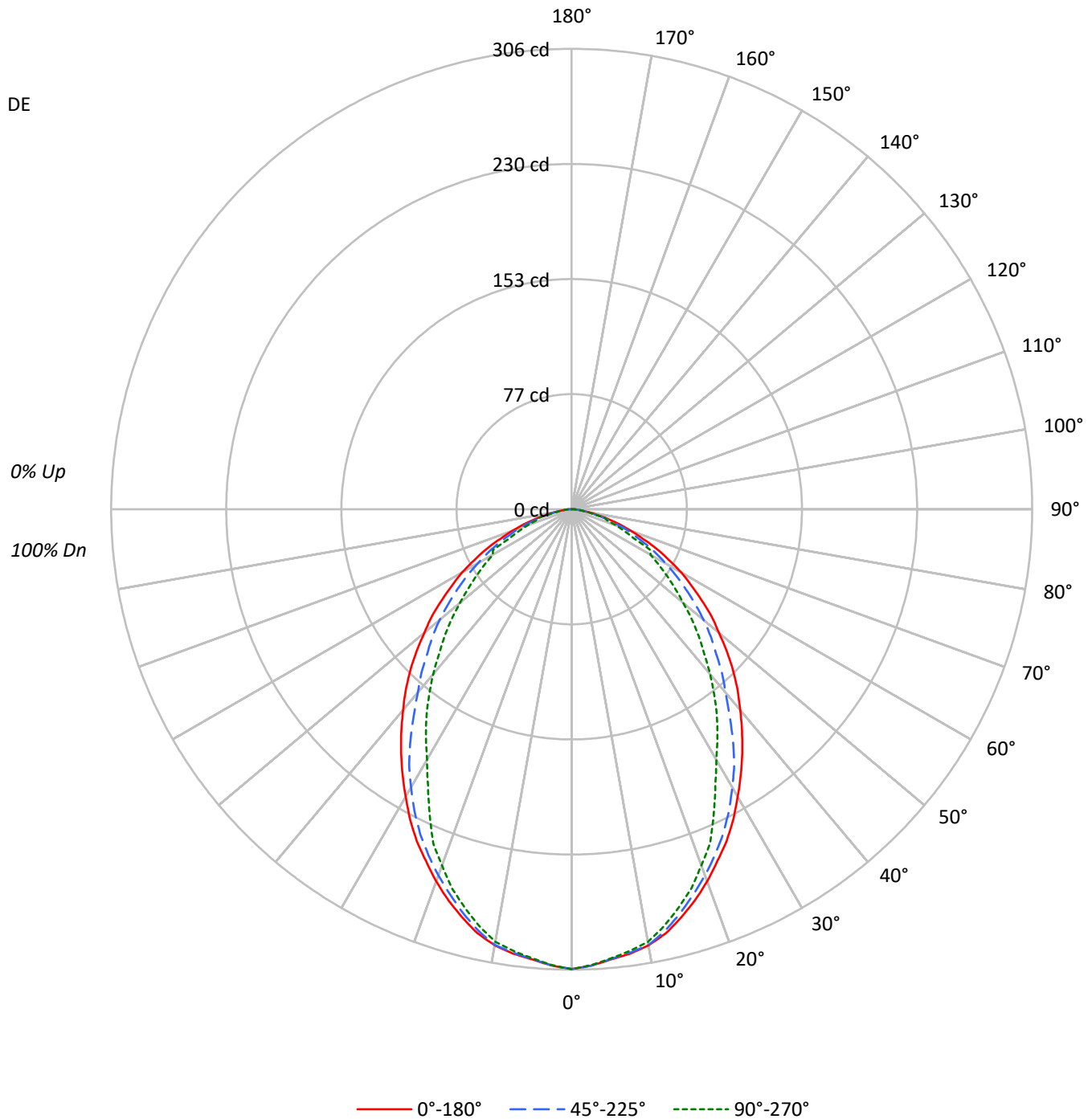
Lumens per Lamp: N/A  
Luminaire Lumens: 600.0 lumens  
Efficiency: N/A  
Efficacy: 72.3 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 8.3  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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



TEST NUMBER: P558866

CATALOG NUMBER: FSR-12-1-LD4-1STD-35-UNV-82-85-EDD-90

### Luminous Intensity Polar Plot





TEST NUMBER: P558866

CATALOG NUMBER: FSR-12-1-LD4-1STD-35-UNV-82-85-EDD-90

**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°	3289	3289	3289
5°	3245	3242	3237
10°	3217	3213	3190
15°	3130	3099	3056
20°	3015	2967	2885
25°	2891	2828	2652
30°	2741	2652	2389
35°	2595	2452	2210
40°	2448	2234	2011
45°	2308	2066	1818
50°	2137	1917	1621
55°	1976	1738	1453
60°	1810	1552	1300
65°	1592	1360	1151
70°	1312	1190	979
75°	1044	911	957
80°	700	657	614
85°	432	519	605

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2308 cd/sqm



TEST NUMBER: P558866

CATALOG NUMBER: FSR-12-1-LD4-1STD-35-UNV-82-85-EDD-90

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.5	4.7
10°-20°	78.1	13.0
20°-30°	108.1	18.0
30°-40°	115.3	19.2
40°-50°	105.2	17.5
50°-60°	82.4	13.7
60°-70°	53.7	8.9
70°-80°	23.8	4.0
80°-90°	5.1	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°	214.6	35.8
0°-40°	329.9	55.0
0°-60°	517.4	86.2
0°-90°	600.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	600.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	306	306	306	306	306	
5°	300	300	300	300	300	29
15°	281	281	278	275	274	79
25°	243	242	238	230	223	112
35°	198	196	187	172	168	123
45°	152	148	136	124	119	117
55°	105	102	93	82	77	94
65°	62	59	53	54	45	62
75°	25	23	22	21	23	27
85°	4	4	4	5	5	5
90°	0	0	0	0	0	



TEST NUMBER: P558866

CATALOG NUMBER: FSR-12-1-LD4-1STD-35-UNV-82-85-EDD-90

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	305.6	305.6	305.6	305.6	305.6
2.5°	303.5	303.5	303.5	303.2	303.2
5°	300.3	300.0	300.0	299.6	299.6
7.5°	297.9	297.5	297.2	296.8	296.1
10°	294.3	294.3	294.0	292.2	291.9
12.5°	288.7	288.3	286.9	284.4	283.7
15°	280.9	280.9	278.1	275.2	274.2
17.5°	272.4	272.1	268.5	265.7	264.3
20°	263.2	262.5	259.0	254.4	251.9
22.5°	253.0	253.0	248.7	242.7	240.3
25°	243.4	242.0	238.1	229.7	223.3
27.5°	232.5	230.4	226.1	214.1	206.7
30°	220.5	219.4	213.4	197.9	192.2
32.5°	209.2	207.4	201.0	184.8	180.2
35°	197.5	196.1	186.6	172.4	168.2
37.5°	185.9	184.1	172.1	160.8	155.5
40°	174.2	172.1	159.0	148.8	143.1
42.5°	163.2	160.4	147.7	136.7	130.4
45°	151.6	148.4	135.7	124.4	119.4
47.5°	139.9	137.1	125.4	113.8	108.1
50°	127.6	125.1	114.5	102.8	96.8
52.5°	117.3	113.4	103.2	91.5	86.6
55°	105.3	102.1	92.6	81.6	77.4
57.5°	94.3	91.2	82.3	72.1	68.5
60°	84.1	79.5	72.1	63.2	60.4
62.5°	72.8	69.3	62.9	55.5	59.0
65°	62.5	59.0	53.4	54.4	45.2
67.5°	51.2	49.5	44.5	39.6	38.2
70°	41.7	39.6	37.8	32.5	31.1
72.5°	33.2	31.1	28.6	25.8	24.7
75°	25.1	23.3	21.9	20.8	23.0
77.5°	17.3	16.6	15.5	14.5	14.1
80°	11.3	11.0	10.6	10.2	9.9
82.5°	6.7	6.7	6.7	6.7	6.7
85°	3.5	3.9	4.2	4.6	4.9
87.5°	2.1	2.1	2.5	2.8	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)