

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: P558968

Luminaire Tested: FSR-12-1-LD4-1STD-50-UNV-80-88-EDD-90

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558968  
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-50-UNV-80-88-EDD-90  
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON  
SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

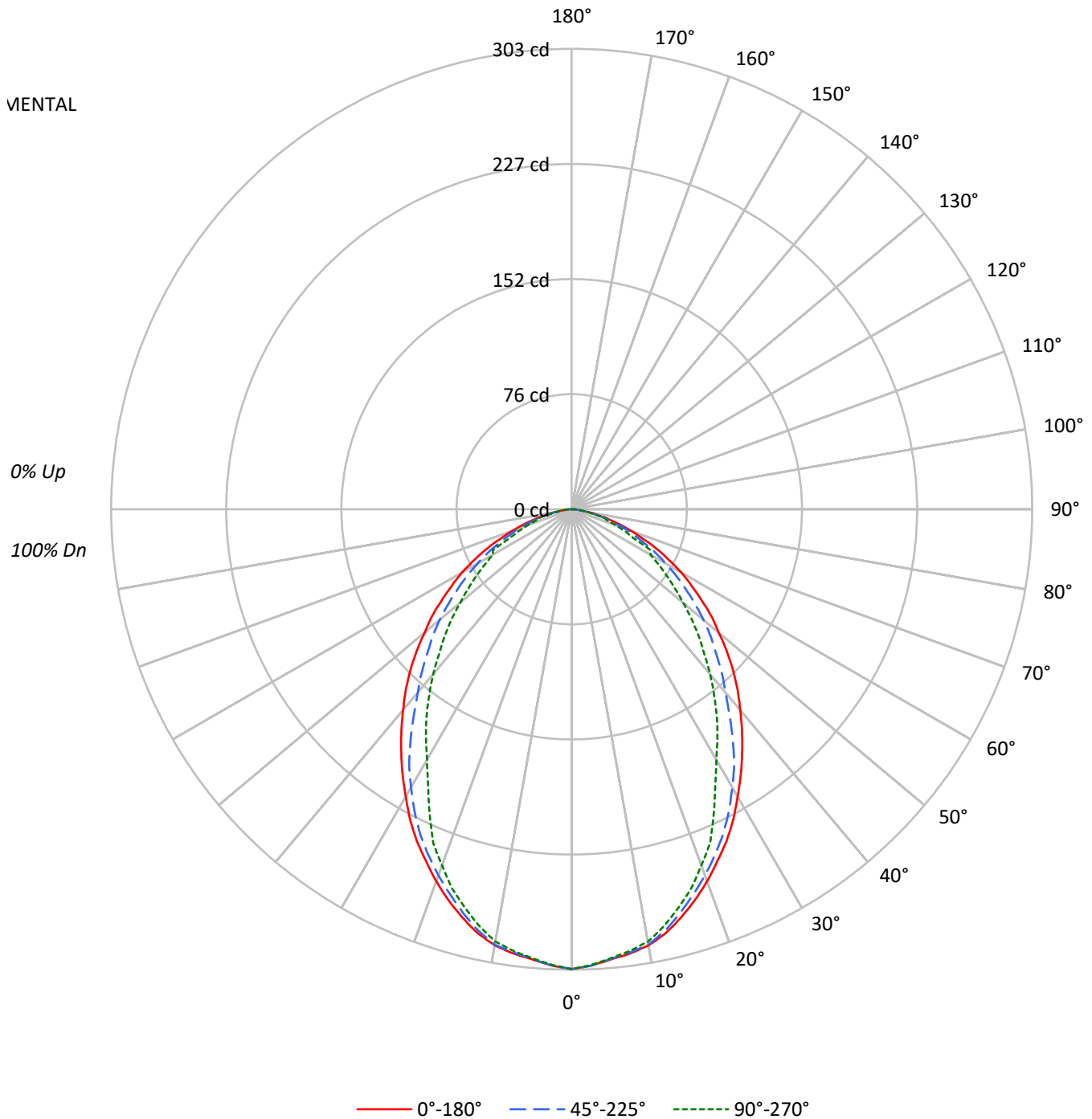
Lumens per Lamp: N/A  
Luminaire Lumens: 594.0 lumens  
Efficiency: N/A  
Efficacy: 71.6 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 8.3  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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: P558968

CATALOG NUMBER: FSR-12-1-LD4-1STD-50-UNV-80-88-EDD-90

### Luminous Intensity Polar Plot





TEST NUMBER: P558968

CATALOG NUMBER: FSR-12-1-LD4-1STD-50-UNV-80-88-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	39	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°	3257	3257	3257
5°	3212	3209	3205
10°	3185	3181	3158
15°	3099	3068	3024
20°	2985	2937	2857
25°	2862	2801	2626
30°	2713	2626	2365
35°	2569	2427	2188
40°	2424	2212	1991
45°	2285	2044	1799
50°	2115	1897	1604
55°	1955	1719	1437
60°	1793	1537	1287
65°	1577	1345	1141
70°	1300	1177	969
75°	1031	902	944
80°	694	651	607
85°	432	519	605

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2285 cd/sqm



TEST NUMBER: P558968

CATALOG NUMBER: FSR-12-1-LD4-1STD-50-UNV-80-88-EDD-90

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.2	4.7
10°-20°	77.3	13.0
20°-30°	107.0	18.0
30°-40°	114.1	19.2
40°-50°	104.1	17.5
50°-60°	81.5	13.7
60°-70°	53.2	9.0
70°-80°	23.5	4.0
80°-90°	5.0	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°	212.5	35.8
0°-40°	326.6	55.0
0°-60°	512.2	86.2
0°-90°	594.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	594.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	303	303	303	303	303	
5°	297	297	297	297	297	28
15°	278	278	275	272	271	78
25°	241	240	236	227	221	111
35°	196	194	185	171	166	122
45°	150	147	134	123	118	116
55°	104	101	92	81	77	93
65°	62	58	53	54	45	61
75°	25	23	22	21	23	27
85°	4	4	4	4	5	5
90°	0	0	0	0	0	



TEST NUMBER: P558968

CATALOG NUMBER: FSR-12-1-LD4-1STD-50-UNV-80-88-EDD-90

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	302.6	302.6	302.6	302.6	302.6
2.5°	300.5	300.5	300.5	300.1	300.1
5°	297.3	297.0	297.0	296.6	296.6
7.5°	294.9	294.5	294.2	293.8	293.1
10°	291.4	291.4	291.0	289.3	288.9
12.5°	285.8	285.4	284.0	281.6	280.9
15°	278.1	278.1	275.3	272.5	271.4
17.5°	269.7	269.3	265.8	263.0	261.6
20°	260.6	259.9	256.4	251.9	249.4
22.5°	250.5	250.5	246.3	240.3	237.9
25°	241.0	239.6	235.8	227.4	221.1
27.5°	230.2	228.1	223.9	212.0	204.6
30°	218.3	217.2	211.3	195.9	190.3
32.5°	207.1	205.3	199.0	182.9	178.4
35°	195.5	194.1	184.7	170.7	166.5
37.5°	184.0	182.2	170.4	159.2	153.9
40°	172.5	170.4	157.4	147.3	141.7
42.5°	161.6	158.8	146.2	135.4	129.1
45°	150.1	146.9	134.3	123.1	118.2
47.5°	138.5	135.7	124.2	112.6	107.0
50°	126.3	123.8	113.3	101.8	95.8
52.5°	116.1	112.3	102.1	90.6	85.7
55°	104.2	101.1	91.6	80.8	76.6
57.5°	93.4	90.2	81.5	71.4	67.9
60°	83.3	78.7	71.4	62.6	59.8
62.5°	72.1	68.6	62.3	54.9	58.4
65°	61.9	58.4	52.8	53.9	44.8
67.5°	50.7	49.0	44.1	39.2	37.8
70°	41.3	39.2	37.4	32.2	30.8
72.5°	32.9	30.8	28.3	25.5	24.5
75°	24.8	23.1	21.7	20.6	22.7
77.5°	17.1	16.4	15.4	14.3	14.0
80°	11.2	10.8	10.5	10.1	9.8
82.5°	6.6	6.6	6.6	6.6	6.6
85°	3.5	3.8	4.2	4.5	4.9
87.5°	2.1	2.1	2.4	2.8	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)