

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: P558966

Luminaire Tested: FSR-12-1-LD4-1STD-50-UNV-80-87-EDD-90

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558966  
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-80-87-EDD-90  
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONM  
SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

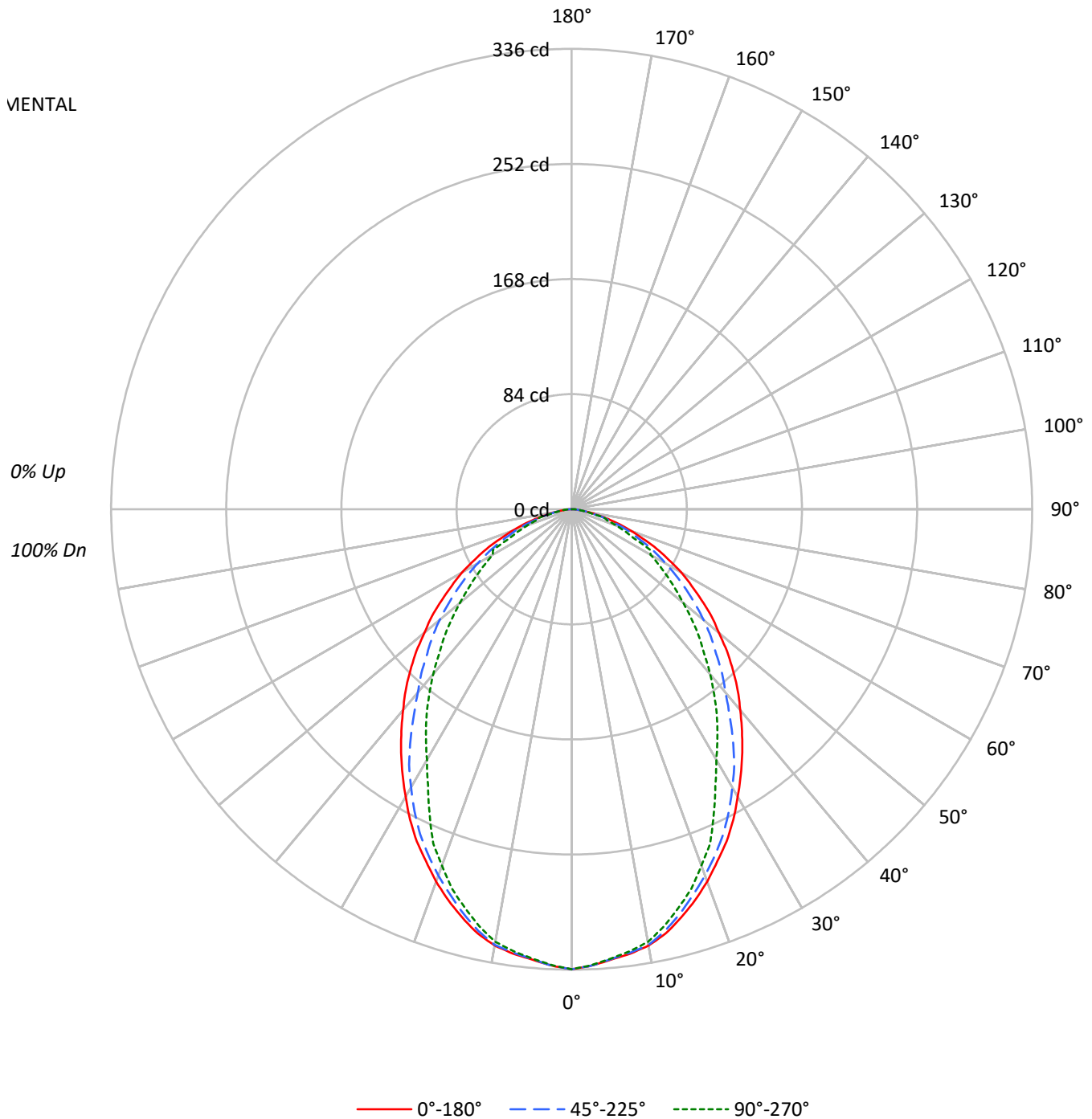
Lumens per Lamp: N/A  
Luminaire Lumens: 659.0 lumens  
Efficiency: N/A  
Efficacy: 79.4 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 8.3  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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°	3613	3613	3613
5°	3565	3560	3556
10°	3534	3529	3504
15°	3438	3403	3355
20°	3312	3259	3170
25°	3176	3107	2913
30°	3010	2913	2624
35°	2850	2692	2427
40°	2688	2453	2209
45°	2535	2268	1997
50°	2346	2105	1780
55°	2169	1909	1595
60°	1989	1705	1429
65°	1750	1493	1266
70°	1441	1306	1076
75°	1148	1002	1048
80°	769	719	676
85°	482	580	667

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2535 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.2	4.7
10°-20°	85.8	13.0
20°-30°	118.7	18.0
30°-40°	126.6	19.2
40°-50°	115.5	17.5
50°-60°	90.5	13.7
60°-70°	59.0	8.9
70°-80°	26.1	4.0
80°-90°	5.6	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°	235.7	35.8
0°-40°	362.3	55.0
0°-60°	568.3	86.2
0°-90°	659.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	659.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	336	336	336	336	336	
5°	330	330	330	329	329	31
15°	308	308	305	302	301	87
25°	267	266	262	252	245	123
35°	217	215	205	189	185	136
45°	166	163	149	137	131	128
55°	116	112	102	90	85	104
65°	69	65	59	60	50	68
75°	28	26	24	23	25	30
85°	4	4	5	5	5	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	335.7	335.7	335.7	335.7	335.7
2.5°	333.4	333.4	333.4	333.0	333.0
5°	329.9	329.5	329.5	329.1	329.1
7.5°	327.1	326.8	326.4	326.0	325.2
10°	323.3	323.3	322.9	320.9	320.6
12.5°	317.1	316.7	315.1	312.4	311.6
15°	308.5	308.5	305.4	302.3	301.1
17.5°	299.2	298.8	294.9	291.8	290.3
20°	289.1	288.3	284.5	279.4	276.7
22.5°	277.9	277.9	273.2	266.6	263.9
25°	267.4	265.8	261.6	252.2	245.3
27.5°	255.4	253.0	248.4	235.2	227.0
30°	242.2	241.0	234.4	217.3	211.1
32.5°	229.7	227.8	220.8	203.0	197.9
35°	216.9	215.4	204.9	189.4	184.7
37.5°	204.1	202.2	189.0	176.6	170.8
40°	191.3	189.0	174.6	163.4	157.2
42.5°	179.3	176.2	162.2	150.2	143.2
45°	166.5	163.0	149.0	136.6	131.2
47.5°	153.7	150.6	137.8	125.0	118.8
50°	140.1	137.4	125.7	112.9	106.3
52.5°	128.8	124.6	113.3	100.5	95.1
55°	115.6	112.2	101.7	89.6	85.0
57.5°	103.6	100.1	90.4	79.2	75.3
60°	92.4	87.3	79.2	69.5	66.4
62.5°	79.9	76.1	69.1	60.9	64.8
65°	68.7	64.8	58.6	59.8	49.7
67.5°	56.3	54.3	48.9	43.5	41.9
70°	45.8	43.5	41.5	35.7	34.2
72.5°	36.5	34.2	31.4	28.3	27.2
75°	27.6	25.6	24.1	22.9	25.2
77.5°	19.0	18.2	17.1	15.9	15.5
80°	12.4	12.0	11.6	11.3	10.9
82.5°	7.4	7.4	7.4	7.4	7.4
85°	3.9	4.3	4.7	5.0	5.4
87.5°	2.3	2.3	2.7	3.1	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)