

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: P558802

Luminaire Tested: FSR-12-1-LD4-1LO-50-UNV-82-85-EDD-90

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558802  
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-LD4-1LO-50-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 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

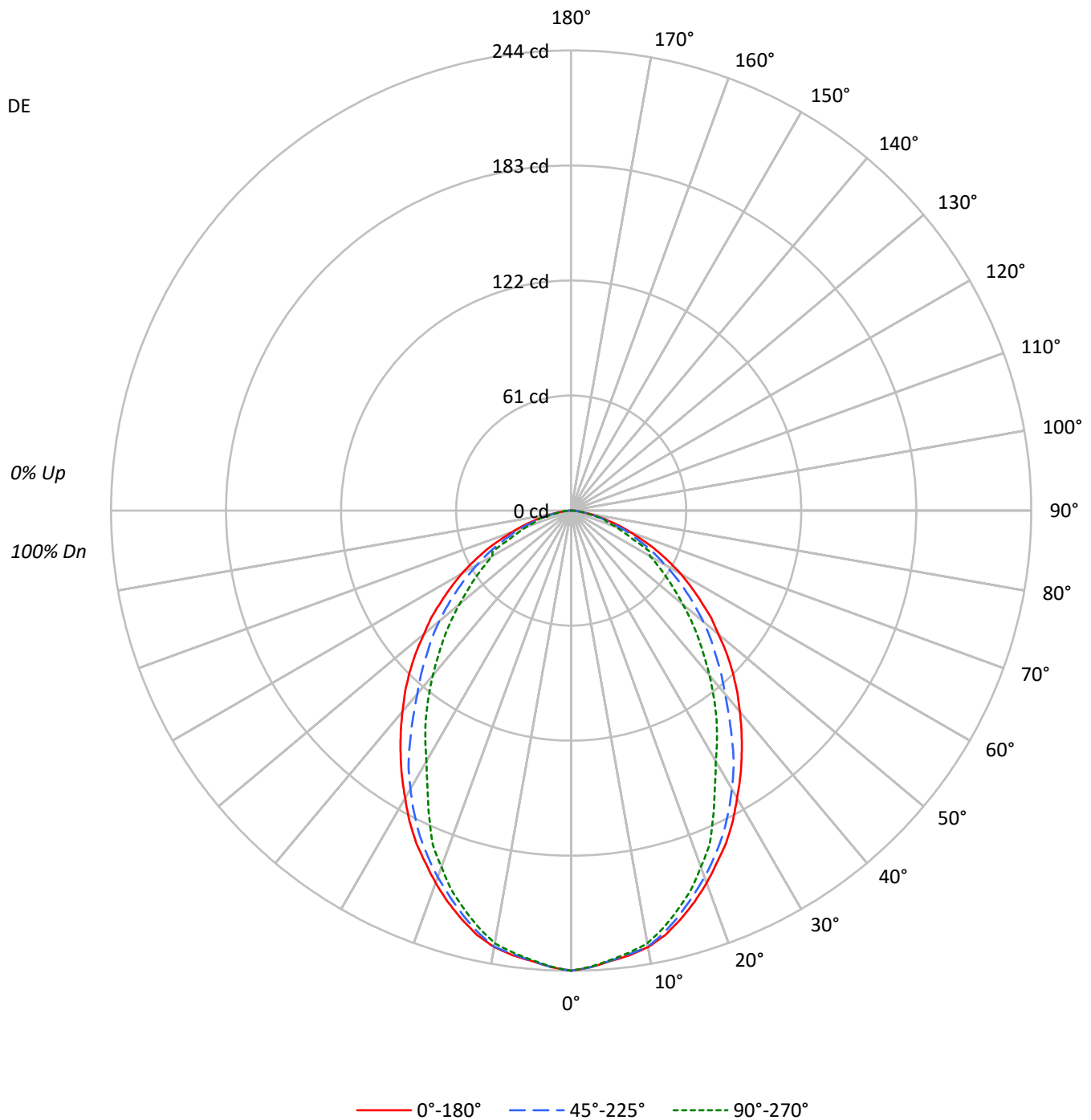
Lumens per Lamp: N/A  
Luminaire Lumens: 479.0 lumens  
Efficiency: N/A  
Efficacy: 82.6 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 5.8  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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°	2626	2626	2626
5°	2591	2588	2585
10°	2569	2565	2547
15°	2500	2474	2439
20°	2407	2369	2304
25°	2309	2258	2118
30°	2188	2118	1907
35°	2072	1957	1765
40°	1955	1783	1605
45°	1842	1649	1451
50°	1705	1531	1294
55°	1578	1387	1160
60°	1445	1238	1038
65°	1271	1085	919
70°	1048	950	780
75°	832	728	761
80°	558	527	490
85°	346	420	482

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1842 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	22.7	4.7
10°-20°	62.3	13.0
20°-30°	86.3	18.0
30°-40°	92.0	19.2
40°-50°	83.9	17.5
50°-60°	65.8	13.7
60°-70°	42.9	8.9
70°-80°	19.0	4.0
80°-90°	4.1	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°	171.3	35.8
0°-40°	263.4	55.0
0°-60°	413.1	86.2
0°-90°	479.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	479.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	244	244	244	244	244	
5°	240	240	240	239	239	23
15°	224	224	222	220	219	63
25°	194	193	190	183	178	89
35°	158	157	149	138	134	99
45°	121	118	108	99	95	93
55°	84	82	74	65	62	75
65°	50	47	43	43	36	49
75°	20	19	18	17	18	21
85°	3	3	3	4	4	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	244.0	244.0	244.0	244.0	244.0
2.5°	242.3	242.3	242.3	242.0	242.0
5°	239.8	239.5	239.5	239.2	239.2
7.5°	237.8	237.5	237.2	236.9	236.4
10°	235.0	235.0	234.7	233.3	233.0
12.5°	230.5	230.2	229.0	227.1	226.5
15°	224.3	224.3	222.0	219.7	218.9
17.5°	217.5	217.2	214.4	212.1	211.0
20°	210.1	209.6	206.8	203.1	201.1
22.5°	202.0	202.0	198.6	193.8	191.8
25°	194.4	193.2	190.1	183.3	178.3
27.5°	185.6	183.9	180.5	170.9	165.0
30°	176.0	175.2	170.4	158.0	153.4
32.5°	167.0	165.6	160.5	147.5	143.9
35°	157.7	156.6	148.9	137.7	134.3
37.5°	148.4	147.0	137.4	128.3	124.1
40°	139.1	137.4	126.9	118.8	114.2
42.5°	130.3	128.1	117.9	109.2	104.1
45°	121.0	118.5	108.3	99.3	95.3
47.5°	111.7	109.4	100.1	90.8	86.3
50°	101.8	99.9	91.4	82.1	77.3
52.5°	93.6	90.5	82.4	73.1	69.1
55°	84.1	81.5	73.9	65.2	61.8
57.5°	75.3	72.8	65.7	57.5	54.7
60°	67.1	63.5	57.5	50.5	48.2
62.5°	58.1	55.3	50.2	44.3	47.1
65°	49.9	47.1	42.6	43.4	36.1
67.5°	40.9	39.5	35.5	31.6	30.5
70°	33.3	31.6	30.2	26.0	24.8
72.5°	26.5	24.8	22.8	20.6	19.7
75°	20.0	18.6	17.5	16.6	18.3
77.5°	13.8	13.3	12.4	11.6	11.3
80°	9.0	8.7	8.5	8.2	7.9
82.5°	5.4	5.4	5.4	5.4	5.4
85°	2.8	3.1	3.4	3.7	3.9
87.5°	1.7	1.7	2.0	2.3	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)