

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: P558800

Luminaire Tested: FSR-12-1-LD4-1LO-50-UNV-82-84-EDD-90

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558800  
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-82-84-EDD-90  
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI  
LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

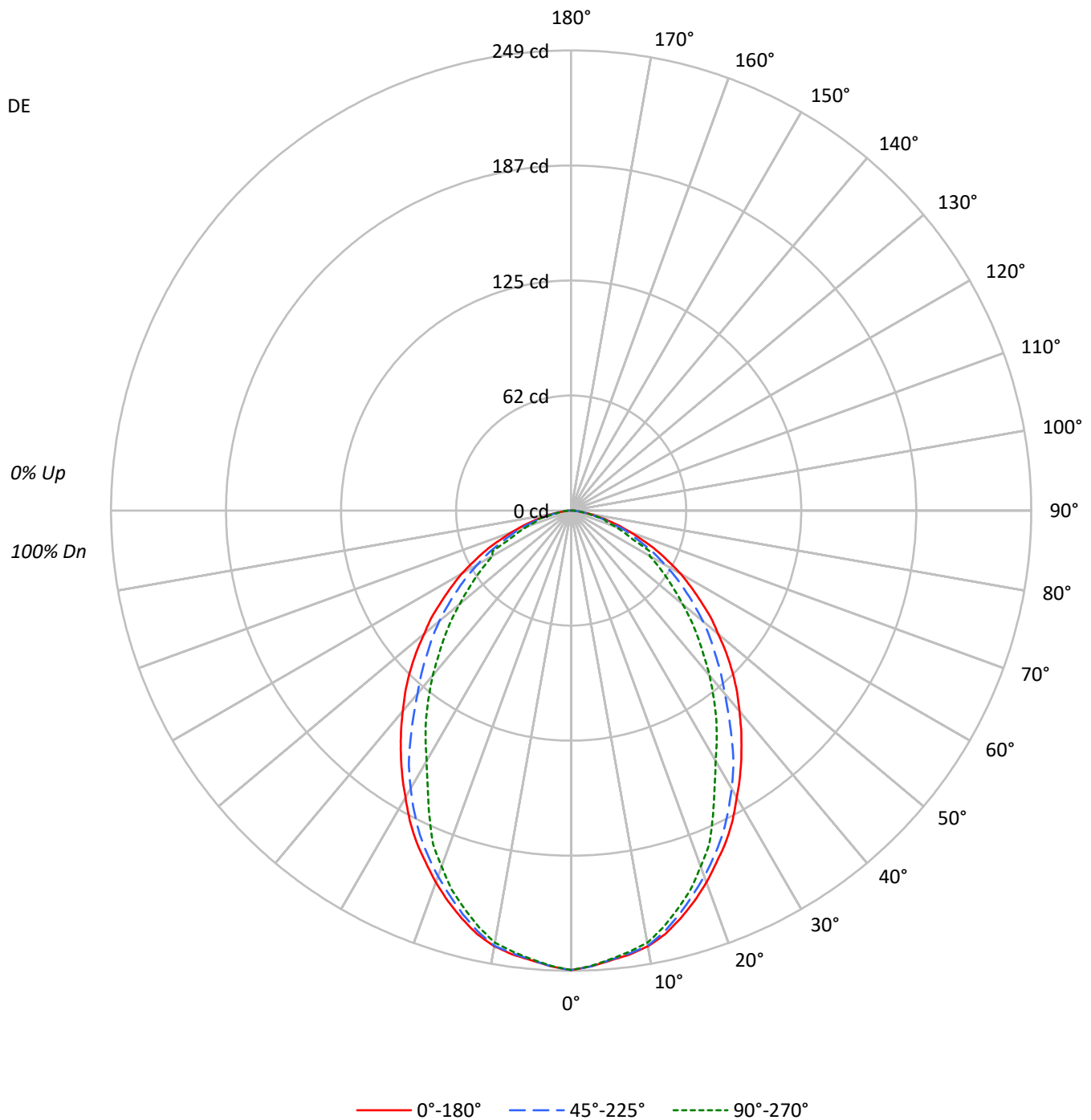
Lumens per Lamp: N/A  
Luminaire Lumens: 488.0 lumens  
Efficiency: N/A  
Efficacy: 84.1 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 5.8  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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°	2676	2676	2676
5°	2640	2636	2633
10°	2617	2613	2595
15°	2546	2521	2485
20°	2452	2412	2347
25°	2352	2301	2157
30°	2229	2158	1943
35°	2110	1993	1798
40°	1991	1817	1636
45°	1877	1681	1478
50°	1737	1559	1318
55°	1606	1413	1180
60°	1473	1262	1057
65°	1296	1105	937
70°	1067	966	796
75°	848	740	778
80°	570	533	496
85°	358	420	494

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1877 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	23.1	4.7
10°-20°	63.5	13.0
20°-30°	87.9	18.0
30°-40°	93.7	19.2
40°-50°	85.5	17.5
50°-60°	67.0	13.7
60°-70°	43.7	8.9
70°-80°	19.3	4.0
80°-90°	4.2	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°	174.6	35.8
0°-40°	268.3	55.0
0°-60°	420.8	86.2
0°-90°	488.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	488.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	249	249	249	249	249	
5°	244	244	244	244	244	23
15°	228	228	226	224	223	64
25°	198	197	194	187	182	91
35°	161	160	152	140	137	100
45°	123	121	110	101	97	95
55°	86	83	75	66	63	77
65°	51	48	43	44	37	50
75°	20	19	18	17	19	22
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°	248.6	248.6	248.6	248.6	248.6
2.5°	246.9	246.9	246.9	246.6	246.6
5°	244.3	244.0	244.0	243.7	243.7
7.5°	242.3	242.0	241.7	241.4	240.8
10°	239.4	239.4	239.1	237.7	237.4
12.5°	234.8	234.5	233.3	231.3	230.8
15°	228.5	228.5	226.2	223.9	223.0
17.5°	221.6	221.3	218.4	216.1	215.0
20°	214.1	213.5	210.6	206.9	204.9
22.5°	205.8	205.8	202.3	197.4	195.4
25°	198.0	196.9	193.7	186.8	181.6
27.5°	189.1	187.4	183.9	174.2	168.1
30°	179.3	178.5	173.6	160.9	156.3
32.5°	170.1	168.7	163.5	150.3	146.6
35°	160.6	159.5	151.7	140.2	136.8
37.5°	151.2	149.7	140.0	130.8	126.4
40°	141.7	140.0	129.3	121.0	116.4
42.5°	132.8	130.5	120.1	111.2	106.0
45°	123.3	120.7	110.4	101.2	97.1
47.5°	113.8	111.5	102.0	92.5	87.9
50°	103.7	101.7	93.1	83.6	78.7
52.5°	95.4	92.2	83.9	74.4	70.4
55°	85.6	83.1	75.3	66.4	62.9
57.5°	76.7	74.1	67.0	58.6	55.8
60°	68.4	64.7	58.6	51.4	49.1
62.5°	59.2	56.3	51.2	45.1	48.0
65°	50.9	48.0	43.4	44.3	36.8
67.5°	41.7	40.2	36.2	32.2	31.0
70°	33.9	32.2	30.7	26.4	25.3
72.5°	27.0	25.3	23.3	21.0	20.1
75°	20.4	19.0	17.8	17.0	18.7
77.5°	14.1	13.5	12.6	11.8	11.5
80°	9.2	8.9	8.6	8.3	8.0
82.5°	5.5	5.5	5.5	5.5	5.5
85°	2.9	3.2	3.4	3.7	4.0
87.5°	1.7	1.7	2.0	2.3	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)