

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: P558825

Luminaire Tested: FSR-12-1-LD4-1LO-50-UNV-93-88-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558825  
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-93-88-EDD  
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

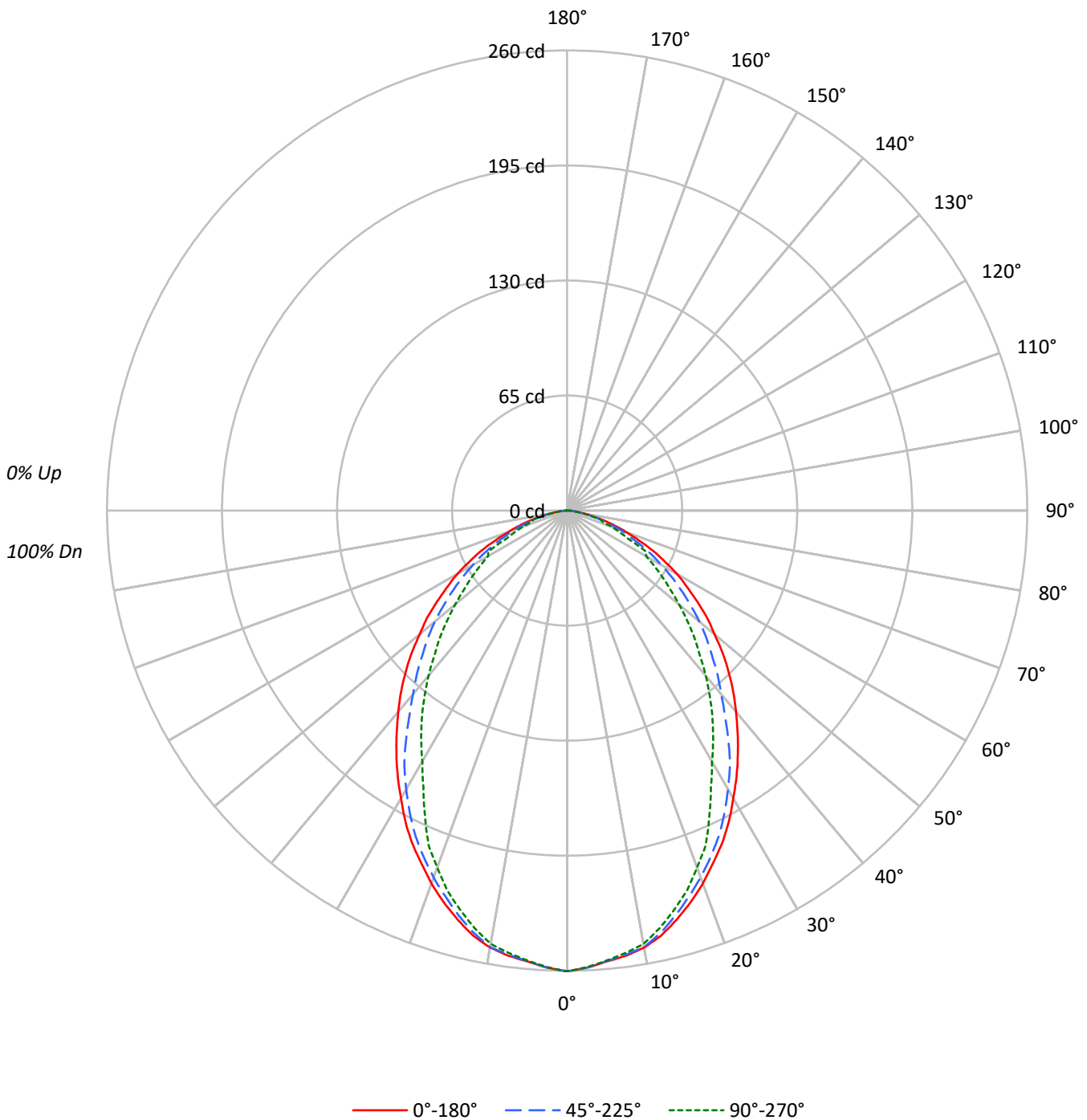
Lumens per Lamp: N/A  
Luminaire Lumens: 511.0 lumens  
Efficiency: N/A  
Efficacy: 88.1 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 5.8  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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°	2802	2802	2802
5°	2764	2761	2757
10°	2740	2737	2717
15°	2666	2639	2602
20°	2568	2527	2458
25°	2462	2409	2259
30°	2334	2260	2035
35°	2210	2088	1882
40°	2085	1903	1713
45°	1965	1760	1548
50°	1819	1633	1382
55°	1683	1479	1237
60°	1541	1322	1109
65°	1358	1156	981
70°	1117	1013	834
75°	890	778	815
80°	595	558	521
85°	371	445	519

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1965 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	24.2	4.7
10°-20°	66.5	13.0
20°-30°	92.1	18.0
30°-40°	98.2	19.2
40°-50°	89.6	17.5
50°-60°	70.2	13.7
60°-70°	45.7	8.9
70°-80°	20.3	4.0
80°-90°	4.3	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°	182.8	35.8
0°-40°	281.0	55.0
0°-60°	440.7	86.2
0°-90°	511.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	511.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	260	260	260	260	260	
5°	256	256	256	255	255	24
15°	239	239	237	234	234	67
25°	207	206	203	196	190	95
35°	168	167	159	147	143	105
45°	129	126	116	106	102	99
55°	90	87	79	70	66	80
65°	53	50	45	46	38	52
75°	21	20	19	18	20	23
85°	3	3	4	4	4	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	260.3	260.3	260.3	260.3	260.3
2.5°	258.5	258.5	258.5	258.2	258.2
5°	255.8	255.5	255.5	255.2	255.2
7.5°	253.7	253.4	253.1	252.8	252.2
10°	250.7	250.7	250.4	248.9	248.6
12.5°	245.9	245.6	244.3	242.2	241.6
15°	239.2	239.2	236.8	234.4	233.5
17.5°	232.0	231.7	228.7	226.3	225.1
20°	224.2	223.6	220.6	216.7	214.6
22.5°	215.5	215.5	211.8	206.7	204.6
25°	207.3	206.1	202.8	195.6	190.2
27.5°	198.0	196.2	192.6	182.4	176.0
30°	187.8	186.9	181.8	168.5	163.7
32.5°	178.1	176.6	171.2	157.4	153.5
35°	168.2	167.0	158.9	146.8	143.2
37.5°	158.3	156.8	146.5	136.9	132.4
40°	148.4	146.5	135.4	126.7	121.9
42.5°	139.0	136.6	125.8	116.5	111.0
45°	129.1	126.4	115.6	105.9	101.7
47.5°	119.2	116.8	106.8	96.9	92.1
50°	108.6	106.5	97.5	87.6	82.5
52.5°	99.9	96.6	87.9	77.9	73.7
55°	89.7	87.0	78.8	69.5	65.9
57.5°	80.3	77.6	70.1	61.4	58.4
60°	71.6	67.7	61.4	53.9	51.5
62.5°	62.0	59.0	53.6	47.2	50.3
65°	53.3	50.3	45.4	46.3	38.5
67.5°	43.6	42.1	37.9	33.7	32.5
70°	35.5	33.7	32.2	27.7	26.5
72.5°	28.3	26.5	24.4	22.0	21.1
75°	21.4	19.9	18.7	17.8	19.6
77.5°	14.7	14.1	13.2	12.3	12.0
80°	9.6	9.3	9.0	8.7	8.4
82.5°	5.7	5.7	5.7	5.7	5.7
85°	3.0	3.3	3.6	3.9	4.2
87.5°	1.8	1.8	2.1	2.4	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)