

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: P559865

Luminaire Tested: FSR-12-2-LD4-1LO-40-UNV-80-88-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P559865  
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-12-2-LD4-1LO-40-UNV-80-88-EDD  
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON  
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

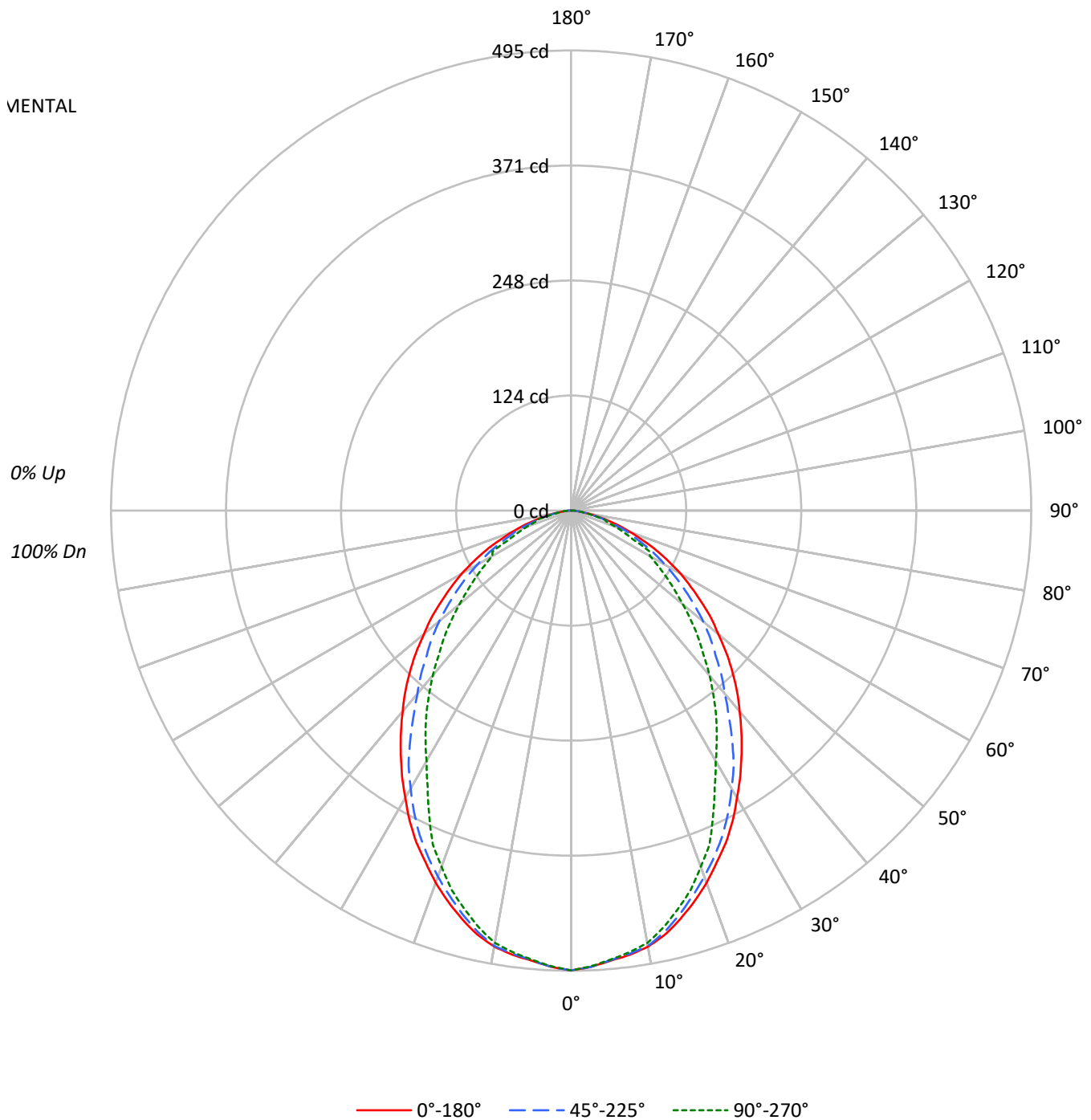
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 971.0 lumens  
Efficiency: N/A  
Efficacy: 83.0 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 11.7  
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°	2662	2662	2662
5°	2626	2623	2620
10°	2603	2600	2581
15°	2533	2507	2472
20°	2440	2400	2335
25°	2340	2289	2146
30°	2217	2147	1933
35°	2100	1984	1788
40°	1981	1808	1627
45°	1867	1671	1471
50°	1728	1551	1312
55°	1599	1406	1175
60°	1465	1255	1053
65°	1289	1099	932
70°	1062	963	792
75°	844	738	774
80°	567	533	496
85°	352	426	494

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1867 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.0	4.7
10°-20°	126.4	13.0
20°-30°	174.9	18.0
30°-40°	186.5	19.2
40°-50°	170.2	17.5
50°-60°	133.3	13.7
60°-70°	86.9	8.9
70°-80°	38.5	4.0
80°-90°	8.3	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°	347.3	35.8
0°-40°	533.9	55.0
0°-60°	837.4	86.2
0°-90°	971.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	971.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	495	495	495	495	495	
5°	486	486	486	485	485	46
15°	455	455	450	445	444	128
25°	394	392	385	372	361	181
35°	320	317	302	279	272	200
45°	245	240	220	201	193	189
55°	170	165	150	132	125	153
65°	101	96	86	88	73	100
75°	41	38	36	34	37	44
85°	6	6	7	7	8	8
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	494.6	494.6	494.6	494.6	494.6
2.5°	491.2	491.2	491.2	490.6	490.6
5°	486.0	485.5	485.5	484.9	484.9
7.5°	482.0	481.5	480.9	480.3	479.2
10°	476.3	476.3	475.7	472.9	472.3
12.5°	467.2	466.6	464.3	460.3	459.2
15°	454.6	454.6	450.0	445.4	443.7
17.5°	440.9	440.3	434.6	430.0	427.7
20°	426.0	424.9	419.1	411.7	407.7
22.5°	409.4	409.4	402.6	392.8	388.8
25°	394.0	391.7	385.4	371.7	361.4
27.5°	376.3	372.8	366.0	346.5	334.5
30°	356.8	355.1	345.4	320.2	311.1
32.5°	338.5	335.7	325.4	299.1	291.6
35°	319.6	317.4	301.9	279.0	272.2
37.5°	300.8	297.9	278.5	260.2	251.6
40°	281.9	278.5	257.3	240.7	231.6
42.5°	264.2	259.6	239.0	221.3	211.0
45°	245.3	240.2	219.6	201.3	193.3
47.5°	226.4	221.9	203.0	184.1	175.0
50°	206.4	202.4	185.3	166.4	156.7
52.5°	189.8	183.6	167.0	148.1	140.1
55°	170.4	165.3	149.8	132.1	125.2
57.5°	152.7	147.5	133.2	116.6	110.9
60°	136.1	128.7	116.6	102.4	97.8
62.5°	117.8	112.1	101.8	89.8	95.5
65°	101.2	95.5	86.3	88.1	73.2
67.5°	82.9	80.1	72.0	64.0	61.8
70°	67.5	64.0	61.2	52.6	50.3
72.5°	53.8	50.3	46.3	41.7	40.0
75°	40.6	37.7	35.5	33.7	37.2
77.5°	28.0	26.9	25.2	23.4	22.9
80°	18.3	17.7	17.2	16.6	16.0
82.5°	10.9	10.9	10.9	10.9	10.9
85°	5.7	6.3	6.9	7.4	8.0
87.5°	3.4	3.4	4.0	4.6	5.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)