

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: P559071

Luminaire Tested: FSR-12-1-LD4-2HI-35-UNV-82-97-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P559071  
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-LD4-2HI-35-UNV-82-97-EDD  
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

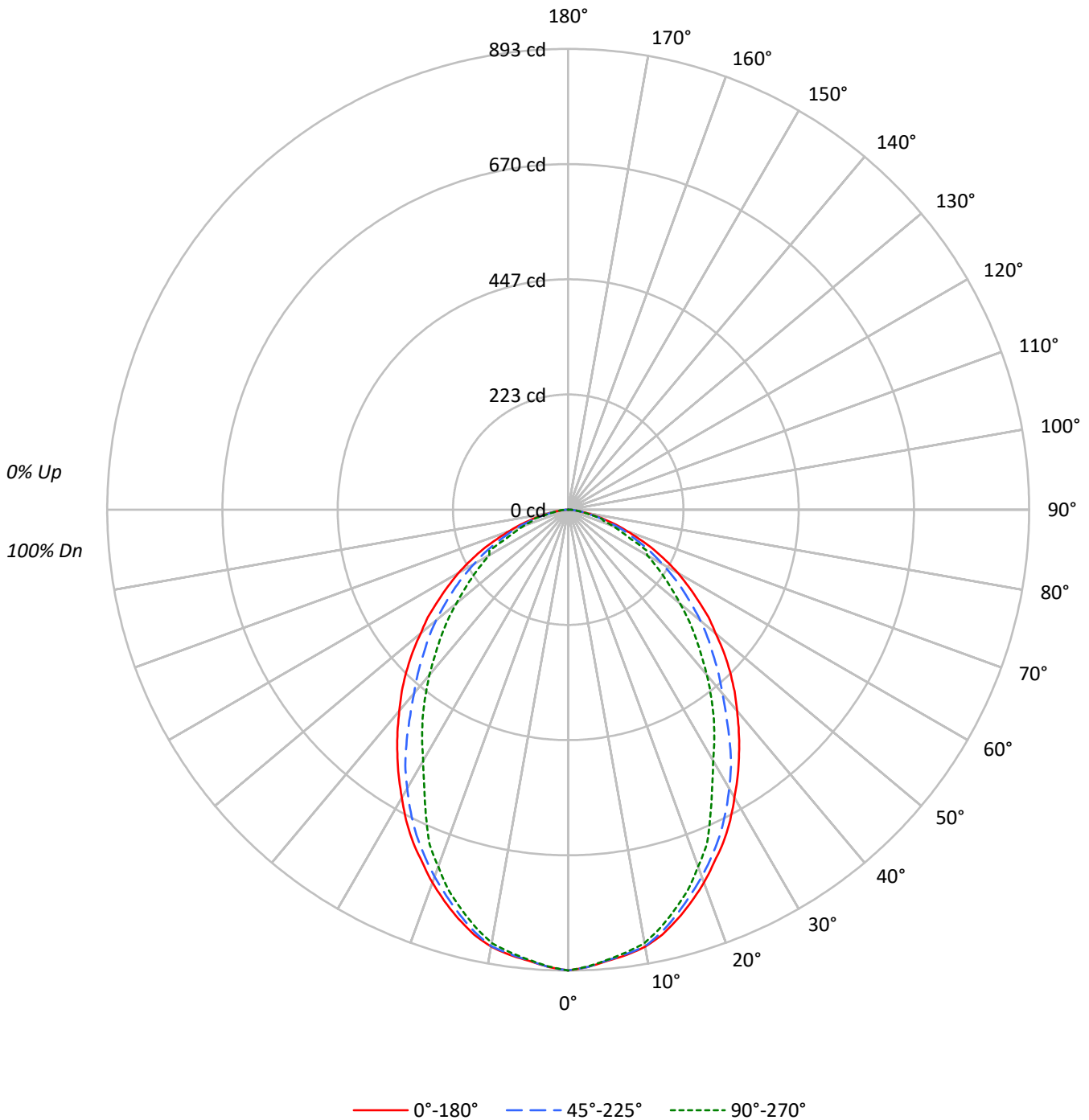
Lumens per Lamp: N/A  
Luminaire Lumens: 1753.0 lumens  
Efficiency: N/A  
Efficacy: 81.2 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 21.6  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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°	9612	9612	9612
5°	9481	9470	9459
10°	9399	9388	9320
15°	9146	9053	8927
20°	8810	8668	8431
25°	8448	8264	7748
30°	8007	7750	6980
35°	7583	7163	6457
40°	7151	6527	5875
45°	6742	6034	5311
50°	6241	5601	4737
55°	5773	5076	4243
60°	5289	4534	3800
65°	4653	3971	3365
70°	3833	3478	2858
75°	3048	2662	2791
80°	2046	1922	1791
85°	1272	1531	1791

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6742 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.1	4.7
10°-20°	228.1	13.0
20°-30°	315.8	18.0
30°-40°	336.8	19.2
40°-50°	307.2	17.5
50°-60°	240.7	13.7
60°-70°	156.9	8.9
70°-80°	69.5	4.0
80°-90°	14.9	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°	627.1	35.8
0°-40°	963.8	55.0
0°-60°	1511.7	86.2
0°-90°	1753.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1753.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	893	893	893	893	893	
5°	878	876	876	875	875	83
15°	821	821	812	804	801	231
25°	711	707	696	671	652	327
35°	577	573	545	504	491	361
45°	443	434	396	363	349	341
55°	308	298	270	238	226	276
65°	183	172	156	159	132	180
75°	73	68	64	61	67	79
85°	10	11	12	13	14	14
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	893.0	893.0	893.0	893.0	893.0
2.5°	886.8	886.8	886.8	885.7	885.7
5°	877.5	876.4	876.4	875.4	875.4
7.5°	870.2	869.2	868.2	867.1	865.1
10°	859.9	859.9	858.9	853.7	852.7
12.5°	843.4	842.4	838.2	831.0	829.0
15°	820.7	820.7	812.4	804.2	801.1
17.5°	795.9	794.9	784.6	776.3	772.2
20°	769.1	767.0	756.7	743.3	736.0
22.5°	739.1	739.1	726.8	709.2	702.0
25°	711.3	707.1	695.8	671.0	652.4
27.5°	679.3	673.1	660.7	625.6	603.9
30°	644.2	641.1	623.5	578.1	561.6
32.5°	611.1	606.0	587.4	539.9	526.5
35°	577.1	572.9	545.1	503.8	491.4
37.5°	543.0	537.8	502.7	469.7	454.2
40°	508.9	502.7	464.5	434.6	418.1
42.5°	476.9	468.7	431.5	399.5	380.9
45°	442.9	433.6	396.4	363.4	348.9
47.5°	408.8	400.5	366.5	332.4	315.9
50°	372.7	365.4	334.5	300.4	282.9
52.5°	342.7	331.4	301.4	267.4	252.9
55°	307.6	298.3	270.5	238.5	226.1
57.5°	275.6	266.3	240.5	210.6	200.3
60°	245.7	232.3	210.6	184.8	176.5
62.5°	212.7	202.3	183.8	162.1	172.4
65°	182.7	172.4	155.9	159.0	132.1
67.5°	149.7	144.5	130.1	115.6	111.5
70°	121.8	115.6	110.5	95.0	90.8
72.5°	97.0	90.8	83.6	75.4	72.3
75°	73.3	68.1	64.0	60.9	67.1
77.5°	50.6	48.5	45.4	42.3	41.3
80°	33.0	32.0	31.0	29.9	28.9
82.5°	19.6	19.6	19.6	19.6	19.6
85°	10.3	11.4	12.4	13.4	14.5
87.5°	6.2	6.2	7.2	8.3	9.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)