

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: P558519

Luminaire Tested: FSR-12-1-LD4-1HI-40-UNV-80-87-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558519  
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-LD4-1HI-40-UNV-80-87-EDD  
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRON  
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

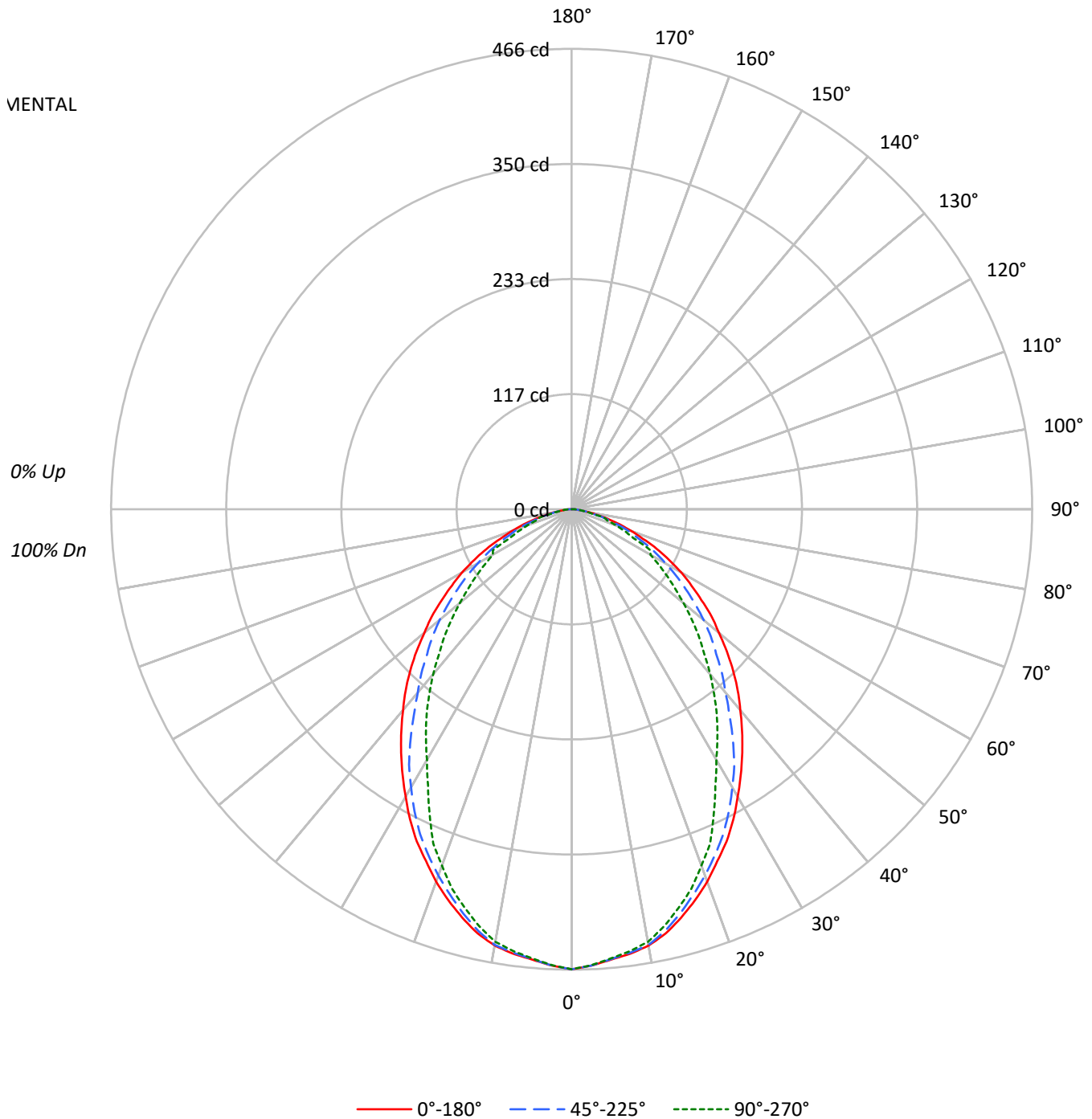
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 914.0 lumens  
Efficiency: N/A  
Efficacy: 84.6 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): 10.8  
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	100	100	100	100	100		
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87	87	87	87	87	87	87		
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75	75	75	75	75	75	75		
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65	65	65	65	65	65	65		
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56	56	56	56	56	56	56		
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50	50	50	50	50	50	50		
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44	44	44	44	44	44	44		
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40	40	40	40	40	40	40		
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36	36	36	36	36	36	36		
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33	33	33	33	33	33	33		
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30	30	30	30	30	30	30		

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5012	5012	5012
5°	4943	4938	4931
10°	4901	4894	4859
15°	4768	4720	4655
20°	4593	4519	4396
25°	4404	4309	4040
30°	4175	4041	3639
35°	3954	3734	3367
40°	3729	3403	3063
45°	3515	3146	2769
50°	3254	2920	2470
55°	3010	2646	2213
60°	2758	2364	1981
65°	2427	2071	1755
70°	1998	1813	1492
75°	1589	1389	1456
80°	1066	998	936
85°	667	803	926

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3515 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.3	4.7
10°-20°	118.9	13.0
20°-30°	164.7	18.0
30°-40°	175.6	19.2
40°-50°	160.2	17.5
50°-60°	125.5	13.7
60°-70°	81.8	8.9
70°-80°	36.2	4.0
80°-90°	7.8	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°	326.9	35.8
0°-40°	502.5	55.0
0°-60°	788.2	86.2
0°-90°	914.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	914.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	466	466	466	466	466	
5°	458	457	457	456	456	43
15°	428	428	424	419	418	120
25°	371	369	363	350	340	170
35°	301	299	284	263	256	188
45°	231	226	207	190	182	178
55°	160	156	141	124	118	144
65°	95	90	81	83	69	94
75°	38	36	33	32	35	41
85°	5	6	6	7	8	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	465.6	465.6	465.6	465.6	465.6
2.5°	462.3	462.3	462.3	461.8	461.8
5°	457.5	457.0	457.0	456.4	456.4
7.5°	453.7	453.2	452.7	452.1	451.0
10°	448.4	448.4	447.8	445.1	444.6
12.5°	439.7	439.2	437.1	433.3	432.2
15°	427.9	427.9	423.6	419.3	417.7
17.5°	415.0	414.4	409.1	404.8	402.6
20°	401.0	399.9	394.5	387.5	383.8
22.5°	385.4	385.4	378.9	369.8	366.0
25°	370.8	368.7	362.8	349.9	340.2
27.5°	354.2	350.9	344.5	326.2	314.9
30°	335.9	334.2	325.1	301.4	292.8
32.5°	318.6	315.9	306.3	281.5	274.5
35°	300.9	298.7	284.2	262.7	256.2
37.5°	283.1	280.4	262.1	244.9	236.8
40°	265.4	262.1	242.2	226.6	218.0
42.5°	248.7	244.4	225.0	208.3	198.6
45°	230.9	226.1	206.7	189.5	181.9
47.5°	213.1	208.8	191.1	173.3	164.7
50°	194.3	190.5	174.4	156.6	147.5
52.5°	178.7	172.8	157.2	139.4	131.9
55°	160.4	155.6	141.0	124.3	117.9
57.5°	143.7	138.9	125.4	109.8	104.4
60°	128.1	121.1	109.8	96.3	92.0
62.5°	110.9	105.5	95.8	84.5	89.9
65°	95.3	89.9	81.3	82.9	68.9
67.5°	78.0	75.4	67.8	60.3	58.1
70°	63.5	60.3	57.6	49.5	47.4
72.5°	50.6	47.4	43.6	39.3	37.7
75°	38.2	35.5	33.4	31.8	35.0
77.5°	26.4	25.3	23.7	22.1	21.5
80°	17.2	16.7	16.1	15.6	15.1
82.5°	10.2	10.2	10.2	10.2	10.2
85°	5.4	5.9	6.5	7.0	7.5
87.5°	3.2	3.2	3.8	4.3	4.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)