

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: P558922

Luminaire Tested: FSR-12-1-LD4-1STD-40-UNV-81-94-EDD-90

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558922  
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-LD4-1STD-40-UNV-81-94-EDD-90  
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

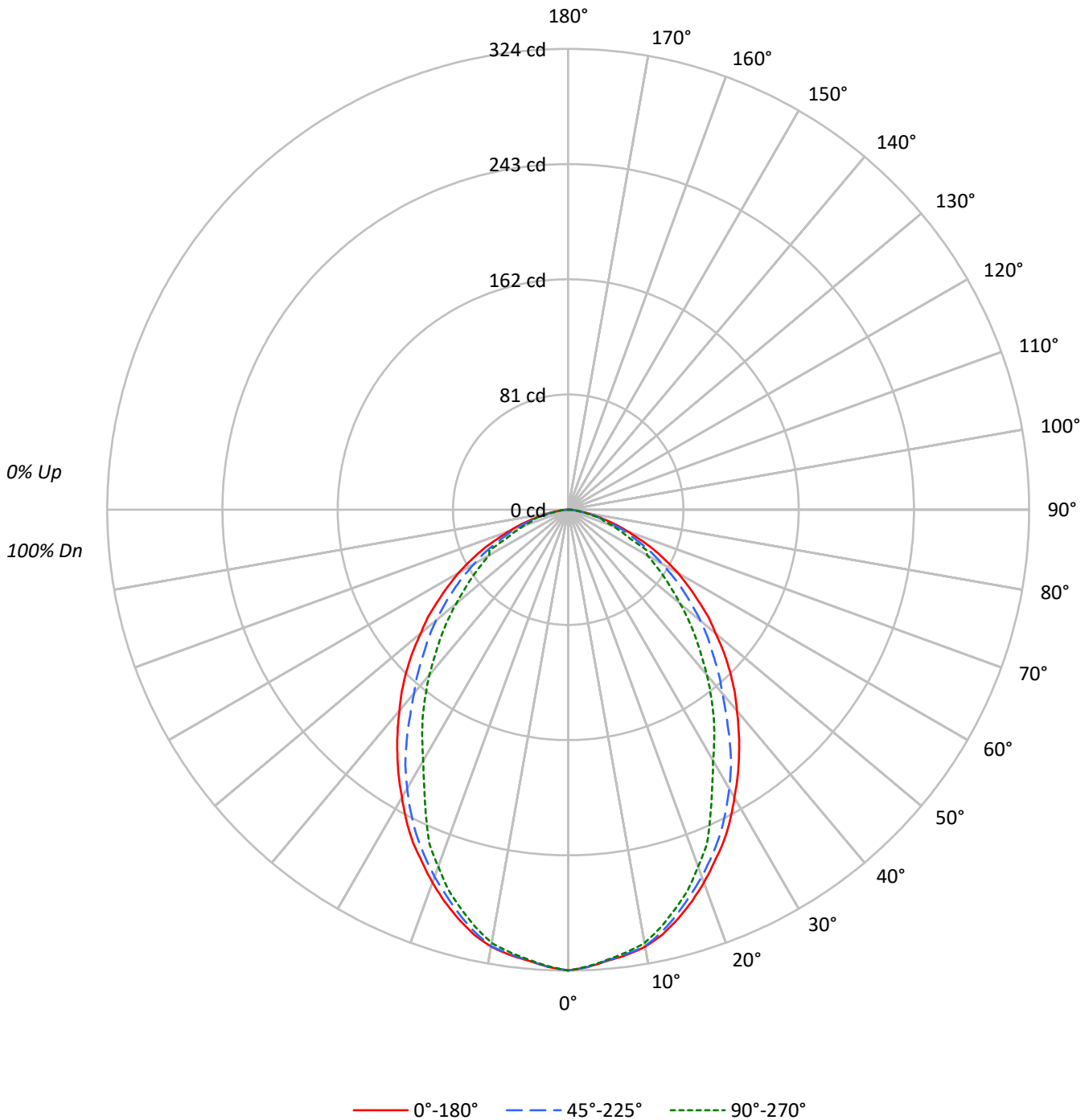
Lumens per Lamp: N/A  
Luminaire Lumens: 636.0 lumens  
Efficiency: N/A  
Efficacy: 76.6 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 8.3  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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°	3488	3488	3488
5°	3440	3436	3432
10°	3410	3406	3382
15°	3319	3285	3238
20°	3196	3144	3058
25°	3065	2998	2811
30°	2905	2811	2532
35°	2752	2599	2343
40°	2594	2368	2132
45°	2446	2189	1927
50°	2264	2031	1718
55°	2094	1841	1539
60°	1918	1645	1378
65°	1689	1442	1220
70°	1391	1262	1039
75°	1106	965	1011
80°	744	694	651
85°	457	556	642

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2446 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.2	4.7
10°-20°	82.8	13.0
20°-30°	114.6	18.0
30°-40°	122.2	19.2
40°-50°	111.5	17.5
50°-60°	87.3	13.7
60°-70°	56.9	8.9
70°-80°	25.2	4.0
80°-90°	5.4	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°	227.5	35.8
0°-40°	349.7	55.0
0°-60°	548.5	86.2
0°-90°	636.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	636.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	324	324	324	324	324	
5°	318	318	318	318	318	30
15°	298	298	295	292	291	84
25°	258	257	252	243	237	118
35°	209	208	198	183	178	131
45°	161	157	144	132	127	124
55°	112	108	98	86	82	100
65°	66	62	57	58	48	65
75°	27	25	23	22	24	29
85°	4	4	4	5	5	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	324.0	324.0	324.0	324.0	324.0
2.5°	321.7	321.7	321.7	321.3	321.3
5°	318.4	318.0	318.0	317.6	317.6
7.5°	315.7	315.4	315.0	314.6	313.9
10°	312.0	312.0	311.6	309.7	309.4
12.5°	306.0	305.6	304.1	301.5	300.7
15°	297.8	297.8	294.8	291.8	290.6
17.5°	288.8	288.4	284.6	281.6	280.1
20°	279.0	278.3	274.5	269.7	267.0
22.5°	268.2	268.2	263.7	257.3	254.7
25°	258.1	256.6	252.4	243.4	236.7
27.5°	246.4	244.2	239.7	227.0	219.1
30°	233.7	232.6	226.2	209.7	203.7
32.5°	221.7	219.9	213.1	195.9	191.0
35°	209.4	207.9	197.8	182.8	178.3
37.5°	197.0	195.1	182.4	170.4	164.8
40°	184.6	182.4	168.5	157.7	151.7
42.5°	173.0	170.0	156.6	144.9	138.2
45°	160.7	157.3	143.8	131.8	126.6
47.5°	148.3	145.3	133.0	120.6	114.6
50°	135.2	132.6	121.3	109.0	102.6
52.5°	124.3	120.2	109.4	97.0	91.8
55°	111.6	108.2	98.1	86.5	82.0
57.5°	100.0	96.6	87.3	76.4	72.7
60°	89.1	84.3	76.4	67.0	64.0
62.5°	77.2	73.4	66.7	58.8	62.5
65°	66.3	62.5	56.6	57.7	47.9
67.5°	54.3	52.4	47.2	41.9	40.4
70°	44.2	41.9	40.1	34.5	33.0
72.5°	35.2	33.0	30.3	27.3	26.2
75°	26.6	24.7	23.2	22.1	24.3
77.5°	18.4	17.6	16.5	15.4	15.0
80°	12.0	11.6	11.2	10.9	10.5
82.5°	7.1	7.1	7.1	7.1	7.1
85°	3.7	4.1	4.5	4.9	5.2
87.5°	2.2	2.2	2.6	3.0	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)