

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: P558735

Luminaire Tested: FSR-12-1-LD4-1LO-40-UNV-81-97-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558735  
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-40-UNV-81-97-EDD  
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

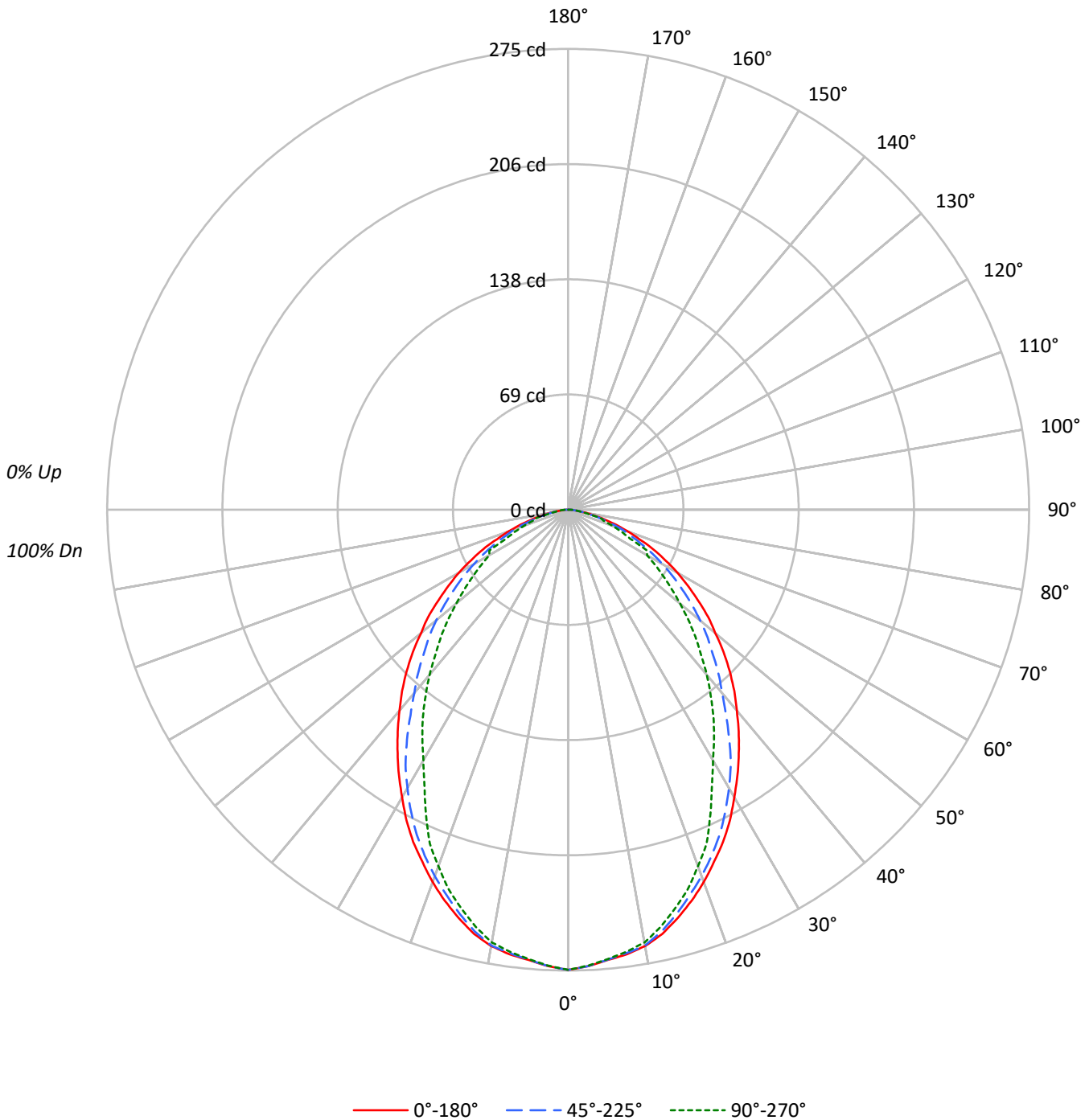
Lumens per Lamp: N/A  
Luminaire Lumens: 539.0 lumens  
Efficiency: N/A  
Efficacy: 92.9 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 5.8  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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	39	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°	2956	2956	2956
5°	2915	2912	2909
10°	2890	2887	2866
15°	2812	2784	2745
20°	2709	2666	2592
25°	2597	2540	2382
30°	2462	2383	2147
35°	2331	2202	1986
40°	2199	2007	1807
45°	2073	1856	1633
50°	1919	1721	1457
55°	1775	1561	1304
60°	1625	1395	1169
65°	1431	1220	1034
70°	1180	1070	878
75°	936	819	857
80°	632	589	552
85°	395	469	543

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2073 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.6	4.7
10°-20°	70.1	13.0
20°-30°	97.1	18.0
30°-40°	103.5	19.2
40°-50°	94.5	17.5
50°-60°	74.0	13.7
60°-70°	48.2	8.9
70°-80°	21.4	4.0
80°-90°	4.6	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°	192.8	35.8
0°-40°	296.4	55.0
0°-60°	464.8	86.2
0°-90°	539.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	539.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	275	275	275	275	275	
5°	270	270	270	269	269	26
15°	252	252	250	247	246	71
25°	219	217	214	206	201	100
35°	177	176	168	155	151	111
45°	136	133	122	112	107	105
55°	95	92	83	73	70	85
65°	56	53	48	49	41	55
75°	22	21	20	19	21	24
85°	3	4	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°	274.6	274.6	274.6	274.6	274.6
2.5°	272.7	272.7	272.7	272.3	272.3
5°	269.8	269.5	269.5	269.2	269.2
7.5°	267.6	267.3	266.9	266.6	266.0
10°	264.4	264.4	264.1	262.5	262.2
12.5°	259.3	259.0	257.7	255.5	254.9
15°	252.3	252.3	249.8	247.3	246.3
17.5°	244.7	244.4	241.2	238.7	237.4
20°	236.5	235.8	232.7	228.5	226.3
22.5°	227.3	227.3	223.5	218.1	215.8
25°	218.7	217.4	213.9	206.3	200.6
27.5°	208.9	207.0	203.1	192.4	185.7
30°	198.1	197.1	191.7	177.7	172.7
32.5°	187.9	186.3	180.6	166.0	161.9
35°	177.4	176.2	167.6	154.9	151.1
37.5°	167.0	165.4	154.6	144.4	139.7
40°	156.5	154.6	142.8	133.6	128.6
42.5°	146.6	144.1	132.7	122.8	117.1
45°	136.2	133.3	121.9	111.7	107.3
47.5°	125.7	123.2	112.7	102.2	97.1
50°	114.6	112.4	102.8	92.4	87.0
52.5°	105.4	101.9	92.7	82.2	77.8
55°	94.6	91.7	83.2	73.3	69.5
57.5°	84.7	81.9	74.0	64.8	61.6
60°	75.5	71.4	64.8	56.8	54.3
62.5°	65.4	62.2	56.5	49.8	53.0
65°	56.2	53.0	47.9	48.9	40.6
67.5°	46.0	44.4	40.0	35.5	34.3
70°	37.5	35.5	34.0	29.2	27.9
72.5°	29.8	27.9	25.7	23.2	22.2
75°	22.5	20.9	19.7	18.7	20.6
77.5°	15.6	14.9	14.0	13.0	12.7
80°	10.2	9.8	9.5	9.2	8.9
82.5°	6.0	6.0	6.0	6.0	6.0
85°	3.2	3.5	3.8	4.1	4.4
87.5°	1.9	1.9	2.2	2.5	2.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)