

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: P558871

Luminaire Tested: FSR-12-1-LD4-1STD-35-UNV-82-87-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558871  
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-35-UNV-82-87-EDD  
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI  
LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

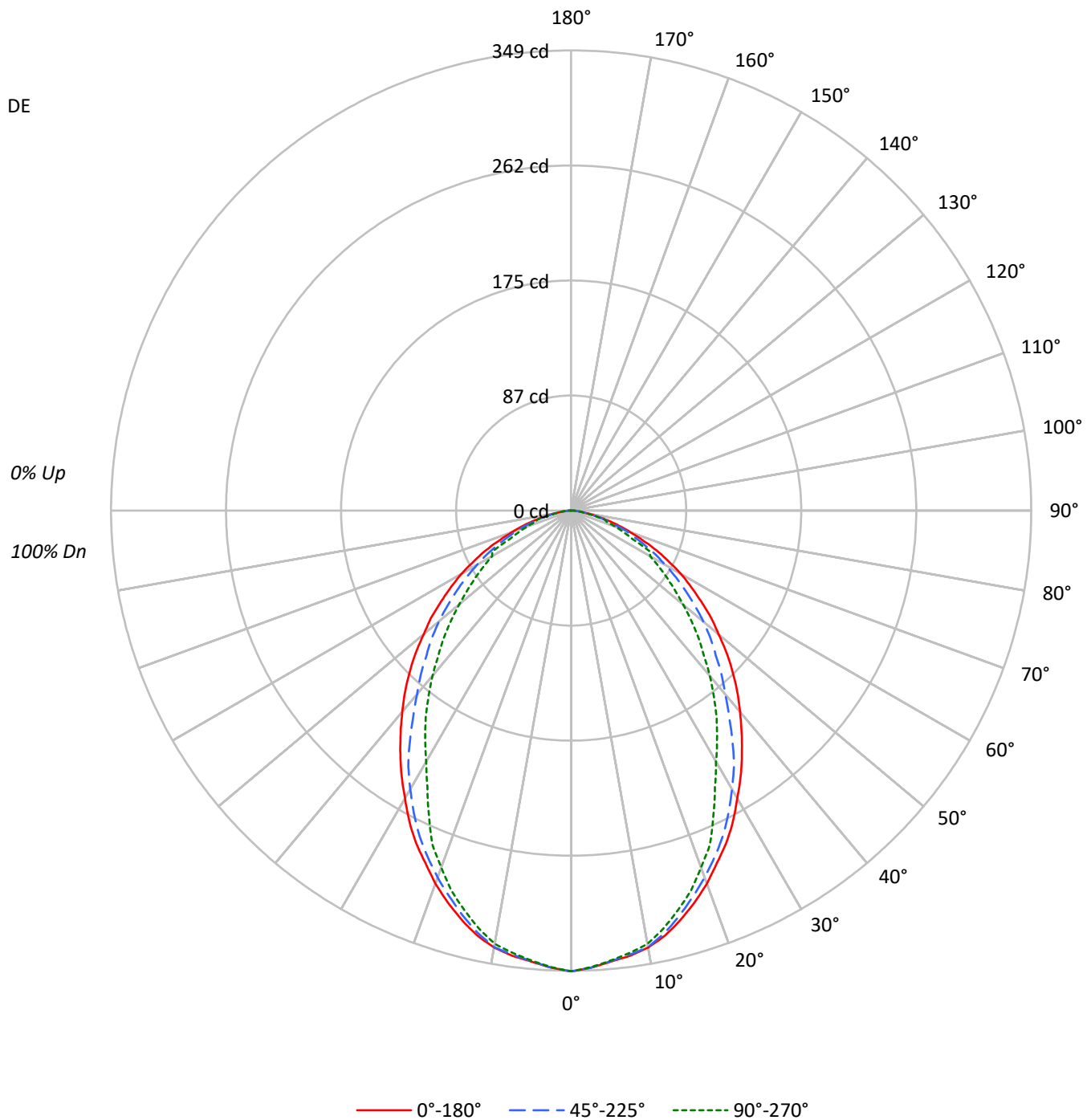
Lumens per Lamp: N/A  
Luminaire Lumens: 686.0 lumens  
Efficiency: N/A  
Efficacy: 82.6 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 8.3  
Input Voltage (V):  
Input Current (A<sub>in</sub>): 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	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°	3761	3761	3761
5°	3710	3706	3702
10°	3678	3674	3647
15°	3579	3543	3494
20°	3448	3392	3299
25°	3305	3234	3032
30°	3133	3033	2732
35°	2967	2803	2527
40°	2799	2555	2299
45°	2638	2361	2078
50°	2442	2192	1854
55°	2259	1985	1661
60°	2069	1774	1488
65°	1821	1554	1317
70°	1501	1360	1117
75°	1194	1040	1094
80°	800	750	700
85°	494	593	704

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2638 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	32.5	4.7
10°-20°	89.3	13.0
20°-30°	123.6	18.0
30°-40°	131.8	19.2
40°-50°	120.2	17.5
50°-60°	94.2	13.7
60°-70°	61.4	8.9
70°-80°	27.2	4.0
80°-90°	5.8	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°	245.4	35.8
0°-40°	377.2	55.0
0°-60°	591.6	86.2
0°-90°	686.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	686.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	349	349	349	349	349	
5°	343	343	343	343	343	33
15°	321	321	318	315	314	90
25°	278	277	272	263	255	128
35°	226	224	213	197	192	141
45°	173	170	155	142	136	133
55°	120	117	106	93	88	108
65°	72	68	61	62	52	70
75°	29	27	25	24	26	31
85°	4	4	5	5	6	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	349.4	349.4	349.4	349.4	349.4
2.5°	347.0	347.0	347.0	346.6	346.6
5°	343.4	343.0	343.0	342.6	342.6
7.5°	340.6	340.1	339.7	339.3	338.5
10°	336.5	336.5	336.1	334.1	333.7
12.5°	330.0	329.6	328.0	325.2	324.4
15°	321.2	321.2	317.9	314.7	313.5
17.5°	311.5	311.1	307.0	303.8	302.2
20°	301.0	300.2	296.1	290.9	288.0
22.5°	289.2	289.2	284.4	277.5	274.7
25°	278.3	276.7	272.3	262.6	255.3
27.5°	265.8	263.4	258.5	244.8	236.3
30°	252.1	250.9	244.0	226.2	219.8
32.5°	239.2	237.1	229.9	211.3	206.0
35°	225.8	224.2	213.3	197.1	192.3
37.5°	212.5	210.5	196.7	183.8	177.7
40°	199.2	196.7	181.8	170.1	163.6
42.5°	186.6	183.4	168.9	156.3	149.1
45°	173.3	169.7	155.1	142.2	136.5
47.5°	160.0	156.7	143.4	130.1	123.6
50°	145.8	143.0	130.9	117.6	110.7
52.5°	134.1	129.7	118.0	104.6	99.0
55°	120.4	116.7	105.8	93.3	88.5
57.5°	107.9	104.2	94.1	82.4	78.4
60°	96.1	90.9	82.4	72.3	69.1
62.5°	83.2	79.2	71.9	63.4	67.5
65°	71.5	67.5	61.0	62.2	51.7
67.5°	58.6	56.6	50.9	45.2	43.6
70°	47.7	45.2	43.2	37.2	35.5
72.5°	38.0	35.5	32.7	29.5	28.3
75°	28.7	26.7	25.0	23.8	26.3
77.5°	19.8	19.0	17.8	16.6	16.2
80°	12.9	12.5	12.1	11.7	11.3
82.5°	7.7	7.7	7.7	7.7	7.7
85°	4.0	4.4	4.8	5.3	5.7
87.5°	2.4	2.4	2.8	3.2	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)