

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: P558872

Luminaire Tested: FSR-12-1-LD4-1STD-35-UNV-82-88-EDD-90

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558872  
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-82-88-EDD-90  
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI  
LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

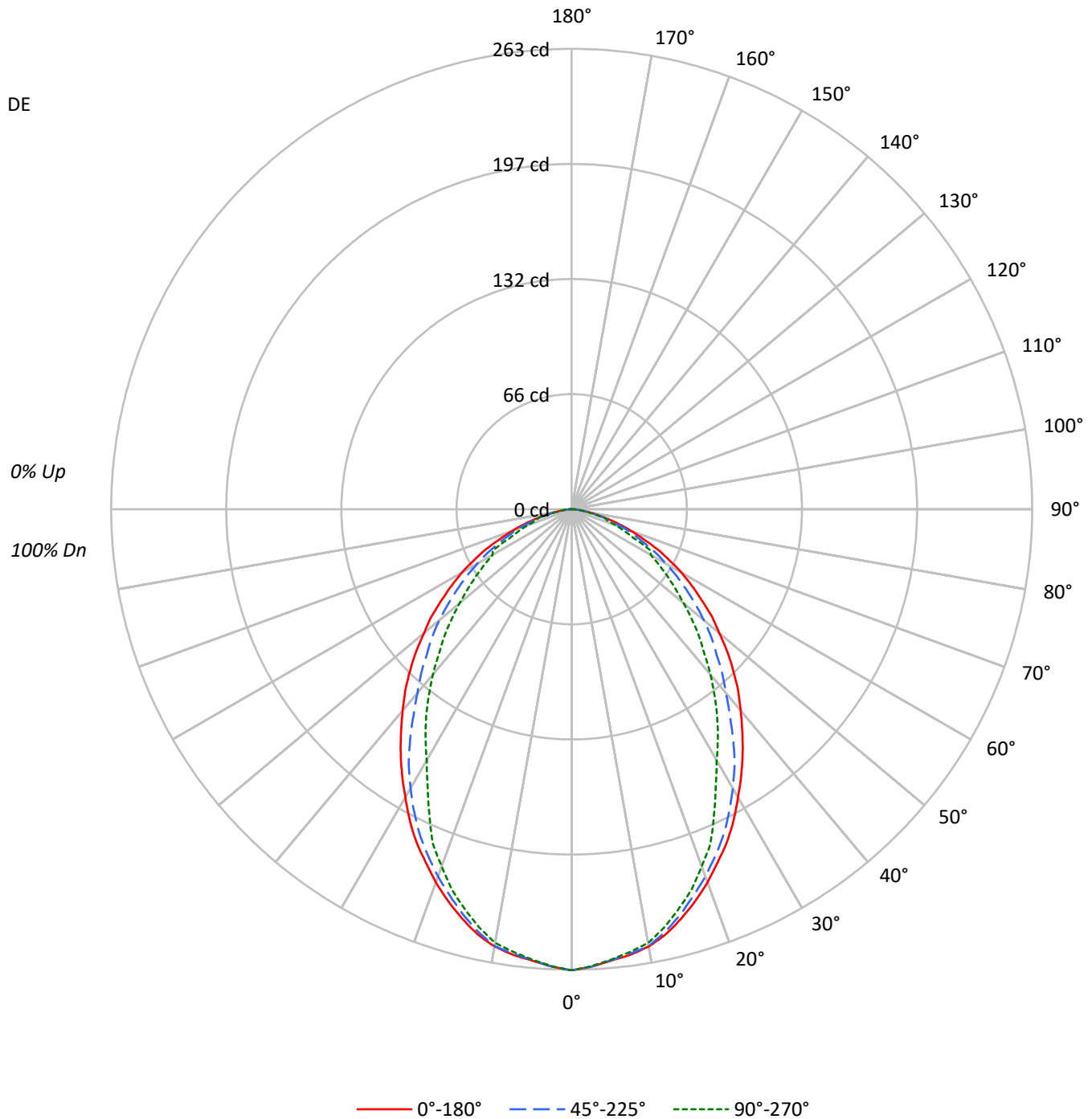
Lumens per Lamp: N/A  
Luminaire Lumens: 517.0 lumens  
Efficiency: N/A  
Efficacy: 62.3 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 8.3  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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°	2835	2835	2835
5°	2796	2793	2790
10°	2772	2769	2749
15°	2697	2670	2633
20°	2598	2557	2487
25°	2492	2437	2285
30°	2362	2286	2058
35°	2236	2113	1904
40°	2109	1925	1733
45°	1988	1780	1566
50°	1840	1651	1397
55°	1702	1498	1252
60°	1561	1337	1122
65°	1373	1172	993
70°	1130	1026	843
75°	898	786	823
80°	601	564	527
85°	371	457	531

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1988 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	24.5	4.7
10°-20°	67.3	13.0
20°-30°	93.1	18.0
30°-40°	99.3	19.2
40°-50°	90.6	17.5
50°-60°	71.0	13.7
60°-70°	46.3	8.9
70°-80°	20.5	4.0
80°-90°	4.4	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°	184.9	35.8
0°-40°	284.3	55.0
0°-60°	445.8	86.2
0°-90°	517.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	517.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	263	263	263	263	263	
5°	259	258	258	258	258	25
15°	242	242	240	237	236	68
25°	210	209	205	198	192	96
35°	170	169	161	149	145	106
45°	131	128	117	107	103	101
55°	91	88	80	70	67	81
65°	54	51	46	47	39	53
75°	22	20	19	18	20	23
85°	3	3	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°	263.4	263.4	263.4	263.4	263.4
2.5°	261.5	261.5	261.5	261.2	261.2
5°	258.8	258.5	258.5	258.2	258.2
7.5°	256.7	256.4	256.0	255.7	255.1
10°	253.6	253.6	253.3	251.8	251.5
12.5°	248.7	248.4	247.2	245.1	244.5
15°	242.0	242.0	239.6	237.2	236.3
17.5°	234.7	234.4	231.4	228.9	227.7
20°	226.8	226.2	223.2	219.2	217.1
22.5°	218.0	218.0	214.3	209.2	207.0
25°	209.8	208.6	205.2	197.9	192.4
27.5°	200.3	198.5	194.9	184.5	178.1
30°	190.0	189.1	183.9	170.5	165.6
32.5°	180.2	178.7	173.2	159.2	155.3
35°	170.2	169.0	160.8	148.6	144.9
37.5°	160.1	158.6	148.3	138.5	134.0
40°	150.1	148.3	137.0	128.2	123.3
42.5°	140.7	138.2	127.3	117.8	112.3
45°	130.6	127.9	116.9	107.2	102.9
47.5°	120.6	118.1	108.1	98.0	93.2
50°	109.9	107.8	98.6	88.6	83.4
52.5°	101.1	97.7	88.9	78.9	74.6
55°	90.7	88.0	79.8	70.3	66.7
57.5°	81.3	78.5	70.9	62.1	59.1
60°	72.5	68.5	62.1	54.5	52.1
62.5°	62.7	59.7	54.2	47.8	50.8
65°	53.9	50.8	46.0	46.9	39.0
67.5°	44.1	42.6	38.4	34.1	32.9
70°	35.9	34.1	32.6	28.0	26.8
72.5°	28.6	26.8	24.7	22.2	21.3
75°	21.6	20.1	18.9	18.0	19.8
77.5°	14.9	14.3	13.4	12.5	12.2
80°	9.7	9.4	9.1	8.8	8.5
82.5°	5.8	5.8	5.8	5.8	5.8
85°	3.0	3.3	3.7	4.0	4.3
87.5°	1.8	1.8	2.1	2.4	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)