

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: P558465

Luminaire Tested: FSR-12-1-LD4-1HI-35-UNV-81-84-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558465  
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-35-UNV-81-84-EDD  
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI  
LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

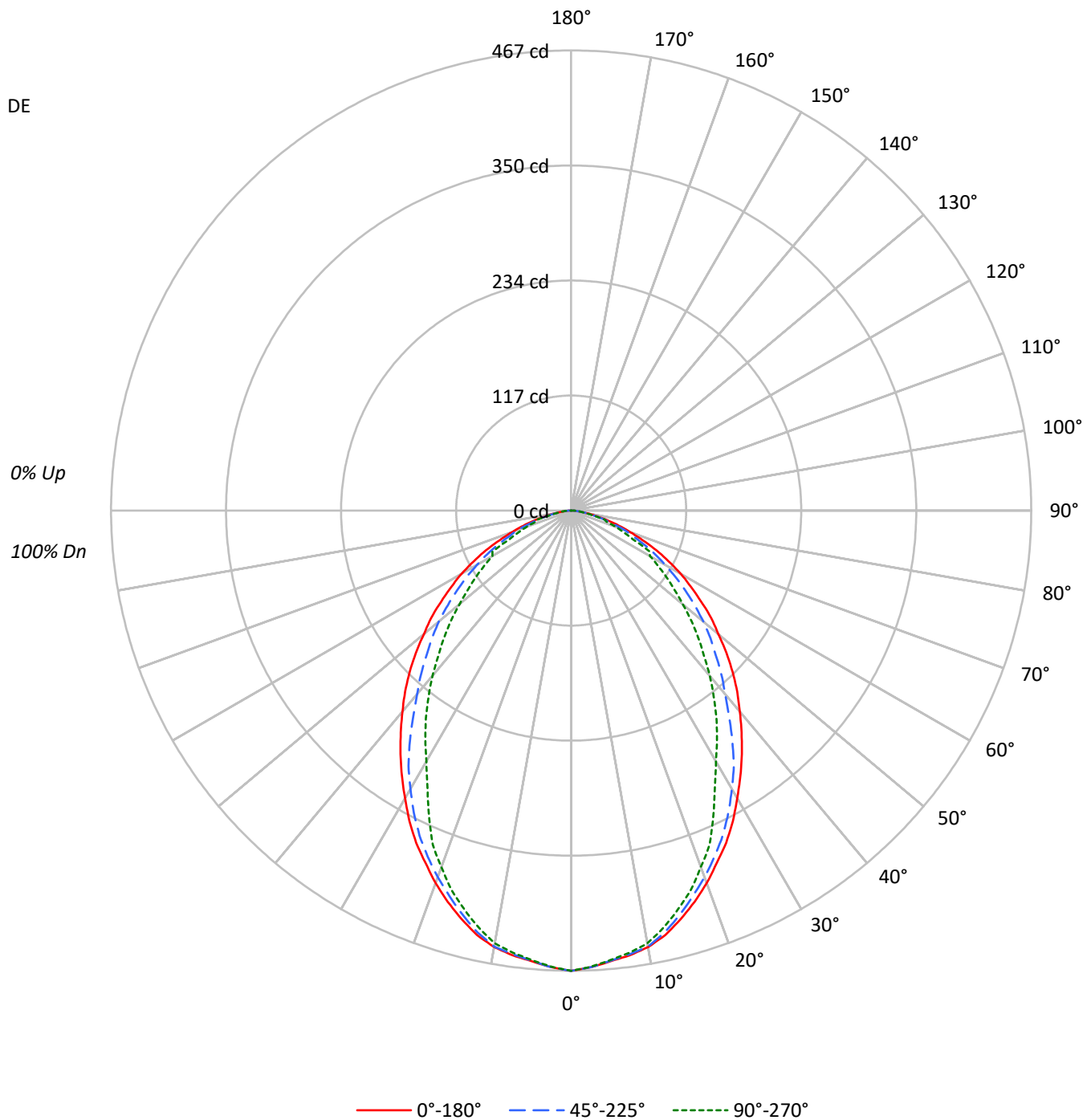
Lumens per Lamp: N/A  
Luminaire Lumens: 917.0 lumens  
Efficiency: N/A  
Efficacy: 84.9 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 10.8  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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°	5028	5028	5028
5°	4960	4954	4948
10°	4916	4911	4875
15°	4784	4736	4669
20°	4608	4534	4410
25°	4419	4323	4054
30°	4189	4054	3652
35°	3967	3746	3377
40°	3740	3414	3073
45°	3527	3157	2778
50°	3264	2930	2478
55°	3019	2655	2220
60°	2766	2372	1987
65°	2435	2076	1760
70°	2005	1819	1495
75°	1593	1393	1460
80°	1072	1004	936
85°	667	803	939

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3527 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.5	4.7
10°-20°	119.3	13.0
20°-30°	165.2	18.0
30°-40°	176.2	19.2
40°-50°	160.7	17.5
50°-60°	125.9	13.7
60°-70°	82.1	8.9
70°-80°	36.4	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°	328.0	35.8
0°-40°	504.2	55.0
0°-60°	790.8	86.2
0°-90°	917.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	917.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	467	467	467	467	467	
5°	459	458	458	458	458	44
15°	429	429	425	421	419	121
25°	372	370	364	351	341	171
35°	302	300	285	264	257	189
45°	232	227	207	190	182	178
55°	161	156	142	125	118	144
65°	96	90	82	83	69	94
75°	38	36	34	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°	467.1	467.1	467.1	467.1	467.1
2.5°	463.9	463.9	463.9	463.3	463.3
5°	459.0	458.5	458.5	457.9	457.9
7.5°	455.2	454.7	454.1	453.6	452.5
10°	449.8	449.8	449.3	446.6	446.0
12.5°	441.2	440.6	438.5	434.7	433.6
15°	429.3	429.3	425.0	420.7	419.0
17.5°	416.3	415.8	410.4	406.1	403.9
20°	402.3	401.2	395.8	388.8	385.0
22.5°	386.6	386.6	380.2	371.0	367.2
25°	372.1	369.9	364.0	351.0	341.3
27.5°	355.3	352.1	345.6	327.2	315.9
30°	337.0	335.3	326.2	302.4	293.8
32.5°	319.7	317.0	307.3	282.4	275.4
35°	301.9	299.7	285.1	263.5	257.0
37.5°	284.0	281.3	263.0	245.7	237.6
40°	266.2	263.0	243.0	227.3	218.7
42.5°	249.5	245.2	225.7	209.0	199.3
45°	231.7	226.8	207.4	190.1	182.5
47.5°	213.8	209.5	191.7	173.9	165.2
50°	194.9	191.2	175.0	157.1	148.0
52.5°	179.3	173.3	157.7	139.9	132.3
55°	160.9	156.1	141.5	124.7	118.3
57.5°	144.2	139.3	125.8	110.2	104.8
60°	128.5	121.5	110.2	96.7	92.3
62.5°	111.2	105.8	96.1	84.8	90.2
65°	95.6	90.2	81.5	83.2	69.1
67.5°	78.3	75.6	68.0	60.5	58.3
70°	63.7	60.5	57.8	49.7	47.5
72.5°	50.8	47.5	43.7	39.4	37.8
75°	38.3	35.6	33.5	31.9	35.1
77.5°	26.5	25.4	23.8	22.1	21.6
80°	17.3	16.7	16.2	15.7	15.1
82.5°	10.3	10.3	10.3	10.3	10.3
85°	5.4	5.9	6.5	7.0	7.6
87.5°	3.2	3.2	3.8	4.3	4.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)