

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: P558664

Luminaire Tested: FSR-12-1-LD4-1LO-35-UNV-81-88-EDD-90

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558664  
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-35-UNV-81-88-EDD-90  
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI  
LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

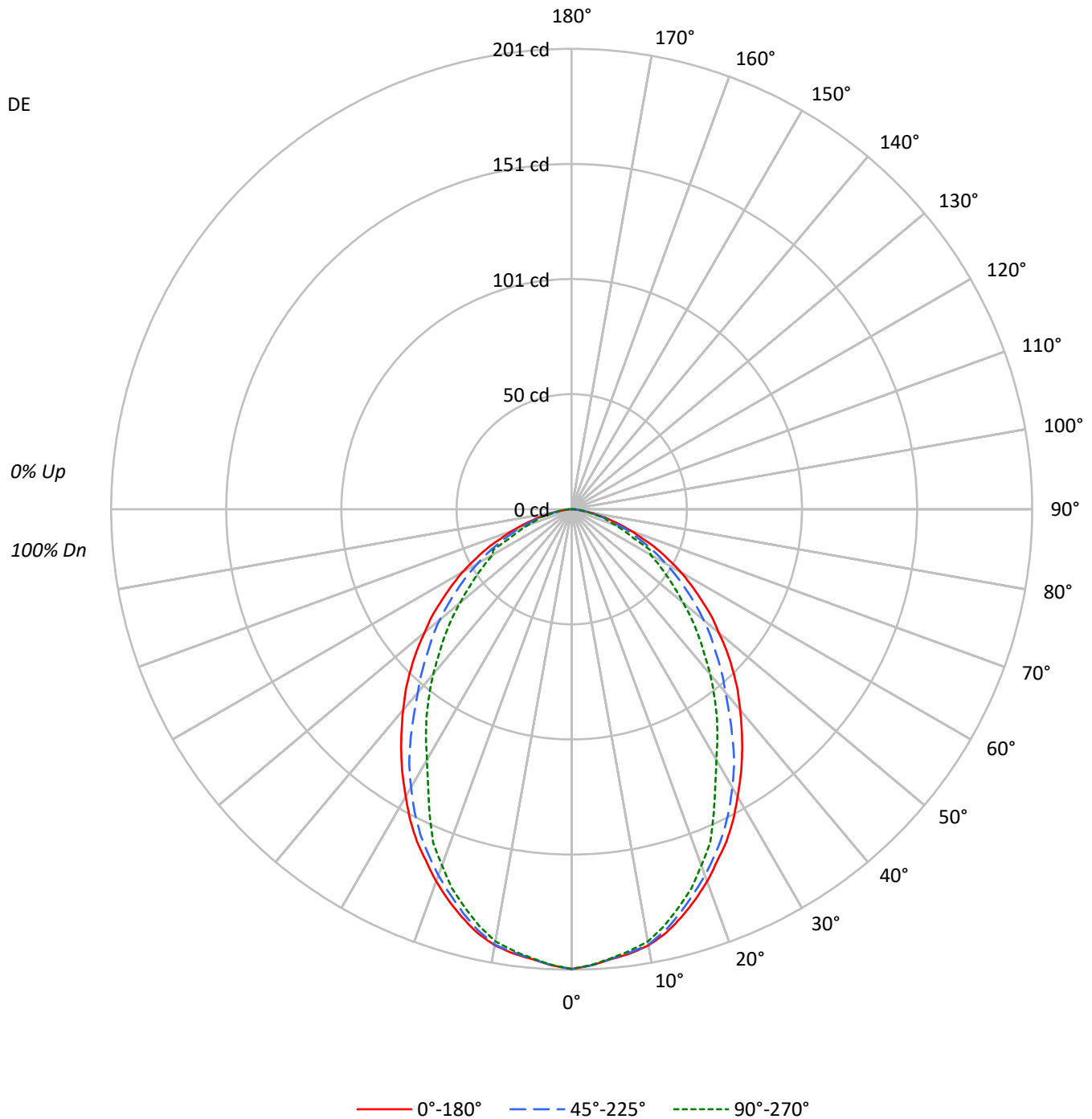
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 394.0 lumens  
Efficiency: N/A  
Efficacy: 67.9 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	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°	2160	2160	2160
5°	2131	2129	2126
10°	2113	2109	2094
15°	2056	2035	2006
20°	1981	1948	1895
25°	1899	1858	1741
30°	1800	1741	1569
35°	1704	1610	1451
40°	1607	1467	1321
45°	1515	1356	1193
50°	1403	1259	1065
55°	1297	1141	953
60°	1188	1018	855
65°	1047	891	756
70°	862	780	642
75°	686	599	628
80°	459	434	403
85°	284	346	395

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1515 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	18.7	4.7
10°-20°	51.3	13.0
20°-30°	71.0	18.0
30°-40°	75.7	19.2
40°-50°	69.0	17.5
50°-60°	54.1	13.7
60°-70°	35.2	8.9
70°-80°	15.6	4.0
80°-90°	3.4	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°	140.9	35.8
0°-40°	216.6	55.0
0°-60°	339.8	86.2
0°-90°	394.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	394.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	201	201	201	201	201	
5°	197	197	197	197	197	19
15°	184	184	183	181	180	52
25°	160	159	156	151	147	73
35°	130	129	122	113	110	81
45°	100	97	89	82	78	77
55°	69	67	61	54	51	62
65°	41	39	35	36	30	40
75°	16	15	14	14	15	18
85°	2	3	3	3	3	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	200.7	200.7	200.7	200.7	200.7
2.5°	199.3	199.3	199.3	199.1	199.1
5°	197.2	197.0	197.0	196.8	196.8
7.5°	195.6	195.4	195.1	194.9	194.4
10°	193.3	193.3	193.0	191.9	191.6
12.5°	189.6	189.3	188.4	186.8	186.3
15°	184.5	184.5	182.6	180.7	180.0
17.5°	178.9	178.7	176.3	174.5	173.6
20°	172.9	172.4	170.1	167.1	165.4
22.5°	166.1	166.1	163.3	159.4	157.8
25°	159.9	158.9	156.4	150.8	146.6
27.5°	152.7	151.3	148.5	140.6	135.7
30°	144.8	144.1	140.1	129.9	126.2
32.5°	137.4	136.2	132.0	121.3	118.3
35°	129.7	128.8	122.5	113.2	110.4
37.5°	122.0	120.9	113.0	105.6	102.1
40°	114.4	113.0	104.4	97.7	94.0
42.5°	107.2	105.3	97.0	89.8	85.6
45°	99.5	97.4	89.1	81.7	78.4
47.5°	91.9	90.0	82.4	74.7	71.0
50°	83.8	82.1	75.2	67.5	63.6
52.5°	77.0	74.5	67.8	60.1	56.8
55°	69.1	67.1	60.8	53.6	50.8
57.5°	61.9	59.9	54.1	47.3	45.0
60°	55.2	52.2	47.3	41.5	39.7
62.5°	47.8	45.5	41.3	36.4	38.7
65°	41.1	38.7	35.0	35.7	29.7
67.5°	33.6	32.5	29.2	26.0	25.1
70°	27.4	26.0	24.8	21.3	20.4
72.5°	21.8	20.4	18.8	16.9	16.2
75°	16.5	15.3	14.4	13.7	15.1
77.5°	11.4	10.9	10.2	9.5	9.3
80°	7.4	7.2	7.0	6.7	6.5
82.5°	4.4	4.4	4.4	4.4	4.4
85°	2.3	2.6	2.8	3.0	3.2
87.5°	1.4	1.4	1.6	1.9	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)