

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: P558596

Luminaire Tested: FSR-12-1-LD4-1HI-50-UNV-81-86-EDD-90

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558596  
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-50-UNV-81-86-EDD-90  
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI  
LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

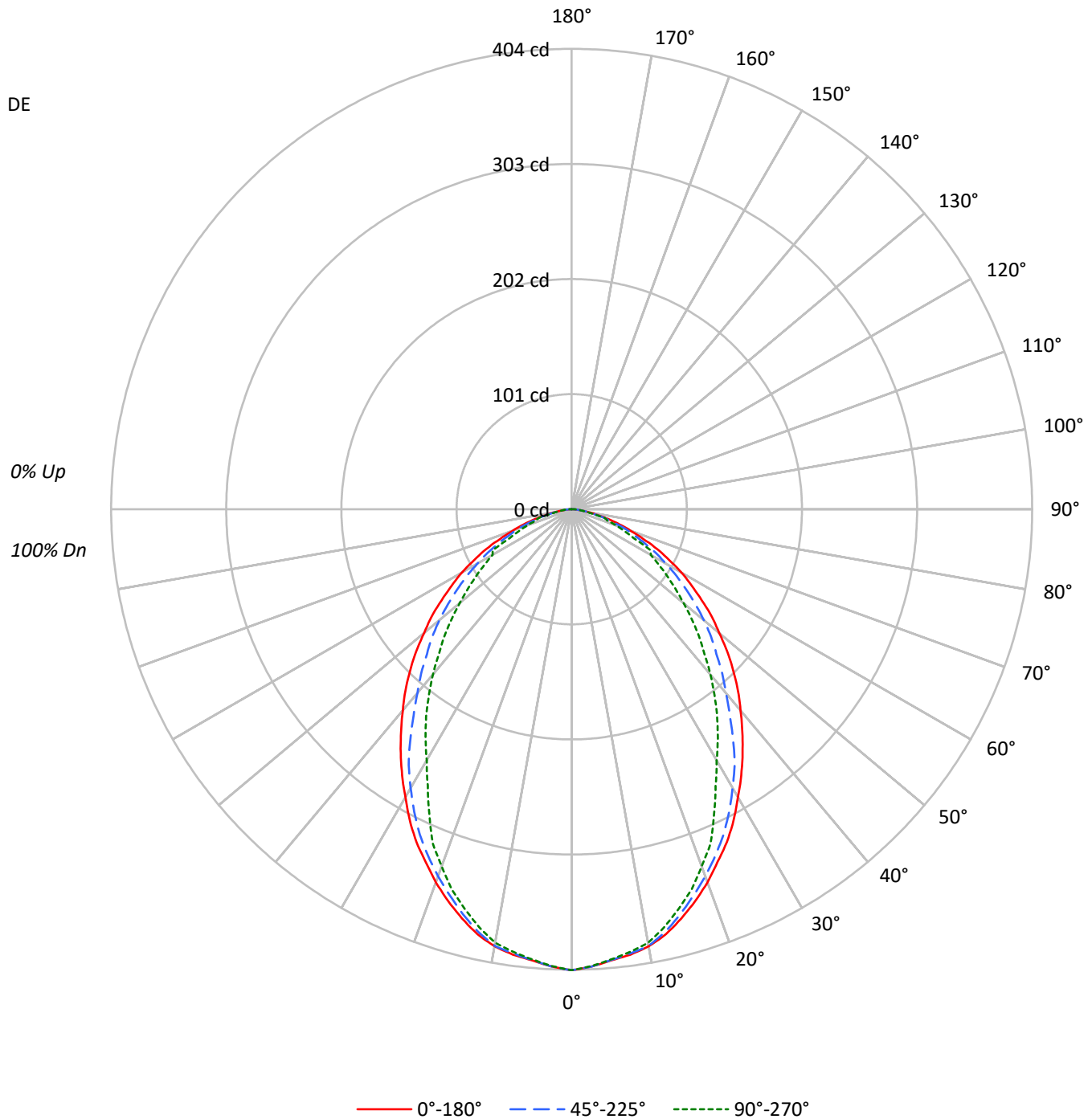
Lumens per Lamp: N/A  
Luminaire Lumens: 794.0 lumens  
Efficiency: N/A  
Efficacy: 73.5 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 10.8  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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°	4354	4354	4354
5°	4294	4290	4284
10°	4257	4252	4221
15°	4142	4101	4043
20°	3990	3926	3819
25°	3827	3742	3510
30°	3627	3510	3162
35°	3435	3244	2925
40°	3239	2956	2661
45°	3054	2732	2405
50°	2827	2537	2145
55°	2614	2299	1922
60°	2396	2054	1722
65°	2109	1798	1523
70°	1737	1574	1293
75°	1381	1206	1264
80°	930	868	812
85°	580	692	803

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3054 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.6	4.7
10°-20°	103.3	13.0
20°-30°	143.0	18.0
30°-40°	152.5	19.2
40°-50°	139.2	17.5
50°-60°	109.0	13.7
60°-70°	71.0	8.9
70°-80°	31.5	4.0
80°-90°	6.8	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°	284.0	35.8
0°-40°	436.5	55.0
0°-60°	684.7	86.2
0°-90°	794.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	794.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	404	404	404	404	404	
5°	397	397	397	396	396	38
15°	372	372	368	364	363	104
25°	322	320	315	304	296	148
35°	261	260	247	228	223	163
45°	201	196	180	165	158	155
55°	139	135	122	108	102	125
65°	83	78	71	72	60	82
75°	33	31	29	28	30	36
85°	5	5	6	6	6	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	404.5	404.5	404.5	404.5	404.5
2.5°	401.6	401.6	401.6	401.2	401.2
5°	397.4	397.0	397.0	396.5	396.5
7.5°	394.2	393.7	393.2	392.8	391.8
10°	389.5	389.5	389.0	386.7	386.2
12.5°	382.0	381.5	379.7	376.4	375.5
15°	371.7	371.7	368.0	364.2	362.8
17.5°	360.5	360.0	355.4	351.6	349.7
20°	348.3	347.4	342.7	336.7	333.4
22.5°	334.8	334.8	329.2	321.2	318.0
25°	322.2	320.3	315.1	303.9	295.5
27.5°	307.7	304.9	299.2	283.4	273.5
30°	291.8	290.4	282.4	261.8	254.4
32.5°	276.8	274.5	266.1	244.5	238.5
35°	261.4	259.5	246.9	228.2	222.6
37.5°	245.9	243.6	227.7	212.7	205.7
40°	230.5	227.7	210.4	196.8	189.4
42.5°	216.0	212.3	195.4	181.0	172.5
45°	200.6	196.4	179.5	164.6	158.0
47.5°	185.2	181.4	166.0	150.6	143.1
50°	168.8	165.5	151.5	136.1	128.1
52.5°	155.2	150.1	136.5	121.1	114.6
55°	139.3	135.1	122.5	108.0	102.4
57.5°	124.8	120.6	108.9	95.4	90.7
60°	111.3	105.2	95.4	83.7	80.0
62.5°	96.3	91.6	83.2	73.4	78.1
65°	82.8	78.1	70.6	72.0	59.8
67.5°	67.8	65.5	58.9	52.4	50.5
70°	55.2	52.4	50.0	43.0	41.1
72.5°	44.0	41.1	37.9	34.1	32.7
75°	33.2	30.9	29.0	27.6	30.4
77.5°	22.9	22.0	20.6	19.2	18.7
80°	15.0	14.5	14.0	13.6	13.1
82.5°	8.9	8.9	8.9	8.9	8.9
85°	4.7	5.1	5.6	6.1	6.5
87.5°	2.8	2.8	3.3	3.7	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)