

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: P558816

Luminaire Tested: FSR-12-1-LD4-1LO-50-UNV-93-84-EDD-90

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558816  
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-50-UNV-93-84-EDD-90  
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

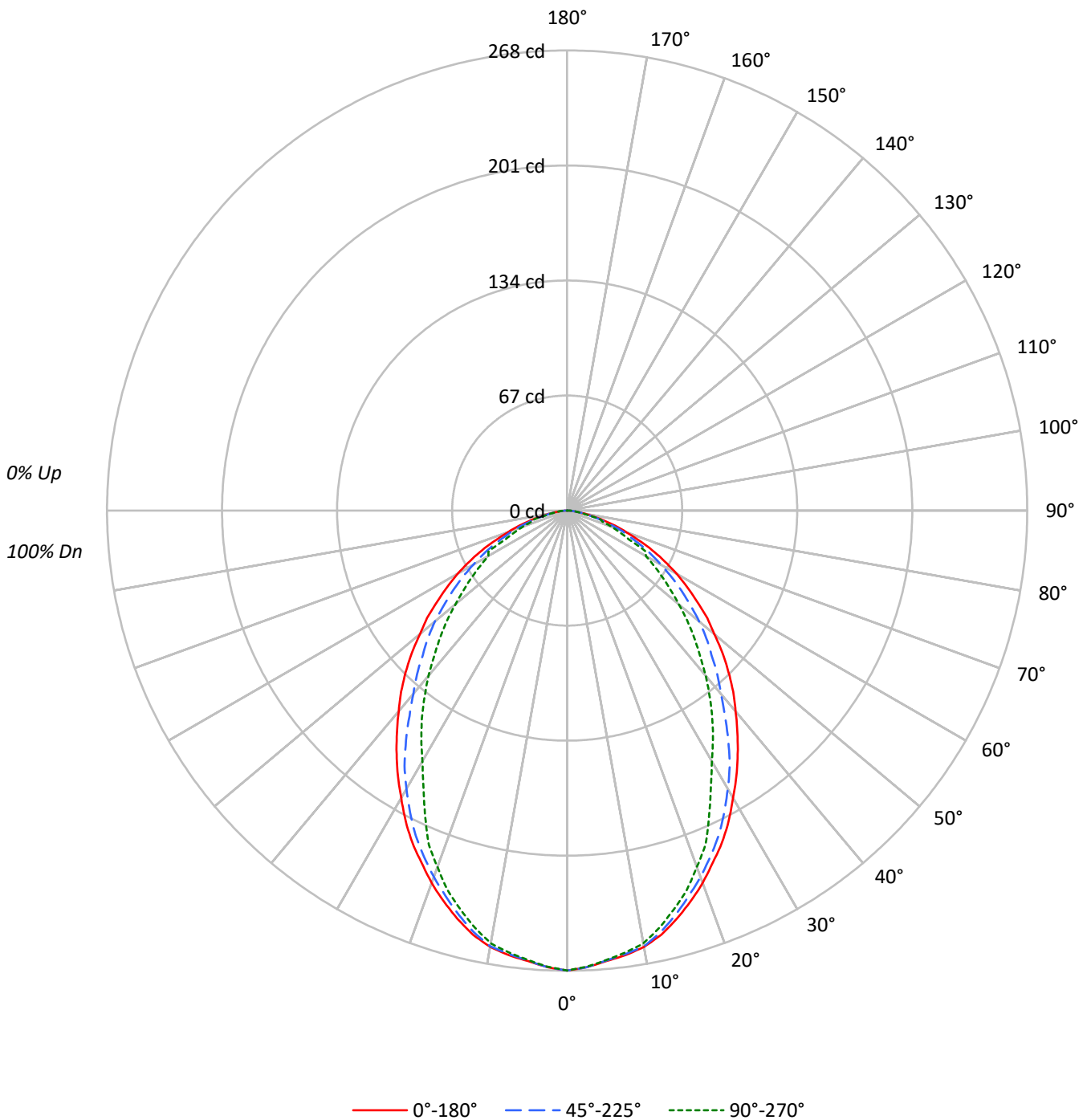
Lumens per Lamp: N/A  
Luminaire Lumens: 526.0 lumens  
Efficiency: N/A  
Efficacy: 90.7 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 5.8  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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°	2884	2884	2884
5°	2845	2842	2838
10°	2820	2817	2797
15°	2745	2717	2679
20°	2644	2600	2530
25°	2534	2480	2325
30°	2403	2325	2094
35°	2276	2150	1937
40°	2146	1959	1763
45°	2023	1810	1594
50°	1872	1681	1422
55°	1732	1524	1272
60°	1587	1361	1141
65°	1396	1192	1009
70°	1152	1042	859
75°	915	799	836
80°	614	576	539
85°	383	457	531

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2023 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	24.9	4.7
10°-20°	68.5	13.0
20°-30°	94.8	18.0
30°-40°	101.1	19.2
40°-50°	92.2	17.5
50°-60°	72.2	13.7
60°-70°	47.1	8.9
70°-80°	20.9	4.0
80°-90°	4.5	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°	188.2	35.8
0°-40°	289.2	55.0
0°-60°	453.6	86.2
0°-90°	526.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	526.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	268	268	268	268	268	
5°	263	263	263	263	263	25
15°	246	246	244	241	240	69
25°	213	212	209	201	196	98
35°	173	172	164	151	147	108
45°	133	130	119	109	105	102
55°	92	90	81	72	68	83
65°	55	52	47	48	40	54
75°	22	20	19	18	20	24
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°	267.9	267.9	267.9	267.9	267.9
2.5°	266.1	266.1	266.1	265.8	265.8
5°	263.3	263.0	263.0	262.7	262.7
7.5°	261.1	260.8	260.5	260.2	259.6
10°	258.0	258.0	257.7	256.2	255.9
12.5°	253.1	252.8	251.5	249.4	248.7
15°	246.3	246.3	243.8	241.3	240.4
17.5°	238.8	238.5	235.4	232.9	231.7
20°	230.8	230.1	227.0	223.0	220.9
22.5°	221.8	221.8	218.1	212.8	210.6
25°	213.4	212.2	208.8	201.3	195.8
27.5°	203.8	202.0	198.2	187.7	181.2
30°	193.3	192.4	187.1	173.5	168.5
32.5°	183.4	181.8	176.3	162.0	158.0
35°	173.2	171.9	163.6	151.2	147.4
37.5°	162.9	161.4	150.9	140.9	136.3
40°	152.7	150.9	139.4	130.4	125.5
42.5°	143.1	140.6	129.5	119.9	114.3
45°	132.9	130.1	118.9	109.0	104.7
47.5°	122.7	120.2	110.0	99.7	94.8
50°	111.8	109.7	100.4	90.1	84.9
52.5°	102.8	99.4	90.4	80.2	75.9
55°	92.3	89.5	81.2	71.6	67.8
57.5°	82.7	79.9	72.2	63.2	60.1
60°	73.7	69.7	63.2	55.4	53.0
62.5°	63.8	60.7	55.1	48.6	51.7
65°	54.8	51.7	46.8	47.7	39.6
67.5°	44.9	43.4	39.0	34.7	33.5
70°	36.6	34.7	33.1	28.5	27.3
72.5°	29.1	27.3	25.1	22.6	21.7
75°	22.0	20.4	19.2	18.3	20.1
77.5°	15.2	14.6	13.6	12.7	12.4
80°	9.9	9.6	9.3	9.0	8.7
82.5°	5.9	5.9	5.9	5.9	5.9
85°	3.1	3.4	3.7	4.0	4.3
87.5°	1.9	1.9	2.2	2.5	2.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)