

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: P558829

Luminaire Tested: FSR-12-1-LD4-1LO-50-UNV-93-96-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558829  
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-93-96-EDD  
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPER  
GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

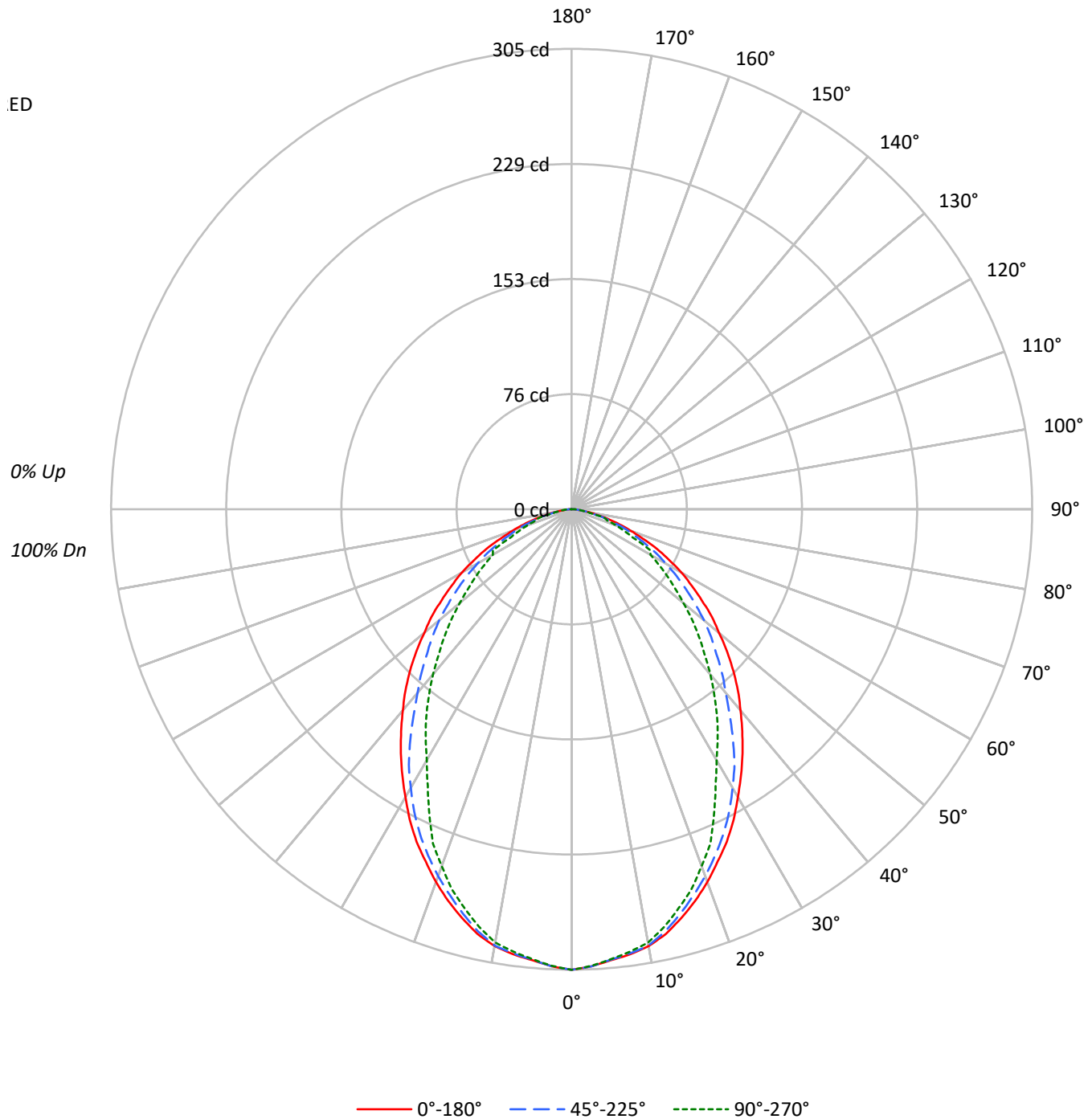
Lumens per Lamp: N/A  
Luminaire Lumens: 599.0 lumens  
Efficiency: N/A  
Efficacy: 103.3 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 5.8  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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°	3284	3284	3284
5°	3239	3236	3232
10°	3211	3208	3185
15°	3125	3093	3050
20°	3010	2962	2881
25°	2886	2823	2647
30°	2736	2649	2385
35°	2591	2447	2206
40°	2444	2230	2008
45°	2303	2063	1815
50°	2132	1914	1619
55°	1972	1734	1451
60°	1808	1550	1298
65°	1589	1358	1151
70°	1309	1186	976
75°	1040	911	952
80°	700	657	614
85°	432	519	605

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2303 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.4	4.7
10°-20°	78.0	13.0
20°-30°	107.9	18.0
30°-40°	115.1	19.2
40°-50°	105.0	17.5
50°-60°	82.2	13.7
60°-70°	53.6	8.9
70°-80°	23.8	4.0
80°-90°	5.1	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°	214.3	35.8
0°-40°	329.3	55.0
0°-60°	516.6	86.2
0°-90°	599.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	599.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	305	305	305	305	305	
5°	300	300	300	299	299	28
15°	280	280	278	275	274	79
25°	243	242	238	229	223	112
35°	197	196	186	172	168	123
45°	151	148	136	124	119	117
55°	105	102	92	82	77	94
65°	62	59	53	54	45	62
75°	25	23	22	21	23	27
85°	4	4	4	5	5	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	305.1	305.1	305.1	305.1	305.1
2.5°	303.0	303.0	303.0	302.7	302.7
5°	299.8	299.5	299.5	299.1	299.1
7.5°	297.4	297.0	296.7	296.3	295.6
10°	293.8	293.8	293.5	291.7	291.4
12.5°	288.2	287.8	286.4	284.0	283.3
15°	280.4	280.4	277.6	274.8	273.7
17.5°	272.0	271.6	268.1	265.3	263.9
20°	262.8	262.1	258.6	254.0	251.5
22.5°	252.6	252.6	248.3	242.3	239.9
25°	243.0	241.6	237.7	229.3	222.9
27.5°	232.1	230.0	225.8	213.8	206.4
30°	220.1	219.1	213.1	197.5	191.9
32.5°	208.8	207.1	200.7	184.5	179.9
35°	197.2	195.8	186.2	172.1	167.9
37.5°	185.5	183.8	171.8	160.5	155.2
40°	173.9	171.8	158.7	148.5	142.9
42.5°	163.0	160.1	147.4	136.5	130.2
45°	151.3	148.2	135.5	124.2	119.2
47.5°	139.7	136.9	125.2	113.6	107.9
50°	127.3	124.9	114.3	102.6	96.7
52.5°	117.1	113.2	103.0	91.4	86.4
55°	105.1	101.9	92.4	81.5	77.3
57.5°	94.2	91.0	82.2	72.0	68.4
60°	84.0	79.4	72.0	63.1	60.3
62.5°	72.7	69.1	62.8	55.4	58.9
65°	62.4	58.9	53.3	54.3	45.2
67.5°	51.1	49.4	44.4	39.5	38.1
70°	41.6	39.5	37.7	32.5	31.0
72.5°	33.2	31.0	28.6	25.8	24.7
75°	25.0	23.3	21.9	20.8	22.9
77.5°	17.3	16.6	15.5	14.5	14.1
80°	11.3	10.9	10.6	10.2	9.9
82.5°	6.7	6.7	6.7	6.7	6.7
85°	3.5	3.9	4.2	4.6	4.9
87.5°	2.1	2.1	2.5	2.8	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)