

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: P558567

Luminaire Tested: FSR-12-1-LD4-1HI-40-UNV-93-87-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558567  
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-40-UNV-93-87-EDD  
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

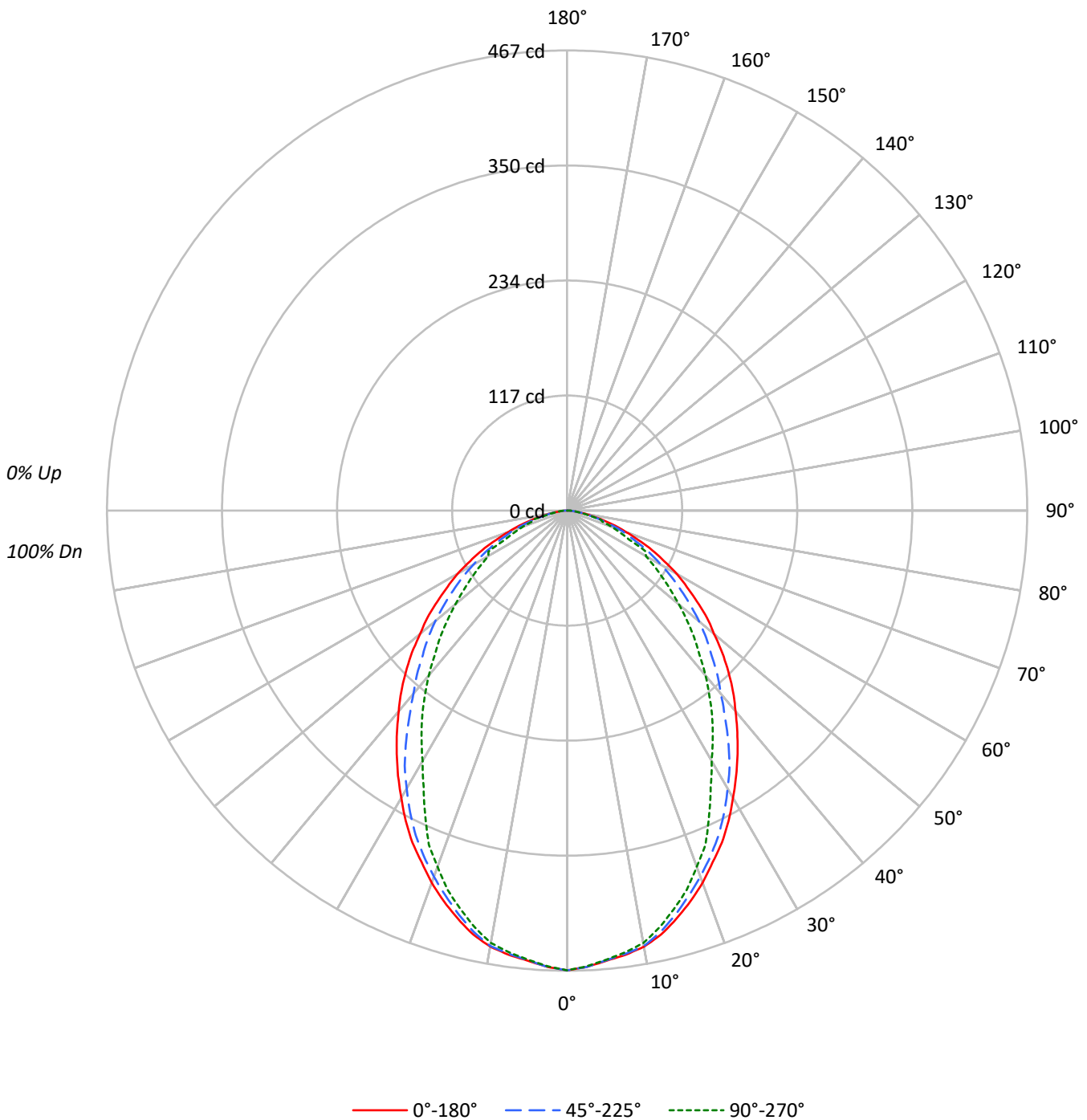
Lumens per Lamp: N/A  
Luminaire Lumens: 916.0 lumens  
Efficiency: N/A  
Efficacy: 84.8 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 10.8  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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°	5022	5022	5022
5°	4954	4949	4942
10°	4911	4905	4870
15°	4778	4730	4665
20°	4604	4529	4405
25°	4415	4318	4049
30°	4184	4049	3647
35°	3962	3742	3374
40°	3736	3410	3070
45°	3522	3153	2775
50°	3260	2927	2475
55°	3016	2652	2216
60°	2764	2368	1985
65°	2432	2076	1757
70°	2005	1816	1495
75°	1593	1389	1460
80°	1072	1004	936
85°	667	803	939

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3522 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.4	4.7
10°-20°	119.2	13.0
20°-30°	165.0	18.0
30°-40°	176.0	19.2
40°-50°	160.5	17.5
50°-60°	125.8	13.7
60°-70°	82.0	8.9
70°-80°	36.3	4.0
80°-90°	7.8	0.8
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°	327.7	35.8
0°-40°	503.6	55.0
0°-60°	789.9	86.2
0°-90°	916.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	916.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	467	467	467	467	467	
5°	458	458	458	457	457	44
15°	429	429	424	420	419	121
25°	372	370	364	351	341	171
35°	302	299	285	263	257	188
45°	231	227	207	190	182	178
55°	161	156	141	125	118	144
65°	96	90	82	83	69	94
75°	38	36	33	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°	466.6	466.6	466.6	466.6	466.6
2.5°	463.4	463.4	463.4	462.8	462.8
5°	458.5	458.0	458.0	457.4	457.4
7.5°	454.7	454.2	453.7	453.1	452.0
10°	449.3	449.3	448.8	446.1	445.6
12.5°	440.7	440.2	438.0	434.2	433.2
15°	428.8	428.8	424.5	420.2	418.6
17.5°	415.9	415.4	410.0	405.6	403.5
20°	401.9	400.8	395.4	388.4	384.6
22.5°	386.2	386.2	379.8	370.6	366.8
25°	371.7	369.5	363.6	350.6	340.9
27.5°	354.9	351.7	345.2	326.9	315.6
30°	336.6	335.0	325.8	302.1	293.4
32.5°	319.3	316.6	306.9	282.1	275.1
35°	301.5	299.4	284.8	263.2	256.8
37.5°	283.7	281.0	262.7	245.4	237.3
40°	265.9	262.7	242.7	227.1	218.5
42.5°	249.2	244.9	225.5	208.8	199.0
45°	231.4	226.6	207.1	189.9	182.3
47.5°	213.6	209.3	191.5	173.7	165.1
50°	194.7	191.0	174.8	157.0	147.8
52.5°	179.1	173.2	157.5	139.7	132.2
55°	160.7	155.9	141.3	124.6	118.1
57.5°	144.0	139.2	125.7	110.0	104.6
60°	128.4	121.4	110.0	96.6	92.2
62.5°	111.1	105.7	96.0	84.7	90.1
65°	95.5	90.1	81.5	83.1	69.0
67.5°	78.2	75.5	68.0	60.4	58.3
70°	63.7	60.4	57.7	49.6	47.5
72.5°	50.7	47.5	43.7	39.4	37.8
75°	38.3	35.6	33.4	31.8	35.1
77.5°	26.4	25.4	23.7	22.1	21.6
80°	17.3	16.7	16.2	15.6	15.1
82.5°	10.2	10.2	10.2	10.2	10.2
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)