

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: P559167

Luminaire Tested: FSR-12-1-LD4-2HI-50-UNV-80-97-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P559167  
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-LD4-2HI-50-UNV-80-97-EDD  
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

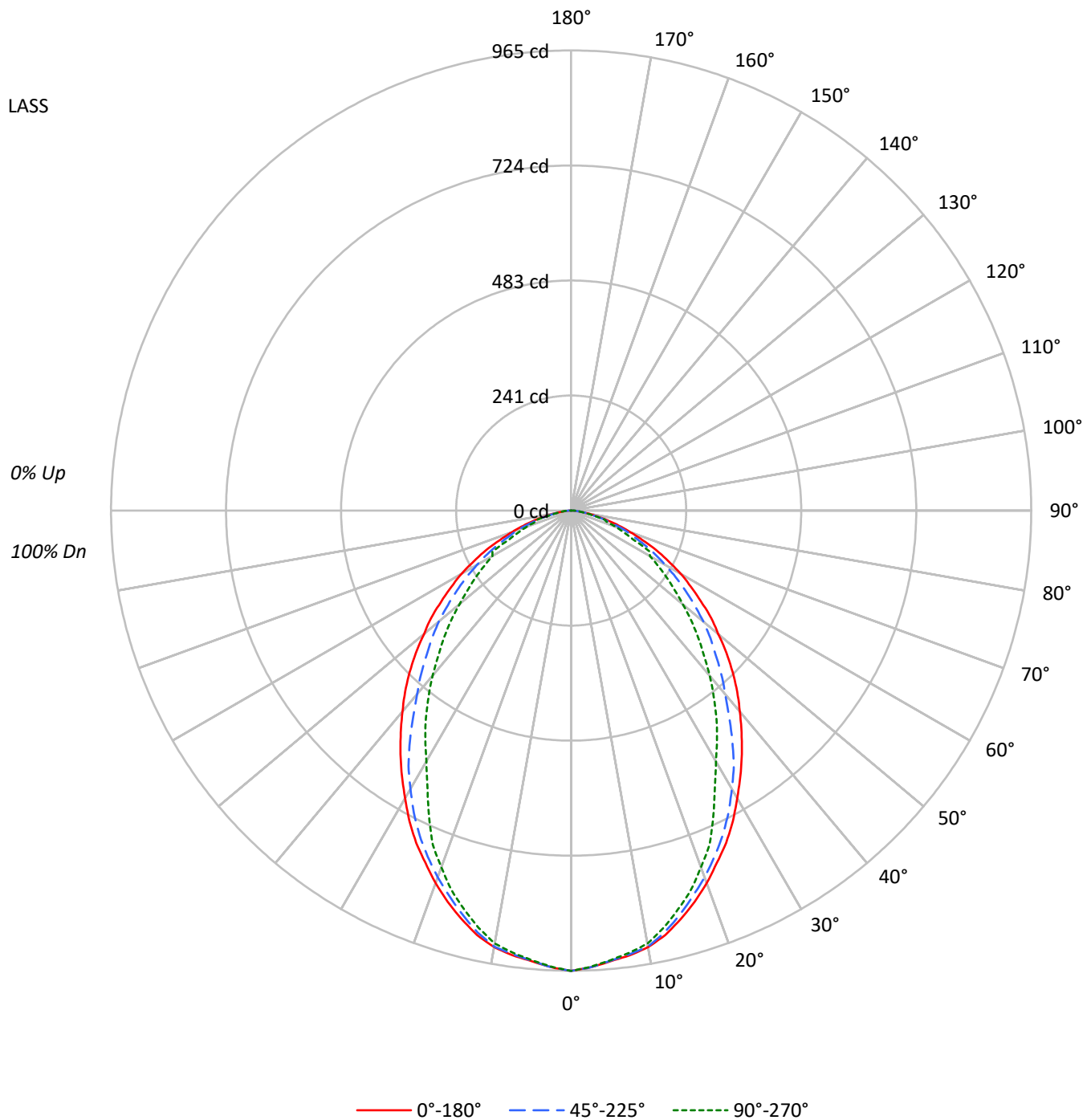
Lumens per Lamp: N/A  
Luminaire Lumens: 1895.0 lumens  
Efficiency: N/A  
Efficacy: 87.7 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 21.6  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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°	10390	10390	10390
5°	10249	10237	10225
10°	10160	10148	10075
15°	9887	9786	9650
20°	9523	9370	9115
25°	9132	8932	8377
30°	8654	8377	7546
35°	8197	7742	6980
40°	7731	7057	6351
45°	7287	6523	5742
50°	6747	6055	5121
55°	6240	5487	4586
60°	5718	4902	4108
65°	5030	4292	3637
70°	4145	3758	3091
75°	3294	2878	3015
80°	2213	2077	1934
85°	1383	1655	1927

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7287 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.9	4.7
10°-20°	246.6	13.0
20°-30°	341.4	18.0
30°-40°	364.0	19.2
40°-50°	332.1	17.5
50°-60°	260.2	13.7
60°-70°	169.6	8.9
70°-80°	75.1	4.0
80°-90°	16.1	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°	677.9	35.8
0°-40°	1041.9	55.0
0°-60°	1634.2	86.2
0°-90°	1895.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1895.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	965	965	965	965	965	
5°	948	947	947	946	946	90
15°	887	887	878	869	866	249
25°	769	764	752	725	705	353
35°	624	619	589	545	531	390
45°	479	469	428	393	377	369
55°	332	322	292	258	244	298
65°	198	186	168	172	143	195
75°	79	74	69	66	72	85
85°	11	12	13	14	16	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	965.3	965.3	965.3	965.3	965.3
2.5°	958.6	958.6	958.6	957.5	957.5
5°	948.5	947.4	947.4	946.3	946.3
7.5°	940.7	939.6	938.5	937.4	935.2
10°	929.6	929.6	928.5	922.9	921.8
12.5°	911.7	910.6	906.1	898.3	896.1
15°	887.2	887.2	878.2	869.3	866.0
17.5°	860.4	859.3	848.1	839.2	834.7
20°	831.4	829.1	818.0	803.5	795.7
22.5°	799.0	799.0	785.6	766.7	758.8
25°	768.9	764.4	752.1	725.4	705.3
27.5°	734.3	727.6	714.2	676.3	652.8
30°	696.3	693.0	674.0	624.9	607.1
32.5°	660.6	655.1	635.0	583.6	569.1
35°	623.8	619.3	589.2	544.6	531.2
37.5°	587.0	581.4	543.5	507.8	491.0
40°	550.2	543.5	502.2	469.8	452.0
42.5°	515.6	506.6	466.5	431.9	411.8
45°	478.7	468.7	428.5	392.8	377.2
47.5°	441.9	433.0	396.2	359.3	341.5
50°	402.9	395.0	361.6	324.7	305.8
52.5°	370.5	358.2	325.9	289.0	273.4
55°	332.5	322.5	292.4	257.8	244.4
57.5°	298.0	287.9	260.0	227.7	216.5
60°	265.6	251.1	227.7	199.8	190.8
62.5°	229.9	218.7	198.6	175.2	186.4
65°	197.5	186.4	168.5	171.9	142.8
67.5°	161.8	156.2	140.6	125.0	120.5
70°	131.7	125.0	119.4	102.7	98.2
72.5°	104.9	98.2	90.4	81.5	78.1
75°	79.2	73.7	69.2	65.8	72.5
77.5°	54.7	52.4	49.1	45.8	44.6
80°	35.7	34.6	33.5	32.4	31.2
82.5°	21.2	21.2	21.2	21.2	21.2
85°	11.2	12.3	13.4	14.5	15.6
87.5°	6.7	6.7	7.8	8.9	10.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)