

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: P559467

Luminaire Tested: FSR-12-1-LD4-2STD-35-UNV-93-94-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P559467  
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-LD4-2STD-35-UNV-93-94-EDD  
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPER  
GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

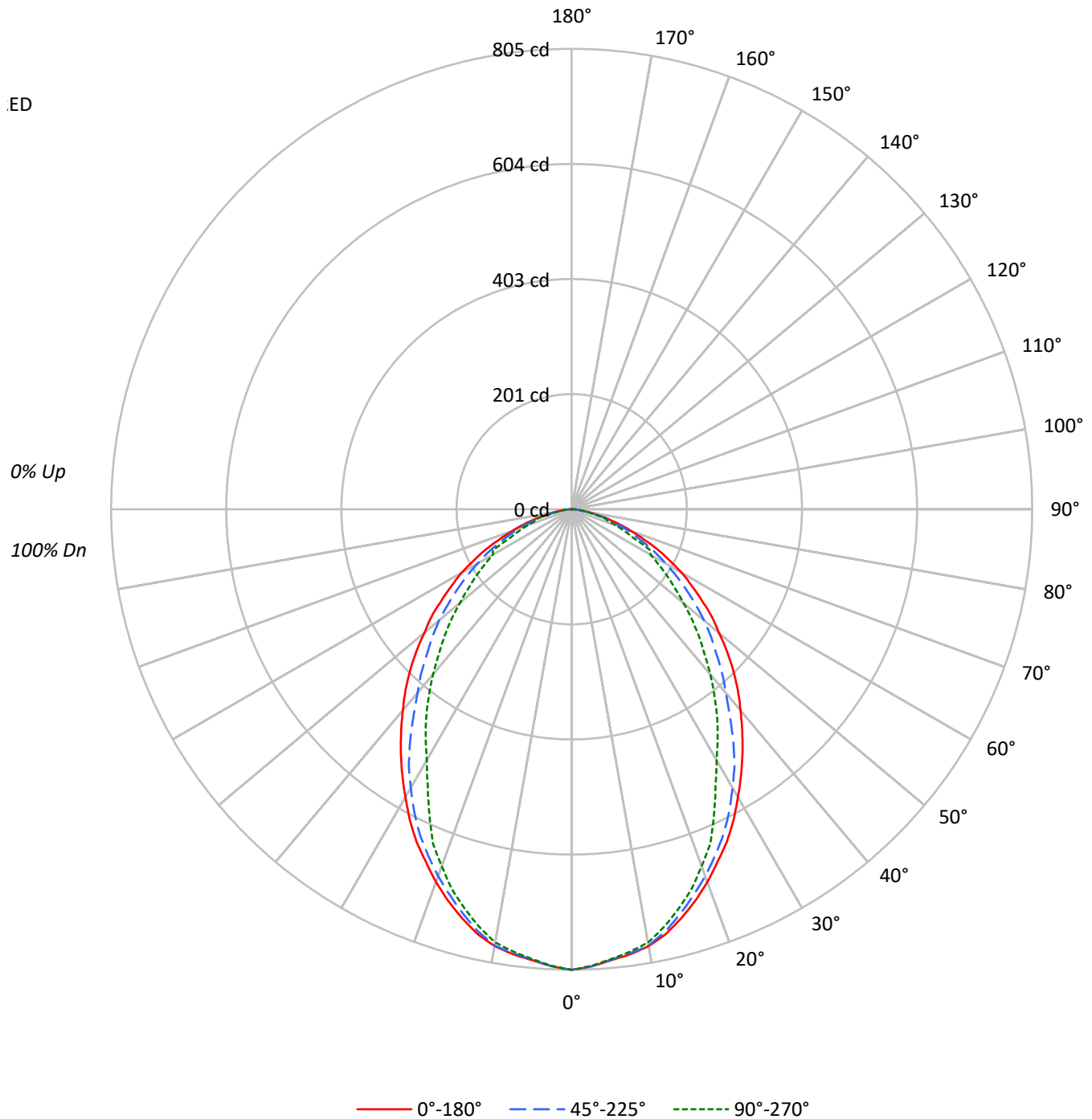
Lumens per Lamp: N/A  
Luminaire Lumens: 1581.0 lumens  
Efficiency: N/A  
Efficacy: 95.2 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 16.6  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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°	8668	8668	8668
5°	8551	8540	8531
10°	8476	8466	8405
15°	8249	8165	8051
20°	7945	7817	7604
25°	7619	7453	6988
30°	7221	6989	6295
35°	6838	6460	5824
40°	6450	5887	5299
45°	6080	5442	4791
50°	5628	5052	4272
55°	5206	4577	3826
60°	4771	4088	3427
65°	4197	3581	3036
70°	3459	3135	2578
75°	2749	2400	2516
80°	1847	1729	1618
85°	1149	1383	1606

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6080 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.0	4.7
10°-20°	205.7	13.0
20°-30°	284.8	18.0
30°-40°	303.7	19.2
40°-50°	277.1	17.5
50°-60°	217.1	13.7
60°-70°	141.5	8.9
70°-80°	62.7	4.0
80°-90°	13.5	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°	565.5	35.8
0°-40°	869.3	55.0
0°-60°	1363.4	86.2
0°-90°	1581.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1581.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	805	805	805	805	805	
5°	791	790	790	790	790	75
15°	740	740	733	725	722	208
25°	642	638	628	605	588	295
35°	520	517	492	454	443	325
45°	399	391	358	328	315	308
55°	277	269	244	215	204	249
65°	165	156	141	143	119	162
75°	66	61	58	55	60	71
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	805.3	805.3	805.3	805.3	805.3
2.5°	799.8	799.8	799.8	798.8	798.8
5°	791.4	790.4	790.4	789.5	789.5
7.5°	784.9	783.9	783.0	782.1	780.2
10°	775.5	775.5	774.6	770.0	769.0
12.5°	760.7	759.7	756.0	749.5	747.6
15°	740.2	740.2	732.7	725.3	722.5
17.5°	717.8	716.9	707.6	700.1	696.4
20°	693.6	691.8	682.4	670.3	663.8
22.5°	666.6	666.6	655.4	639.6	633.1
25°	641.5	637.8	627.5	605.2	588.4
27.5°	612.6	607.0	595.9	564.2	544.7
30°	581.0	578.2	562.3	521.4	506.5
32.5°	551.2	546.5	529.8	486.9	474.8
35°	520.4	516.7	491.6	454.3	443.2
37.5°	489.7	485.1	453.4	423.6	409.7
40°	459.0	453.4	419.0	392.0	377.1
42.5°	430.1	422.7	389.2	360.3	343.5
45°	399.4	391.0	357.5	327.7	314.7
47.5°	368.7	361.2	330.5	299.8	284.9
50°	336.1	329.6	301.7	270.9	255.1
52.5°	309.1	298.9	271.9	241.1	228.1
55°	277.4	269.1	243.9	215.1	203.9
57.5°	248.6	240.2	216.9	189.9	180.6
60°	221.6	209.5	189.9	166.7	159.2
62.5°	191.8	182.5	165.7	146.2	155.5
65°	164.8	155.5	140.6	143.4	119.2
67.5°	135.0	130.3	117.3	104.3	100.6
70°	109.9	104.3	99.6	85.7	81.9
72.5°	87.5	81.9	75.4	68.0	65.2
75°	66.1	61.4	57.7	54.9	60.5
77.5°	45.6	43.8	41.0	38.2	37.2
80°	29.8	28.9	27.9	27.0	26.1
82.5°	17.7	17.7	17.7	17.7	17.7
85°	9.3	10.2	11.2	12.1	13.0
87.5°	5.6	5.6	6.5	7.4	8.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)