

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: P559265

Luminaire Tested: FSR-12-1-LD4-2LO-35-UNV-93-84-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P559265  
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-LD4-2LO-35-UNV-93-84-EDD  
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

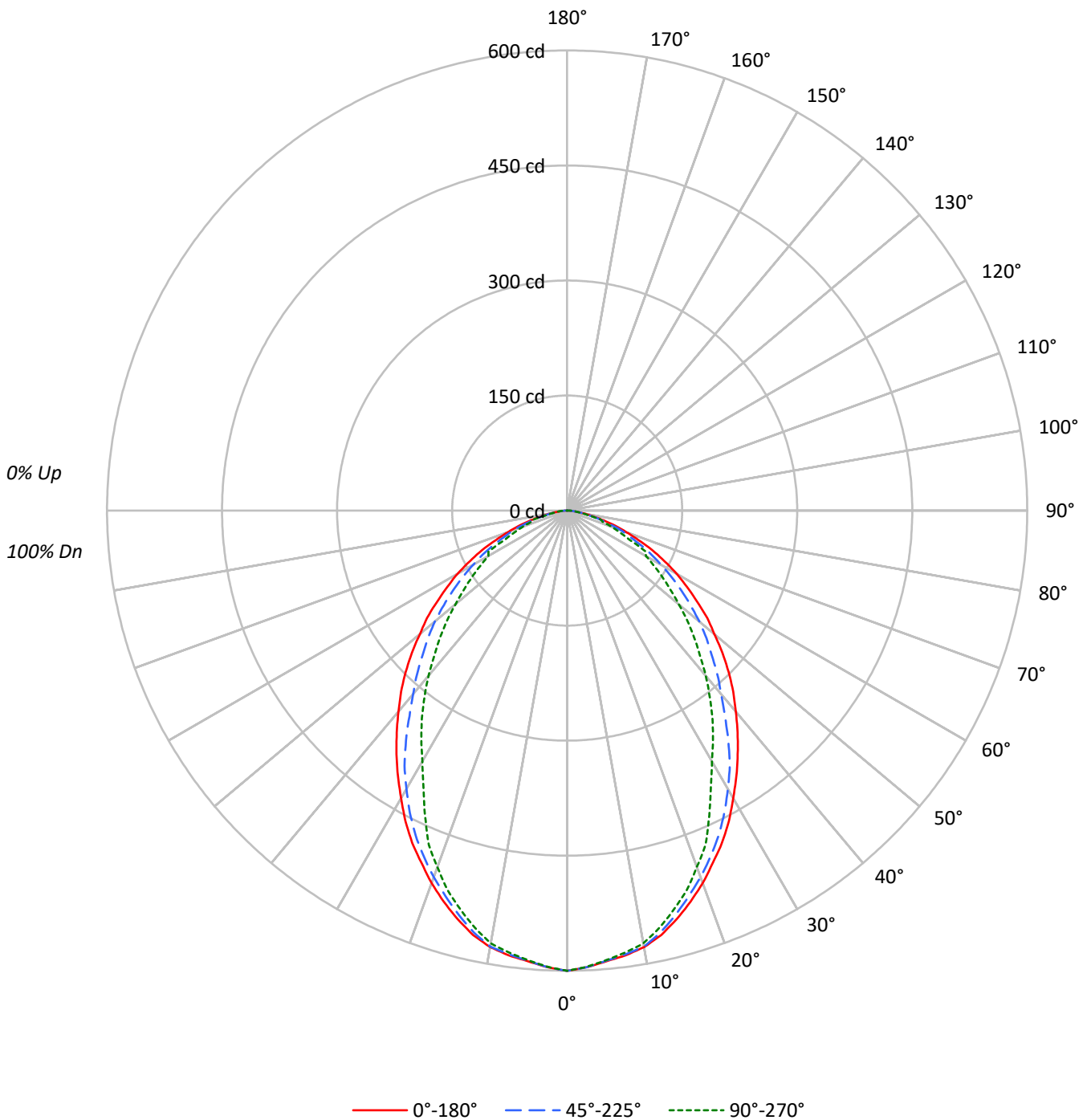
Lumens per Lamp: N/A  
Luminaire Lumens: 1178.0 lumens  
Efficiency: N/A  
Efficacy: 100.7 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 11.7  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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°	6459	6459	6459
5°	6372	6364	6357
10°	6316	6309	6263
15°	6146	6083	5999
20°	5920	5825	5666
25°	5677	5554	5207
30°	5381	5208	4691
35°	5096	4813	4339
40°	4806	4387	3948
45°	4530	4055	3570
50°	4193	3764	3183
55°	3879	3412	2851
60°	3554	3046	2553
65°	3128	2667	2262
70°	2578	2335	1920
75°	2050	1788	1876
80°	1376	1289	1203
85°	852	1025	1198

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4530 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.9	4.7
10°-20°	153.3	13.0
20°-30°	212.2	18.0
30°-40°	226.3	19.2
40°-50°	206.5	17.5
50°-60°	161.7	13.7
60°-70°	105.4	8.9
70°-80°	46.7	4.0
80°-90°	10.0	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°	421.4	35.8
0°-40°	647.7	55.0
0°-60°	1015.9	86.2
0°-90°	1178.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1178.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	600	600	600	600	600	
5°	590	589	589	588	588	56
15°	552	552	546	540	538	155
25°	478	475	468	451	438	219
35°	388	385	366	338	330	242
45°	298	291	266	244	234	229
55°	207	200	182	160	152	185
65°	123	116	105	107	89	121
75°	49	46	43	41	45	53
85°	7	8	8	9	10	10
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	600.1	600.1	600.1	600.1	600.1
2.5°	595.9	595.9	595.9	595.2	595.2
5°	589.7	589.0	589.0	588.3	588.3
7.5°	584.8	584.1	583.4	582.7	581.3
10°	577.9	577.9	577.2	573.7	573.0
12.5°	566.8	566.1	563.3	558.4	557.0
15°	551.5	551.5	545.9	540.4	538.3
17.5°	534.8	534.2	527.2	521.7	518.9
20°	516.8	515.4	508.5	499.5	494.6
22.5°	496.7	496.7	488.4	476.6	471.7
25°	478.0	475.2	467.6	450.9	438.4
27.5°	456.5	452.3	444.0	420.4	405.8
30°	432.9	430.8	419.0	388.5	377.4
32.5°	410.7	407.2	394.7	362.8	353.8
35°	387.8	385.0	366.3	338.5	330.2
37.5°	364.9	361.4	337.8	315.6	305.2
40°	342.0	337.8	312.2	292.1	281.0
42.5°	320.5	314.9	290.0	268.5	256.0
45°	297.6	291.4	266.4	244.2	234.5
47.5°	274.7	269.2	246.3	223.4	212.3
50°	250.4	245.6	224.8	201.9	190.1
52.5°	230.3	222.7	202.6	179.7	170.0
55°	206.7	200.5	181.8	160.2	151.9
57.5°	185.2	179.0	161.6	141.5	134.6
60°	165.1	156.1	141.5	124.2	118.6
62.5°	142.9	136.0	123.5	108.9	115.8
65°	122.8	115.8	104.7	106.8	88.8
67.5°	100.6	97.1	87.4	77.7	74.9
70°	81.9	77.7	74.2	63.8	61.0
72.5°	65.2	61.0	56.2	50.6	48.6
75°	49.3	45.8	43.0	40.9	45.1
77.5°	34.0	32.6	30.5	28.4	27.7
80°	22.2	21.5	20.8	20.1	19.4
82.5°	13.2	13.2	13.2	13.2	13.2
85°	6.9	7.6	8.3	9.0	9.7
87.5°	4.2	4.2	4.9	5.5	6.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)