

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: P559565

Luminaire Tested: FSR-12-1-LD4-2STD-50-UNV-81-96-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P559565  
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-50-UNV-81-96-EDD  
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

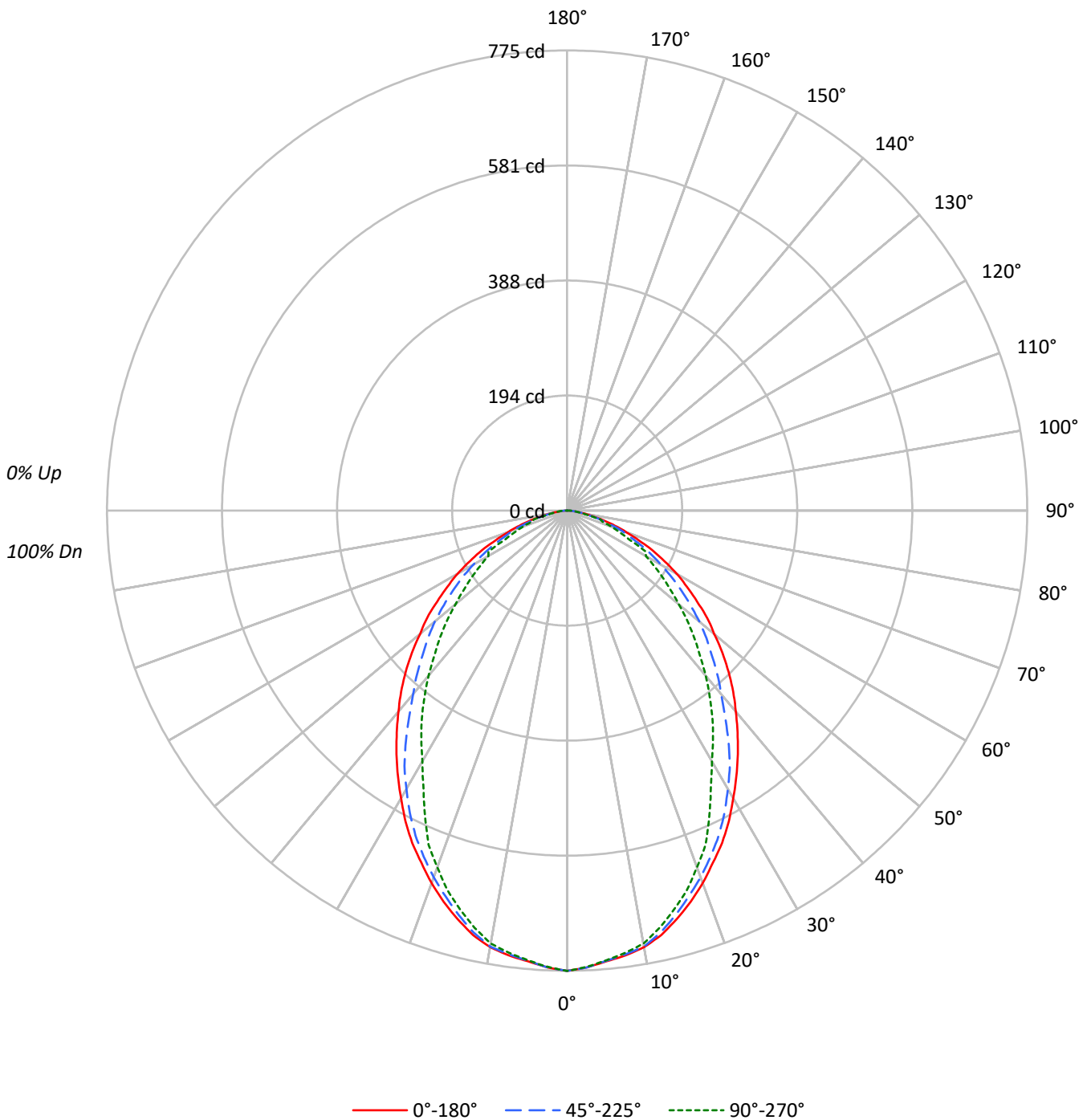
Lumens per Lamp: N/A  
Luminaire Lumens: 1522.0 lumens  
Efficiency: N/A  
Efficacy: 91.7 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 16.6  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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°	8345	8345	8345
5°	8231	8222	8212
10°	8160	8150	8091
15°	7940	7861	7750
20°	7648	7526	7321
25°	7334	7175	6728
30°	6952	6729	6060
35°	6583	6218	5606
40°	6209	5667	5101
45°	5853	5240	4611
50°	5419	4863	4113
55°	5012	4406	3684
60°	4592	3935	3300
65°	4039	3446	2921
70°	3330	3018	2483
75°	2645	2312	2425
80°	1779	1667	1556
85°	1112	1334	1544

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5853 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.2	4.7
10°-20°	198.1	13.0
20°-30°	274.2	18.0
30°-40°	292.4	19.2
40°-50°	266.7	17.5
50°-60°	209.0	13.7
60°-70°	136.2	8.9
70°-80°	60.3	4.0
80°-90°	13.0	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°	544.4	35.8
0°-40°	836.8	55.0
0°-60°	1312.5	86.2
0°-90°	1522.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1522.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	775	775	775	775	775	
5°	762	761	761	760	760	72
15°	712	712	705	698	696	200
25°	618	614	604	583	566	284
35°	501	497	473	437	427	313
45°	384	376	344	316	303	296
55°	267	259	235	207	196	240
65°	159	150	135	138	115	156
75°	64	59	56	53	58	68
85°	9	10	11	12	12	12
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	775.3	775.3	775.3	775.3	775.3
2.5°	769.9	769.9	769.9	769.0	769.0
5°	761.8	760.9	760.9	760.0	760.0
7.5°	755.6	754.7	753.8	752.9	751.1
10°	746.6	746.6	745.7	741.2	740.3
12.5°	732.3	731.4	727.8	721.5	719.7
15°	712.5	712.5	705.4	698.2	695.5
17.5°	691.0	690.1	681.2	674.0	670.4
20°	667.7	665.9	657.0	645.3	639.1
22.5°	641.7	641.7	631.0	615.7	609.5
25°	617.5	614.0	604.1	582.6	566.5
27.5°	589.8	584.4	573.6	543.1	524.3
30°	559.3	556.6	541.4	501.9	487.6
32.5°	530.6	526.1	510.0	468.8	457.1
35°	501.0	497.4	473.2	437.4	426.6
37.5°	471.4	467.0	436.5	407.8	394.4
40°	441.9	436.5	403.3	377.3	363.0
42.5°	414.1	406.9	374.6	346.9	330.7
45°	384.5	376.4	344.2	315.5	302.9
47.5°	354.9	347.8	318.2	288.6	274.3
50°	323.6	317.3	290.4	260.8	245.6
52.5°	297.6	287.7	261.7	232.1	219.6
55°	267.1	259.0	234.8	207.0	196.3
57.5°	239.3	231.2	208.8	182.8	173.9
60°	213.3	201.7	182.8	160.4	153.3
62.5°	184.6	175.7	159.5	140.7	149.7
65°	158.6	149.7	135.3	138.0	114.7
67.5°	130.0	125.5	112.9	100.4	96.8
70°	105.8	100.4	95.9	82.5	78.9
72.5°	84.3	78.9	72.6	65.4	62.7
75°	63.6	59.2	55.6	52.9	58.3
77.5°	43.9	42.1	39.4	36.7	35.9
80°	28.7	27.8	26.9	26.0	25.1
82.5°	17.0	17.0	17.0	17.0	17.0
85°	9.0	9.9	10.8	11.7	12.5
87.5°	5.4	5.4	6.3	7.2	8.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)