

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: P558785

Luminaire Tested: FSR-12-1-LD4-1LO-50-UNV-81-84-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558785  
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-LD4-1LO-50-UNV-81-84-EDD  
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI  
LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

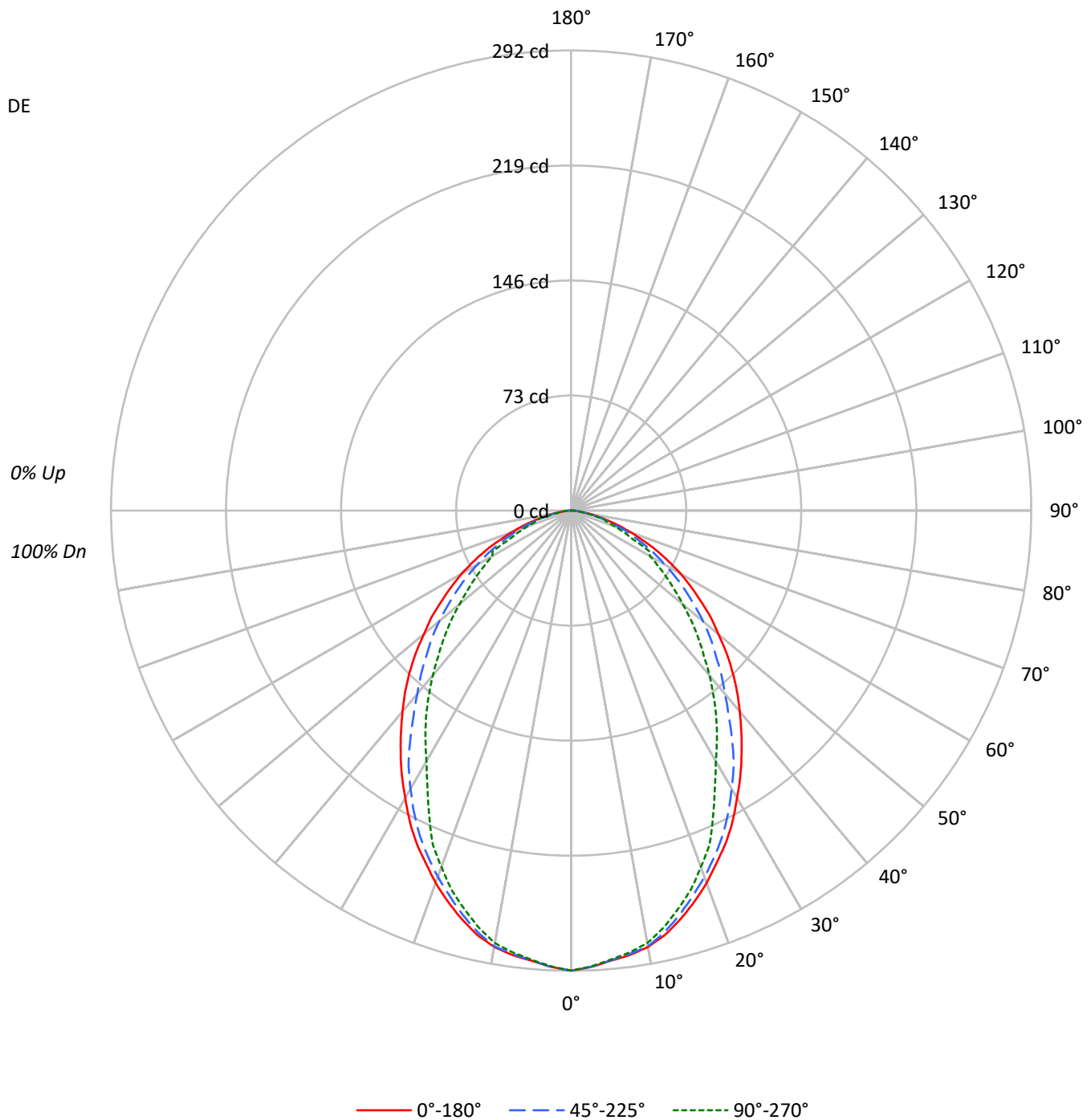
Lumens per Lamp: N/A  
Luminaire Lumens: 573.0 lumens  
Efficiency: N/A  
Efficacy: 98.8 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 5.8  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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°	3142	3142	3142
5°	3099	3096	3091
10°	3072	3068	3046
15°	2990	2960	2917
20°	2880	2833	2756
25°	2761	2701	2533
30°	2618	2533	2282
35°	2478	2342	2110
40°	2338	2133	1921
45°	2204	1973	1737
50°	2040	1830	1549
55°	1888	1659	1387
60°	1729	1481	1242
65°	1521	1299	1100
70°	1253	1136	935
75°	998	869	911
80°	669	626	583
85°	420	494	580

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2204 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	27.2	4.7
10°-20°	74.6	13.0
20°-30°	103.2	18.0
30°-40°	110.1	19.2
40°-50°	100.4	17.5
50°-60°	78.7	13.7
60°-70°	51.3	8.9
70°-80°	22.7	4.0
80°-90°	4.9	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°	205.0	35.8
0°-40°	315.0	55.0
0°-60°	494.1	86.2
0°-90°	573.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	573.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	292	292	292	292	292	
5°	287	286	286	286	286	27
15°	268	268	266	263	262	75
25°	232	231	227	219	213	107
35°	189	187	178	165	161	118
45°	145	142	130	119	114	112
55°	101	98	88	78	74	90
65°	60	56	51	52	43	59
75°	24	22	21	20	22	26
85°	3	4	4	4	5	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	291.9	291.9	291.9	291.9	291.9
2.5°	289.9	289.9	289.9	289.5	289.5
5°	286.8	286.5	286.5	286.1	286.1
7.5°	284.5	284.1	283.8	283.4	282.8
10°	281.1	281.1	280.7	279.1	278.7
12.5°	275.7	275.3	274.0	271.6	271.0
15°	268.3	268.3	265.6	262.9	261.8
17.5°	260.2	259.8	256.4	253.7	252.4
20°	251.4	250.7	247.3	243.0	240.6
22.5°	241.6	241.6	237.6	231.8	229.5
25°	232.5	231.1	227.4	219.3	213.3
27.5°	222.0	220.0	216.0	204.5	197.4
30°	210.6	209.5	203.8	189.0	183.6
32.5°	199.8	198.1	192.0	176.5	172.1
35°	188.6	187.3	178.2	164.7	160.6
37.5°	177.5	175.8	164.3	153.5	148.5
40°	166.4	164.3	151.8	142.1	136.7
42.5°	155.9	153.2	141.0	130.6	124.5
45°	144.8	141.7	129.6	118.8	114.1
47.5°	133.6	130.9	119.8	108.7	103.3
50°	121.8	119.5	109.3	98.2	92.5
52.5°	112.0	108.3	98.5	87.4	82.7
55°	100.6	97.5	88.4	77.9	73.9
57.5°	90.1	87.1	78.6	68.8	65.5
60°	80.3	75.9	68.8	60.4	57.7
62.5°	69.5	66.1	60.1	53.0	56.4
65°	59.7	56.4	51.0	52.0	43.2
67.5°	48.9	47.2	42.5	37.8	36.4
70°	39.8	37.8	36.1	31.0	29.7
72.5°	31.7	29.7	27.3	24.6	23.6
75°	24.0	22.3	20.9	19.9	21.9
77.5°	16.5	15.9	14.8	13.8	13.5
80°	10.8	10.5	10.1	9.8	9.4
82.5°	6.4	6.4	6.4	6.4	6.4
85°	3.4	3.7	4.0	4.4	4.7
87.5°	2.0	2.0	2.4	2.7	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)