

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: P558801

Luminaire Tested: FSR-12-1-LD4-1LO-50-UNV-82-84-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558801  
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-82-84-EDD  
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI  
LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

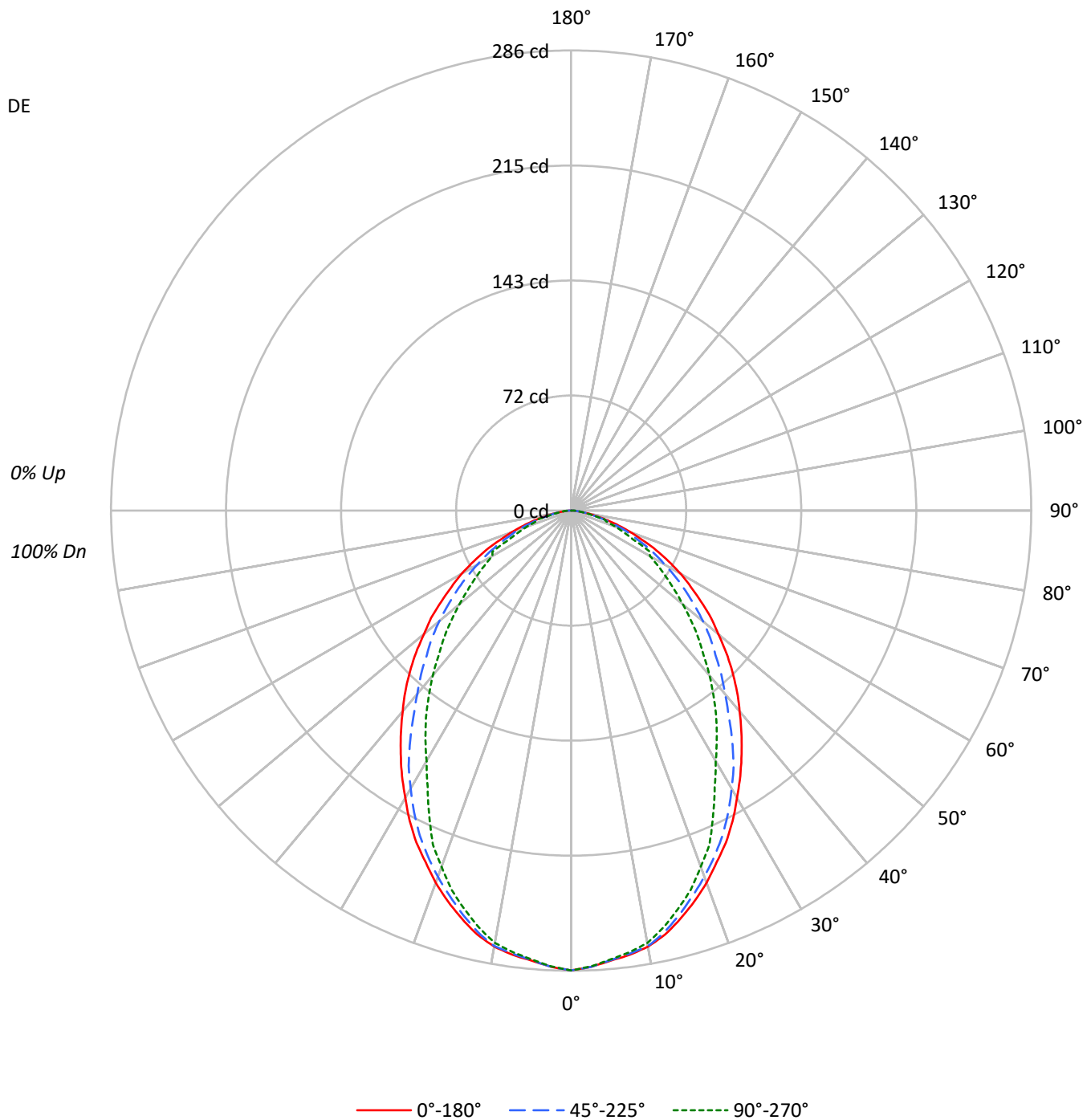
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 561.0 lumens  
Efficiency: N/A  
Efficacy: 96.7 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): 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°	3076	3076	3076
5°	3034	3031	3026
10°	3008	3005	2983
15°	2926	2897	2857
20°	2819	2774	2699
25°	2703	2645	2480
30°	2562	2480	2234
35°	2427	2292	2067
40°	2289	2089	1880
45°	2157	1932	1700
50°	1998	1792	1515
55°	1847	1625	1357
60°	1692	1451	1216
65°	1490	1271	1077
70°	1227	1111	916
75°	977	853	894
80°	657	614	576
85°	408	494	568

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2157 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.6	4.7
10°-20°	73.0	13.0
20°-30°	101.1	18.0
30°-40°	107.8	19.2
40°-50°	98.3	17.5
50°-60°	77.0	13.7
60°-70°	50.2	8.9
70°-80°	22.2	4.0
80°-90°	4.8	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°	200.7	35.8
0°-40°	308.4	55.0
0°-60°	483.8	86.2
0°-90°	561.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	561.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	286	286	286	286	286	
5°	281	280	280	280	280	27
15°	263	263	260	257	256	74
25°	228	226	223	215	209	104
35°	185	183	174	161	157	115
45°	142	139	127	116	112	109
55°	98	96	87	76	72	88
65°	58	55	50	51	42	58
75°	24	22	20	20	22	25
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°	285.8	285.8	285.8	285.8	285.8
2.5°	283.8	283.8	283.8	283.5	283.5
5°	280.8	280.5	280.5	280.1	280.1
7.5°	278.5	278.2	277.8	277.5	276.8
10°	275.2	275.2	274.9	273.2	272.9
12.5°	269.9	269.6	268.3	265.9	265.3
15°	262.6	262.6	260.0	257.4	256.4
17.5°	254.7	254.4	251.1	248.4	247.1
20°	246.1	245.5	242.2	237.9	235.6
22.5°	236.5	236.5	232.6	227.0	224.6
25°	227.6	226.3	222.7	214.7	208.8
27.5°	217.4	215.4	211.4	200.2	193.3
30°	206.1	205.2	199.5	185.0	179.7
32.5°	195.6	193.9	188.0	172.8	168.5
35°	184.7	183.4	174.4	161.2	157.3
37.5°	173.8	172.1	160.9	150.3	145.4
40°	162.9	160.9	148.7	139.1	133.8
42.5°	152.6	150.0	138.1	127.9	121.9
45°	141.7	138.8	126.9	116.3	111.7
47.5°	130.8	128.2	117.3	106.4	101.1
50°	119.3	116.9	107.0	96.1	90.5
52.5°	109.7	106.0	96.5	85.6	80.9
55°	98.4	95.5	86.6	76.3	72.3
57.5°	88.2	85.2	77.0	67.4	64.1
60°	78.6	74.3	67.4	59.1	56.5
62.5°	68.1	64.8	58.8	51.9	55.2
65°	58.5	55.2	49.9	50.9	42.3
67.5°	47.9	46.3	41.6	37.0	35.7
70°	39.0	37.0	35.3	30.4	29.1
72.5°	31.1	29.1	26.8	24.1	23.1
75°	23.5	21.8	20.5	19.5	21.5
77.5°	16.2	15.5	14.5	13.5	13.2
80°	10.6	10.2	9.9	9.6	9.3
82.5°	6.3	6.3	6.3	6.3	6.3
85°	3.3	3.6	4.0	4.3	4.6
87.5°	2.0	2.0	2.3	2.6	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)