

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: P558805

Luminaire Tested: FSR-12-1-LD4-1LO-50-UNV-82-86-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558805  
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-82-86-EDD  
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI  
LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

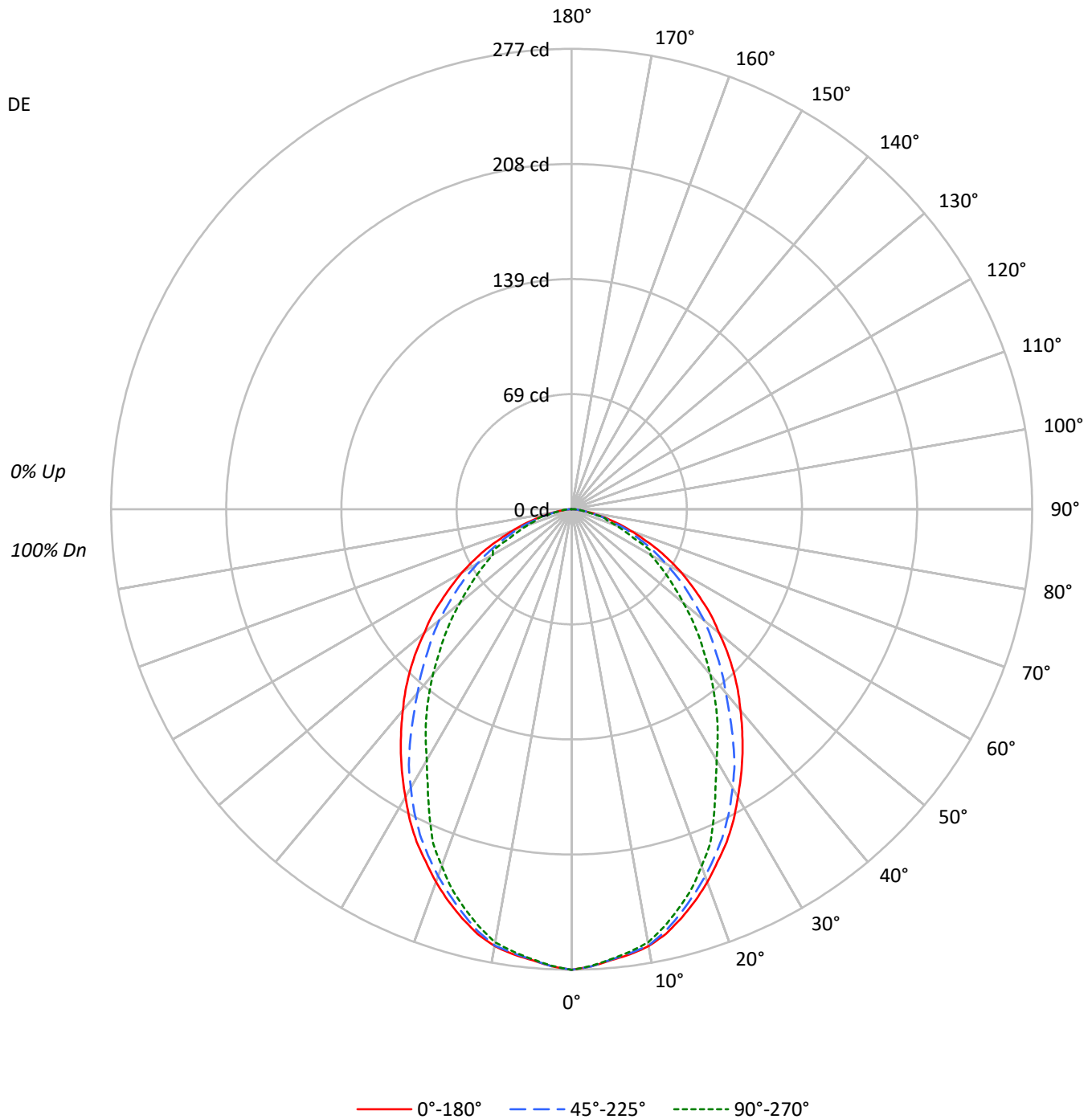
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 544.0 lumens  
Efficiency: N/A  
Efficacy: 93.8 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	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				
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°	2983	2983	2983
5°	2942	2939	2936
10°	2917	2913	2892
15°	2838	2809	2770
20°	2734	2690	2616
25°	2621	2564	2405
30°	2485	2405	2166
35°	2353	2222	2004
40°	2219	2026	1822
45°	2092	1872	1649
50°	1936	1738	1470
55°	1792	1574	1317
60°	1640	1408	1180
65°	1444	1233	1044
70°	1190	1079	887
75°	944	828	865
80°	638	595	558
85°	395	469	556

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2092 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.8	4.7
10°-20°	70.8	13.0
20°-30°	98.0	18.0
30°-40°	104.5	19.2
40°-50°	95.3	17.5
50°-60°	74.7	13.7
60°-70°	48.7	8.9
70°-80°	21.6	4.0
80°-90°	4.6	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°	194.6	35.8
0°-40°	299.1	55.0
0°-60°	469.1	86.2
0°-90°	544.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	544.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	277	277	277	277	277	
5°	272	272	272	272	272	26
15°	255	255	252	250	249	72
25°	221	219	216	208	202	101
35°	179	178	169	156	152	112
45°	137	134	123	113	108	106
55°	96	93	84	74	70	86
65°	57	54	48	49	41	56
75°	23	21	20	19	21	24
85°	3	4	4	4	4	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	277.1	277.1	277.1	277.1	277.1
2.5°	275.2	275.2	275.2	274.9	274.9
5°	272.3	272.0	272.0	271.7	271.7
7.5°	270.1	269.7	269.4	269.1	268.5
10°	266.9	266.9	266.5	264.9	264.6
12.5°	261.7	261.4	260.1	257.9	257.2
15°	254.7	254.7	252.1	249.6	248.6
17.5°	247.0	246.7	243.5	240.9	239.6
20°	238.7	238.0	234.8	230.7	228.4
22.5°	229.4	229.4	225.5	220.1	217.8
25°	220.7	219.4	215.9	208.2	202.5
27.5°	210.8	208.9	205.0	194.1	187.4
30°	199.9	198.9	193.5	179.4	174.3
32.5°	189.6	188.0	182.3	167.5	163.4
35°	179.1	177.8	169.1	156.3	152.5
37.5°	168.5	166.9	156.0	145.8	141.0
40°	157.9	156.0	144.2	134.9	129.7
42.5°	148.0	145.4	133.9	124.0	118.2
45°	137.4	134.5	123.0	112.8	108.3
47.5°	126.9	124.3	113.7	103.2	98.0
50°	115.6	113.4	103.8	93.2	87.8
52.5°	106.4	102.8	93.5	83.0	78.5
55°	95.5	92.6	83.9	74.0	70.2
57.5°	85.5	82.7	74.6	65.4	62.1
60°	76.2	72.1	65.4	57.3	54.8
62.5°	66.0	62.8	57.0	50.3	53.5
65°	56.7	53.5	48.4	49.3	41.0
67.5°	46.5	44.8	40.4	35.9	34.6
70°	37.8	35.9	34.3	29.5	28.2
72.5°	30.1	28.2	25.9	23.4	22.4
75°	22.7	21.1	19.9	18.9	20.8
77.5°	15.7	15.1	14.1	13.1	12.8
80°	10.3	9.9	9.6	9.3	9.0
82.5°	6.1	6.1	6.1	6.1	6.1
85°	3.2	3.5	3.8	4.2	4.5
87.5°	1.9	1.9	2.2	2.6	2.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)