

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: P559829

Luminaire Tested: FSR-12-2-LD4-1LO-35-UNV-82-86-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P559829  
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-12-2-LD4-1LO-35-UNV-82-86-EDD  
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI  
LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

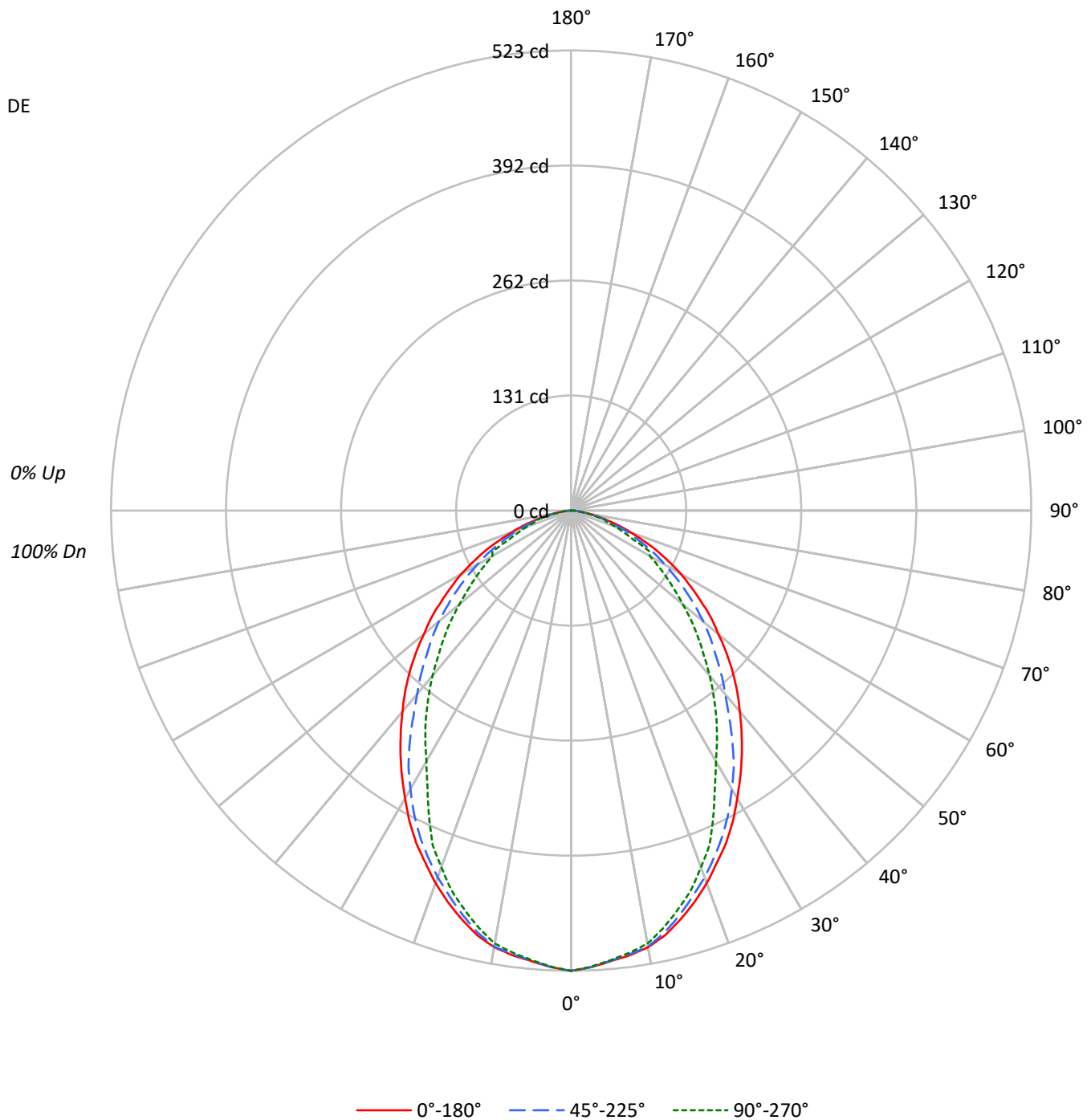
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1027.0 lumens  
Efficiency: N/A  
Efficacy: 87.8 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 2' 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	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°	2815	2815	2815
5°	2777	2774	2771
10°	2753	2750	2730
15°	2679	2652	2615
20°	2581	2539	2470
25°	2475	2420	2270
30°	2345	2270	2045
35°	2221	2098	1892
40°	2095	1912	1721
45°	1975	1767	1556
50°	1828	1641	1387
55°	1691	1487	1242
60°	1549	1328	1113
65°	1363	1163	986
70°	1124	1018	837
75°	892	780	817
80°	601	561	524
85°	371	451	525

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1975 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.7	4.7
10°-20°	133.6	13.0
20°-30°	185.0	18.0
30°-40°	197.3	19.2
40°-50°	180.0	17.5
50°-60°	141.0	13.7
60°-70°	91.9	8.9
70°-80°	40.7	4.0
80°-90°	8.7	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°	367.4	35.8
0°-40°	564.7	55.0
0°-60°	885.6	86.2
0°-90°	1027.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1027.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	523	523	523	523	523	
5°	514	514	514	513	513	49
15°	481	481	476	471	469	135
25°	417	414	408	393	382	191
35°	338	336	319	295	288	211
45°	260	254	232	213	204	200
55°	180	175	158	140	132	162
65°	107	101	91	93	77	105
75°	43	40	38	36	39	46
85°	6	7	7	8	8	8
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	523.1	523.1	523.1	523.1	523.1
2.5°	519.5	519.5	519.5	518.9	518.9
5°	514.1	513.5	513.5	512.9	512.9
7.5°	509.8	509.2	508.6	508.0	506.8
10°	503.8	503.8	503.2	500.2	499.6
12.5°	494.1	493.5	491.1	486.9	485.6
15°	480.8	480.8	476.0	471.1	469.3
17.5°	466.3	465.7	459.6	454.8	452.4
20°	450.6	449.4	443.3	435.4	431.2
22.5°	433.0	433.0	425.8	415.5	411.3
25°	416.7	414.3	407.6	393.1	382.2
27.5°	397.9	394.3	387.1	366.5	353.8
30°	377.4	375.6	365.3	338.7	329.0
32.5°	358.0	355.0	344.1	316.3	308.4
35°	338.1	335.7	319.3	295.1	287.9
37.5°	318.1	315.1	294.5	275.2	266.1
40°	298.2	294.5	272.2	254.6	244.9
42.5°	279.4	274.6	252.8	234.1	223.2
45°	259.5	254.0	232.2	212.9	204.4
47.5°	239.5	234.7	214.7	194.7	185.1
50°	218.3	214.1	196.0	176.0	165.7
52.5°	200.8	194.1	176.6	156.6	148.2
55°	180.2	174.8	158.5	139.7	132.4
57.5°	161.5	156.0	140.9	123.4	117.3
60°	143.9	136.1	123.4	108.3	103.4
62.5°	124.6	118.5	107.7	95.0	101.0
65°	107.0	101.0	91.3	93.1	77.4
67.5°	87.7	84.7	76.2	67.7	65.3
70°	71.4	67.7	64.7	55.6	53.2
72.5°	56.8	53.2	49.0	44.1	42.3
75°	42.9	39.9	37.5	35.7	39.3
77.5°	29.6	28.4	26.6	24.8	24.2
80°	19.4	18.7	18.1	17.5	16.9
82.5°	11.5	11.5	11.5	11.5	11.5
85°	6.0	6.7	7.3	7.9	8.5
87.5°	3.6	3.6	4.2	4.8	5.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)