

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: P559796

Luminaire Tested: FSR-12-2-LD4-1LO-35-UNV-80-86-EDD-90

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P559796  
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-80-86-EDD-90  
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRON  
SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

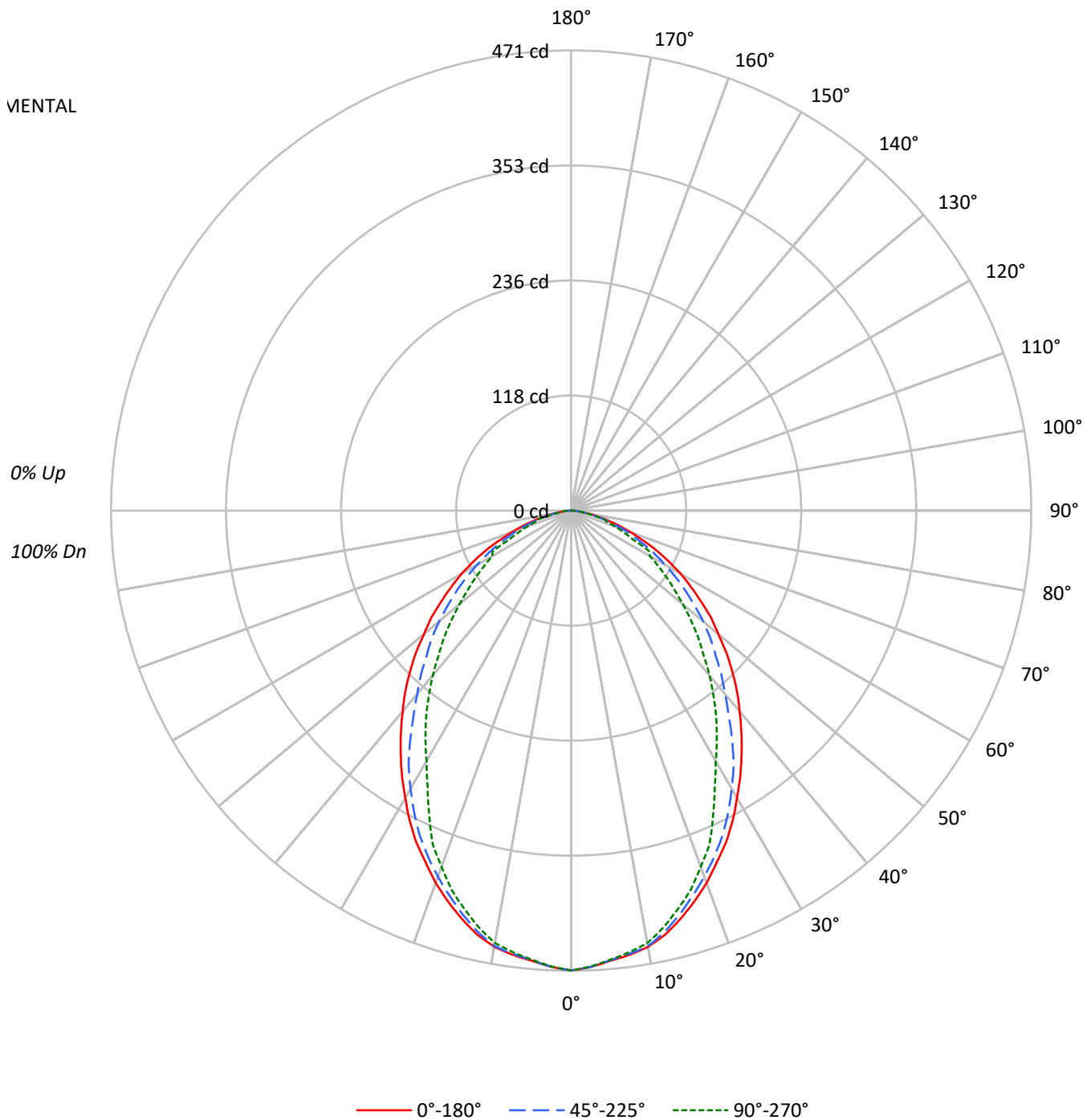
Lumens per Lamp: N/A  
Luminaire Lumens: 924.0 lumens  
Efficiency: N/A  
Efficacy: 79.0 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 11.7  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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°	2533	2533	2533
5°	2499	2496	2493
10°	2477	2474	2457
15°	2410	2386	2352
20°	2322	2284	2222
25°	2226	2178	2042
30°	2110	2043	1840
35°	1999	1888	1702
40°	1885	1721	1548
45°	1776	1590	1400
50°	1644	1476	1248
55°	1522	1338	1118
60°	1394	1195	1001
65°	1226	1047	886
70°	1010	916	754
75°	803	701	736
80°	539	505	471
85°	333	401	469

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1776 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.8	4.7
10°-20°	120.2	13.0
20°-30°	166.5	18.0
30°-40°	177.5	19.2
40°-50°	161.9	17.5
50°-60°	126.9	13.7
60°-70°	82.7	8.9
70°-80°	36.6	4.0
80°-90°	7.9	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°	330.5	35.8
0°-40°	508.0	55.0
0°-60°	796.8	86.2
0°-90°	924.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	924.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	471	471	471	471	471	
5°	462	462	462	461	461	44
15°	433	433	428	424	422	122
25°	375	373	367	354	344	172
35°	304	302	287	266	259	190
45°	233	228	209	192	184	180
55°	162	157	143	126	119	145
65°	96	91	82	84	70	95
75°	39	36	34	32	35	41
85°	5	6	6	7	8	8
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	470.7	470.7	470.7	470.7	470.7
2.5°	467.4	467.4	467.4	466.9	466.9
5°	462.5	462.0	462.0	461.4	461.4
7.5°	458.7	458.2	457.6	457.1	456.0
10°	453.3	453.3	452.7	450.0	449.5
12.5°	444.6	444.0	441.8	438.0	436.9
15°	432.6	432.6	428.2	423.9	422.2
17.5°	419.5	419.0	413.5	409.2	407.0
20°	405.4	404.3	398.8	391.8	388.0
22.5°	389.6	389.6	383.1	373.8	370.0
25°	374.9	372.7	366.7	353.7	343.9
27.5°	358.0	354.8	348.2	329.7	318.3
30°	339.5	337.9	328.7	304.7	296.0
32.5°	322.1	319.4	309.6	284.6	277.5
35°	304.2	302.0	287.3	265.5	259.0
37.5°	286.2	283.5	265.0	247.6	239.4
40°	268.3	265.0	244.9	229.1	220.4
42.5°	251.4	247.0	227.4	210.6	200.8
45°	233.4	228.5	208.9	191.5	183.9
47.5°	215.5	211.1	193.2	175.2	166.5
50°	196.4	192.6	176.3	158.3	149.1
52.5°	180.7	174.7	158.9	140.9	133.3
55°	162.2	157.3	142.6	125.7	119.2
57.5°	145.3	140.4	126.8	111.0	105.6
60°	129.5	122.4	111.0	97.4	93.0
62.5°	112.1	106.6	96.9	85.4	90.9
65°	96.3	90.9	82.2	83.8	69.6
67.5°	78.9	76.2	68.6	60.9	58.8
70°	64.2	60.9	58.2	50.1	47.9
72.5°	51.1	47.9	44.1	39.7	38.1
75°	38.6	35.9	33.7	32.1	35.4
77.5°	26.7	25.6	23.9	22.3	21.8
80°	17.4	16.9	16.3	15.8	15.2
82.5°	10.3	10.3	10.3	10.3	10.3
85°	5.4	6.0	6.5	7.1	7.6
87.5°	3.3	3.3	3.8	4.4	4.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)