

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: P559734

Luminaire Tested: FSR-12-2-LD4-1HI-50-UNV-80-87-EDD-90

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P559734  
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-LD4-1HI-50-UNV-80-87-EDD-90  
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONM  
SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

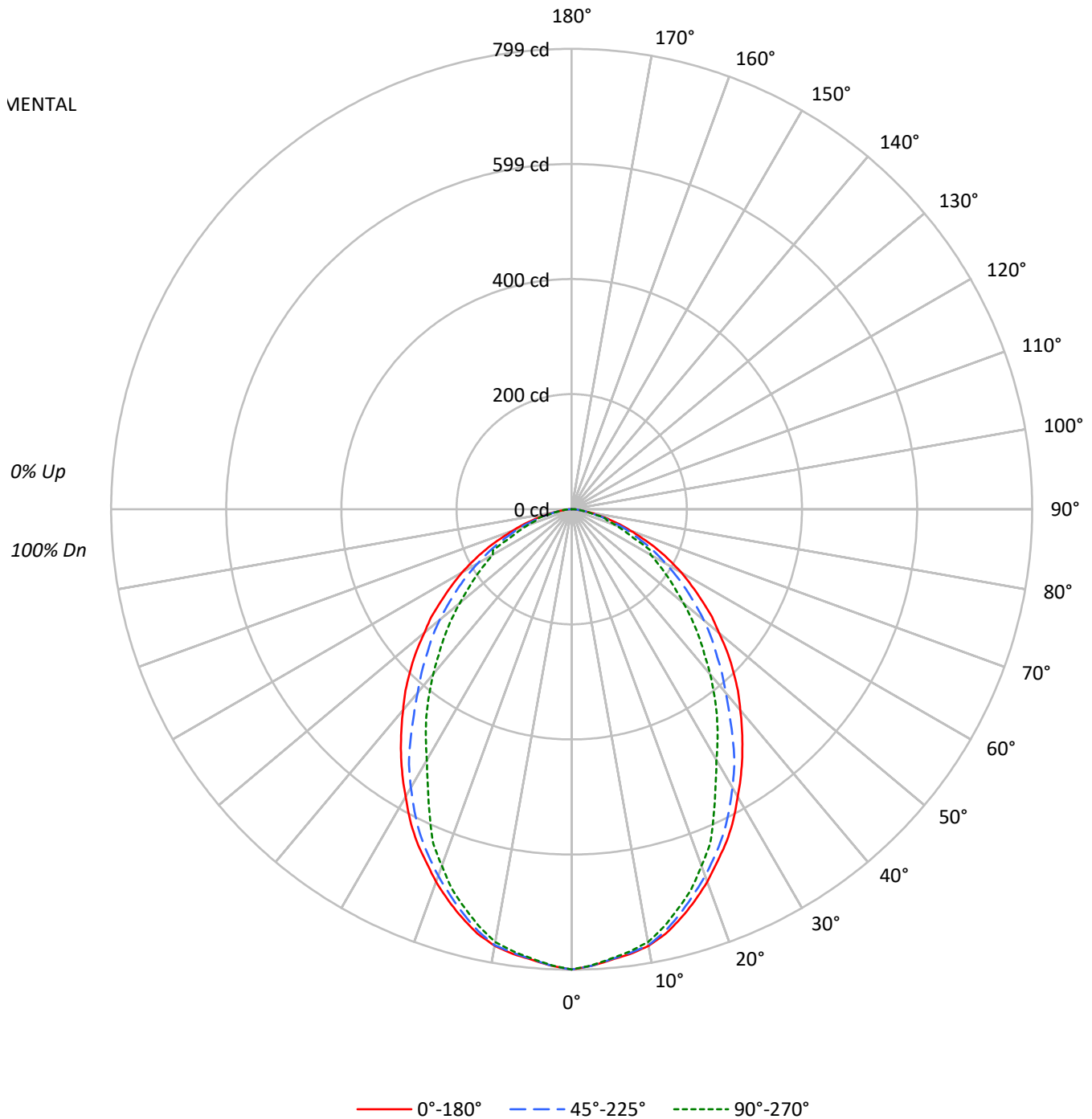
Lumens per Lamp: N/A  
Luminaire Lumens: 1568.0 lumens  
Efficiency: N/A  
Efficacy: 72.6 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 21.6  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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°	4299	4299	4299
5°	4240	4235	4230
10°	4204	4198	4168
15°	4090	4049	3992
20°	3940	3876	3771
25°	3778	3696	3466
30°	3581	3466	3122
35°	3392	3203	2888
40°	3198	2919	2628
45°	3015	2699	2375
50°	2791	2505	2118
55°	2582	2270	1897
60°	2366	2028	1700
65°	2081	1775	1505
70°	1715	1555	1279
75°	1364	1189	1248
80°	914	859	803
85°	568	685	797

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3015 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.3	4.7
10°-20°	204.0	13.0
20°-30°	282.5	18.0
30°-40°	301.2	19.2
40°-50°	274.8	17.5
50°-60°	215.3	13.7
60°-70°	140.3	8.9
70°-80°	62.2	4.0
80°-90°	13.3	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°	560.9	35.8
0°-40°	862.1	55.0
0°-60°	1352.2	86.2
0°-90°	1568.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1568.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	799	799	799	799	799	
5°	785	784	784	783	783	75
15°	734	734	727	719	716	206
25°	636	632	622	600	584	292
35°	516	512	488	451	440	323
45°	396	388	355	325	312	305
55°	275	267	242	213	202	247
65°	163	154	139	142	118	161
75°	66	61	57	54	60	70
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	798.7	798.7	798.7	798.7	798.7
2.5°	793.2	793.2	793.2	792.3	792.3
5°	784.9	783.9	783.9	783.0	783.0
7.5°	778.4	777.5	776.6	775.6	773.8
10°	769.2	769.2	768.2	763.6	762.7
12.5°	754.4	753.5	749.8	743.3	741.5
15°	734.1	734.1	726.7	719.3	716.5
17.5°	711.9	711.0	701.8	694.4	690.7
20°	687.9	686.1	676.8	664.8	658.4
22.5°	661.1	661.1	650.1	634.4	627.9
25°	636.2	632.5	622.4	600.2	583.6
27.5°	607.6	602.0	591.0	559.6	540.2
30°	576.2	573.4	557.7	517.1	502.3
32.5°	546.6	542.0	525.4	482.9	470.9
35°	516.2	512.5	487.5	450.6	439.5
37.5°	485.7	481.1	449.7	420.1	406.3
40°	455.2	449.7	415.5	388.7	374.0
42.5°	426.6	419.2	386.0	357.3	340.7
45°	396.1	387.8	354.6	325.0	312.1
47.5°	365.7	358.3	327.8	297.3	282.6
50°	333.3	326.9	299.2	268.7	253.0
52.5°	306.6	296.4	269.6	239.2	226.2
55°	275.2	266.9	241.9	213.3	202.2
57.5°	246.5	238.2	215.1	188.4	179.1
60°	219.8	207.8	188.4	165.3	157.9
62.5°	190.2	181.0	164.4	145.0	154.2
65°	163.4	154.2	139.4	142.2	118.2
67.5°	133.9	129.3	116.3	103.4	99.7
70°	109.0	103.4	98.8	85.0	81.3
72.5°	86.8	81.3	74.8	67.4	64.6
75°	65.6	60.9	57.2	54.5	60.0
77.5°	45.2	43.4	40.6	37.9	36.9
80°	29.5	28.6	27.7	26.8	25.9
82.5°	17.5	17.5	17.5	17.5	17.5
85°	9.2	10.2	11.1	12.0	12.9
87.5°	5.5	5.5	6.5	7.4	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)