

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: P560503

Luminaire Tested: FSR-12-2-LD4-2LO-50-UNV-80-87-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P560503  
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-LD4-2LO-50-UNV-80-87-EDD  
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONM  
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

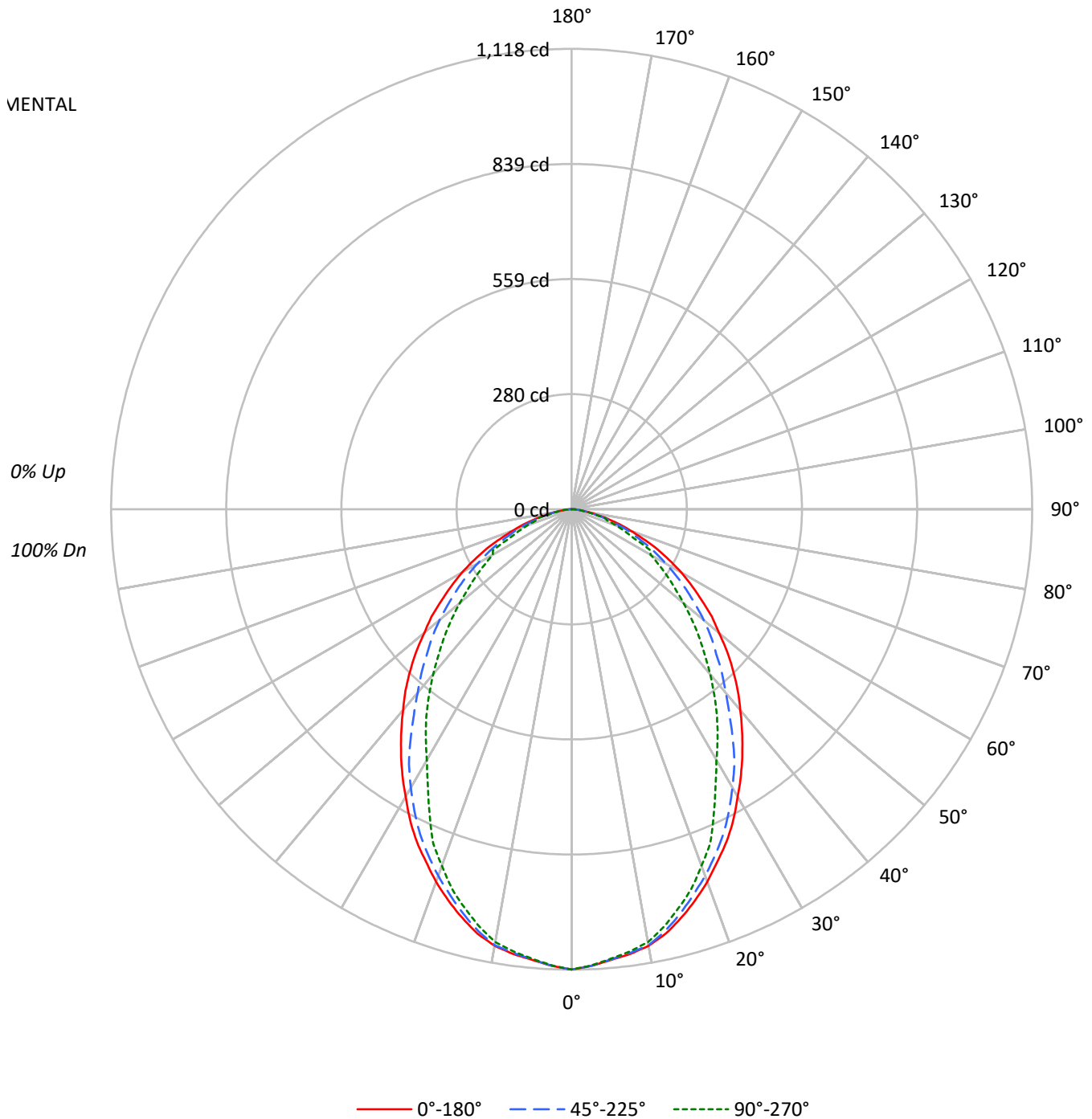
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2194.0 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: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 23.4  
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°	6015	6015	6015
5°	5933	5926	5919
10°	5881	5875	5832
15°	5723	5665	5586
20°	5513	5424	5276
25°	5286	5171	4849
30°	5010	4850	4368
35°	4745	4482	4041
40°	4475	4085	3677
45°	4219	3776	3324
50°	3905	3505	2964
55°	3613	3176	2655
60°	3310	2837	2378
65°	2912	2485	2106
70°	2400	2175	1789
75°	1907	1666	1747
80°	1280	1203	1122
85°	797	957	1118

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4219 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	104.0	4.7
10°-20°	285.5	13.0
20°-30°	395.3	18.0
30°-40°	421.5	19.2
40°-50°	384.5	17.5
50°-60°	301.2	13.7
60°-70°	196.3	8.9
70°-80°	87.0	4.0
80°-90°	18.7	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°	784.8	35.8
0°-40°	1206.3	55.0
0°-60°	1892.0	86.2
0°-90°	2194.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2194.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1118	1118	1118	1118	1118	
5°	1098	1097	1097	1096	1096	104
15°	1027	1027	1017	1006	1003	289
25°	890	885	871	840	817	409
35°	722	717	682	630	615	452
45°	554	543	496	455	437	427
55°	385	373	338	298	283	345
65°	229	216	195	199	165	225
75°	92	85	80	76	84	98
85°	13	14	16	17	18	18
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1117.6	1117.6	1117.6	1117.6	1117.6
2.5°	1109.8	1109.8	1109.8	1108.6	1108.6
5°	1098.2	1096.9	1096.9	1095.6	1095.6
7.5°	1089.2	1087.9	1086.6	1085.3	1082.7
10°	1076.2	1076.2	1075.0	1068.5	1067.2
12.5°	1055.6	1054.3	1049.1	1040.1	1037.5
15°	1027.2	1027.2	1016.8	1006.5	1002.6
17.5°	996.1	994.9	981.9	971.6	966.4
20°	962.6	960.0	947.0	930.3	921.2
22.5°	925.1	925.1	909.6	887.6	878.6
25°	890.2	885.0	870.8	839.8	816.6
27.5°	850.1	842.4	826.9	783.0	755.8
30°	806.2	802.3	780.4	723.5	702.9
32.5°	764.9	758.4	735.2	675.7	658.9
35°	722.2	717.1	682.2	630.5	615.0
37.5°	679.6	673.1	629.2	587.9	568.5
40°	637.0	629.2	581.4	543.9	523.3
42.5°	596.9	586.6	540.1	500.0	476.8
45°	554.3	542.6	496.1	454.8	436.7
47.5°	511.6	501.3	458.7	416.0	395.4
50°	466.4	457.4	418.6	376.0	354.0
52.5°	428.9	414.7	377.3	334.6	316.5
55°	385.0	373.4	338.5	298.5	283.0
57.5°	345.0	333.3	301.0	263.6	250.7
60°	307.5	290.7	263.6	231.3	220.9
62.5°	266.2	253.2	230.0	202.8	215.8
65°	228.7	215.8	195.1	199.0	165.4
67.5°	187.3	180.9	162.8	144.7	139.5
70°	152.5	144.7	138.2	118.9	113.7
72.5°	121.4	113.7	104.7	94.3	90.4
75°	91.7	85.3	80.1	76.2	84.0
77.5°	63.3	60.7	56.8	53.0	51.7
80°	41.3	40.1	38.8	37.5	36.2
82.5°	24.5	24.5	24.5	24.5	24.5
85°	12.9	14.2	15.5	16.8	18.1
87.5°	7.8	7.8	9.0	10.3	11.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)