

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: P560702

Luminaire Tested: FSR-12-2-LD4-2STD-50-UNV-80-97-EDD-90

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P560702  
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-LD4-2STD-50-UNV-80-97-EDD-90  
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

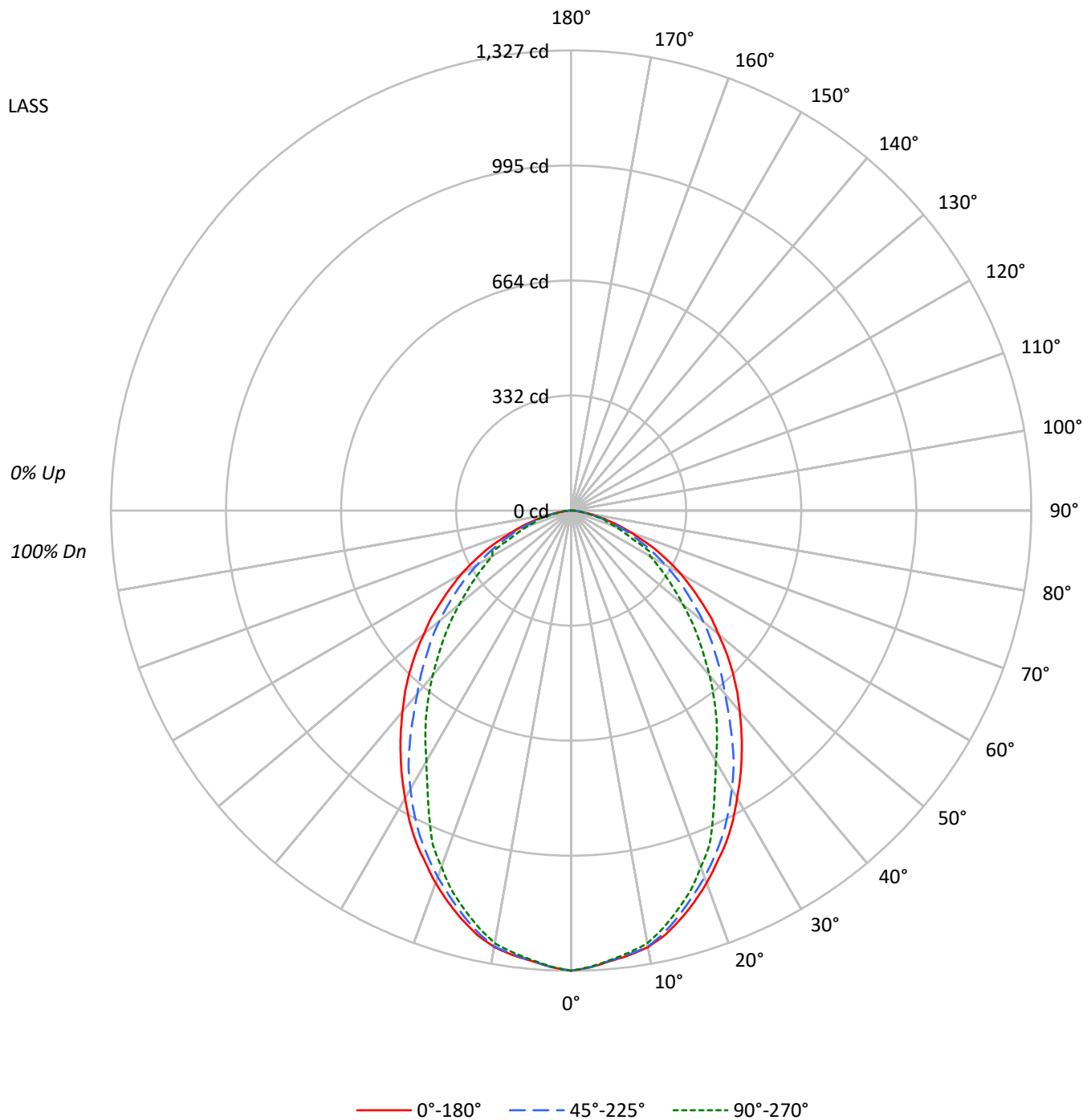
Lumens per Lamp: N/A  
Luminaire Lumens: 2605.0 lumens  
Efficiency: N/A  
Efficacy: 78.2 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 33.3  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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					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°	7142	7142	7142
5°	7044	7036	7028
10°	6984	6975	6925
15°	6795	6727	6633
20°	6546	6440	6265
25°	6277	6140	5757
30°	5949	5758	5186
35°	5634	5322	4798
40°	5313	4850	4365
45°	5009	4484	3946
50°	4637	4161	3519
55°	4289	3771	3153
60°	3930	3368	2823
65°	3457	2949	2501
70°	2848	2582	2124
75°	2264	1978	2073
80°	1522	1426	1333
85°	945	1136	1328

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5009 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	123.5	4.7
10°-20°	339.0	13.0
20°-30°	469.3	18.0
30°-40°	500.4	19.2
40°-50°	456.5	17.5
50°-60°	357.6	13.7
60°-70°	233.1	8.9
70°-80°	103.3	4.0
80°-90°	22.2	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°	931.8	35.8
0°-40°	1432.3	55.0
0°-60°	2246.4	86.2
0°-90°	2605.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2605.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1327	1327	1327	1327	1327	
5°	1304	1302	1302	1301	1301	124
15°	1220	1220	1207	1195	1190	343
25°	1057	1051	1034	997	970	485
35°	858	851	810	749	730	536
45°	658	644	589	540	518	507
55°	457	443	402	354	336	410
65°	272	256	232	236	196	268
75°	109	101	95	90	100	117
85°	15	17	18	20	22	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1327.0	1327.0	1327.0	1327.0	1327.0
2.5°	1317.7	1317.7	1317.7	1316.2	1316.2
5°	1303.9	1302.4	1302.4	1300.9	1300.9
7.5°	1293.2	1291.7	1290.1	1288.6	1285.5
10°	1277.9	1277.9	1276.3	1268.7	1267.1
12.5°	1253.3	1251.8	1245.6	1234.9	1231.8
15°	1219.6	1219.6	1207.3	1195.0	1190.4
17.5°	1182.8	1181.2	1165.9	1153.6	1147.5
20°	1142.9	1139.8	1124.5	1104.5	1093.8
22.5°	1098.4	1098.4	1080.0	1053.9	1043.2
25°	1057.0	1050.8	1033.9	997.1	969.5
27.5°	1009.4	1000.2	981.8	929.6	897.4
30°	957.2	952.6	926.6	859.1	834.5
32.5°	908.2	900.5	872.9	802.3	782.4
35°	857.5	851.4	810.0	748.6	730.2
37.5°	806.9	799.2	747.1	698.0	675.0
40°	756.3	747.1	690.3	645.8	621.3
42.5°	708.7	696.5	641.2	593.7	566.1
45°	658.1	644.3	589.1	540.0	518.5
47.5°	607.5	595.2	544.6	494.0	469.4
50°	553.8	543.1	497.0	446.4	420.3
52.5°	509.3	492.4	447.9	397.3	375.8
55°	457.1	443.3	401.9	354.4	336.0
57.5°	409.6	395.8	357.4	312.9	297.6
60°	365.1	345.2	312.9	274.6	262.3
62.5°	316.0	300.7	273.1	240.8	256.2
65°	271.5	256.2	231.6	236.2	196.4
67.5°	222.4	214.8	193.3	171.8	165.7
70°	181.0	171.8	164.1	141.1	135.0
72.5°	144.2	135.0	124.3	112.0	107.4
75°	108.9	101.2	95.1	90.5	99.7
77.5°	75.2	72.1	67.5	62.9	61.4
80°	49.1	47.6	46.0	44.5	43.0
82.5°	29.1	29.1	29.1	29.1	29.1
85°	15.3	16.9	18.4	19.9	21.5
87.5°	9.2	9.2	10.7	12.3	13.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)