

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: P562751

Luminaire Tested: FSR-24-4-LD4-2LO-40-UNV-80-97-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P562751  
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-24-4-LD4-2LO-40-UNV-80-97-EDD  
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

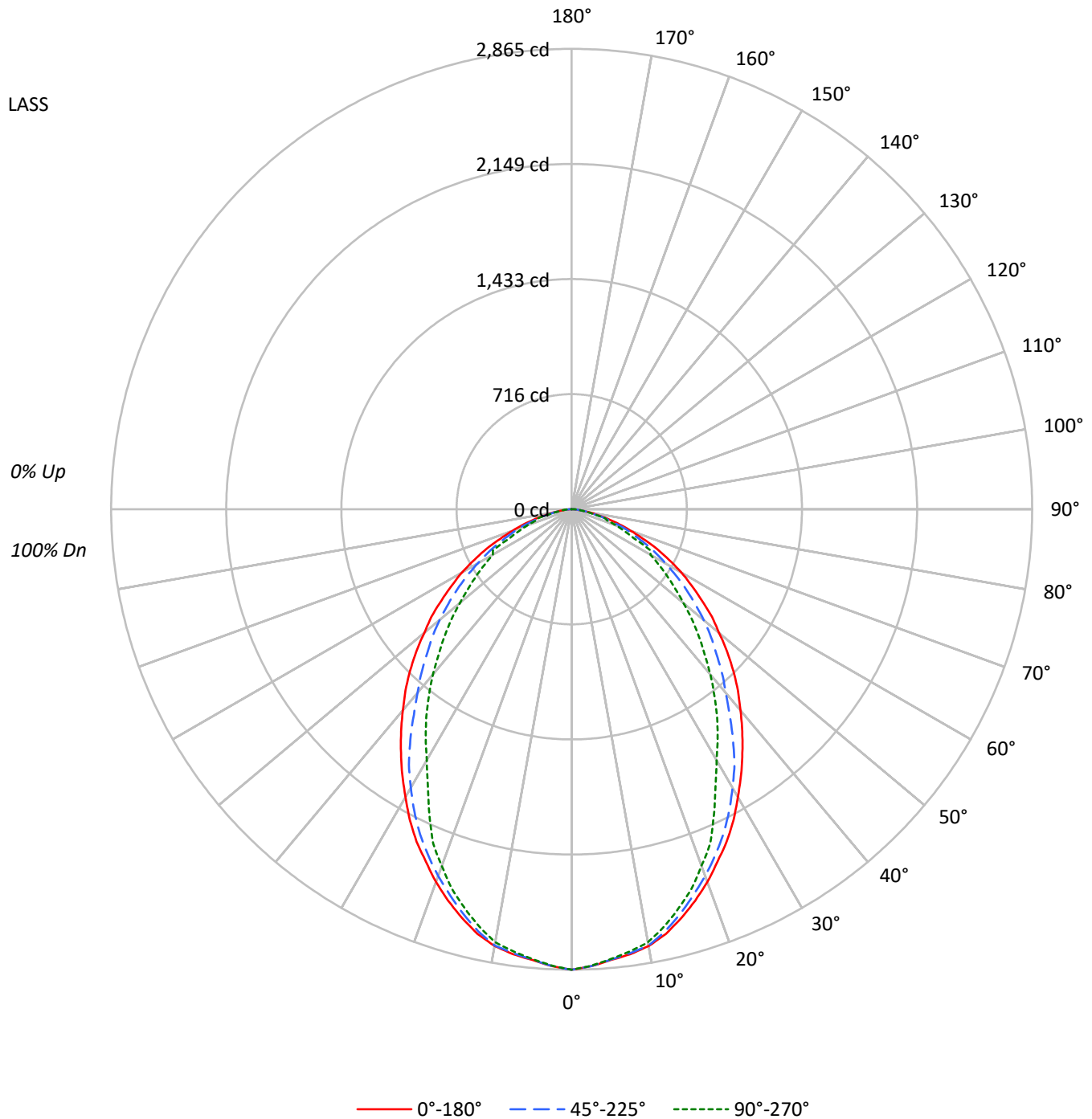
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5625.0 lumens  
Efficiency: N/A  
Efficacy: 120.2 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 46.8  
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																												
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°	3855	3855	3855
5°	3803	3798	3794
10°	3770	3765	3738
15°	3668	3631	3581
20°	3533	3477	3382
25°	3388	3314	3108
30°	3211	3108	2800
35°	3041	2873	2590
40°	2868	2618	2356
45°	2704	2420	2130
50°	2503	2246	1900
55°	2316	2036	1702
60°	2122	1818	1524
65°	1867	1592	1350
70°	1538	1394	1147
75°	1223	1068	1119
80°	821	770	718
85°	511	613	716

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2704 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	266.7	4.7
10°-20°	732.0	13.0
20°-30°	1013.4	18.0
30°-40°	1080.6	19.2
40°-50°	985.8	17.5
50°-60°	772.3	13.7
60°-70°	503.3	8.9
70°-80°	223.0	4.0
80°-90°	47.9	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°	2012.1	35.8
0°-40°	3092.7	55.0
0°-60°	4850.8	86.2
0°-90°	5625.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5625.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2865	2865	2865	2865	2865	
5°	2816	2812	2812	2809	2809	267
15°	2633	2633	2607	2580	2570	740
25°	2282	2269	2233	2153	2094	1048
35°	1852	1838	1749	1616	1577	1158
45°	1421	1391	1272	1166	1120	1095
55°	987	957	868	765	725	885
65°	586	553	500	510	424	578
75°	235	219	205	195	215	252
85°	33	36	40	43	46	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2865.3	2865.3	2865.3	2865.3	2865.3
2.5°	2845.4	2845.4	2845.4	2842.1	2842.1
5°	2815.6	2812.3	2812.3	2809.0	2809.0
7.5°	2792.4	2789.1	2785.8	2782.5	2775.9
10°	2759.3	2759.3	2756.0	2739.4	2736.1
12.5°	2706.3	2703.0	2689.7	2666.6	2659.9
15°	2633.4	2633.4	2606.9	2580.4	2570.5
17.5°	2553.9	2550.6	2517.5	2491.0	2477.7
20°	2467.8	2461.2	2428.1	2385.0	2361.8
22.5°	2371.7	2371.7	2332.0	2275.7	2252.5
25°	2282.3	2269.1	2232.6	2153.1	2093.5
27.5°	2179.6	2159.7	2120.0	2007.4	1937.8
30°	2067.0	2057.1	2000.7	1855.0	1802.0
32.5°	1961.0	1944.4	1884.8	1732.4	1689.4
35°	1851.7	1838.4	1749.0	1616.5	1576.7
37.5°	1742.4	1725.8	1613.2	1507.2	1457.5
40°	1633.1	1613.2	1490.6	1394.6	1341.6
42.5°	1530.4	1503.9	1384.6	1281.9	1222.3
45°	1421.1	1391.2	1272.0	1166.0	1119.6
47.5°	1311.7	1285.2	1175.9	1066.6	1013.6
50°	1195.8	1172.6	1073.2	963.9	907.6
52.5°	1099.7	1063.3	967.2	857.9	811.6
55°	987.1	957.3	867.9	765.2	725.4
57.5°	884.4	854.6	771.8	675.7	642.6
60°	788.4	745.3	675.7	592.9	566.4
62.5°	682.4	649.2	589.6	520.1	553.2
65°	586.3	553.2	500.2	510.1	424.0
67.5°	480.3	463.7	417.4	371.0	357.7
70°	390.9	371.0	354.4	304.7	291.5
72.5°	311.4	291.5	268.3	241.8	231.9
75°	235.2	218.6	205.4	195.4	215.3
77.5°	162.3	155.7	145.7	135.8	132.5
80°	106.0	102.7	99.4	96.1	92.7
82.5°	62.9	62.9	62.9	62.9	62.9
85°	33.1	36.4	39.7	43.1	46.4
87.5°	19.9	19.9	23.2	26.5	29.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)