

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: P562827

Luminaire Tested: FSR-24-4-LD4-2LO-50-UNV-81-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562827
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-50-UNV-81-94-EDD
Description: 2X4 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5700.0 lumens
Efficiency: N/A
Efficacy: 121.8 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

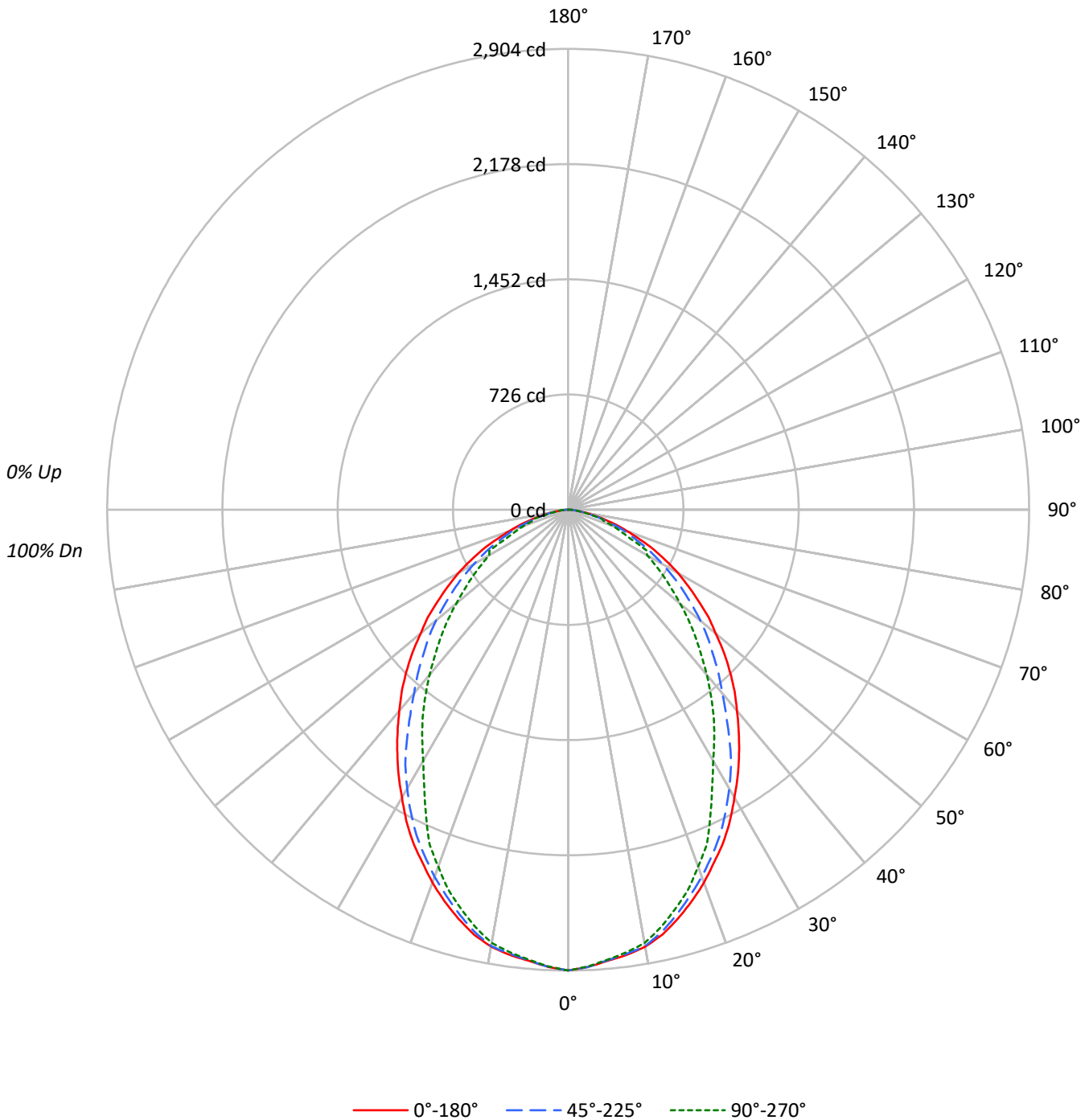
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P562827

CATALOG NUMBER: FSR-24-4-LD4-2LO-50-UNV-81-94-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P562827

CATALOG NUMBER: FSR-24-4-LD4-2LO-50-UNV-81-94-EDD

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°	3907	3907	3907
5°	3854	3849	3844
10°	3820	3816	3788
15°	3717	3680	3628
20°	3581	3523	3427
25°	3433	3359	3149
30°	3254	3150	2837
35°	3082	2911	2624
40°	2907	2653	2388
45°	2740	2453	2159
50°	2537	2277	1925
55°	2346	2063	1724
60°	2150	1843	1545
65°	1891	1614	1368
70°	1558	1413	1162
75°	1239	1082	1134
80°	832	780	728
85°	519	622	726

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2740 cd/sqm



TEST NUMBER: P562827

CATALOG NUMBER: FSR-24-4-LD4-2LO-50-UNV-81-94-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.3	4.7
10°-20°	741.8	13.0
20°-30°	1026.9	18.0
30°-40°	1095.0	19.2
40°-50°	998.9	17.5
50°-60°	782.6	13.7
60°-70°	510.1	8.9
70°-80°	226.0	4.0
80°-90°	48.5	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°	2038.9	35.8
0°-40°	3133.9	55.0
0°-60°	4915.5	86.2
0°-90°	5700.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5700.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2904	2904	2904	2904	2904	
5°	2853	2850	2850	2846	2846	271
15°	2668	2668	2642	2615	2605	750
25°	2313	2299	2262	2182	2121	1062
35°	1876	1863	1772	1638	1598	1173
45°	1440	1410	1289	1182	1134	1109
55°	1000	970	879	775	735	897
65°	594	561	507	517	430	586
75°	238	222	208	198	218	255
85°	34	37	40	44	47	47
90°	0	0	0	0	0	



TEST NUMBER: P562827

CATALOG NUMBER: FSR-24-4-LD4-2LO-50-UNV-81-94-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2903.5	2903.5	2903.5	2903.5	2903.5
2.5°	2883.4	2883.4	2883.4	2880.0	2880.0
5°	2853.2	2849.8	2849.8	2846.4	2846.4
7.5°	2829.7	2826.3	2822.9	2819.6	2812.9
10°	2796.1	2796.1	2792.7	2776.0	2772.6
12.5°	2742.4	2739.0	2725.6	2702.1	2695.4
15°	2668.5	2668.5	2641.7	2614.8	2604.8
17.5°	2588.0	2584.6	2551.1	2524.2	2510.8
20°	2500.7	2494.0	2460.4	2416.8	2393.3
22.5°	2403.4	2403.4	2363.1	2306.0	2282.5
25°	2312.7	2299.3	2262.4	2181.8	2121.4
27.5°	2208.7	2188.5	2148.3	2034.1	1963.6
30°	2094.6	2084.5	2027.4	1879.7	1826.0
32.5°	1987.1	1970.4	1909.9	1755.5	1711.9
35°	1876.4	1862.9	1772.3	1638.0	1597.8
37.5°	1765.6	1748.8	1634.7	1527.3	1476.9
40°	1654.8	1634.7	1510.5	1413.2	1359.4
42.5°	1550.8	1523.9	1403.1	1299.0	1238.6
45°	1440.0	1409.8	1289.0	1181.5	1134.5
47.5°	1329.2	1302.4	1191.6	1080.8	1027.1
50°	1211.8	1188.3	1087.6	976.8	919.7
52.5°	1114.4	1077.5	980.1	869.4	822.4
55°	1000.3	970.1	879.4	775.4	735.1
57.5°	896.2	866.0	782.1	684.8	651.2
60°	798.9	755.2	684.8	600.8	574.0
62.5°	691.5	657.9	597.5	527.0	560.6
65°	594.1	560.6	506.9	516.9	429.7
67.5°	486.7	469.9	422.9	375.9	362.5
70°	396.1	375.9	359.2	308.8	295.4
72.5°	315.5	295.4	271.9	245.0	235.0
75°	238.3	221.5	208.1	198.0	218.2
77.5°	164.5	157.8	147.7	137.6	134.3
80°	107.4	104.1	100.7	97.3	94.0
82.5°	63.8	63.8	63.8	63.8	63.8
85°	33.6	36.9	40.3	43.6	47.0
87.5°	20.1	20.1	23.5	26.9	30.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)