

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: P562705

Luminaire Tested: FSR-24-4-LD4-2LO-35-UNV-82-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562705
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-35-UNV-82-84-EDD
Description: 2X4 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5420.0 lumens
Efficiency: N/A
Efficacy: 115.8 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

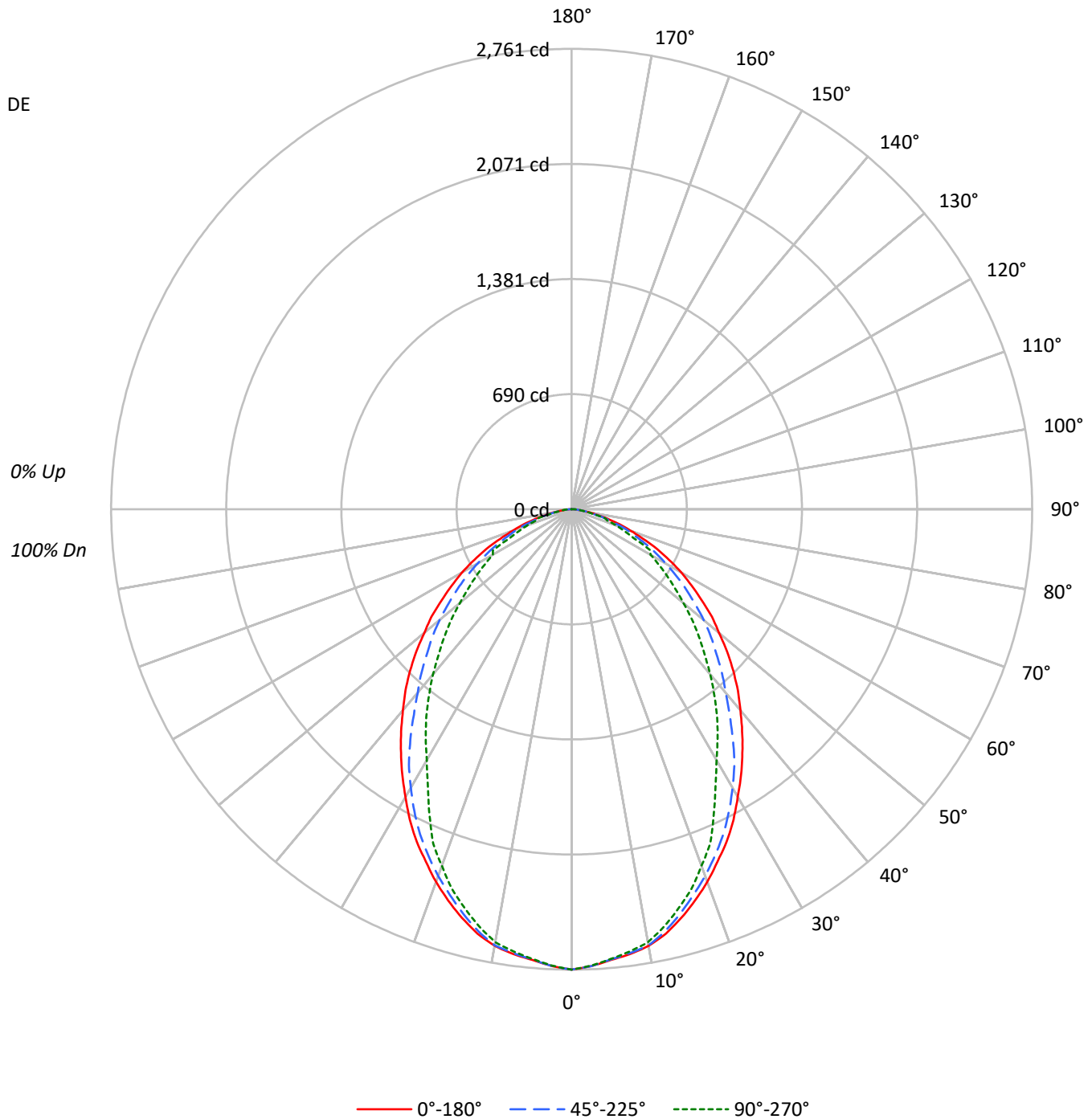
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P562705

CATALOG NUMBER: FSR-24-4-LD4-2LO-35-UNV-82-84-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P562705

CATALOG NUMBER: FSR-24-4-LD4-2LO-35-UNV-82-84-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	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°	3715	3715	3715
5°	3664	3660	3656
10°	3632	3628	3602
15°	3535	3499	3450
20°	3405	3350	3258
25°	3265	3194	2995
30°	3094	2995	2698
35°	2931	2768	2496
40°	2764	2523	2271
45°	2606	2332	2053
50°	2412	2165	1831
55°	2231	1962	1640
60°	2044	1752	1469
65°	1798	1535	1301
70°	1482	1343	1105
75°	1178	1029	1079
80°	791	742	693
85°	492	591	690

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2606 cd/sqm



TEST NUMBER: P562705

CATALOG NUMBER: FSR-24-4-LD4-2LO-35-UNV-82-84-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.0	4.7
10°-20°	705.3	13.0
20°-30°	976.5	18.0
30°-40°	1041.2	19.2
40°-50°	949.9	17.5
50°-60°	744.1	13.7
60°-70°	485.0	8.9
70°-80°	214.9	4.0
80°-90°	46.1	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°	1938.8	35.8
0°-40°	2980.0	55.0
0°-60°	4674.0	86.2
0°-90°	5420.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5420.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2761	2761	2761	2761	2761	
5°	2713	2710	2710	2707	2707	258
15°	2538	2538	2512	2486	2477	713
25°	2199	2186	2151	2075	2017	1010
35°	1784	1771	1685	1558	1519	1115
45°	1369	1340	1226	1124	1079	1055
55°	951	922	836	737	699	853
65°	565	533	482	492	408	557
75°	227	211	198	188	208	243
85°	32	35	38	42	45	44
90°	0	0	0	0	0	



TEST NUMBER: P562705

CATALOG NUMBER: FSR-24-4-LD4-2LO-35-UNV-82-84-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2760.9	2760.9	2760.9	2760.9	2760.9
2.5°	2741.7	2741.7	2741.7	2738.5	2738.5
5°	2713.0	2709.8	2709.8	2706.6	2706.6
7.5°	2690.7	2687.5	2684.3	2681.1	2674.7
10°	2658.7	2658.7	2655.5	2639.6	2636.4
12.5°	2607.7	2604.5	2591.7	2569.4	2563.0
15°	2537.5	2537.5	2511.9	2486.4	2476.8
17.5°	2460.8	2457.7	2425.7	2400.2	2387.4
20°	2377.9	2371.5	2339.6	2298.1	2275.7
22.5°	2285.3	2285.3	2247.0	2192.7	2170.4
25°	2199.1	2186.4	2151.2	2074.6	2017.2
27.5°	2100.2	2081.0	2042.7	1934.2	1867.2
30°	1991.7	1982.1	1927.8	1787.4	1736.3
32.5°	1889.5	1873.6	1816.1	1669.3	1627.8
35°	1784.2	1771.4	1685.3	1557.6	1519.3
37.5°	1678.9	1662.9	1554.4	1452.3	1404.4
40°	1573.5	1554.4	1436.3	1343.7	1292.7
42.5°	1474.6	1449.1	1334.2	1235.2	1177.8
45°	1369.3	1340.5	1225.6	1123.5	1078.8
47.5°	1263.9	1238.4	1133.1	1027.7	976.7
50°	1152.2	1129.9	1034.1	928.8	874.5
52.5°	1059.7	1024.6	932.0	826.7	782.0
55°	951.1	922.4	836.2	737.3	699.0
57.5°	852.2	823.5	743.7	651.1	619.2
60°	759.6	718.1	651.1	571.3	545.8
62.5°	657.5	625.6	568.1	501.1	533.0
65°	564.9	533.0	482.0	491.5	408.5
67.5°	462.8	446.8	402.2	357.5	344.7
70°	376.6	357.5	341.5	293.6	280.9
72.5°	300.0	280.9	258.5	233.0	223.4
75°	226.6	210.7	197.9	188.3	207.5
77.5°	156.4	150.0	140.4	130.9	127.7
80°	102.1	98.9	95.8	92.6	89.4
82.5°	60.6	60.6	60.6	60.6	60.6
85°	31.9	35.1	38.3	41.5	44.7
87.5°	19.2	19.2	22.3	25.5	28.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)