

Scaled data based on original data using
LM-46-04 Photometric Testing of Indoor Luminaires Using High Intensity Discharge
or Incandescent Filament Lamps (Reaffirmed 2012)

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: STREETWORKS

Report Number: 768366

Luminaire Tested: **TRU15SXX4F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: 768366
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: TRU15SXX4F
Description: ARCHITECTURAL AREA LUMINAIRE - TYPE IV
Light Source: 150 WATT HPS CLEAR ED-23.5
Ballast/Driver: -

Summary

Lumens per Lamp: 16000 (1 lamp)
Luminaire Lumens: 8781.8 lumens
Efficiency: 54.9%
Efficacy: 46.7 lumens/watt
Luminous Opening: Rectangular (W 1.08' x L: 1.08' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

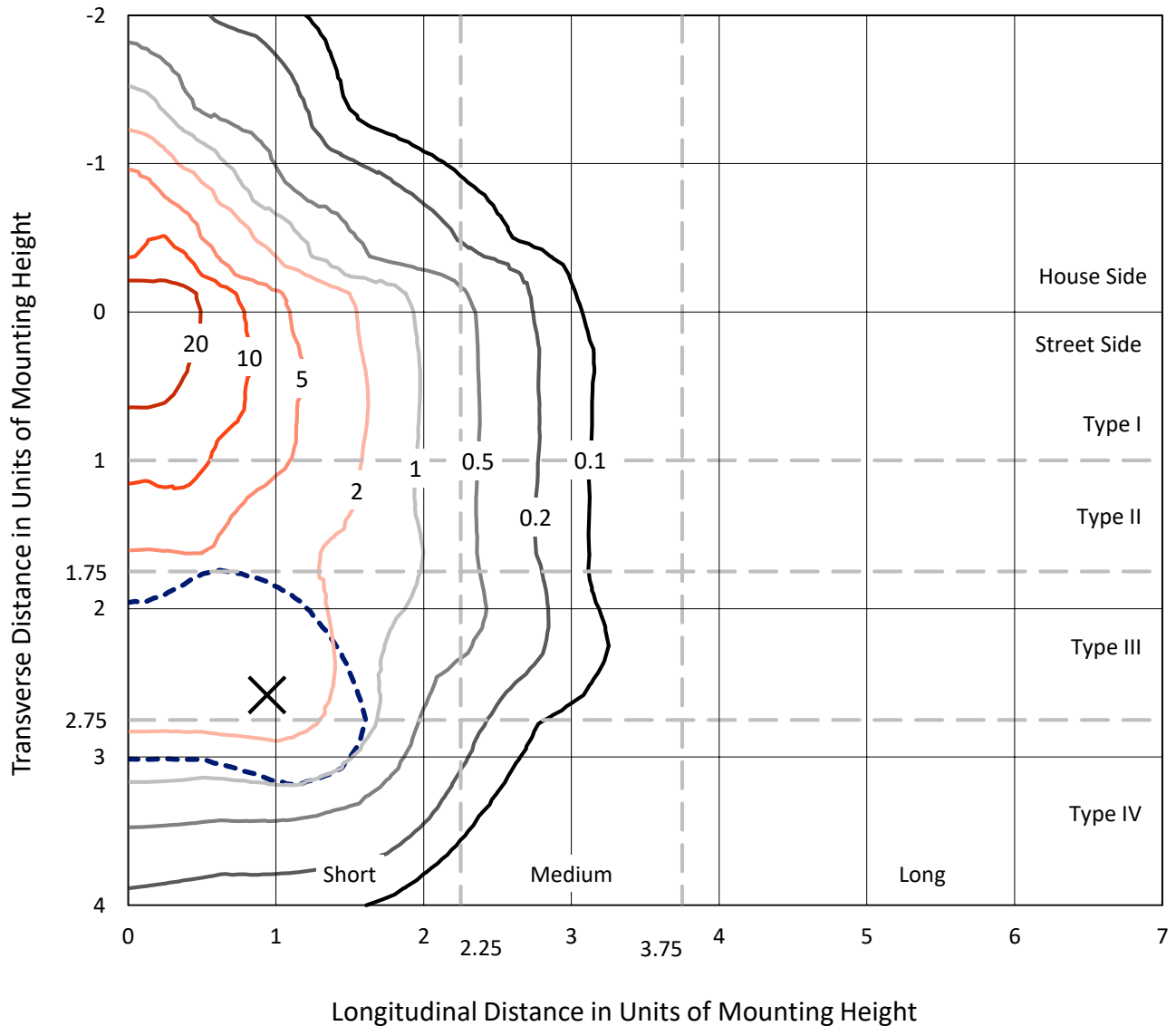
Input Watts (W): 188
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: 768366
 CATALOG NUMBER: TRU15SXX4F

Iso-Footcandle Lines of Horizontal Illumination

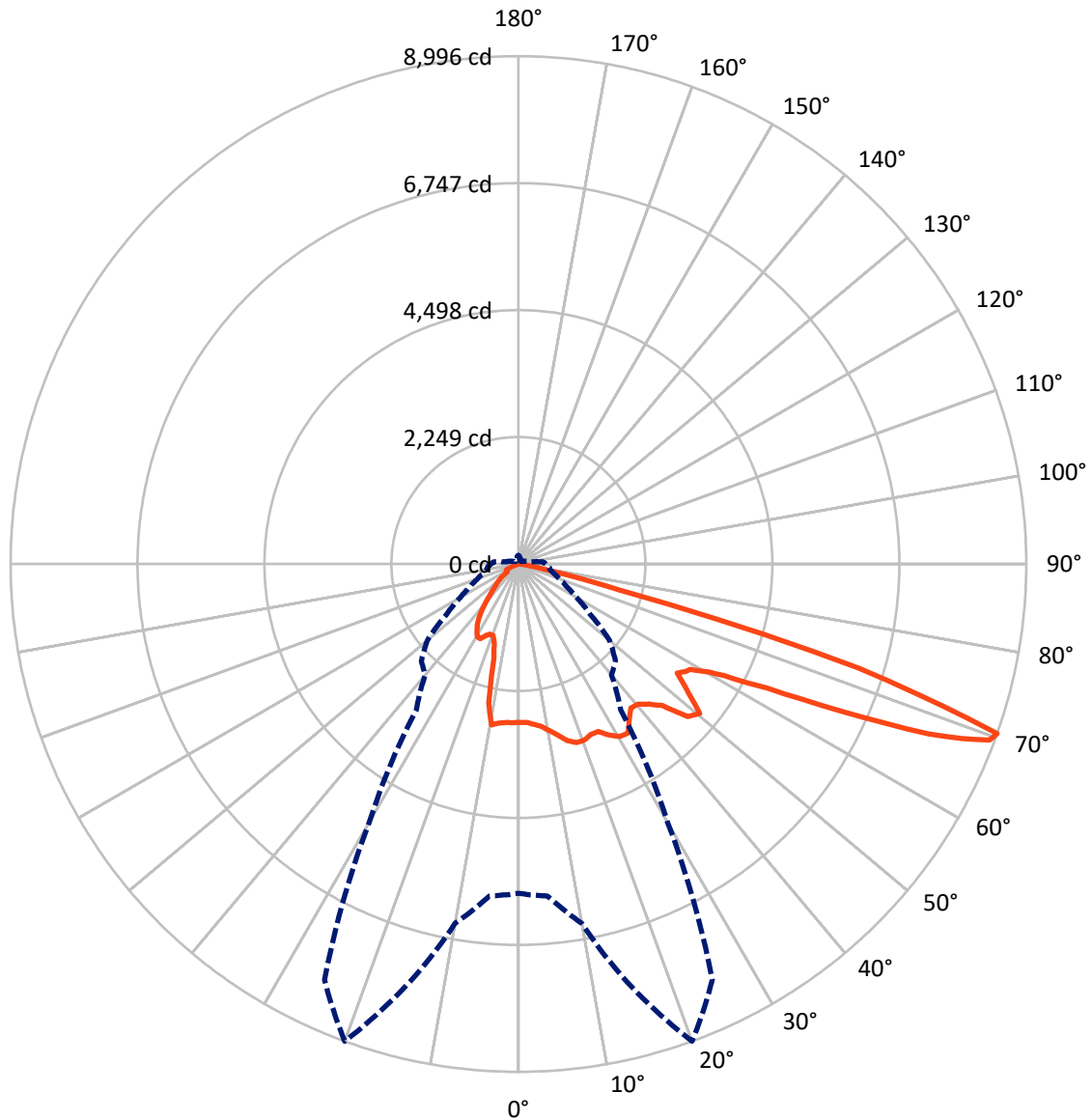
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 29.4 fc
 Type IV - Short - Full Cutoff

REPORT NUMBER: 768366
CATALOG NUMBER: TRU15SXX4F

Luminous Intensity Polar Plot



— Vertical Plane Through 20-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical



REPORT NUMBER: 768366
 CATALOG NUMBER: TRU15SXX4F

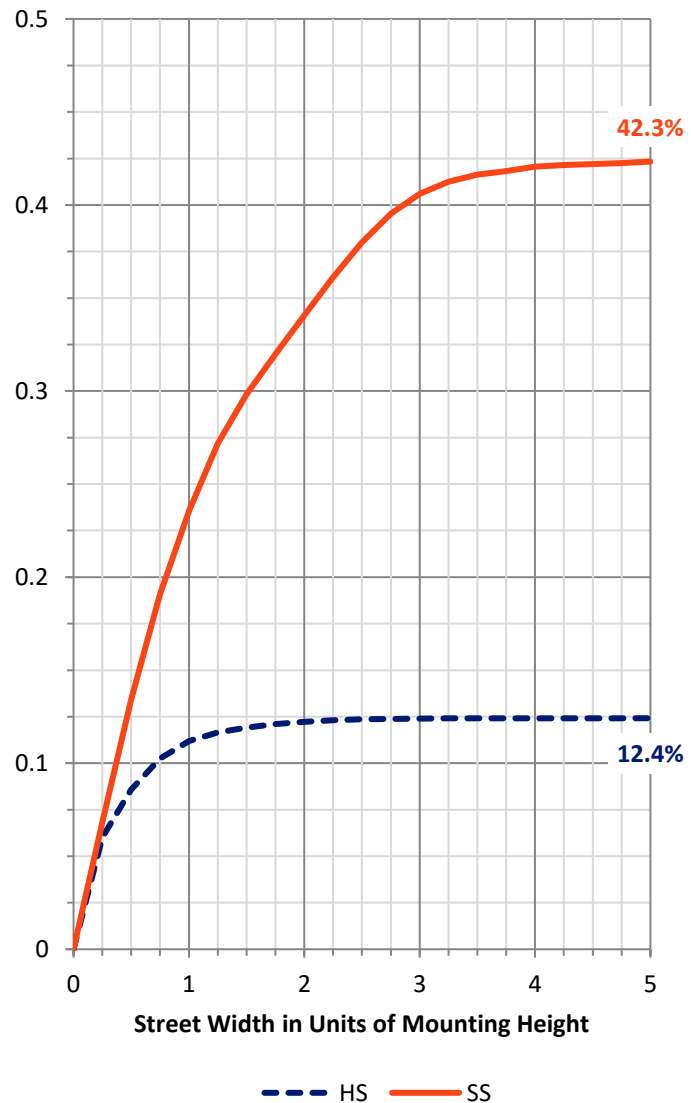
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1999.0	0.0	1999.0
	% Lamp	12.5	0.0	12.5
Street Side	Lumens	6782.8	0.0	6782.8
	% Lamp	42.4	0.0	42.4
Total	Lumens	8781.8	0.0	8781.8
	% Lamp	54.9	0.0	54.9

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	272.1	3.1	1.7
10°-20°	782.9	8.9	4.9
20°-30°	1152.5	13.1	7.2
30°-40°	1319.0	15.0	8.2
40°-50°	1408.3	16.0	8.8
50°-60°	1390.1	15.8	8.7
60°-70°	1636.7	18.6	10.2
70°-80°	781.7	8.9	4.9
80°-90°	38.6	0.4	0.2
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-90°	8781.8	100.0	54.9
0°-180°	8781.8	100.0	54.9

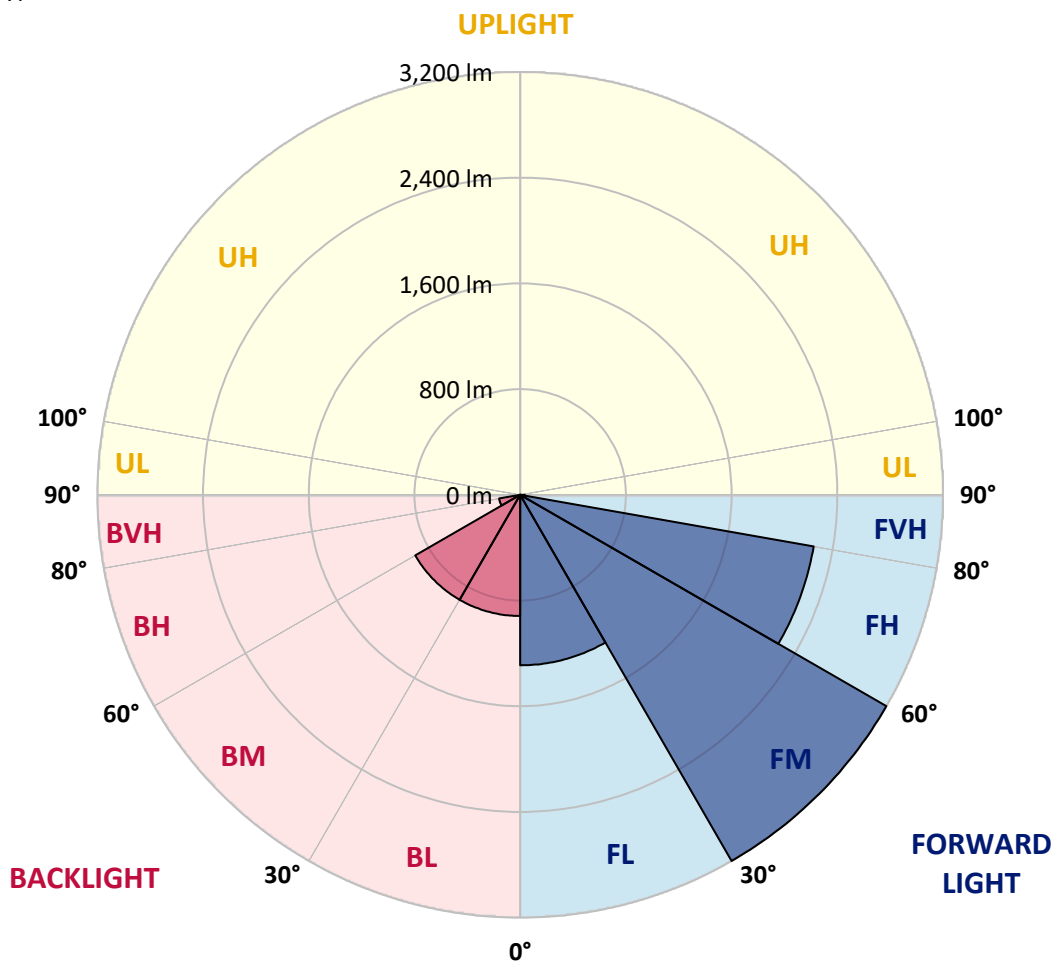


REPORT NUMBER: 768366
 CATALOG NUMBER: TRU15SXX4F

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1290.5	8.1			
FM	(30°-60°)	3200.4	20.0			
FH	(60°-80°)	2256.3	14.1			G2/5000
FVH	(80°-90°)	35.6	0.2			G1/100
BL	(0°-30°)	917.1	5.7	B2/1000		
BM	(30°-60°)	917.0	5.7	B1/1000		
BH	(60°-80°)	162.0	1.0	B1/500		G1/500
BVH	(80°-90°)	3.0	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		7218.2	45.1			

BUG Rating: B2-U0-G2
 Type IV Short





REPORT NUMBER: 768366
 CATALOG NUMBER: TRU15SXX4F

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1
2.5°	2828.8	2814.7	2811.2	2811.2	2811.2	2808.6	2806.8	2808.6	2806.8	2806.8	2798.0
5°	2855.1	2841.9	2849.0	2846.3	2849.9	2840.2	2837.6	2837.6	2833.2	2828.8	2820.0
7.5°	2951.8	2925.4	2925.4	2914.9	2903.4	2894.7	2885.0	2881.5	2873.6	2868.3	2849.0
10°	3074.8	3061.6	3044.0	3022.0	3000.1	2982.5	2969.3	2961.4	2951.8	2940.3	2925.4
12.5°	3138.0	3123.1	3131.9	3127.5	3109.9	3087.9	3050.2	3022.0	3004.5	2982.5	2963.2
15°	3276.8	3254.8	3251.3	3246.1	3246.1	3210.9	3180.2	3140.6	3097.6	3066.0	3026.4
17.5°	3329.5	3320.7	3320.7	3326.0	3325.1	3325.1	3325.1	3261.0	3210.9	3153.8	3109.9
20°	3276.8	3263.6	3276.8	3299.6	3330.4	3360.3	3377.8	3345.3	3290.0	3237.3	3184.6
22.5°	3241.7	3228.5	3232.9	3250.4	3281.2	3303.2	3325.1	3337.4	3294.4	3232.9	3171.4
25°	3344.4	3325.1	3285.6	3281.2	3284.7	3259.2	3228.5	3211.8	3206.5	3184.6	3123.1
27.5°	3487.6	3468.3	3461.3	3461.3	3434.9	3351.5	3219.7	3140.6	3084.4	3061.6	2996.6
30°	3452.5	3443.7	3487.6	3538.6	3544.7	3459.5	3329.5	3167.0	3004.5	2938.6	2889.4
32.5°	3368.2	3364.7	3421.8	3518.4	3566.7	3487.6	3369.0	3224.1	3013.3	2868.3	2787.5
35°	3241.7	3230.2	3285.6	3382.2	3377.8	3342.7	3285.6	3210.9	3109.9	2934.2	2753.2
37.5°	3206.5	3189.0	3228.5	3246.1	3237.3	3191.6	3167.0	3153.8	3147.7	3046.6	2824.4
40°	3259.2	3251.3	3294.4	3303.2	3263.6	3136.2	3052.8	3070.4	3131.9	3101.1	2894.7
42.5°	3232.9	3268.0	3430.5	3496.4	3391.0	3217.9	3066.0	2991.3	3040.5	3083.5	2934.2
45°	3373.4	3297.9	3395.4	3584.3	3575.5	3439.3	3215.3	3008.9	2969.3	3044.0	2925.4
47.5°	3505.2	3417.4	3514.0	3919.9	4036.7	3746.8	3376.1	3091.4	2982.5	3000.1	2899.0
50°	3637.0	3531.6	3739.8	4181.7	4162.3	3809.2	3404.2	3131.9	3013.3	2982.5	2885.9
52.5°	3557.9	3569.3	3764.4	3917.2	3755.6	3429.7	3236.4	3115.2	3008.9	2956.2	2881.5
55°	3482.4	3456.9	3509.6	3566.7	3413.0	3208.3	3017.6	2956.2	2956.2	2925.4	2824.4
57°	3382.2	3337.4	3430.5	3562.3	3530.7	3224.1	2929.8	2749.7	2814.7	2877.1	2791.9
58°	3373.4	3342.7	3465.7	3623.8	3571.1	3246.1	2912.2	2683.8	2729.5	2837.6	2740.9
59°	3420.9	3404.2	3562.3	3740.7	3729.2	3327.8	2877.1	2644.3	2654.8	2789.2	2679.4
60°	3584.3	3557.9	3716.1	3958.5	3883.0	3450.7	2913.1	2648.7	2574.9	2710.2	2587.2
61°	3812.7	3817.1	3968.2	4278.3	4142.1	3689.7	2978.1	2620.6	2508.1	2609.1	2486.2
62°	4102.6	4176.4	4306.4	4528.7	4550.6	4000.7	3099.3	2578.4	2481.8	2516.0	2376.3
63°	4429.4	4417.1	4718.4	5020.6	4928.4	4378.4	3329.5	2613.5	2424.7	2437.8	2278.8
64°	4691.2	4673.6	5077.7	5549.5	5568.8	4937.2	3714.3	2705.8	2368.4	2393.9	2213.8
65°	4831.8	4849.3	5303.5	5978.2	6290.9	5565.3	4111.4	2843.7	2345.6	2376.3	2187.5
66°	5016.2	5064.6	5530.2	6426.2	7054.4	6325.2	4557.7	3004.5	2393.9	2358.8	2218.2
67°	5479.2	5517.0	5916.7	6960.4	7858.2	7107.1	4801.0	3162.6	2477.4	2363.2	2276.2
68°	6044.1	6081.9	6386.7	7462.9	8435.4	7476.0	4994.3	3241.7	2569.6	2424.7	2270.0
69°	6158.3	6224.2	6768.8	7924.1	8908.0	7884.5	5165.6	3215.3	2613.5	2422.0	2200.6
70°	5833.2	5903.5	6463.1	7758.0	8995.8	8126.1	5288.6	3153.8	2565.2	2429.1	2104.0
72.5°	3645.8	3676.5	3744.2	4612.1	6298.8	6140.7	4590.2	2769.9	2038.1	2156.7	1860.7
75°	1405.6	1339.7	1352.0	1603.3	1858.0	2282.3	2007.4	1463.6	1063.9	807.3	942.6
77.5°	896.1	883.8	708.9	576.3	570.1	486.7	354.9	260.9	247.7	292.5	375.1
80°	636.9	577.2	443.6	290.8	246.0	197.7	140.6	116.0	122.1	128.3	145.0
82.5°	273.2	238.1	196.8	164.3	130.0	122.1	104.5	73.8	66.8	63.3	58.9
85°	57.1	61.5	61.5	60.6	67.6	67.6	59.7	43.9	41.3	32.5	23.7
87.5°	14.9	13.2	14.9	16.7	18.4	16.7	19.3	11.4	6.1	5.3	3.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: 768366
 CATALOG NUMBER: TRU15SXX4F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1
2.5°	2799.8	2795.4	2798.0	2799.8	2806.8	2806.8	2811.2	2806.8	2811.2	2811.2	2811.2
5°	2819.1	2815.6	2815.6	2815.6	2815.6	2811.2	2815.6	2815.6	2820.0	2828.8	2828.8
7.5°	2842.8	2833.2	2833.2	2829.6	2822.6	2820.9	2815.6	2824.4	2833.2	2841.9	2842.8
10°	2925.4	2925.4	2921.0	2903.4	2894.7	2885.9	2863.9	2868.3	2870.9	2881.5	2881.5
12.5°	2947.4	2930.7	2932.4	2925.4	2907.8	2894.7	2899.0	2899.0	2926.3	2938.6	2934.2
15°	2998.3	2978.1	2947.4	2941.2	2932.4	2917.5	2916.6	2938.6	2983.4	3013.3	2996.6
17.5°	3052.8	3013.3	2995.7	2960.5	2938.6	2929.8	2934.2	2960.5	3026.4	3057.2	3026.4
20°	3116.0	3048.4	3013.3	2969.3	2929.8	2921.0	2928.9	2947.4	3008.9	3035.2	3000.1
22.5°	3105.5	3029.9	2964.9	2943.0	2916.6	2907.8	2907.8	2925.4	2964.9	2956.2	2924.5
25°	3026.4	2960.5	2884.1	2850.7	2868.3	2852.5	2834.0	2853.4	2894.7	2850.7	2784.8
27.5°	2903.4	2841.9	2784.8	2767.3	2776.1	2732.1	2657.5	2684.7	2719.8	2626.7	2569.6
30°	2820.0	2749.7	2675.0	2630.2	2622.3	2569.6	2490.5	2508.1	2556.4	2367.6	2310.5
32.5°	2736.5	2653.1	2582.8	2498.5	2481.8	2433.4	2316.6	2354.4	2372.0	2134.8	2011.8
35°	2670.6	2587.2	2525.7	2415.9	2358.8	2306.1	2183.1	2191.9	2222.6	1959.1	1738.6
37.5°	2648.7	2569.6	2499.3	2389.5	2262.1	2191.9	2046.9	2055.7	2073.3	1831.7	1463.6
40°	2679.4	2538.9	2486.2	2398.3	2216.5	2086.4	1950.3	2007.4	1919.5	1682.3	1168.4
42.5°	2679.4	2518.7	2468.6	2402.7	2196.2	2007.4	1875.6	1888.8	1796.5	1555.8	840.7
45°	2639.0	2480.9	2450.1	2376.3	2183.1	1932.7	1761.4	1751.7	1690.2	1414.4	665.0
47.5°	2598.6	2386.9	2380.7	2314.8	2108.4	1844.8	1651.6	1618.2	1594.5	1225.5	590.4
50°	2556.4	2302.5	2284.1	2196.2	1994.2	1730.6	1550.6	1489.9	1427.6	1041.0	508.7
52.5°	2512.5	2247.2	2134.8	2017.0	1826.4	1603.3	1453.0	1390.7	1291.4	803.8	441.9
55°	2494.9	2205.9	2086.4	1858.0	1676.2	1480.3	1385.4	1392.4	1220.2	579.8	391.8
57°	2451.0	2186.6	1976.6	1743.8	1559.3	1389.8	1287.0	1221.1	1146.4	470.0	363.7
58°	2393.9	2140.0	1899.3	1695.5	1511.9	1335.3	1230.8	1186.0	1111.3	431.3	354.9
59°	2319.2	2055.7	1849.2	1642.8	1476.8	1295.8	1192.1	1159.6	1080.6	399.7	354.9
60°	2240.2	1945.9	1765.8	1591.0	1421.4	1252.7	1155.2	1123.6	1045.4	375.1	354.0
61°	2159.4	1836.1	1677.9	1518.9	1390.7	1228.1	1119.2	1084.1	1005.9	369.8	351.4
62°	2034.6	1730.6	1576.9	1432.0	1319.5	1188.6	1092.0	1045.4	944.4	364.6	347.9
63°	1928.3	1646.3	1484.7	1344.1	1244.8	1137.7	1054.2	1005.9	903.1	358.4	341.7
64°	1840.5	1570.8	1410.0	1265.0	1168.4	1084.9	1014.7	966.4	860.9	350.5	331.2
65°	1787.7	1513.7	1352.9	1203.5	1102.5	1027.8	975.1	926.8	819.6	342.6	314.5
66°	1730.6	1449.5	1291.4	1150.8	1063.0	975.1	935.6	882.9	772.2	332.1	296.9
67°	1677.9	1392.4	1243.1	1098.1	1012.9	918.9	863.6	828.4	699.3	307.5	276.7
68°	1656.0	1342.3	1190.4	1054.2	931.2	831.1	787.1	748.5	618.5	269.7	249.5
69°	1612.0	1280.9	1093.7	928.6	788.9	703.7	662.4	627.2	521.0	239.0	208.2
70°	1550.6	1190.4	935.6	774.8	649.2	567.5	541.2	487.6	435.7	216.1	184.5
72.5°	1151.7	730.9	544.7	436.6	399.7	372.5	359.3	293.4	230.2	175.7	140.6
75°	767.8	452.4	368.1	360.2	345.3	330.3	304.0	250.4	179.2	132.7	101.0
77.5°	541.2	469.1	301.3	266.2	260.9	250.4	218.7	166.9	119.5	85.2	66.8
80°	185.4	296.1	265.3	164.3	162.5	159.0	131.8	91.4	69.4	51.0	36.9
82.5°	59.7	65.0	70.3	69.4	72.0	58.0	51.8	38.7	28.1	23.7	19.3
85°	15.8	20.2	13.2	17.6	16.7	13.2	14.1	11.4	12.3	10.5	4.4
87.5°	2.6	2.6	3.5	2.6	6.1	5.3	4.4	3.5	3.5	3.5	3.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: 768366
 CATALOG NUMBER: TRU15SXX4F

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1
2.5°	2815.6	2815.6	2816.5	2817.3	2815.6	2815.6	2820.0	2815.6	2813.8	2811.2	2811.2
5°	2833.2	2828.8	2833.2	2837.6	2833.2	2833.2	2824.4	2820.9	2824.4	2820.0	2815.6
7.5°	2850.7	2841.9	2838.4	2824.4	2815.6	2815.6	2815.6	2815.6	2821.7	2829.6	2837.6
10°	2877.1	2859.5	2846.3	2846.3	2846.3	2855.1	2872.7	2890.3	2899.0	2903.4	2887.6
12.5°	2912.2	2890.3	2899.0	2901.7	2910.5	2925.4	2884.1	2784.8	2697.0	2591.6	2521.3
15°	2969.3	2956.2	2964.9	2960.5	2890.3	2740.9	2512.5	2328.0	2059.2	1893.2	1721.9
17.5°	2995.7	2995.7	2991.3	2863.9	2596.0	2270.9	1972.2	1792.1	1634.0	1524.2	1457.4
20°	3000.1	3000.1	2863.9	2558.2	2192.7	1976.6	1805.3	1686.7	1563.7	1438.1	1339.7
22.5°	2934.2	2841.9	2464.2	2103.1	1919.5	1880.0	1805.3	1686.7	1567.2	1440.7	1339.7
25°	2769.9	2503.7	1976.6	1770.2	1770.2	1757.0	1715.7	1625.2	1546.2	1467.1	1390.7
27.5°	2464.2	1941.5	1528.6	1519.8	1563.7	1607.7	1539.1	1503.1	1528.6	1541.8	1487.3
30°	1967.0	1352.9	1256.3	1238.7	1278.2	1309.0	1326.5	1423.2	1515.4	1537.4	1480.3
32.5°	1445.1	1032.2	1010.3	1045.4	1058.6	1032.2	1154.3	1298.4	1383.6	1396.8	1383.6
35°	1032.2	867.1	904.9	922.4	868.0	912.8	1045.4	1166.6	1200.0	1229.9	1278.2
37.5°	822.3	860.9	847.8	773.1	761.7	858.3	908.4	931.2	1006.8	1093.7	1133.3
40°	696.7	761.7	755.5	678.2	716.9	784.5	746.7	783.6	849.5	916.3	956.7
42.5°	637.8	730.9	651.0	611.4	657.1	594.7	583.3	643.1	702.8	746.7	781.0
45°	643.9	688.7	527.1	537.6	499.9	452.4	457.7	515.7	576.3	618.5	638.7
47.5°	633.4	487.6	483.2	451.5	369.8	369.0	390.1	428.7	476.1	506.9	543.8
50°	470.0	424.3	441.9	336.5	296.1	313.6	355.8	369.0	399.7	434.9	467.4
52.5°	434.0	420.8	367.2	268.8	254.8	287.3	310.1	322.4	342.6	376.0	366.3
55°	384.8	382.1	277.6	231.0	234.6	249.5	279.4	286.4	285.5	251.3	245.1
57°	347.9	313.6	246.9	211.7	206.4	221.4	250.4	255.6	226.7	232.8	244.2
58°	340.0	296.9	239.8	202.1	191.5	206.4	236.3	232.8	228.4	237.2	246.0
59°	334.7	290.8	228.4	195.0	176.6	190.6	220.5	224.9	230.2	240.7	247.7
60°	330.3	283.8	218.7	190.6	160.8	173.9	202.1	222.3	230.2	244.2	248.6
61°	320.7	276.7	209.1	179.2	148.5	157.3	192.4	217.0	229.3	246.9	246.9
62°	307.5	260.0	202.1	162.5	136.2	143.2	182.7	211.7	231.0	246.0	244.2
63°	291.7	239.0	195.0	149.3	120.4	130.0	166.9	205.6	226.7	245.1	239.8
64°	278.5	217.9	181.8	133.5	108.1	118.6	155.5	196.8	219.6	239.0	231.0
65°	256.5	200.3	164.3	119.5	99.3	107.2	140.6	182.7	206.4	225.8	216.1
66°	233.7	187.1	145.0	106.3	95.8	98.4	124.7	162.5	186.2	205.6	193.3
67°	209.1	172.2	124.7	97.5	88.7	90.5	105.4	138.8	165.2	180.1	173.1
68°	191.5	150.2	110.7	90.5	83.5	80.8	89.6	114.2	140.6	148.5	146.7
69°	166.9	128.3	98.4	85.2	77.3	72.9	79.1	93.1	117.7	125.6	113.3
70°	145.8	111.6	88.7	80.8	70.3	63.3	68.5	78.2	93.1	94.9	82.6
72.5°	103.7	79.1	72.0	61.5	51.0	45.7	43.0	41.3	44.8	41.3	30.7
75°	69.4	54.5	47.4	38.7	29.9	29.9	22.8	18.4	16.7	15.8	14.1
77.5°	42.2	31.6	28.1	19.3	15.8	15.8	10.5	7.9	7.9	6.1	7.0
80°	22.8	15.8	10.5	8.8	7.0	7.9	4.4	2.6	1.8	0.9	0.9
82.5°	8.8	5.3	3.5	2.6	1.8	0.9	0.0	0.0	0.0	0.0	0.0
85°	1.8	0.0	0.0	0.0	0.9	0.0	0.9	1.8	2.6	3.5	2.6
87.5°	4.4	4.4	4.4	5.3	5.3	5.3	6.1	6.1	5.3	5.3	5.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: 768366
 CATALOG NUMBER: TRU15SXX4F

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2805.1	2805.1	2805.1	2805.1
2.5°	2811.2	2808.6	2806.8	2811.2
5°	2815.6	2815.6	2806.8	2811.2
7.5°	2833.2	2837.6	2828.8	2842.8
10°	2885.9	2877.1	2859.5	2849.0
12.5°	2393.9	2323.6	2209.4	2275.3
15°	1669.2	1599.7	1569.0	1548.8
17.5°	1405.6	1352.9	1322.1	1317.8
20°	1262.4	1212.3	1186.0	1186.0
22.5°	1256.3	1190.4	1155.2	1150.8
25°	1309.0	1248.3	1203.5	1194.8
27.5°	1414.4	1330.9	1272.1	1247.5
30°	1415.3	1344.1	1295.8	1282.6
32.5°	1379.2	1392.4	1414.4	1432.0
35°	1339.7	1475.9	1620.8	1663.0
37.5°	1235.2	1471.5	1735.0	1844.8
40°	1058.6	1322.1	1670.9	1800.9
42.5°	866.2	1093.7	1370.5	1524.2
45°	725.6	882.9	1054.2	1168.4
47.5°	636.0	774.8	896.1	931.2
50°	553.5	701.0	791.5	866.2
52.5°	422.6	521.0	651.0	697.5
55°	311.9	457.7	596.5	662.4
57°	293.4	414.7	543.8	599.1
58°	286.4	391.8	504.3	552.6
59°	279.4	366.3	450.7	484.1
60°	266.2	336.5	422.6	464.7
61°	259.2	328.6	410.3	437.5
62°	253.9	326.8	412.0	433.1
63°	247.7	327.7	420.8	440.1
64°	240.7	324.2	424.3	444.5
65°	228.4	311.9	412.0	438.4
66°	210.8	295.2	392.7	409.4
67°	184.5	275.0	363.7	369.8
68°	155.5	241.6	312.7	320.7
69°	126.5	186.2	252.1	262.7
70°	92.2	113.3	140.6	151.1
72.5°	28.1	27.2	27.2	26.4
75°	14.9	14.1	14.1	13.2
77.5°	6.1	6.1	6.1	6.1
80°	0.9	0.9	0.9	0.0
82.5°	0.0	0.0	0.0	0.0
85°	1.8	1.8	2.6	2.6
87.5°	4.4	4.4	4.4	5.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)