

Scaled data based on original data using
LM-31-95 IESNA Approved Method for Photometric Testing of Roadway Luminaires
Using Incandescent Filament and High Intensity Discharge Lamps

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: STREETWORKS

Report Number: 768913

Luminaire Tested: **UTR15SXX33**

Issue Date: 3/3/2020

Test Information

Test Method: LM-31-95
Report Number: 768913
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: UTR15SXX33
Description: 150W HPS TYPE III TRADITIONAIRE POST TOP
Light Source: 150W HPS COATED ED-23.5
Ballast/Driver: -

Summary

Lumens per Lamp: 15000 (1 lamp)
Luminaire Lumens: 7724 lumens
Efficiency: 51.5%
Efficacy: 77.2 lumens/watt
Luminous Opening: Point Source (0' x 0' x 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - U3 - G3

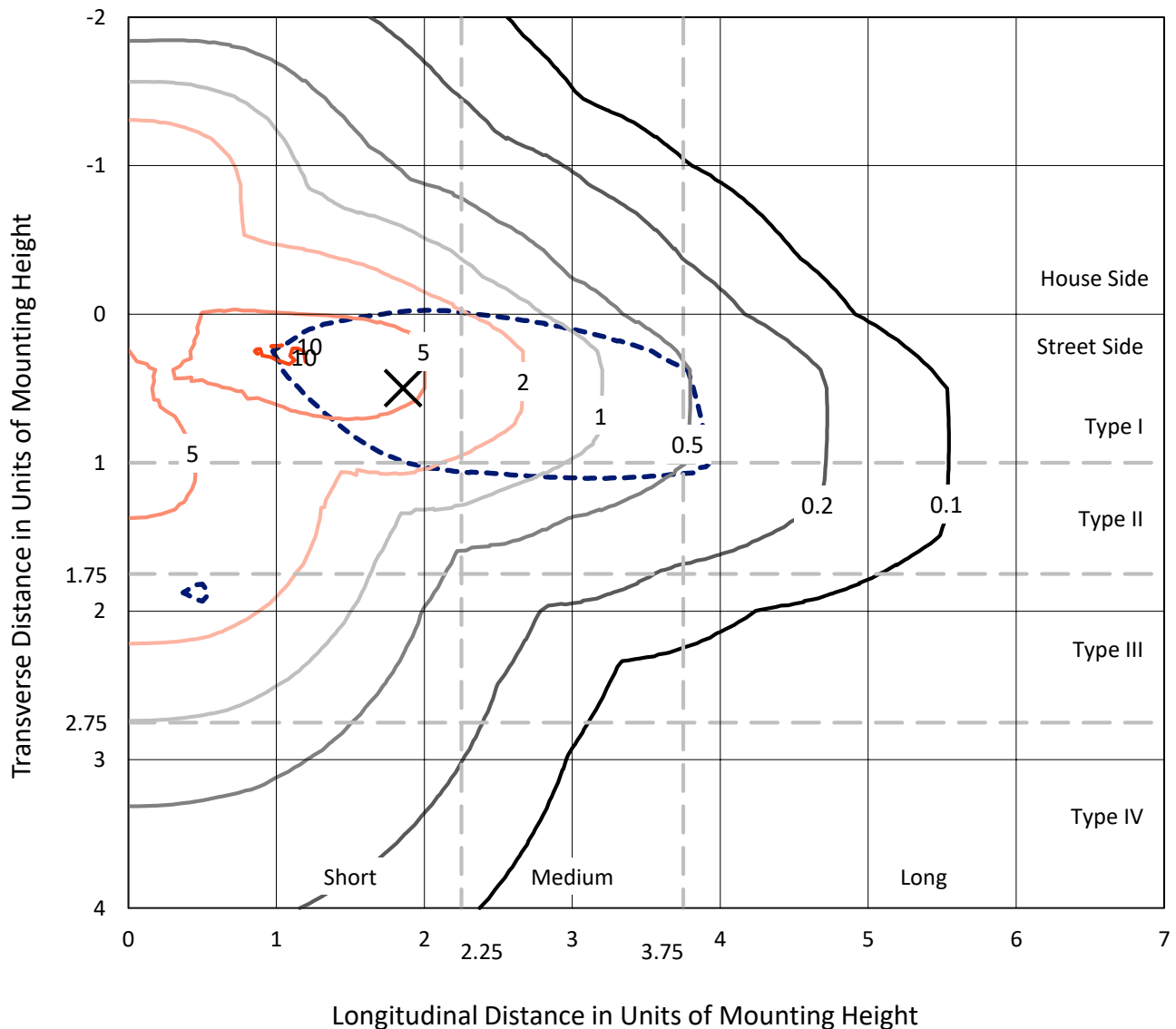
Input Watts (W): 100
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

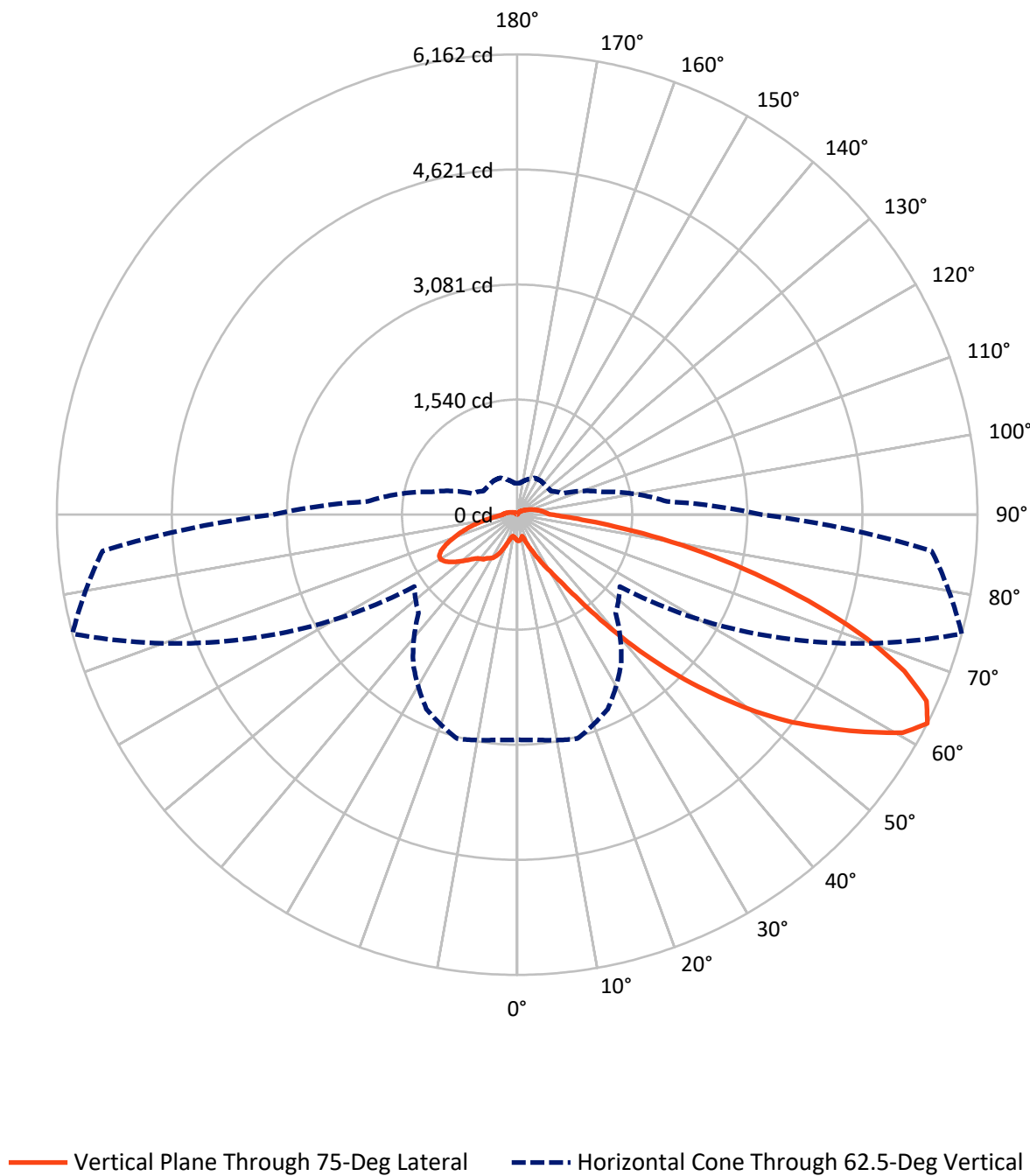
× Max cd
 --- 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.8 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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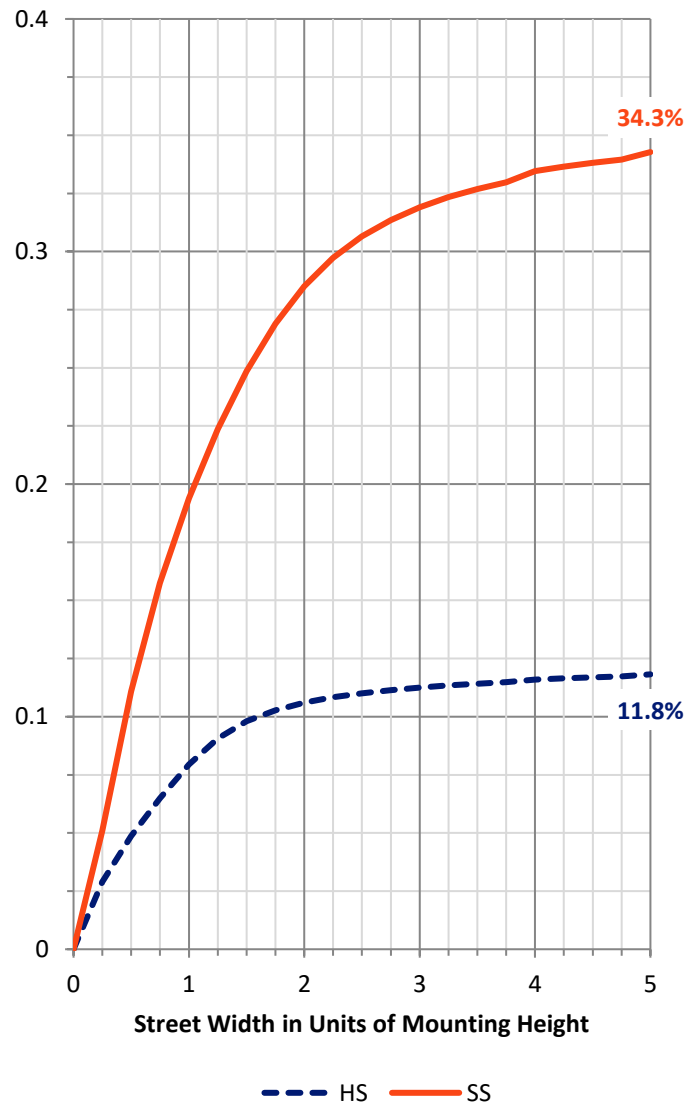
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1846.8	232.7	2079.5
	% Lamp	12.3	1.6	13.9
Street Side	Lumens	5287.6	356.9	5644.5
	% Lamp	35.3	2.4	37.6
Total	Lumens	7134.4	589.6	7724.0
	% Lamp	47.6	3.9	51.5

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	33.3	0.4	0.2
10°-20°	102.5	1.3	0.7
20°-30°	262.4	3.4	1.7
30°-40°	531.7	6.9	3.5
40°-50°	997.4	12.9	6.6
50°-60°	1618.7	21.0	10.8
60°-70°	1912.4	24.8	12.7
70°-80°	1198.4	15.5	8.0
80°-90°	477.7	6.2	3.2
90°-100°	240.0	3.1	1.6
100°-110°	159.2	2.1	1.1
110°-120°	98.7	1.3	0.7
120°-130°	59.4	0.8	0.4
130°-140°	30.1	0.4	0.2
140°-150°	8.9	0.1	0.1
150°-160°	0.9	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-90°	7134.4	92.4	47.6
0°-180°	7724.0	100.0	51.5

Coefficient of Utilization



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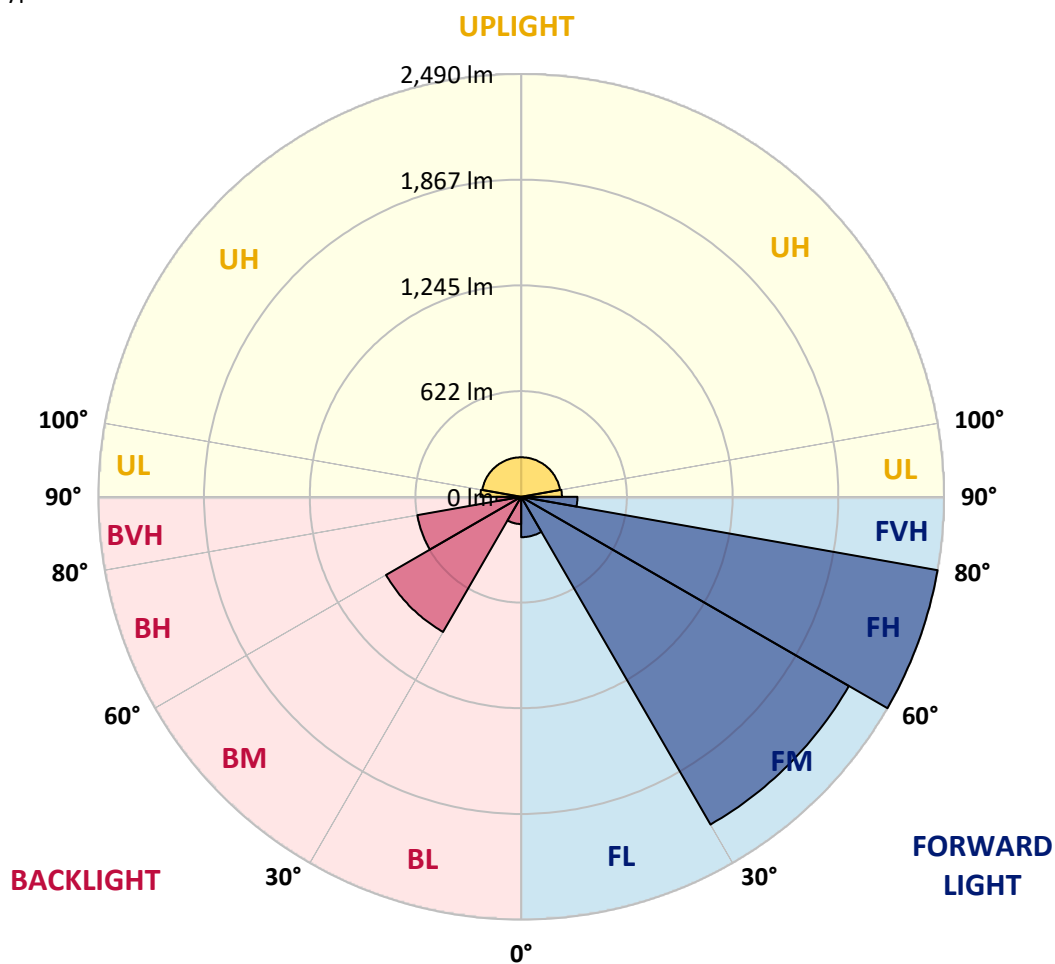
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	237.8	1.6			
FM	(30°-60°)	2228.7	14.9			
FH	(60°-80°)	2489.9	16.6			G2/5000
FVH	(80°-90°)	331.2	2.2			G3/500
BL	(0°-30°)	160.4	1.1	B1/500		
BM	(30°-60°)	919.1	6.1	B1/1000		
BH	(60°-80°)	620.8	4.1	B2/1000		G2/1000
BVH	(80°-90°)	146.5	1.0			G2/225
UL	(90°-100°)	240.0	1.6		U3/500	
UH	(100°-180°)	232.7	1.6		U3/500	
Trapped Light		7276.0	48.5			

BUG Rating: B2-U3-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	344.3	344.3	344.3	344.3	344.3	344.3	344.3	344.3	344.3	344.3	344.3
2.5°	393.7	393.7	392.0	388.6	383.5	373.3	364.8	358.0	351.1	344.3	340.9
5°	450.0	448.3	443.2	434.7	419.3	402.3	383.5	364.8	347.7	334.1	329.0
7.5°	487.5	485.8	479.0	467.0	446.6	422.7	392.0	361.4	337.5	320.5	315.3
10°	509.7	509.7	502.8	490.9	465.3	424.4	383.5	346.0	320.5	303.4	300.0
12.5°	531.8	530.1	519.9	501.1	461.9	414.2	359.7	315.3	294.9	296.6	300.0
15°	562.5	559.1	543.7	511.4	458.5	393.7	332.4	306.8	322.2	339.2	340.9
17.5°	596.6	593.2	576.1	531.8	467.0	385.2	342.6	346.0	388.6	410.8	410.8
20°	640.9	640.9	629.0	584.7	516.5	441.5	400.6	397.2	463.6	489.2	484.1
22.5°	704.0	707.4	688.6	629.0	574.4	560.8	501.1	475.6	538.6	588.1	574.4
25°	736.4	741.5	715.9	654.5	646.0	692.0	663.1	589.8	647.7	693.7	669.9
27.5°	763.6	767.0	733.0	664.8	685.2	773.9	826.7	744.9	768.7	775.6	731.2
30°	819.9	823.3	782.4	702.3	710.8	787.5	905.1	925.6	889.8	850.6	790.9
32.5°	911.9	906.8	855.7	772.2	750.0	789.2	968.2	1152.3	1068.7	951.1	859.1
35°	1053.4	1043.2	971.6	872.7	814.8	814.8	1010.8	1355.1	1344.9	1084.1	942.6
37.5°	1203.4	1189.8	1104.5	990.3	896.6	874.4	1061.9	1544.3	1713.1	1247.7	1048.3
40°	1356.8	1339.8	1247.7	1116.5	983.5	944.3	1116.5	1718.2	2159.7	1430.1	1152.3
42.5°	1520.5	1508.5	1411.4	1259.7	1090.9	1019.3	1172.7	1897.2	2650.6	1675.6	1290.3
45°	1709.7	1699.4	1598.9	1418.2	1217.0	1097.7	1246.0	2096.6	3146.6	2002.8	1445.5
47.5°	1915.9	1907.4	1818.7	1609.1	1361.9	1183.0	1324.4	2335.2	3646.0	2440.9	1636.4
50°	2117.0	2106.8	2045.5	1825.6	1532.4	1288.6	1413.1	2623.3	4147.2	2993.2	1871.6
52.5°	2314.8	2314.8	2272.2	2045.5	1719.9	1414.8	1517.0	2930.1	4617.6	3562.5	2139.2
55°	2555.1	2553.4	2529.5	2280.7	1924.4	1547.7	1609.1	3231.8	5043.7	4135.2	2452.8
57.5°	2809.1	2809.1	2810.8	2543.2	2135.8	1685.8	1670.5	3504.5	5488.6	4713.1	2792.0
60°	2976.1	2983.0	3029.0	2780.1	2330.1	1803.4	1696.0	3780.7	5928.4	5263.6	3098.9
62.5°	3013.6	3025.6	3105.7	2872.2	2427.3	1864.8	1680.7	3910.2	6161.9	5570.5	3267.6
65°	2931.8	2945.5	3022.2	2786.9	2355.7	1813.6	1593.7	3714.2	6022.2	5505.7	3236.9
67.5°	2734.1	2751.1	2804.0	2563.6	2139.2	1634.7	1425.0	3228.4	5590.9	5113.6	3011.9
70°	2468.2	2478.4	2502.3	2248.3	1834.1	1372.2	1206.8	2616.5	4967.0	4527.3	2662.5
72.5°	2161.4	2166.5	2154.5	1902.3	1525.6	1123.3	990.3	2057.4	4222.2	3859.1	2258.5
75°	1834.1	1835.8	1796.6	1571.6	1249.4	915.3	801.1	1583.5	3438.1	3121.0	1817.0
77.5°	1498.3	1503.4	1459.1	1258.0	1004.0	739.8	646.0	1176.1	2683.0	2413.6	1401.1
80°	1165.9	1167.6	1128.4	973.3	784.1	594.9	516.5	825.0	1955.1	1738.6	1036.4
82.5°	869.3	869.3	838.6	731.2	603.4	477.3	410.8	572.7	1319.3	1159.1	743.2
85°	615.3	620.5	606.8	547.2	473.9	400.6	339.2	424.4	874.4	772.2	533.5
87.5°	427.8	434.7	453.4	438.1	397.2	342.6	291.5	332.4	589.8	530.1	386.9
90°	294.9	300.0	337.5	347.7	342.6	298.3	259.1	281.2	427.8	400.6	296.6
95°	226.7	230.1	260.8	283.0	281.2	242.0	230.1	245.5	364.8	323.9	240.3
105°	156.8	155.1	151.7	153.4	153.4	146.6	175.6	221.6	242.0	213.1	156.8
115°	92.0	92.0	92.0	93.7	93.7	93.7	112.5	146.6	148.3	124.4	95.5
125°	54.5	54.5	54.5	52.8	64.8	83.5	98.9	90.3	92.0	80.1	66.5
135°	42.6	42.6	40.9	35.8	29.0	46.0	59.7	52.8	63.1	59.7	51.1
145°	10.2	10.2	8.5	5.1	1.7	1.7	3.4	6.8	10.2	11.9	11.9
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
175°	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CATALOG NUMBER: UTR15SXX33

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	344.3	344.3	344.3	344.3	344.3	344.3	344.3	344.3	344.3	344.3
2.5°	339.2	334.1	330.7	327.3	325.6	323.9	323.9	322.2	322.2	322.2
5°	327.3	318.7	313.6	310.2	305.1	305.1	305.1	303.4	305.1	303.4
7.5°	310.2	305.1	298.3	293.2	286.4	277.8	274.4	274.4	276.1	276.1
10°	298.3	296.6	291.5	281.2	264.2	250.6	242.0	238.6	240.3	238.6
12.5°	300.0	294.9	286.4	271.0	252.3	230.1	216.5	214.8	219.9	221.6
15°	339.2	315.3	288.1	267.6	247.2	238.6	231.8	231.8	238.6	240.3
17.5°	400.6	359.7	317.0	272.7	259.1	257.4	264.2	267.6	272.7	274.4
20°	468.7	415.9	363.1	310.2	277.8	283.0	293.2	301.7	308.5	311.9
22.5°	552.3	490.9	424.4	352.8	320.5	306.8	335.8	369.9	386.9	388.6
25°	637.5	567.6	492.6	409.1	371.6	368.2	395.5	433.0	456.8	461.9
27.5°	693.7	620.5	526.7	450.0	415.9	410.8	444.9	494.3	526.7	531.8
30°	738.1	666.5	533.5	467.0	446.6	453.4	490.9	538.6	577.8	586.4
32.5°	784.1	686.9	555.7	473.9	460.2	485.8	533.5	589.8	640.9	649.4
35°	836.9	707.4	571.0	472.2	470.5	526.7	596.6	669.9	736.4	746.6
37.5°	901.7	748.3	572.7	473.9	492.6	576.1	678.4	768.7	847.2	865.9
40°	968.2	767.0	574.4	484.1	519.9	639.2	772.2	874.4	966.5	981.8
42.5°	1063.6	787.5	581.2	501.1	565.9	705.7	859.1	966.5	1051.7	1067.0
45°	1162.5	828.4	603.4	531.8	608.5	768.7	920.5	1010.8	1073.9	1085.8
47.5°	1268.2	886.4	637.5	560.8	637.5	802.8	939.2	1012.5	1055.1	1060.2
50°	1387.5	956.2	678.4	577.8	654.5	811.4	932.4	981.8	998.9	997.2
52.5°	1506.8	1022.7	698.9	576.1	647.7	796.0	896.6	910.2	898.3	894.9
55°	1644.9	1090.9	704.0	569.3	640.9	767.0	828.4	806.2	767.0	761.9
57.5°	1800.0	1150.6	698.9	565.9	623.9	707.4	734.7	686.9	634.1	623.9
60°	1939.8	1184.7	690.3	562.5	589.8	629.0	634.1	577.8	518.2	511.4
62.5°	2011.4	1181.2	669.9	550.6	542.0	552.3	542.0	482.4	424.4	419.3
65°	1977.3	1128.4	635.8	521.6	496.0	489.2	467.0	407.4	352.8	344.3
67.5°	1849.4	1038.1	586.4	484.1	456.8	439.8	405.7	346.0	293.2	286.4
70°	1665.3	925.6	523.3	439.8	417.6	395.5	352.8	294.9	245.5	238.6
72.5°	1460.8	811.4	463.6	402.3	385.2	361.4	318.7	264.2	214.8	204.5
75°	1229.0	690.3	407.4	369.9	361.4	332.4	284.7	235.2	190.9	179.0
77.5°	1004.0	574.4	354.5	340.9	340.9	311.9	264.2	225.0	185.8	175.6
80°	784.1	465.3	306.8	315.3	323.9	298.3	255.7	219.9	185.8	177.3
82.5°	589.8	368.2	262.5	283.0	300.0	279.5	240.3	208.0	182.4	172.2
85°	441.5	293.2	230.1	255.7	276.1	259.1	230.1	201.1	173.9	167.0
87.5°	335.8	238.6	201.1	225.0	245.5	236.9	211.4	184.1	160.2	153.4
90°	259.1	199.4	177.3	196.0	214.8	209.7	192.6	168.7	143.2	141.5
95°	197.7	172.2	155.1	160.2	173.9	172.2	161.9	144.9	127.8	126.1
105°	127.8	114.2	104.0	105.7	110.8	115.9	115.9	107.4	107.4	109.1
115°	83.5	69.9	63.1	68.2	71.6	80.1	85.2	85.2	90.3	88.6
125°	58.0	49.4	44.3	47.7	52.8	56.2	58.0	61.4	66.5	64.8
135°	47.7	42.6	34.1	27.3	27.3	27.3	34.1	39.2	42.6	44.3
145°	11.9	8.5	5.1	1.7	1.7	5.1	10.2	15.3	15.3	17.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)