

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: STREETWORKS

Report Number: P159551

Luminaire Tested: **VST-E05-LED-E-U-T3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159551
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33706)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E05-LED-E-U-T3-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 AREA
Light Source: (105) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15691 lumens
Efficiency: N/A
Efficacy: 123.3 lumens/watt
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G3

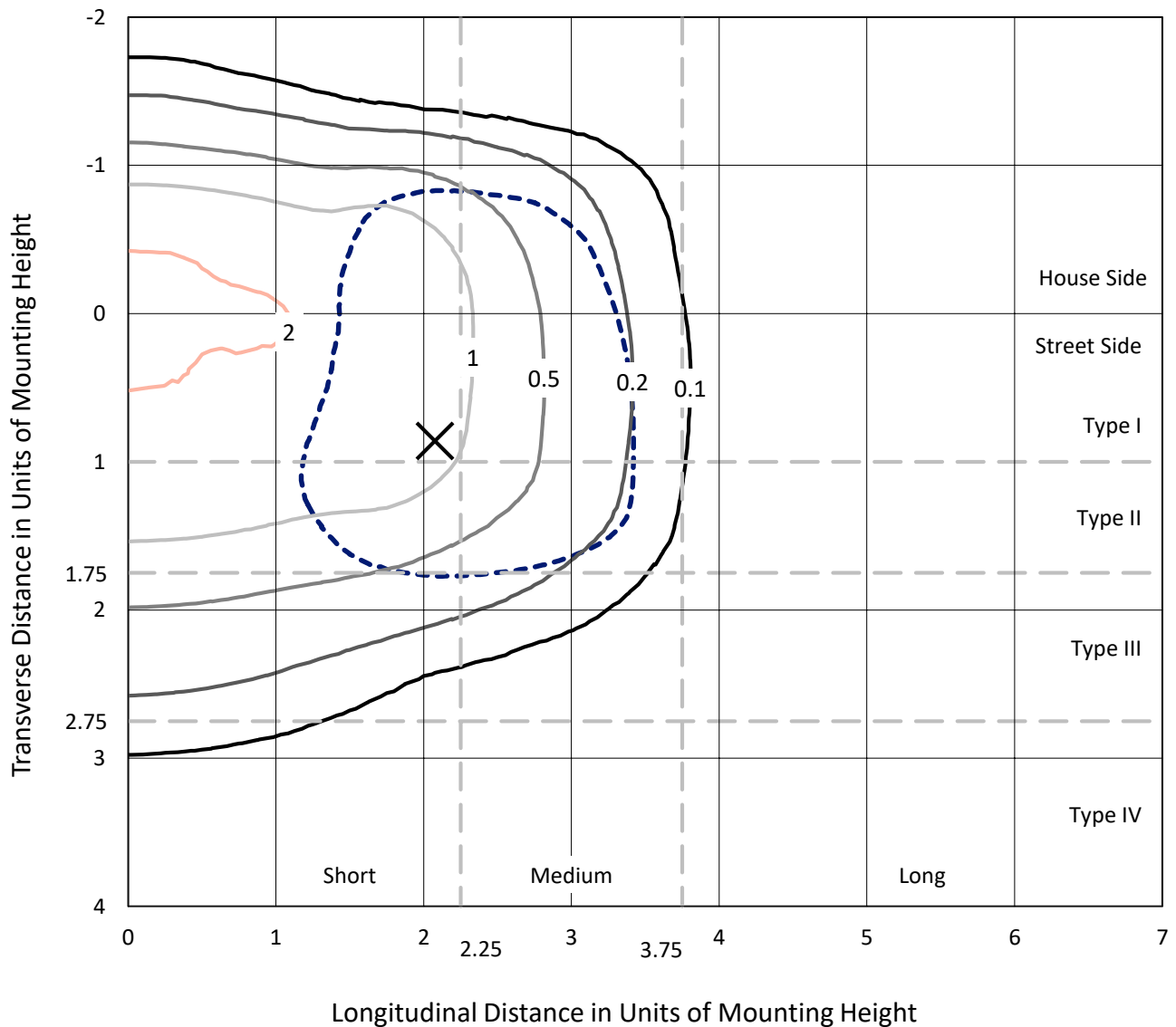
Input Watts (W): 127.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

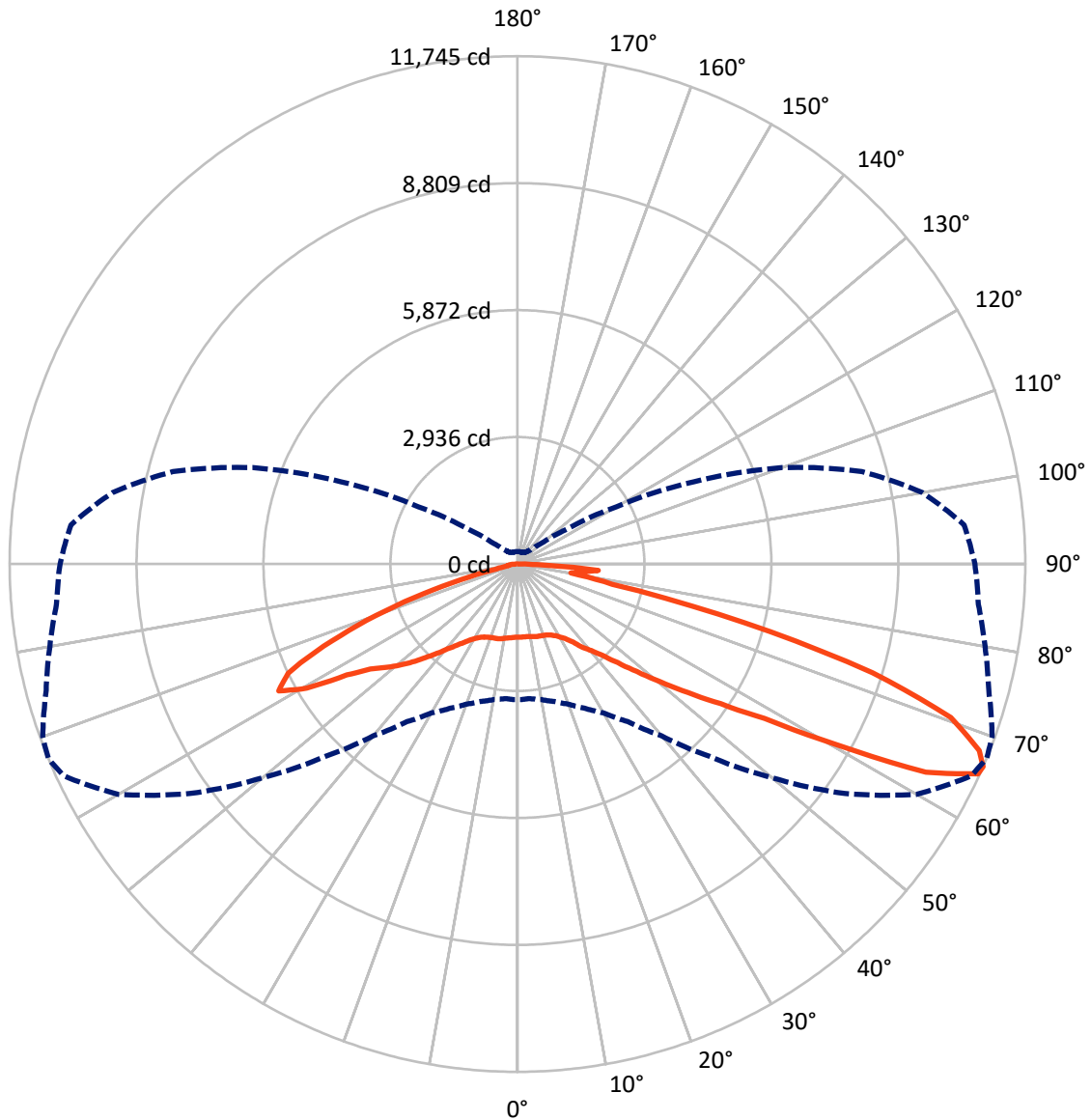


Based on 25 foot mounting height. Maximum calculated value = 2.7 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical



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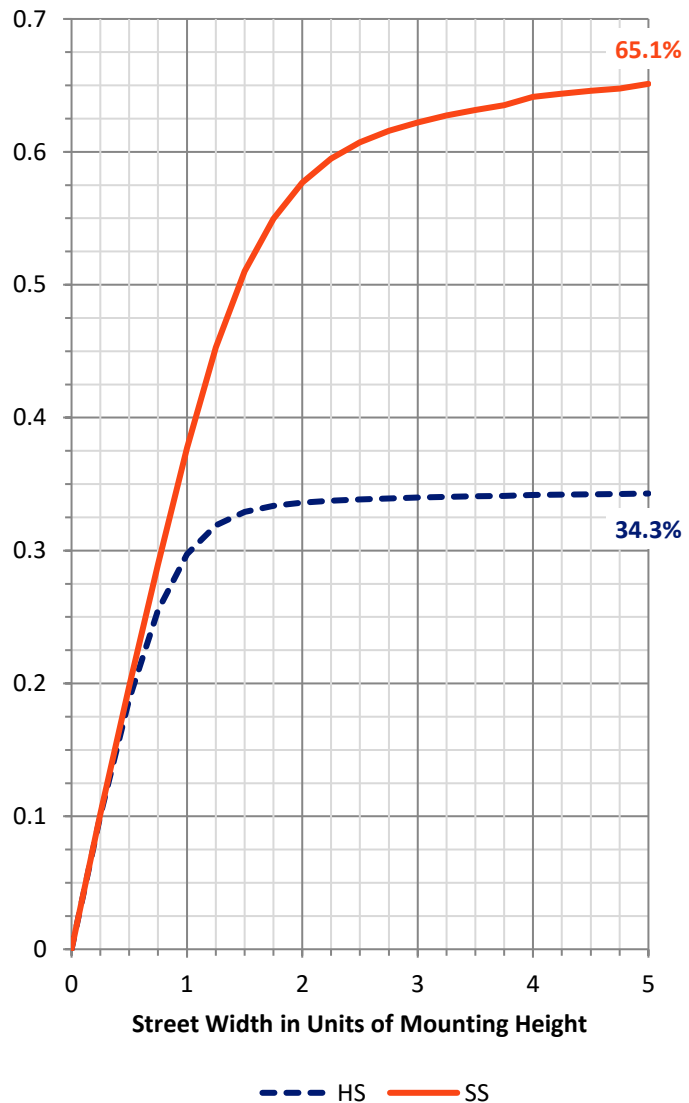
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5429.8	0.0	5429.8
	% Fixture	34.6	0.0	34.6
Street Side	Lumens	10261.2	0.0	10261.2
	% Fixture	65.4	0.0	65.4
Total	Lumens	15691.0	0.0	15691.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.5	1.0
10°-20°	481.1	3.1
20°-30°	827.0	5.3
30°-40°	1336.6	8.5
40°-50°	2215.0	14.1
50°-60°	3476.3	22.2
60°-70°	4752.7	30.3
70°-80°	2090.0	13.3
80°-90°	349.8	2.2
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°-90°	15691.0	100.0
0°-180°	15691.0	100.0

Coefficient of Utilization



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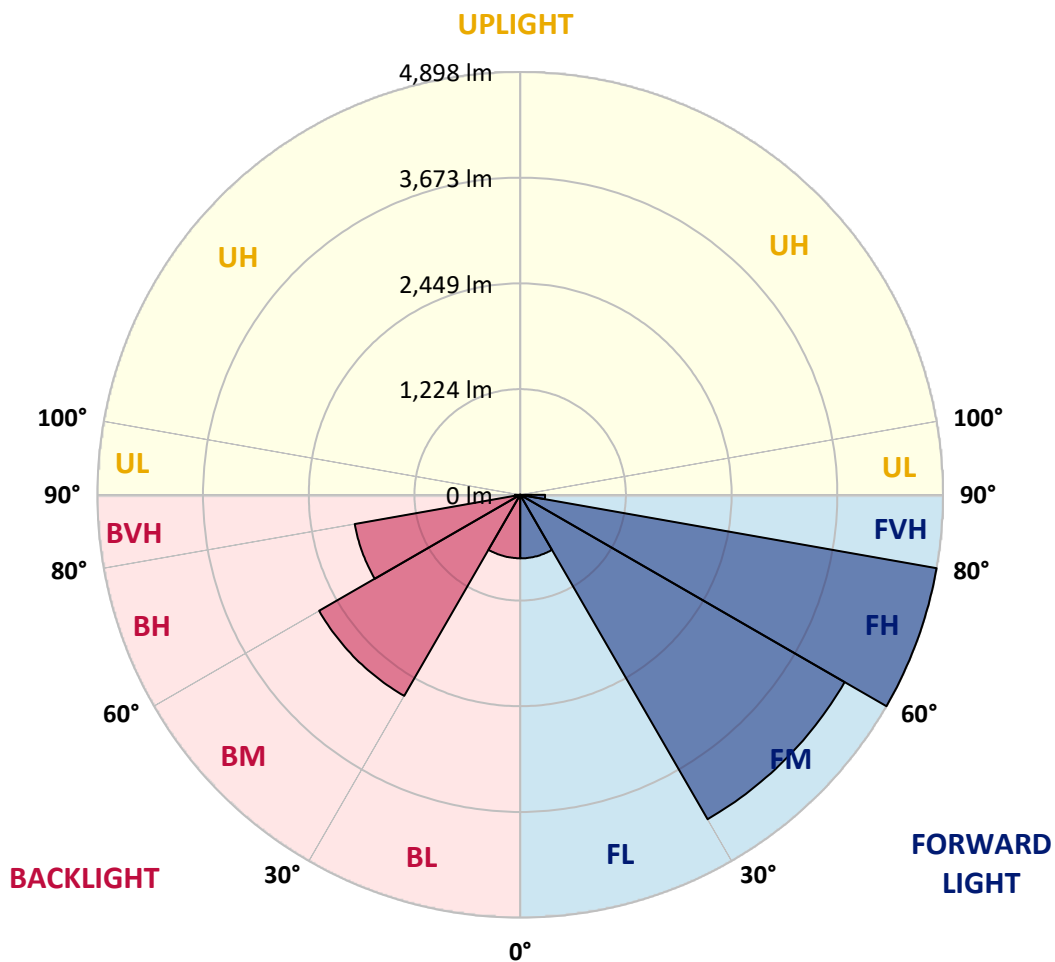
CATALOG NUMBER: VST-E05-LED-E-U-T3-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	736.0	4.7			
FM	(30°-60°)	4339.0	27.7			
FH	(60°-80°)	4897.5	31.2			G2/5000
FVH	(80°-90°)	288.6	1.8			G3/500
BL	(0°-30°)	734.5	4.7	B2/1000		
BM	(30°-60°)	2688.8	17.1	B3/5000		
BH	(60°-80°)	1945.3	12.4	B3/2500		G3/2500
BVH	(80°-90°)	61.2	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1693.1	1693.1	1693.1	1693.1	1693.1	1693.1	1693.1	1693.1	1693.1	1693.1	1693.1
2.5°	1690.0	1690.0	1691.0	1690.0	1690.0	1689.0	1693.1	1693.1	1693.1	1692.0	1695.1
5°	1685.9	1685.9	1686.9	1686.9	1687.9	1686.9	1690.0	1691.0	1691.0	1691.0	1694.1
7.5°	1675.6	1678.7	1676.7	1677.7	1678.7	1681.8	1685.9	1687.9	1690.0	1693.1	1694.1
10°	1654.1	1659.2	1658.2	1661.3	1662.3	1671.5	1674.6	1678.7	1685.9	1690.0	1693.1
12.5°	1624.3	1627.4	1628.4	1632.5	1636.6	1647.9	1656.1	1663.3	1673.6	1683.8	1694.1
15°	1600.7	1602.8	1602.8	1606.9	1613.0	1623.3	1633.6	1645.9	1661.3	1678.7	1695.1
17.5°	1607.9	1613.0	1608.9	1607.9	1610.0	1616.1	1625.4	1635.6	1654.1	1673.6	1693.1
20°	1655.1	1656.1	1654.1	1649.0	1644.8	1645.9	1645.9	1647.9	1659.2	1674.6	1690.0
22.5°	1694.1	1698.2	1697.2	1698.2	1697.2	1701.3	1699.2	1695.1	1691.0	1692.0	1699.2
25°	1728.0	1732.1	1732.1	1735.1	1740.3	1748.5	1754.6	1753.6	1747.5	1739.2	1736.2
27.5°	1783.4	1783.4	1783.4	1786.4	1793.6	1803.9	1814.2	1820.3	1825.4	1817.2	1799.8
30°	1870.6	1871.6	1868.5	1869.6	1874.7	1888.0	1900.3	1909.6	1919.8	1918.8	1896.2
32.5°	1966.0	1970.1	1969.1	1973.2	1980.4	1992.7	2006.0	2020.4	2033.7	2041.9	2027.6
35°	2089.2	2093.3	2094.3	2100.4	2108.6	2127.1	2145.6	2164.1	2178.4	2184.6	2181.5
37.5°	2291.3	2292.3	2288.2	2279.0	2282.1	2296.4	2318.0	2347.7	2357.0	2363.1	2377.5
40°	2594.0	2590.9	2574.5	2566.3	2561.2	2567.3	2563.2	2586.8	2608.4	2609.4	2608.4
42.5°	2961.3	2952.1	2936.7	2934.7	2932.6	2930.6	2919.3	2920.3	2939.8	2944.9	2938.8
45°	3326.6	3315.3	3304.1	3314.3	3302.0	3333.8	3343.1	3367.7	3370.8	3381.0	3365.6
47.5°	3626.3	3627.3	3627.3	3641.6	3666.3	3726.8	3781.2	3828.4	3845.8	3870.5	3873.5
50°	3853.0	3859.2	3878.7	3924.9	3977.2	4078.8	4170.1	4255.3	4332.2	4360.9	4436.9
52.5°	3985.4	4001.8	4042.9	4119.8	4213.2	4344.5	4488.2	4632.9	4766.3	4879.1	4969.4
55°	3961.8	3974.1	4045.9	4166.0	4311.7	4488.2	4689.3	4898.6	5106.9	5297.8	5445.5
57.5°	3809.9	3818.1	3890.0	4025.4	4207.0	4444.1	4728.3	5039.2	5331.6	5639.5	5891.9
60°	3610.9	3623.2	3689.9	3796.6	3986.4	4238.8	4568.2	4990.0	5456.8	5941.2	6413.2
62.5°	3483.6	3480.5	3539.0	3634.5	3777.1	4005.9	4323.0	4822.7	5469.1	6288.0	7220.7
65°	3272.3	3263.0	3323.6	3432.3	3587.3	3808.9	4109.6	4589.8	5339.9	6419.3	7742.0
66°	3140.9	3122.4	3183.0	3292.8	3447.7	3683.7	3972.1	4446.1	5182.9	6291.1	7686.6
67.5°	2911.1	2901.8	2930.6	3016.8	3131.7	3353.3	3654.0	4131.1	4811.4	5905.2	7280.2
70°	2366.2	2345.7	2368.3	2407.2	2451.4	2505.7	2690.4	3069.1	3644.7	4704.7	5865.2
72.5°	1612.0	1601.8	1643.8	1703.3	1821.3	1876.7	1949.6	2011.2	2214.3	2965.4	4091.1
75°	1226.2	1232.4	1285.7	1384.2	1536.1	1700.3	1860.3	1918.8	1851.1	1792.6	2322.1
77.5°	687.5	723.4	788.0	913.2	1074.3	1306.2	1585.3	1893.2	2047.1	2009.1	1878.8
80°	283.2	278.1	309.9	378.6	434.0	623.9	954.3	1340.1	1773.1	2047.1	2004.0
82.5°	79.0	81.1	104.7	134.4	173.4	220.6	344.8	554.1	903.0	1404.7	1838.8
85°	24.6	24.6	33.9	50.3	59.5	68.7	87.2	143.7	245.2	489.5	992.2
87.5°	5.1	5.1	7.2	14.4	15.4	15.4	19.5	26.7	23.6	21.5	96.5
90°	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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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	1693.1	1693.1	1693.1	1693.1	1693.1	1693.1	1693.1	1693.1	1693.1	1693.1	1693.1
2.5°	1692.0	1690.0	1691.0	1692.0	1691.0	1691.0	1690.0	1689.0	1690.0	1690.0	1693.1
5°	1691.0	1690.0	1691.0	1691.0	1692.0	1692.0	1692.0	1692.0	1695.1	1695.1	1700.3
7.5°	1693.1	1693.1	1695.1	1695.1	1695.1	1695.1	1696.2	1698.2	1703.3	1702.3	1711.5
10°	1697.2	1699.2	1704.4	1705.4	1705.4	1708.5	1710.5	1714.6	1719.8	1721.8	1730.0
12.5°	1702.3	1712.6	1721.8	1723.9	1726.9	1732.1	1735.1	1737.2	1746.4	1749.5	1759.8
15°	1708.5	1722.8	1734.1	1738.2	1742.3	1748.5	1752.6	1755.7	1763.9	1768.0	1780.3
17.5°	1709.5	1725.9	1739.2	1745.4	1750.5	1757.7	1763.9	1770.0	1779.3	1785.4	1797.7
20°	1708.5	1730.0	1750.5	1758.7	1763.9	1777.2	1786.4	1794.7	1805.9	1812.1	1824.4
22.5°	1719.8	1744.4	1772.1	1782.3	1790.6	1809.0	1821.3	1834.7	1849.0	1853.1	1862.4
25°	1746.4	1772.1	1807.0	1821.3	1835.7	1860.3	1877.8	1897.3	1911.6	1913.7	1916.8
27.5°	1791.6	1815.2	1857.3	1878.8	1902.4	1937.3	1962.9	1982.4	2003.0	2003.0	2000.9
30°	1882.9	1888.0	1932.2	1959.9	1994.7	2046.1	2084.0	2105.6	2121.0	2121.0	2103.5
32.5°	2000.9	1994.7	2034.8	2064.5	2112.8	2184.6	2235.9	2252.3	2268.7	2263.6	2233.8
35°	2171.2	2153.8	2176.4	2221.5	2275.9	2374.4	2427.8	2464.7	2475.0	2460.6	2413.4
37.5°	2385.7	2383.6	2394.9	2445.2	2505.7	2633.0	2687.4	2711.0	2702.8	2677.1	2594.0
40°	2612.5	2606.3	2599.1	2633.0	2700.7	2853.6	2950.1	2962.4	2951.1	2913.1	2808.5
42.5°	2915.2	2915.2	2881.3	2890.5	2947.0	3118.3	3232.2	3271.2	3272.3	3216.8	3077.3
45°	3331.8	3327.7	3268.1	3253.8	3296.9	3465.2	3611.9	3633.4	3633.4	3560.6	3407.7
47.5°	3832.5	3827.4	3768.9	3718.6	3726.8	3908.4	4030.5	4063.4	4034.6	3980.3	3798.6
50°	4396.9	4387.6	4328.1	4280.9	4260.4	4444.1	4547.7	4563.1	4521.0	4456.4	4259.4
52.5°	4969.4	4997.1	4962.2	4936.6	4943.8	5062.8	5169.5	5096.7	5075.1	5005.3	4807.3
55°	5565.6	5650.8	5727.7	5705.1	5731.8	5847.8	5868.3	5771.8	5732.9	5682.6	5462.0
57.5°	6165.9	6414.2	6666.6	6737.4	6803.1	6969.3	6945.7	6787.7	6817.4	6892.4	6644.0
60°	7004.2	7721.4	8361.7	8479.7	8683.9	8825.5	8857.3	8826.6	8965.1	8926.1	8706.5
62.5°	8292.0	9487.4	10378.0	10599.7	10804.9	10797.7	10690.0	10579.1	10715.6	10715.6	10142.0
65°	9211.3	10567.9	11521.1	11704.8	11696.6	11449.3	11194.8	10973.2	10953.7	10801.8	9963.5
66°	9254.4	10651.0	11584.7	11744.8	11683.2	11285.1	10980.4	10699.2	10579.1	10367.8	9508.9
67.5°	8866.6	10416.0	11377.5	11517.0	11354.9	10784.4	10364.7	9988.1	9813.7	9457.6	8649.0
70°	7273.0	8951.7	10350.3	10635.6	10451.9	9729.5	9154.9	8646.0	8312.5	7798.4	7215.6
72.5°	5309.1	6609.1	8123.7	8587.5	8558.7	7893.8	7431.1	6965.2	6527.1	6059.2	5633.3
75°	3450.8	4299.4	5143.9	5414.8	5284.4	4899.7	4568.2	4296.3	3880.7	3555.5	3476.4
77.5°	1970.1	2407.2	2276.9	2243.1	2079.9	1678.7	1116.4	782.9	707.0	882.5	967.6
80°	1874.7	1699.2	1391.4	1254.9	1153.3	786.0	412.5	290.4	254.5	260.6	280.1
82.5°	2113.8	2203.0	1801.8	1505.3	1310.3	956.3	522.3	243.2	177.5	210.4	236.0
85°	1584.3	2230.8	2211.3	1873.7	1537.1	1102.0	617.7	185.7	106.7	147.8	192.9
87.5°	321.2	528.4	508.9	447.4	380.7	265.8	103.6	58.5	53.4	72.9	110.8
90°	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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CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1693.1	1693.1	1693.1	1693.1	1693.1	1693.1	1693.1	1693.1	1693.1	1693.1	1693.1
2.5°	1695.1	1695.1	1697.2	1700.3	1701.3	1701.3	1703.3	1701.3	1705.4	1706.4	1707.4
5°	1704.4	1707.4	1709.5	1714.6	1717.7	1719.8	1722.8	1720.8	1724.9	1725.9	1728.0
7.5°	1714.6	1719.8	1723.9	1725.9	1730.0	1730.0	1731.0	1729.0	1728.0	1724.9	1723.9
10°	1733.1	1736.2	1741.3	1739.2	1737.2	1730.0	1723.9	1714.6	1709.5	1700.3	1695.1
12.5°	1762.8	1764.9	1764.9	1755.7	1742.3	1725.9	1710.5	1695.1	1682.8	1672.6	1666.4
15°	1783.4	1787.5	1782.3	1769.0	1749.5	1726.9	1706.4	1685.9	1669.5	1656.1	1647.9
17.5°	1798.8	1797.7	1788.5	1770.0	1751.6	1732.1	1713.6	1692.0	1671.5	1652.0	1639.7
20°	1822.4	1812.1	1795.7	1776.2	1756.7	1740.3	1725.9	1705.4	1683.8	1657.2	1638.7
22.5°	1854.2	1835.7	1812.1	1791.6	1773.1	1757.7	1741.3	1723.9	1701.3	1671.5	1645.9
25°	1899.3	1867.5	1840.8	1820.3	1803.9	1786.4	1768.0	1745.4	1722.8	1692.0	1661.3
27.5°	1968.1	1920.9	1887.0	1868.5	1853.1	1829.5	1805.9	1779.3	1750.5	1718.7	1683.8
30°	2051.2	1994.7	1955.8	1939.3	1920.9	1894.2	1868.5	1831.6	1791.6	1753.6	1710.5
32.5°	2148.7	2091.2	2052.2	2039.9	2010.1	1979.4	1943.4	1894.2	1841.9	1785.4	1734.1
35°	2296.4	2223.6	2187.7	2158.9	2117.9	2080.9	2020.4	1955.8	1880.9	1805.9	1742.3
37.5°	2448.3	2374.4	2337.5	2297.5	2244.1	2176.4	2095.3	2003.0	1903.4	1811.1	1733.1
40°	2651.5	2571.4	2524.2	2462.7	2376.5	2270.8	2150.7	2024.5	1903.4	1788.5	1694.1
42.5°	2888.5	2814.6	2741.8	2640.2	2501.6	2347.7	2179.4	2017.3	1870.6	1738.2	1638.7
45°	3216.8	3090.6	2974.7	2811.5	2609.4	2392.9	2182.5	1983.5	1814.2	1667.4	1556.6
47.5°	3586.2	3423.1	3217.9	2962.4	2686.3	2410.3	2152.8	1919.8	1724.9	1565.8	1444.8
50°	4012.1	3761.7	3446.7	3082.4	2725.3	2386.7	2082.0	1813.1	1601.8	1419.1	1289.8
52.5°	4499.5	4117.8	3654.0	3167.6	2719.2	2314.9	1965.0	1672.6	1436.5	1242.6	1115.4
55°	5040.2	4505.6	3852.0	3222.0	2663.8	2175.3	1781.3	1474.5	1231.3	1040.5	928.6
57.5°	5993.5	5185.9	4229.6	3294.8	2547.8	1964.0	1548.4	1224.1	1004.6	842.4	735.7
60°	7764.5	6375.2	4944.8	3466.2	2373.4	1699.2	1254.9	960.4	776.8	658.8	579.7
62.5°	8860.4	7212.5	5293.7	3441.6	2090.2	1337.0	931.7	712.1	567.4	489.5	440.2
65°	8600.8	6884.1	4867.8	2956.2	1626.4	948.1	616.7	465.9	389.9	349.9	326.3
66°	8247.8	6516.8	4507.7	2647.4	1417.1	792.2	508.9	390.9	335.5	305.8	293.5
67.5°	7508.0	5845.7	3887.9	2119.9	1062.0	590.0	375.6	306.8	272.9	257.6	249.3
70°	6283.9	4709.8	2750.0	1251.8	575.6	320.1	240.1	213.4	205.2	200.1	197.0
72.5°	4858.6	3409.7	1606.9	615.7	290.4	207.3	182.6	171.4	168.3	168.3	169.3
75°	3060.9	1959.9	719.3	296.5	197.0	167.3	156.0	150.8	151.9	152.9	151.9
77.5°	1016.9	676.2	299.6	210.4	171.4	151.9	142.6	140.6	142.6	143.7	143.7
80°	292.4	255.5	216.5	185.7	157.0	141.6	133.4	132.4	137.5	138.5	136.5
82.5°	224.7	210.4	196.0	179.6	150.8	133.4	130.3	131.3	134.4	132.4	123.1
85°	206.2	204.2	146.7	145.7	131.3	127.2	124.2	125.2	122.1	110.8	100.6
87.5°	115.9	107.7	83.1	84.1	97.5	100.6	83.1	88.2	82.1	71.8	65.7
90°	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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CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	1693.1	1693.1	1693.1	1693.1	1693.1
2.5°	1709.5	1708.5	1708.5	1711.5	1707.4
5°	1729.0	1728.0	1728.0	1731.0	1728.0
7.5°	1719.8	1716.7	1714.6	1713.6	1713.6
10°	1689.0	1685.9	1679.7	1677.7	1675.6
12.5°	1657.2	1654.1	1646.9	1646.9	1644.8
15°	1637.7	1633.6	1628.4	1625.4	1623.3
17.5°	1627.4	1621.2	1615.1	1612.0	1610.0
20°	1623.3	1615.1	1607.9	1602.8	1602.8
22.5°	1624.3	1614.1	1605.9	1599.7	1597.6
25°	1634.6	1619.2	1608.9	1602.8	1600.7
27.5°	1649.0	1630.5	1617.1	1608.9	1605.9
30°	1668.4	1642.8	1624.3	1614.1	1610.0
32.5°	1681.8	1645.9	1622.3	1607.9	1602.8
35°	1680.8	1634.6	1605.9	1587.4	1581.2
37.5°	1662.3	1607.9	1569.9	1547.4	1537.1
40°	1621.2	1558.7	1518.6	1497.1	1484.8
42.5°	1561.7	1494.0	1458.1	1434.5	1421.2
45°	1468.4	1401.7	1357.5	1339.1	1321.6
47.5°	1339.1	1271.3	1233.4	1206.7	1195.4
50°	1187.2	1119.5	1079.5	1057.9	1047.7
52.5°	1021.0	956.3	927.6	907.1	892.7
55°	848.6	789.1	776.8	754.2	740.8
57.5°	686.5	651.6	640.3	617.7	606.4
60°	536.7	525.4	513.1	498.7	492.5
62.5°	415.6	405.3	402.2	393.0	392.0
65°	317.1	318.1	316.0	314.0	311.9
66°	288.3	287.3	288.3	286.3	285.3
67.5°	245.2	249.3	252.4	251.4	251.4
70°	199.1	202.1	206.2	205.2	205.2
72.5°	170.3	175.5	177.5	176.5	176.5
75°	153.9	159.0	159.0	157.0	156.0
77.5°	143.7	145.7	143.7	141.6	139.6
80°	133.4	131.3	128.3	125.2	123.1
82.5°	115.9	110.8	107.7	102.6	102.6
85°	93.4	89.3	82.1	77.0	71.8
87.5°	60.5	58.5	53.4	40.0	31.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)