

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: P129496

Luminaire Tested: **VERD-A02-E-U-T3-AP**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P129496
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25189)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VERD-A02-E-U-T3-AP
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K LEDS AND TYPE III OPTICS, GREY PAINTED FINISH
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9099 lumens
Efficiency: N/A
Efficacy: 98.9 lumens/watt
Luminous Opening: Rectangular (W 0.79' x L: 1.25' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 92
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

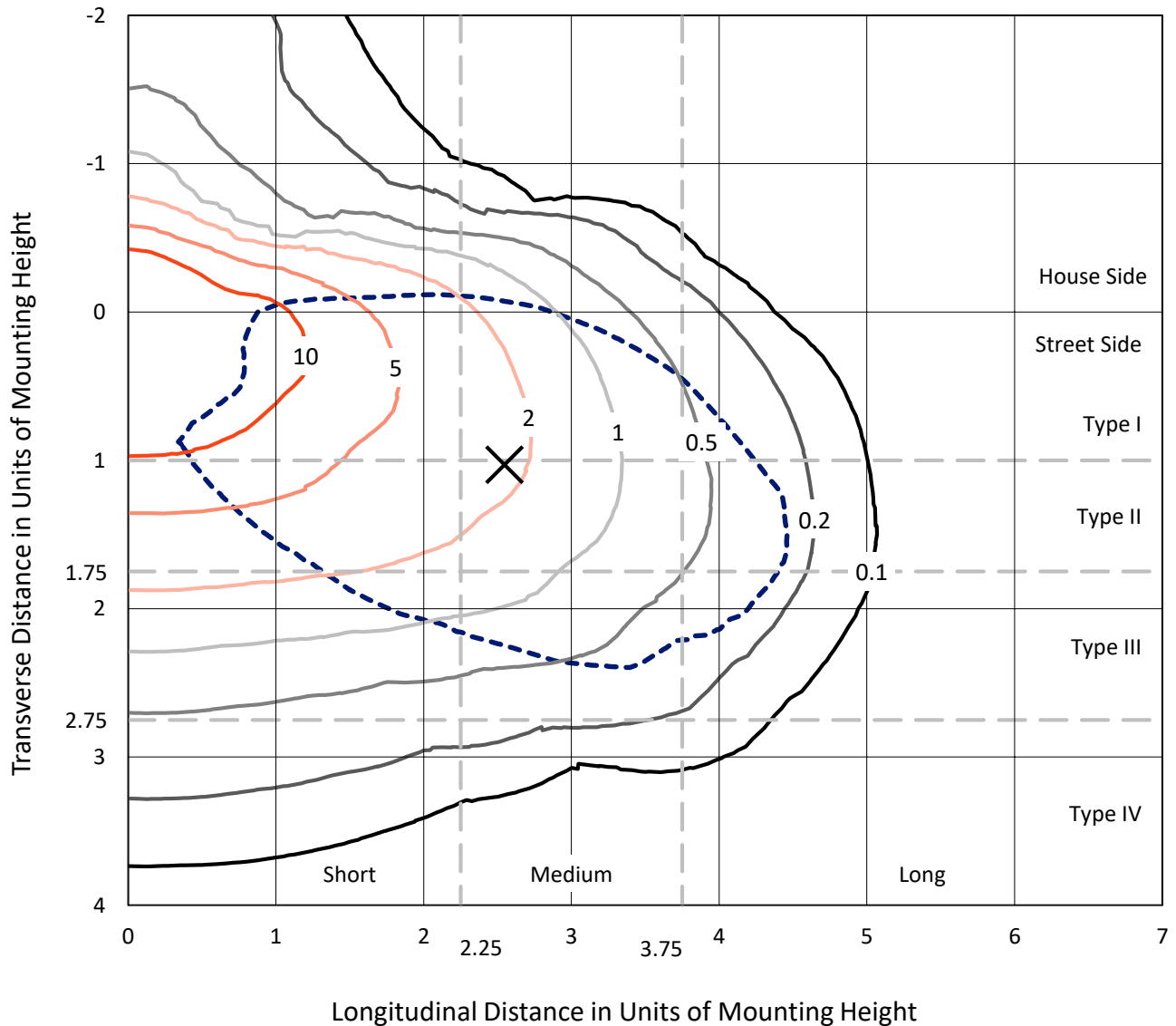


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

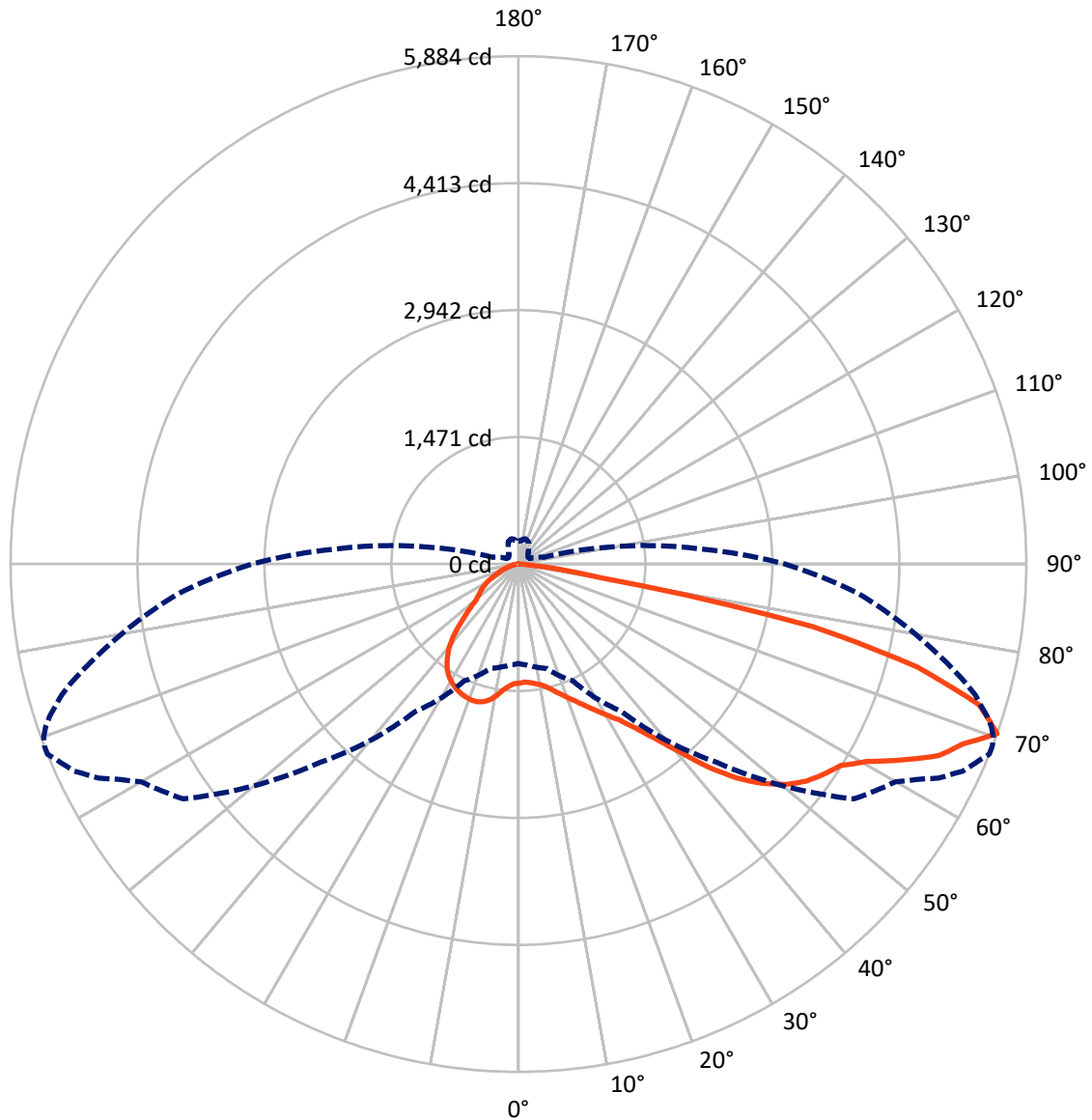


Based on 10 foot mounting height. Maximum calculated value = 16.5 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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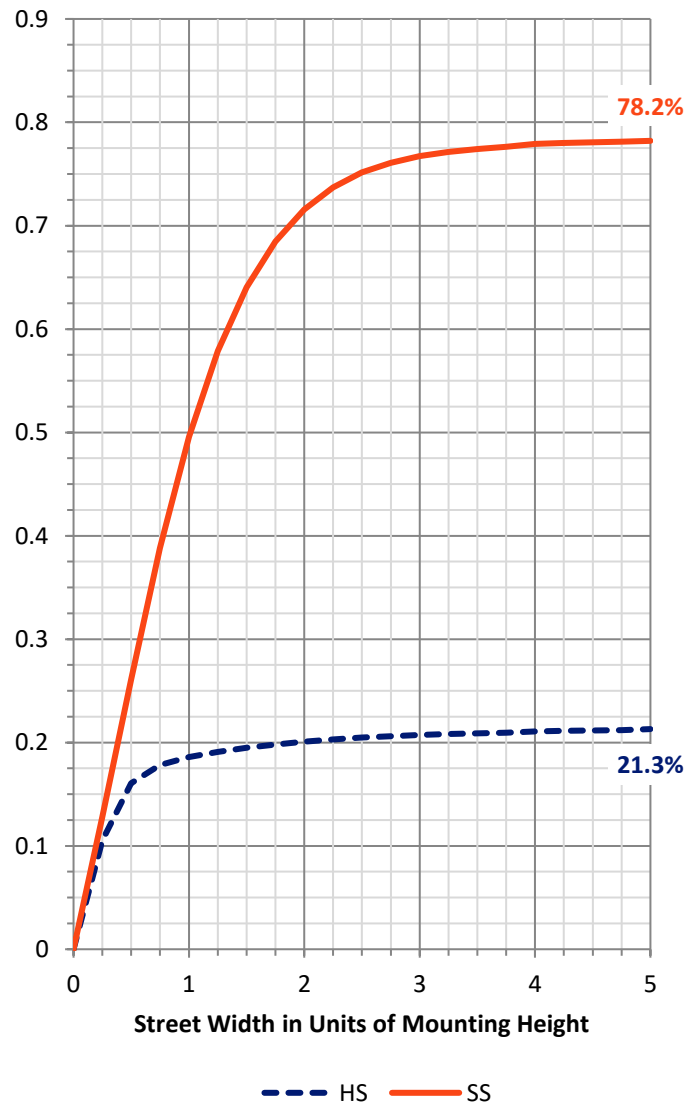
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1977.9	0.0	1977.9
	% Fixture	21.7	0.0	21.7
Street Side	Lumens	7121.1	0.0	7121.1
	% Fixture	78.3	0.0	78.3
Total	Lumens	9099.0	0.0	9099.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.7	1.5
10°-20°	458.8	5.0
20°-30°	774.3	8.5
30°-40°	1100.1	12.1
40°-50°	1509.8	16.6
50°-60°	1821.6	20.0
60°-70°	1964.3	21.6
70°-80°	1227.6	13.5
80°-90°	101.7	1.1
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°	9099.0	100.0
0°-180°	9099.0	100.0



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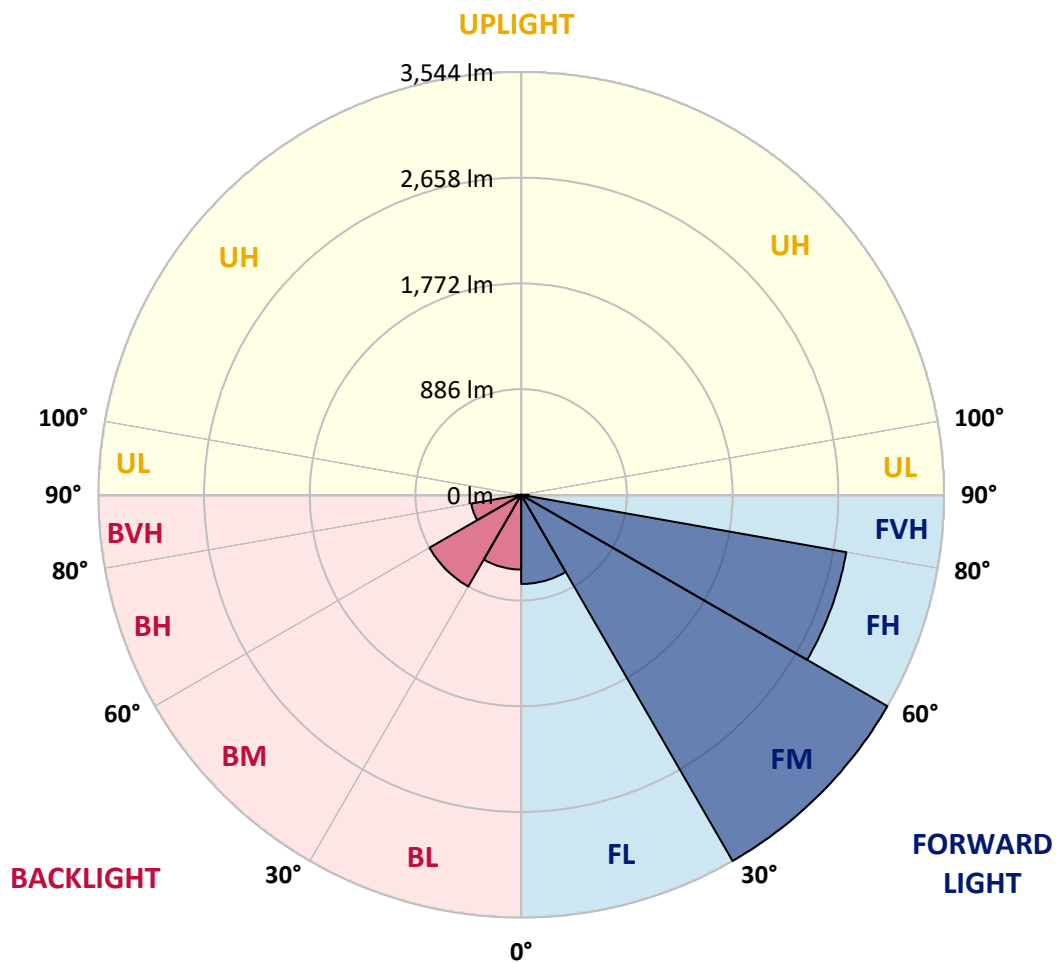
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	747.4	8.2			
FM (30°-60°)	3544.0	38.9			
FH (60°-80°)	2767.2	30.4			G2/5000
FVH (80°-90°)	62.6	0.7			G1/100
BL (0°-30°)	626.4	6.9	B2/1000		
BM (30°-60°)	887.5	9.8	B1/1000		
BH (60°-80°)	424.8	4.7	B1/500		G1/500
BVH (80°-90°)	39.1	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	63°
0°	1381.1	1381.1	1381.1	1381.1	1381.1	1381.1	1381.1	1381.1	1381.1	1381.1	1381.1
2.5°	1392.1	1391.1	1394.1	1379.1	1376.1	1377.1	1379.1	1371.1	1370.1	1370.1	1369.1
5°	1415.1	1413.1	1416.1	1401.1	1394.1	1392.1	1393.1	1385.1	1384.1	1383.1	1381.1
7.5°	1456.1	1451.1	1453.1	1438.1	1426.1	1419.1	1415.1	1408.1	1408.1	1406.1	1404.1
10°	1500.1	1499.1	1499.1	1483.1	1469.1	1456.1	1441.1	1435.1	1436.1	1434.1	1433.1
12.5°	1554.1	1554.1	1557.1	1540.1	1534.1	1516.1	1488.1	1482.1	1480.1	1478.1	1475.1
15°	1629.1	1627.1	1633.1	1613.1	1607.1	1586.1	1553.1	1540.1	1535.1	1536.1	1534.1
17.5°	1726.1	1720.1	1715.1	1691.1	1684.1	1652.1	1616.1	1603.1	1598.1	1599.1	1596.1
20°	1827.1	1826.1	1816.1	1779.1	1763.1	1721.1	1687.1	1666.1	1663.1	1658.1	1658.1
22.5°	1944.1	1948.1	1933.1	1890.1	1859.1	1806.1	1761.1	1739.1	1733.1	1732.1	1728.1
25°	2078.1	2079.1	2068.1	2026.1	1976.1	1905.1	1844.1	1824.1	1817.1	1815.1	1812.1
27.5°	2222.1	2230.1	2213.1	2179.1	2114.1	2022.1	1937.1	1923.1	1921.1	1915.1	1912.1
30°	2374.1	2375.1	2364.1	2342.1	2268.1	2154.1	2039.1	2032.1	2034.1	2028.1	2024.1
32.5°	2509.1	2513.1	2522.1	2506.1	2435.1	2307.1	2157.1	2162.1	2163.1	2159.1	2157.1
35°	2612.1	2621.1	2658.1	2672.1	2615.1	2488.1	2300.1	2322.1	2323.1	2311.1	2313.1
37.5°	2711.1	2713.1	2758.1	2790.1	2771.1	2670.1	2489.1	2516.1	2518.1	2506.1	2503.1
40°	2776.1	2786.1	2839.1	2871.1	2893.1	2836.1	2689.1	2736.1	2743.1	2733.1	2749.1
42.5°	2733.1	2737.1	2857.1	2949.1	2994.1	3012.1	2902.1	3003.1	3018.1	3014.1	3033.1
45°	2682.1	2684.1	2802.1	2978.1	3080.1	3181.1	3160.1	3312.1	3329.1	3327.1	3345.1
47.5°	2609.1	2621.1	2747.1	2961.1	3159.1	3337.1	3451.1	3556.1	3572.1	3576.1	3597.1
50°	2531.1	2551.1	2694.1	2935.1	3225.1	3501.1	3653.1	3727.1	3746.1	3761.1	3789.1
52.5°	2439.1	2457.1	2614.1	2888.1	3256.1	3678.1	3806.1	3885.1	3908.1	3924.1	3953.1
55°	2322.1	2344.1	2504.1	2808.1	3257.1	3781.1	3941.1	4011.1	4036.1	4060.2	4093.2
57.5°	2195.1	2221.1	2376.1	2684.1	3220.1	3791.1	4024.1	4089.2	4115.2	4140.2	4176.2
60°	2043.1	2072.1	2230.1	2525.1	3136.1	3765.1	4056.2	4187.2	4246.2	4290.2	4351.2
62.5°	1883.1	1904.1	2039.1	2350.1	2993.1	3776.1	4288.2	4500.2	4538.2	4599.2	4655.2
65°	1682.1	1706.1	1819.1	2117.1	2756.1	3808.1	4608.2	4860.2	4923.2	4965.2	5030.2
67.5°	1446.1	1469.1	1554.1	1848.1	2481.1	3642.1	4767.2	5018.2	5091.2	5167.2	5263.2
70°	1153.0	1176.0	1252.0	1496.1	2086.1	3248.1	4743.2	5046.2	5172.2	5303.2	5462.2
72.5°	867.0	883.0	932.0	1066.0	1484.1	2632.1	4497.2	4855.2	5016.2	5152.2	5348.2
75°	582.0	591.0	655.0	748.0	870.0	1709.1	3762.1	4049.2	4253.2	4370.2	4515.2
77.5°	206.0	199.0	253.0	323.0	447.0	606.0	2395.1	2679.1	2942.1	2992.1	3017.1
80°	63.0	66.0	119.0	148.0	212.0	315.0	641.0	755.0	838.0	834.0	898.0
82.5°	49.0	52.0	84.0	91.0	83.0	119.0	307.0	340.0	359.0	355.0	360.0
85°	30.0	32.0	39.0	38.0	38.0	53.0	105.0	79.0	92.0	84.0	89.0
87.5°	17.0	17.0	17.0	17.0	14.0	12.0	22.0	11.0	11.0	10.0	10.0
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):

	64°	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°
0°	1381.1	1381.1	1381.1	1381.1	1381.1	1381.1	1381.1	1381.1	1381.1	1381.1	1381.1
2.5°	1369.1	1370.1	1370.1	1370.1	1370.1	1370.1	1370.1	1369.1	1369.1	1369.1	1369.1
5°	1380.1	1380.1	1380.1	1380.1	1380.1	1380.1	1379.1	1378.1	1377.1	1377.1	1377.1
7.5°	1402.1	1400.1	1399.1	1399.1	1399.1	1399.1	1398.1	1397.1	1395.1	1395.1	1396.1
10°	1430.1	1428.1	1427.1	1423.1	1422.1	1421.1	1421.1	1420.1	1419.1	1420.1	1421.1
12.5°	1472.1	1473.1	1469.1	1464.1	1462.1	1458.1	1458.1	1458.1	1458.1	1460.1	1463.1
15°	1529.1	1530.1	1526.1	1523.1	1521.1	1515.1	1513.1	1515.1	1517.1	1519.1	1521.1
17.5°	1593.1	1593.1	1589.1	1587.1	1585.1	1581.1	1582.1	1582.1	1581.1	1582.1	1584.1
20°	1657.1	1656.1	1656.1	1656.1	1656.1	1653.1	1656.1	1656.1	1654.1	1651.1	1651.1
22.5°	1727.1	1728.1	1730.1	1734.1	1732.1	1732.1	1732.1	1736.1	1735.1	1731.1	1731.1
25°	1813.1	1816.1	1820.1	1824.1	1823.1	1826.1	1826.1	1830.1	1828.1	1829.1	1835.1
27.5°	1917.1	1919.1	1922.1	1918.1	1925.1	1933.1	1933.1	1933.1	1945.1	1950.1	1957.1
30°	2031.1	2030.1	2033.1	2029.1	2036.1	2043.1	2050.1	2062.1	2075.1	2080.1	2093.1
32.5°	2158.1	2156.1	2158.1	2154.1	2155.1	2167.1	2189.1	2202.1	2212.1	2229.1	2245.1
35°	2322.1	2321.1	2325.1	2332.1	2335.1	2345.1	2378.1	2383.1	2410.1	2421.1	2442.1
37.5°	2522.1	2526.1	2537.1	2553.1	2556.1	2581.1	2600.1	2644.1	2669.1	2684.1	2701.1
40°	2766.1	2784.1	2807.1	2823.1	2845.1	2897.1	2936.1	2980.1	3015.1	3037.1	3066.1
42.5°	3063.1	3104.1	3132.1	3162.1	3210.1	3265.1	3327.1	3376.1	3418.1	3441.1	3481.1
45°	3373.1	3411.1	3446.1	3489.1	3533.1	3592.1	3650.1	3694.1	3728.1	3742.1	3753.1
47.5°	3619.1	3658.1	3697.1	3744.1	3798.1	3858.1	3906.1	3929.1	3940.1	3937.1	3932.1
50°	3818.1	3858.1	3907.1	3962.1	4015.1	4059.2	4084.2	4087.2	4087.2	4080.2	4071.2
52.5°	3989.1	4035.1	4089.2	4143.2	4178.2	4199.2	4211.2	4212.2	4212.2	4205.2	4195.2
55°	4129.2	4185.2	4236.2	4272.2	4297.2	4304.2	4310.2	4309.2	4306.2	4298.2	4288.2
57.5°	4221.2	4269.2	4325.2	4366.2	4404.2	4416.2	4435.2	4453.2	4476.2	4481.2	4499.2
60°	4397.2	4474.2	4524.2	4588.2	4643.2	4674.2	4712.2	4736.2	4759.2	4755.2	4749.2
62.5°	4697.2	4783.2	4851.2	4939.2	4996.2	5019.2	5043.2	5044.2	5042.2	5018.2	4997.2
65°	5098.2	5187.2	5256.2	5320.2	5353.2	5337.2	5330.2	5295.2	5260.2	5209.2	5163.2
67.5°	5355.2	5436.2	5496.2	5534.2	5558.2	5543.2	5521.2	5475.2	5420.2	5355.2	5292.2
70°	5567.2	5678.2	5743.2	5809.2	5884.2	5882.2	5854.2	5794.2	5709.2	5603.2	5506.2
72.5°	5463.2	5544.2	5581.2	5596.2	5580.2	5555.2	5509.2	5425.2	5363.2	5235.2	5176.2
75°	4627.2	4725.2	4755.2	4786.2	4775.2	4776.2	4724.2	4652.2	4612.2	4487.2	4457.2
77.5°	3249.1	3266.1	3330.1	3436.1	3477.1	3537.1	3515.1	3450.1	3357.1	3237.1	3194.1
80°	875.0	921.0	932.0	976.0	955.0	1009.0	1003.0	952.0	921.0	882.0	892.0
82.5°	358.0	372.0	363.0	360.0	380.0	374.0	374.0	370.0	359.0	361.0	357.0
85°	80.0	89.0	88.0	81.0	78.0	92.0	86.0	88.0	80.0	79.0	84.0
87.5°	10.0	10.0	10.0	10.0	9.0	10.0	9.0	9.0	9.0	9.0	9.0
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):

	75°	85°	90°	95°	105°	115°	125°	135°	145°	155°	165°
0°	1381.1	1381.1	1381.1	1381.1	1381.1	1381.1	1381.1	1381.1	1381.1	1381.1	1381.1
2.5°	1370.1	1368.1	1366.1	1381.1	1382.1	1387.1	1394.1	1407.1	1413.1	1421.1	1433.1
5°	1379.1	1381.1	1379.1	1396.1	1409.1	1425.1	1442.1	1466.1	1483.1	1511.1	1537.1
7.5°	1399.1	1401.1	1404.1	1418.1	1446.1	1483.1	1530.1	1583.1	1618.1	1653.1	1683.1
10°	1424.1	1427.1	1432.1	1446.1	1507.1	1565.1	1619.1	1658.1	1682.1	1722.1	1738.1
12.5°	1463.1	1467.1	1482.1	1509.1	1584.1	1621.1	1657.1	1683.1	1696.1	1731.1	1736.1
15°	1519.1	1535.1	1563.1	1589.1	1638.1	1654.1	1669.1	1676.1	1674.1	1694.1	1687.1
17.5°	1581.1	1614.1	1646.1	1658.1	1670.1	1666.1	1657.1	1637.1	1611.1	1612.1	1600.1
20°	1650.1	1702.1	1713.1	1709.1	1685.1	1660.1	1617.1	1566.1	1516.1	1511.1	1481.1
22.5°	1731.1	1783.1	1774.1	1753.1	1692.1	1637.1	1558.1	1477.1	1401.1	1375.1	1340.0
25°	1839.1	1868.1	1844.1	1804.1	1702.1	1609.1	1486.1	1366.1	1256.0	1196.0	1151.0
27.5°	1962.1	1961.1	1921.1	1862.1	1714.1	1565.1	1397.1	1229.0	1072.0	986.0	926.0
30°	2101.1	2059.1	2003.1	1923.1	1719.1	1507.1	1287.0	1072.0	876.0	768.0	734.0
32.5°	2240.1	2172.1	2090.1	1980.1	1713.1	1442.1	1166.0	889.0	676.0	623.0	606.0
35°	2434.1	2343.1	2231.1	2078.1	1702.1	1353.1	1003.0	662.0	545.0	505.0	496.0
37.5°	2700.1	2615.1	2459.1	2224.1	1702.1	1228.0	775.0	498.0	416.0	370.0	387.0
40°	3067.1	3016.1	2800.1	2464.1	1712.1	1075.0	525.0	363.0	274.0	268.0	327.0
42.5°	3477.1	3289.1	3031.1	2681.1	1728.1	863.0	340.0	252.0	232.0	252.0	305.0
45°	3741.1	3429.1	3147.1	2767.1	1738.1	614.0	246.0	231.0	221.0	240.0	290.0
47.5°	3912.1	3575.1	3253.1	2816.1	1656.1	414.0	228.0	222.0	213.0	232.0	285.0
50°	4055.2	3698.1	3340.1	2820.1	1454.1	309.0	224.0	213.0	207.0	225.0	281.0
52.5°	4178.2	3810.1	3425.1	2793.1	1293.0	273.0	216.0	205.0	200.0	218.0	272.0
55°	4273.2	3927.1	3497.1	2717.1	1157.0	268.0	210.0	196.0	193.0	218.0	272.0
57.5°	4494.2	4065.2	3523.1	2664.1	1008.0	260.0	204.0	188.0	190.0	221.0	283.0
60°	4733.2	4139.2	3508.1	2644.1	852.0	246.0	196.0	181.0	189.0	236.0	350.0
62.5°	4958.2	4161.2	3519.1	2635.1	680.0	225.0	184.0	176.0	187.0	261.0	418.0
65°	5105.2	4187.2	3484.1	2584.1	504.0	202.0	171.0	174.0	190.0	312.0	351.0
67.5°	5218.2	4141.2	3351.1	2401.1	379.0	180.0	154.0	164.0	195.0	287.0	304.0
70°	5378.2	3959.1	3084.1	2065.1	300.0	154.0	136.0	155.0	202.0	279.0	303.0
72.5°	5031.2	3502.1	2546.1	1561.1	225.0	126.0	112.0	145.0	207.0	281.0	302.0
75°	4289.2	2707.1	1806.1	842.0	164.0	97.0	88.0	130.0	201.0	278.0	289.0
77.5°	2943.1	1510.1	744.0	282.0	120.0	70.0	64.0	101.0	182.0	259.0	295.0
80°	788.0	378.0	278.0	191.0	84.0	51.0	47.0	65.0	146.0	228.0	282.0
82.5°	345.0	246.0	182.0	125.0	59.0	35.0	32.0	37.0	94.0	181.0	251.0
85°	75.0	55.0	44.0	34.0	24.0	18.0	17.0	22.0	37.0	106.0	184.0
87.5°	8.0	7.0	7.0	7.0	7.0	7.0	6.0	7.0	11.0	30.0	82.0
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):

	175°	180°
0°	1381.1	1381.1
2.5°	1450.1	1451.1
5°	1562.1	1563.1
7.5°	1704.1	1709.1
10°	1752.1	1754.1
12.5°	1747.1	1747.1
15°	1691.1	1685.1
17.5°	1603.1	1595.1
20°	1482.1	1477.1
22.5°	1323.0	1315.0
25°	1124.0	1126.0
27.5°	909.0	893.0
30°	737.0	739.0
32.5°	630.0	634.0
35°	506.0	497.0
37.5°	404.0	397.0
40°	378.0	365.0
42.5°	336.0	332.0
45°	317.0	316.0
47.5°	318.0	320.0
50°	320.0	321.0
52.5°	301.0	300.0
55°	285.0	281.0
57.5°	308.0	305.0
60°	379.0	379.0
62.5°	382.0	369.0
65°	328.0	333.0
67.5°	282.0	279.0
70°	270.0	263.0
72.5°	253.0	245.0
75°	221.0	209.0
77.5°	211.0	189.0
80°	215.0	177.0
82.5°	214.0	156.0
85°	190.0	163.0
87.5°	115.0	111.0
90°	0.0	0.0

(END OF REPORT)