

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: INVUE

Report Number: P181649

Luminaire Tested: **ICM-E04-LED-E1-T4**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P181649
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33673)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ICM-E04-LED-E1-T4
Description: ICON SITE MEDIUM LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 4
Light Source: (84) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11244.9 lumens
Efficiency: N/A
Efficacy: 115.7 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 1' x H: 0.1')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

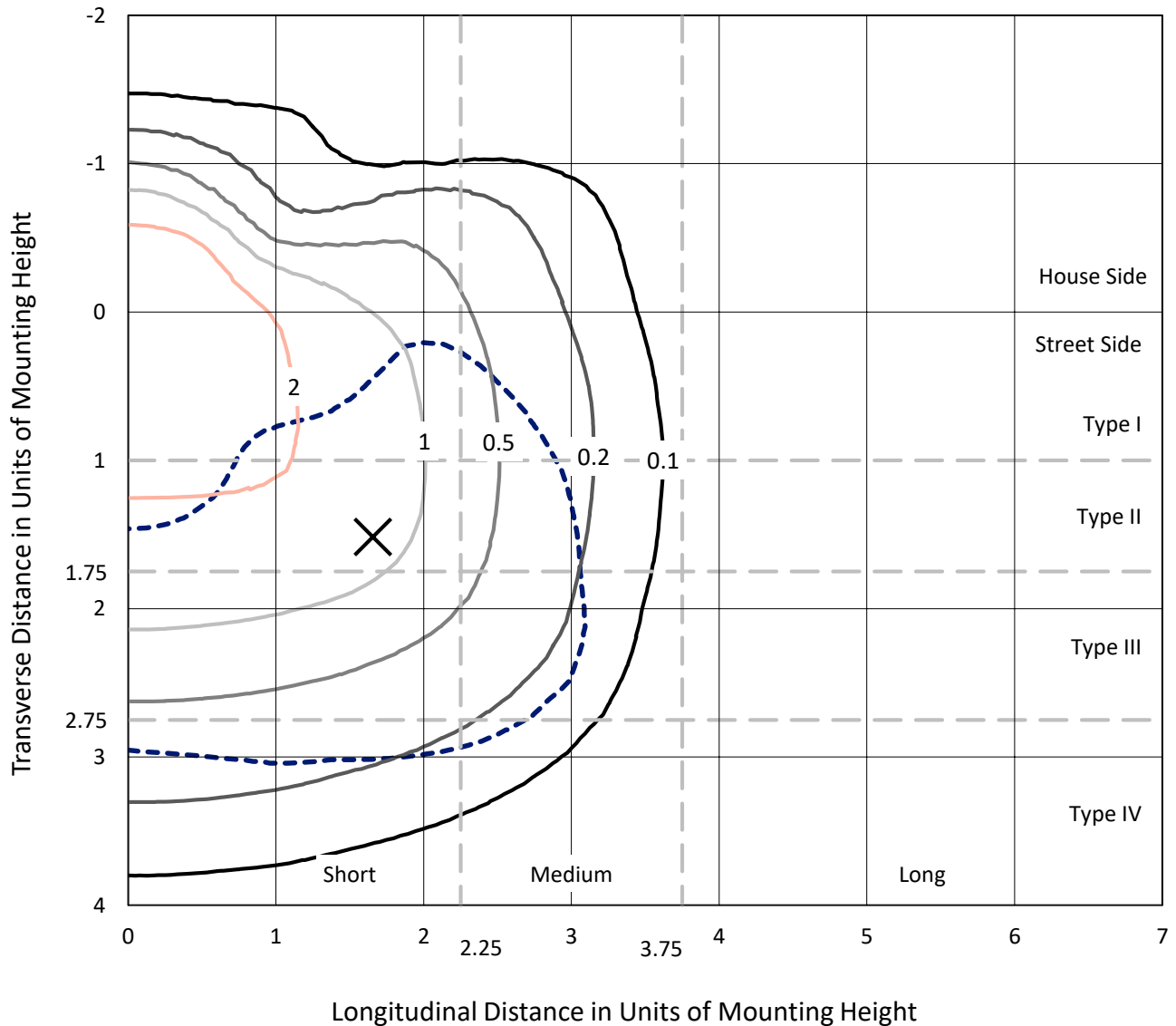
Input Watts (W): 97.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

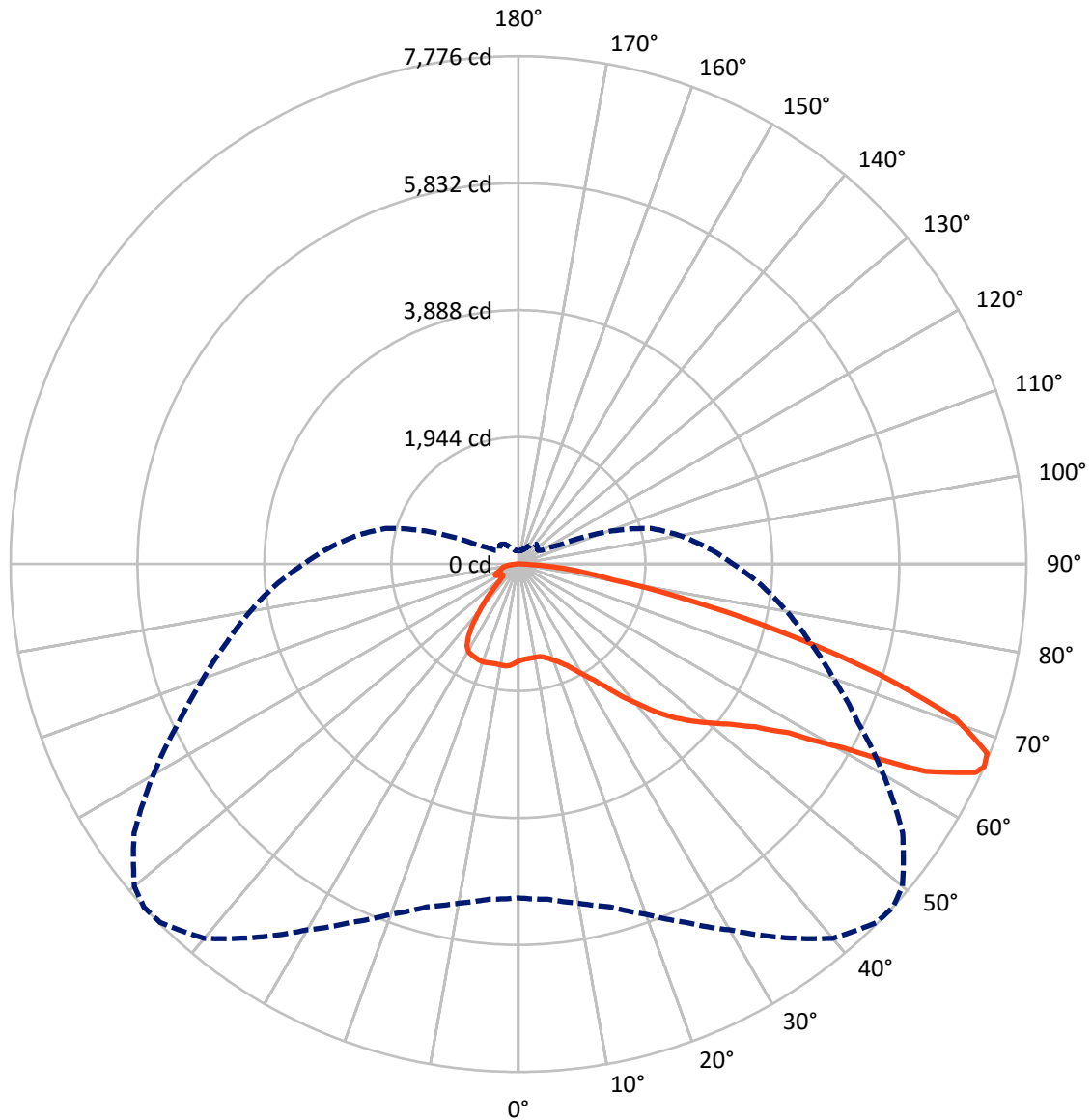
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.9 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 47.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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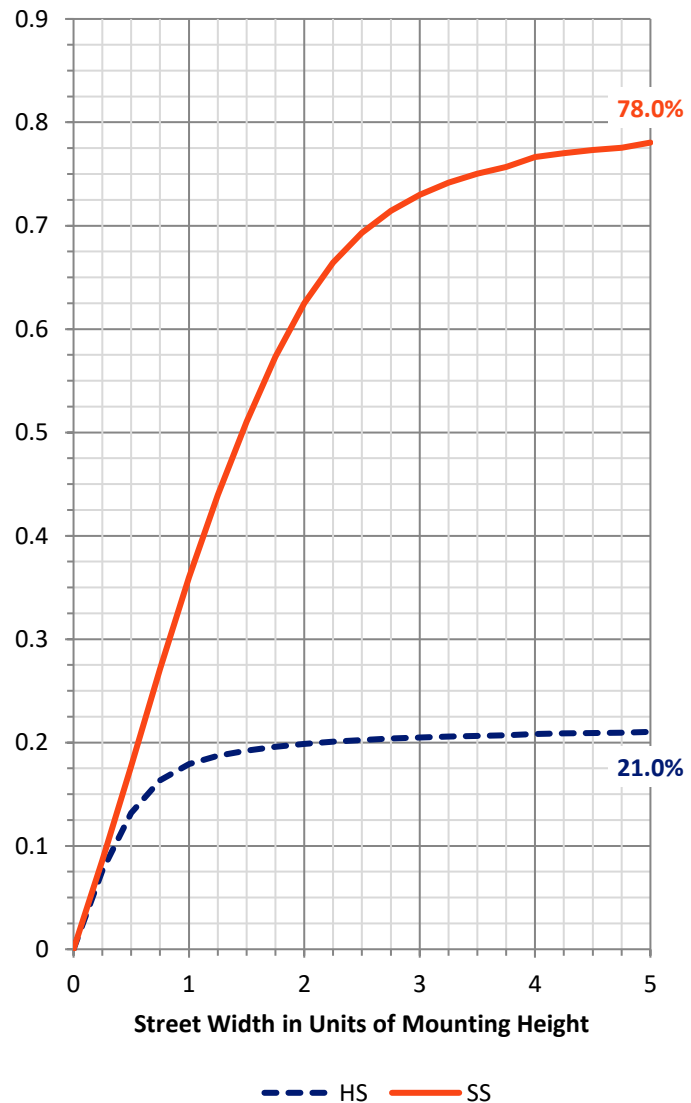
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2399.4	0.0	2399.4
	% Fixture	21.3	0.0	21.3
Street Side	Lumens	8845.5	0.0	8845.5
	% Fixture	78.7	0.0	78.7
Total	Lumens	11244.9	0.0	11244.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.9	1.3
10°-20°	437.0	3.9
20°-30°	752.7	6.7
30°-40°	1138.8	10.1
40°-50°	1476.0	13.1
50°-60°	2034.9	18.1
60°-70°	3161.6	28.1
70°-80°	1838.5	16.3
80°-90°	261.4	2.3
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°	11244.9	100.0
0°-180°	11244.9	100.0



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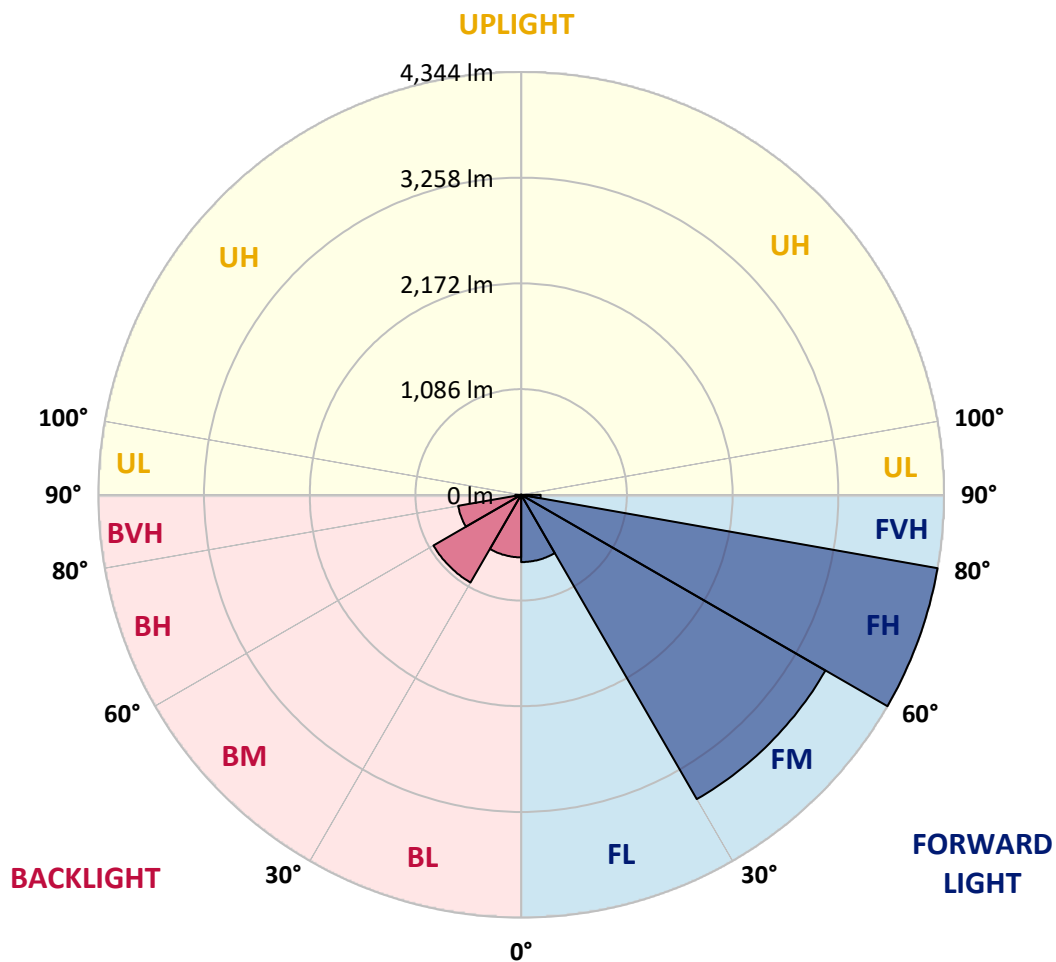
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	691.4	6.1			
FM (30°-60°)	3609.6	32.1			
FH (60°-80°)	4343.9	38.6			G2/5000
FVH (80°-90°)	200.6	1.8			G2/225
BL (0°-30°)	642.2	5.7	B2/1000		
BM (30°-60°)	1040.1	9.2	B2/2500		
BH (60°-80°)	656.2	5.8	B2/1000		G2/1000
BVH (80°-90°)	60.8	0.5			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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°	
0°	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1
2.5°	1454.9	1459.8	1456.1	1457.4	1457.4	1458.6	1458.6	1459.8	1458.6	1462.3	1464.8	1464.8
5°	1428.8	1431.4	1430.1	1432.6	1435.1	1440.0	1438.8	1444.9	1446.2	1450.0	1456.1	1456.1
7.5°	1418.9	1416.5	1417.7	1421.4	1423.9	1426.3	1428.8	1433.8	1437.5	1446.2	1451.2	1451.2
10°	1428.8	1427.6	1428.8	1431.4	1431.4	1432.6	1430.1	1435.1	1437.5	1444.9	1450.0	1450.0
12.5°	1469.8	1469.8	1467.3	1467.3	1464.8	1462.3	1456.1	1452.4	1451.2	1452.4	1454.9	1454.9
15°	1535.5	1533.0	1528.1	1524.4	1519.4	1510.7	1502.1	1494.6	1489.6	1482.1	1479.7	1479.7
17.5°	1600.0	1596.3	1591.4	1586.3	1580.2	1571.5	1557.9	1549.1	1535.5	1526.8	1521.9	1521.9
20°	1674.4	1667.0	1660.8	1654.6	1642.1	1639.7	1626.1	1611.2	1595.1	1575.2	1572.8	1572.8
22.5°	1771.2	1758.8	1751.4	1747.6	1735.2	1731.5	1709.1	1688.1	1668.2	1642.1	1636.0	1636.0
25°	1869.1	1856.8	1853.0	1848.1	1839.4	1834.4	1813.3	1789.8	1763.7	1727.7	1720.3	1720.3
27.5°	1964.7	1965.9	1956.0	1959.7	1957.2	1948.6	1927.5	1903.9	1884.0	1841.9	1833.2	1833.2
30°	2083.7	2076.3	2071.4	2078.8	2070.1	2071.4	2052.8	2040.3	2008.1	1983.3	1965.9	1965.9
32.5°	2207.7	2206.5	2214.0	2218.9	2217.7	2215.2	2200.3	2187.9	2159.4	2123.5	2116.0	2116.0
35°	2377.7	2385.1	2391.4	2413.7	2413.7	2429.8	2414.9	2400.0	2366.5	2323.1	2308.2	2308.2
37.5°	2493.0	2495.6	2520.3	2550.1	2587.3	2622.1	2631.9	2635.6	2622.1	2589.8	2567.5	2567.5
40°	2598.4	2603.5	2643.1	2689.0	2743.6	2811.8	2852.8	2871.4	2875.1	2860.2	2811.8	2811.8
42.5°	2703.9	2711.4	2752.3	2819.3	2894.9	2981.7	3053.7	3099.6	3125.6	3125.6	3097.0	3097.0
45°	2826.7	2836.6	2881.2	2954.4	3042.5	3151.6	3250.9	3338.9	3381.1	3383.6	3356.3	3356.3
47.5°	2971.8	2980.5	3032.6	3107.0	3197.5	3307.9	3433.2	3533.7	3611.8	3616.8	3594.4	3594.4
50°	3159.1	3171.5	3214.9	3281.9	3374.9	3486.5	3611.8	3751.9	3833.8	3853.7	3830.1	3830.1
52.5°	3407.2	3409.6	3445.6	3507.6	3598.2	3704.9	3837.5	3990.1	4098.0	4114.2	4075.7	4075.7
55°	3749.5	3745.8	3769.3	3836.3	3904.5	3987.7	4125.3	4296.5	4416.8	4441.6	4401.9	4401.9
57.5°	4214.6	4210.9	4230.7	4246.8	4374.6	4455.2	4590.4	4754.2	4870.7	4942.6	4874.4	4874.4
60°	4935.2	4931.5	4963.8	5058.0	5153.5	5271.4	5402.8	5598.8	5762.5	5783.6	5716.6	5716.6
62.5°	5457.4	5476.0	5546.7	5657.1	5850.5	6081.2	6321.9	6579.9	6916.0	7022.6	6990.5	6990.5
65°	5275.1	5312.3	5410.3	5577.7	5835.7	6154.5	6531.5	6999.1	7449.3	7701.2	7693.7	7693.7
66°	5111.4	5152.3	5272.6	5433.8	5706.7	6055.2	6467.0	6976.8	7480.3	7758.2	7775.6	7775.6
67.5°	4813.7	4859.6	4977.4	5168.4	5433.8	5804.7	6247.5	6801.9	7371.2	7694.9	7740.8	7740.8
70°	4234.4	4286.5	4372.1	4529.6	4791.4	5122.5	5588.9	6085.0	6681.6	7052.4	7108.2	7108.2
72.5°	3539.8	3585.8	3681.2	3810.3	4024.9	4233.2	4599.1	4965.0	5391.7	5814.6	5773.7	5773.7
75°	2541.4	2561.2	2618.3	2758.4	2873.8	3061.1	3355.1	3655.2	3946.7	4140.2	4167.5	4167.5
77.5°	1320.9	1373.0	1453.7	1608.7	1734.0	1902.6	2093.7	2319.4	2532.8	2710.1	2661.7	2661.7
80°	864.5	886.8	958.8	1038.1	1130.0	1237.9	1365.6	1450.0	1477.2	1466.1	1477.2	1477.2
82.5°	498.6	539.5	635.1	695.8	764.0	801.2	903.0	999.7	1054.2	986.1	961.2	961.2
85°	63.3	81.9	258.0	324.9	372.1	427.9	458.9	517.2	482.5	431.6	525.9	525.9
87.5°	13.7	12.4	17.4	37.2	38.4	32.3	60.7	64.5	39.7	19.8	24.8	24.8
90°	0.0	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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1
2.5°	1467.3	1468.6	1471.0	1474.7	1477.2	1479.7	1482.1	1485.9	1488.4	1490.9	1495.8
5°	1461.1	1466.1	1471.0	1476.0	1482.1	1492.1	1498.3	1503.3	1508.2	1518.1	1521.9
7.5°	1457.4	1466.1	1473.5	1482.1	1492.1	1500.8	1511.9	1518.1	1525.6	1531.8	1539.3
10°	1454.9	1467.3	1474.7	1487.2	1498.3	1507.0	1519.4	1526.8	1535.5	1543.0	1546.7
12.5°	1459.8	1466.1	1473.5	1485.9	1499.5	1511.9	1525.6	1531.8	1539.3	1545.4	1546.7
15°	1480.9	1480.9	1482.1	1492.1	1505.8	1515.6	1526.8	1533.0	1536.8	1540.5	1540.5
17.5°	1519.4	1510.7	1504.5	1505.8	1514.4	1520.7	1526.8	1526.8	1524.4	1523.1	1520.7
20°	1564.0	1552.8	1540.5	1531.8	1529.3	1524.4	1520.7	1508.2	1498.3	1489.6	1483.5
22.5°	1628.6	1611.2	1593.8	1577.7	1562.8	1544.2	1523.1	1498.3	1474.7	1458.6	1448.7
25°	1707.9	1694.2	1673.2	1648.4	1629.8	1595.1	1567.7	1531.8	1502.1	1480.9	1463.5
27.5°	1820.8	1804.7	1784.8	1762.5	1735.2	1696.8	1663.3	1621.1	1585.1	1554.1	1531.8
30°	1960.9	1939.8	1924.9	1897.7	1879.1	1835.6	1802.2	1750.1	1680.7	1631.0	1600.0
32.5°	2104.9	2081.2	2068.8	2047.7	2026.7	2000.7	1949.8	1869.1	1779.8	1699.3	1645.9
35°	2297.0	2272.3	2250.0	2231.4	2200.3	2151.9	2107.3	2010.5	1887.7	1774.9	1685.6
37.5°	2538.9	2498.0	2442.2	2395.1	2340.5	2271.0	2202.8	2103.5	1963.5	1817.0	1698.0
40°	2796.9	2724.9	2645.6	2557.5	2463.3	2362.8	2284.7	2184.2	2026.7	1853.0	1689.3
42.5°	3066.1	2951.9	2841.6	2717.5	2586.1	2467.0	2365.3	2254.9	2073.8	1863.0	1654.6
45°	3332.8	3204.9	3037.5	2875.1	2708.9	2561.2	2447.2	2323.1	2117.2	1866.7	1608.7
47.5°	3553.5	3422.1	3231.0	3027.6	2830.4	2663.0	2529.0	2395.1	2175.5	1892.8	1597.5
50°	3786.7	3626.7	3414.6	3174.0	2950.7	2763.5	2620.8	2481.9	2257.4	1959.7	1633.5
52.5°	4041.0	3857.4	3609.3	3340.2	3095.8	2886.3	2731.2	2588.6	2361.6	2054.0	1701.7
55°	4351.0	4126.5	3857.4	3553.5	3291.8	3059.8	2888.7	2720.0	2485.6	2165.6	1787.3
57.5°	4824.9	4549.5	4246.8	3900.8	3610.5	3336.5	3131.8	2937.0	2677.9	2331.8	1903.9
60°	5681.9	5387.9	4994.7	4575.6	4234.4	3914.4	3614.3	3372.4	3053.7	2659.3	2161.9
62.5°	6909.8	6519.1	5994.5	5407.8	4961.2	4499.8	4161.2	3801.6	3405.9	2980.5	2465.8
65°	7592.0	7118.2	6416.1	5735.2	5161.0	4659.8	4229.5	3812.8	3373.7	2966.8	2536.5
66°	7676.3	7182.6	6453.3	5736.5	5133.7	4618.9	4166.3	3734.6	3285.6	2897.4	2506.7
67.5°	7641.6	7136.8	6385.2	5628.6	5015.8	4462.6	3995.1	3547.3	3099.6	2737.4	2407.5
70°	7072.3	6593.5	5855.6	5122.5	4540.8	3995.1	3548.6	3108.2	2697.7	2387.6	2144.5
72.5°	5872.9	5463.6	4822.4	4246.8	3790.4	3340.2	2961.9	2541.4	2194.2	1964.7	1820.8
75°	4239.4	3991.4	3407.2	3077.2	2676.6	2377.7	2010.5	1761.2	1511.9	1400.3	1375.5
77.5°	2677.9	2344.2	1973.3	1624.8	1335.8	1107.6	862.1	731.8	610.2	597.9	721.9
80°	1355.6	1220.5	940.2	749.1	630.1	509.8	403.1	305.1	213.3	256.7	307.6
82.5°	888.1	740.5	580.5	477.5	415.5	344.8	267.9	186.0	136.5	153.8	210.9
85°	480.0	409.3	330.0	260.5	210.9	188.6	126.5	89.3	88.1	94.2	120.3
87.5°	34.7	34.7	27.3	24.8	29.8	24.8	22.3	22.3	21.1	22.3	29.8
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°	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1	1482.1
2.5°	1498.3	1502.1	1503.3	1509.5	1513.2	1515.6	1518.1	1518.1	1519.4	1523.1	1524.4
5°	1526.8	1533.0	1540.5	1545.4	1547.9	1555.4	1557.9	1557.9	1560.3	1565.3	1569.0
7.5°	1544.2	1552.8	1560.3	1562.8	1567.7	1570.2	1574.0	1576.5	1576.5	1581.4	1583.9
10°	1550.4	1555.4	1562.8	1562.8	1567.7	1567.7	1571.5	1572.8	1572.8	1577.7	1581.4
12.5°	1550.4	1552.8	1559.1	1559.1	1562.8	1564.0	1569.0	1572.8	1574.0	1580.2	1585.1
15°	1543.0	1545.4	1550.4	1551.6	1560.3	1565.3	1576.5	1583.9	1583.9	1590.1	1592.6
17.5°	1521.9	1528.1	1538.0	1547.9	1564.0	1575.2	1588.8	1595.1	1590.1	1586.3	1582.6
20°	1487.2	1498.3	1521.9	1546.7	1575.2	1590.1	1597.5	1591.4	1574.0	1556.6	1545.4
22.5°	1452.4	1474.7	1514.4	1551.6	1583.9	1593.8	1590.1	1567.7	1539.3	1518.1	1503.3
25°	1468.6	1494.6	1533.0	1566.5	1587.6	1585.1	1570.2	1539.3	1508.2	1480.9	1456.1
27.5°	1535.5	1564.0	1585.1	1596.3	1593.8	1576.5	1552.8	1518.1	1480.9	1444.9	1410.2
30°	1598.8	1613.7	1618.6	1610.0	1590.1	1561.6	1531.8	1492.1	1442.5	1397.9	1358.1
32.5°	1627.3	1612.4	1588.8	1565.3	1533.0	1508.2	1467.3	1423.9	1361.9	1308.6	1268.8
35°	1627.3	1567.7	1508.2	1458.6	1410.2	1379.3	1332.1	1273.8	1216.8	1172.1	1141.1
37.5°	1591.4	1477.2	1379.3	1298.6	1237.9	1204.4	1133.7	1081.6	1033.2	1018.3	998.4
40°	1525.6	1356.9	1215.5	1110.1	1033.2	983.5	912.8	876.9	858.3	850.9	847.2
42.5°	1437.5	1223.0	1034.4	904.2	821.1	765.3	718.1	695.8	694.6	693.3	693.3
45°	1343.3	1079.1	858.3	703.3	630.1	580.5	558.1	549.5	556.9	555.6	556.9
47.5°	1284.9	970.0	697.0	532.1	476.3	444.0	432.8	436.6	442.8	440.3	440.3
50°	1277.5	914.1	589.1	414.2	372.1	356.0	353.5	353.5	357.2	354.7	353.5
52.5°	1304.8	905.4	533.3	356.0	322.5	308.8	306.3	305.1	303.9	296.5	290.2
55°	1351.9	925.3	517.2	341.1	306.3	291.4	287.7	285.3	280.3	270.4	259.3
57.5°	1446.2	987.3	532.1	348.6	311.4	298.9	295.2	295.2	285.3	269.1	253.0
60°	1673.2	1144.8	592.8	377.0	334.9	322.5	324.9	323.7	308.8	285.3	260.5
62.5°	1965.9	1350.7	672.3	416.7	364.7	362.1	374.6	372.1	347.3	311.4	275.4
65°	2101.1	1447.5	694.6	425.4	370.9	382.0	406.8	404.4	373.3	323.7	277.9
66°	2103.5	1447.5	684.7	418.0	362.1	375.8	400.7	399.4	368.4	318.8	272.8
67.5°	2052.8	1407.7	656.1	403.1	344.8	354.7	377.0	375.8	347.3	306.3	263.0
70°	1861.7	1260.2	583.0	377.0	321.2	316.3	323.7	318.8	300.2	271.6	241.9
72.5°	1595.1	1058.0	508.6	357.2	305.1	285.3	280.3	276.6	261.7	245.6	227.0
75°	1256.5	837.2	446.5	342.3	290.2	264.2	255.5	250.5	240.7	229.5	214.6
77.5°	775.2	599.1	389.5	322.5	279.1	253.0	246.8	239.4	224.5	210.9	199.7
80°	346.0	370.9	320.0	281.6	249.3	225.8	215.8	204.7	189.8	181.1	174.9
82.5°	230.7	239.4	231.9	210.9	188.6	170.0	155.1	155.1	152.6	145.1	142.6
85°	147.6	148.8	143.9	130.2	121.6	110.4	104.2	105.4	110.4	109.1	107.9
87.5°	33.5	33.5	39.7	37.2	43.4	45.9	49.6	53.3	60.7	60.7	64.5
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):

	160°	165°	170°	175°	180°
0°	1482.1	1482.1	1482.1	1482.1	1482.1
2.5°	1525.6	1528.1	1530.5	1526.8	1528.1
5°	1569.0	1567.7	1574.0	1570.2	1572.8
7.5°	1582.6	1583.9	1588.8	1588.8	1590.1
10°	1583.9	1586.3	1592.6	1596.3	1598.8
12.5°	1590.1	1595.1	1604.9	1607.5	1607.5
15°	1595.1	1597.5	1603.7	1606.2	1608.7
17.5°	1577.7	1572.8	1575.2	1576.5	1575.2
20°	1534.2	1529.3	1528.1	1523.1	1525.6
22.5°	1487.2	1473.5	1464.8	1454.9	1454.9
25°	1430.1	1409.0	1391.6	1374.2	1378.0
27.5°	1376.8	1349.5	1332.1	1320.9	1318.4
30°	1324.7	1296.1	1280.0	1266.3	1266.3
32.5°	1237.9	1218.0	1196.9	1188.2	1187.0
35°	1117.5	1105.1	1087.7	1084.0	1077.9
37.5°	982.3	978.6	963.7	962.5	956.3
40°	840.9	843.4	838.4	836.0	832.3
42.5°	699.5	711.9	709.5	708.2	705.8
45°	564.4	573.0	574.2	578.0	584.2
47.5°	444.0	446.5	449.0	447.7	449.0
50°	347.3	341.1	339.8	336.1	339.8
52.5°	280.3	270.4	265.4	260.5	258.0
55°	246.8	236.9	231.9	229.5	227.0
57.5°	238.1	228.2	220.7	215.8	214.6
60°	240.7	225.8	215.8	209.6	208.4
62.5°	246.8	227.0	213.3	207.2	205.9
65°	245.6	224.5	212.1	204.7	203.4
66°	241.9	222.0	209.6	203.4	202.1
67.5°	235.6	218.3	207.2	202.1	199.7
70°	224.5	213.3	204.7	198.4	196.0
72.5°	214.6	205.9	198.4	192.3	191.0
75°	203.4	196.0	188.6	183.5	182.3
77.5°	189.8	182.3	177.4	173.7	172.4
80°	167.4	162.5	157.5	152.6	152.6
82.5°	138.9	135.2	130.2	126.5	125.3
85°	106.7	106.7	103.0	99.3	98.0
87.5°	63.3	62.0	62.0	58.3	58.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)