

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: LUMARK

Report Number: P146635

Luminaire Tested: **LDRL-T3-F06-E**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P146635
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33695)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: LDRL-T3-F06-E
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(6) LIGHTBARS WITH AccuLED OPTICS - TYPE 3
Light Source: (42) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14789.1 lumens
Efficiency: N/A
Efficacy: 94.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G3

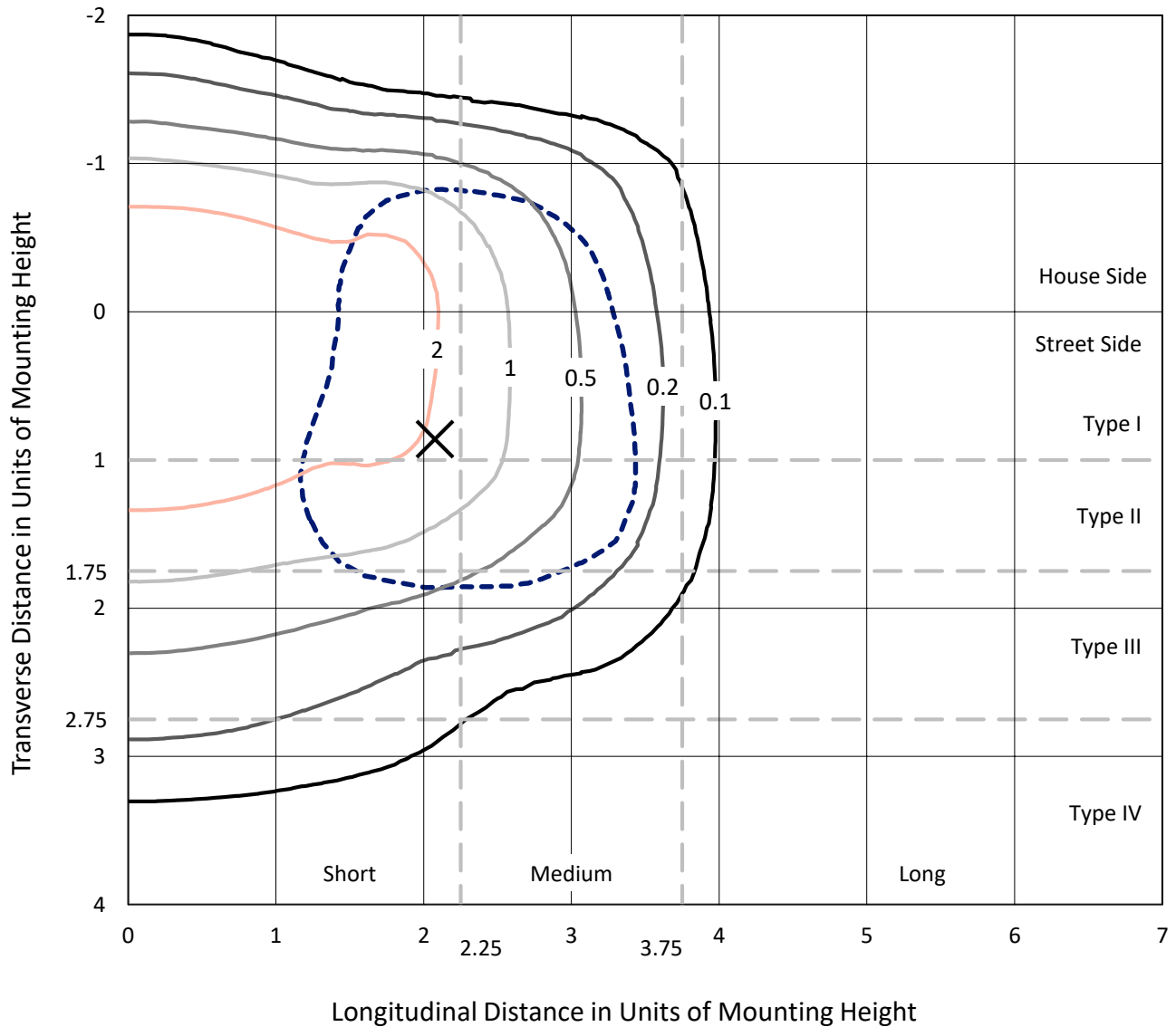
Input Watts (W): 156.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

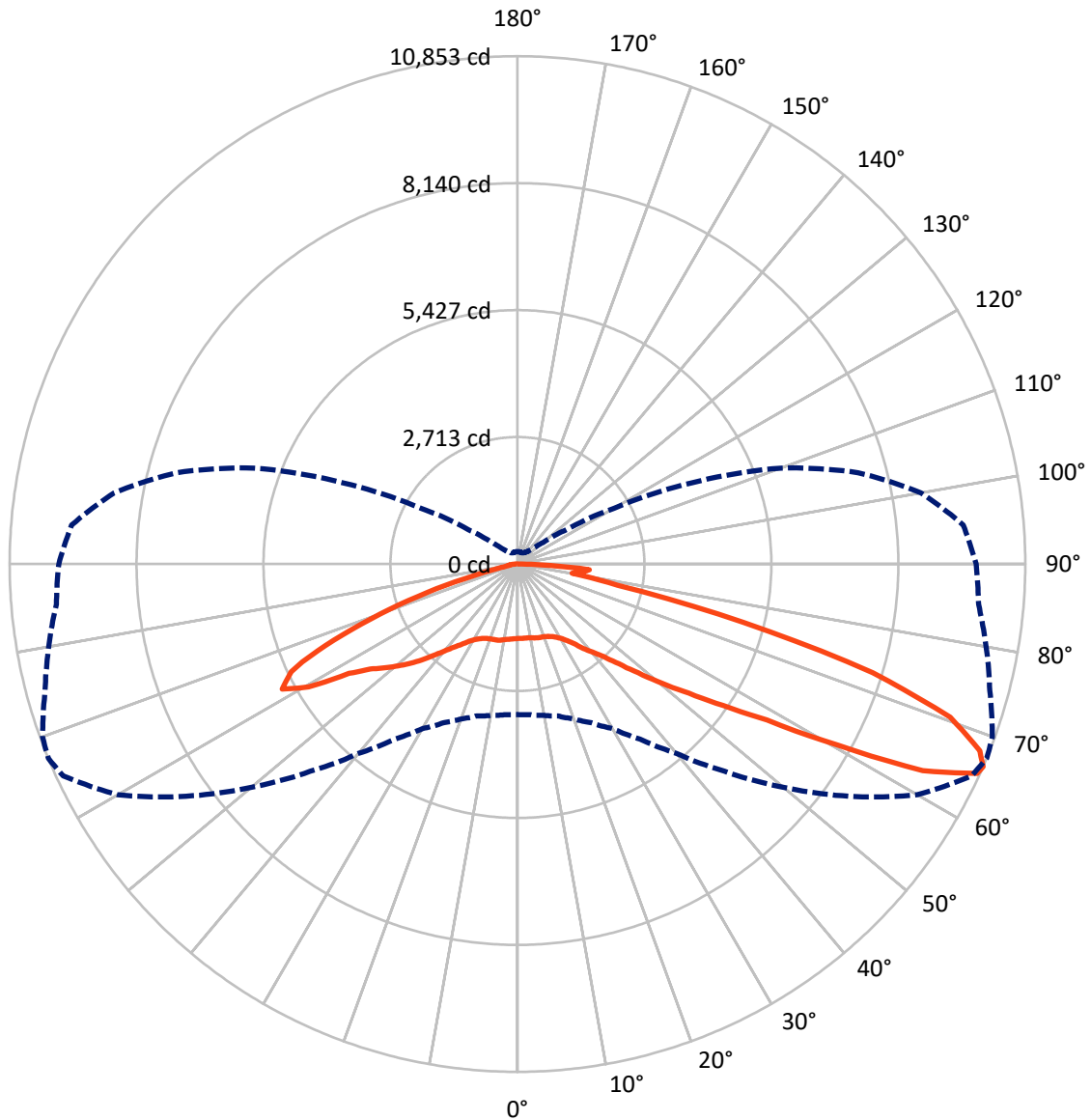
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4 fc
 Type III - 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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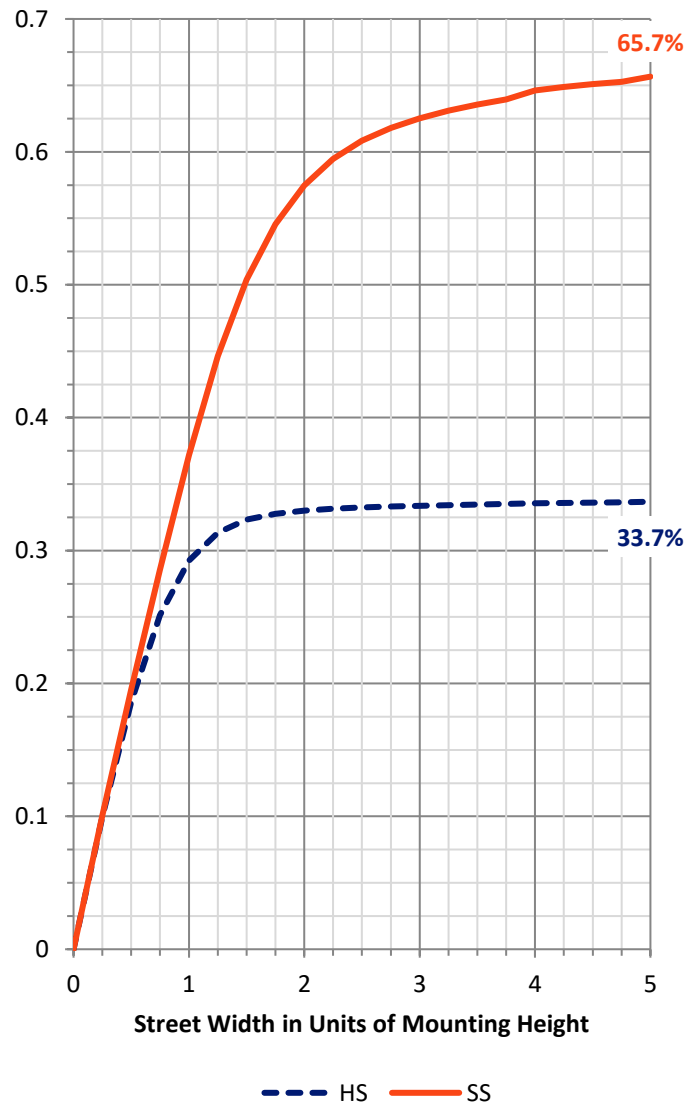
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5024.4	0.0	5024.4
	% Fixture	34.0	0.0	34.0
Street Side	Lumens	9764.8	0.0	9764.8
	% Fixture	66.0	0.0	66.0
Total	Lumens	14789.1	0.0	14789.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.9	1.0
10°-20°	453.1	3.1
20°-30°	779.0	5.3
30°-40°	1252.9	8.5
40°-50°	2065.1	14.0
50°-60°	3237.0	21.9
60°-70°	4479.8	30.3
70°-80°	2027.3	13.7
80°-90°	342.0	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°	14789.1	100.0
0°-180°	14789.1	100.0



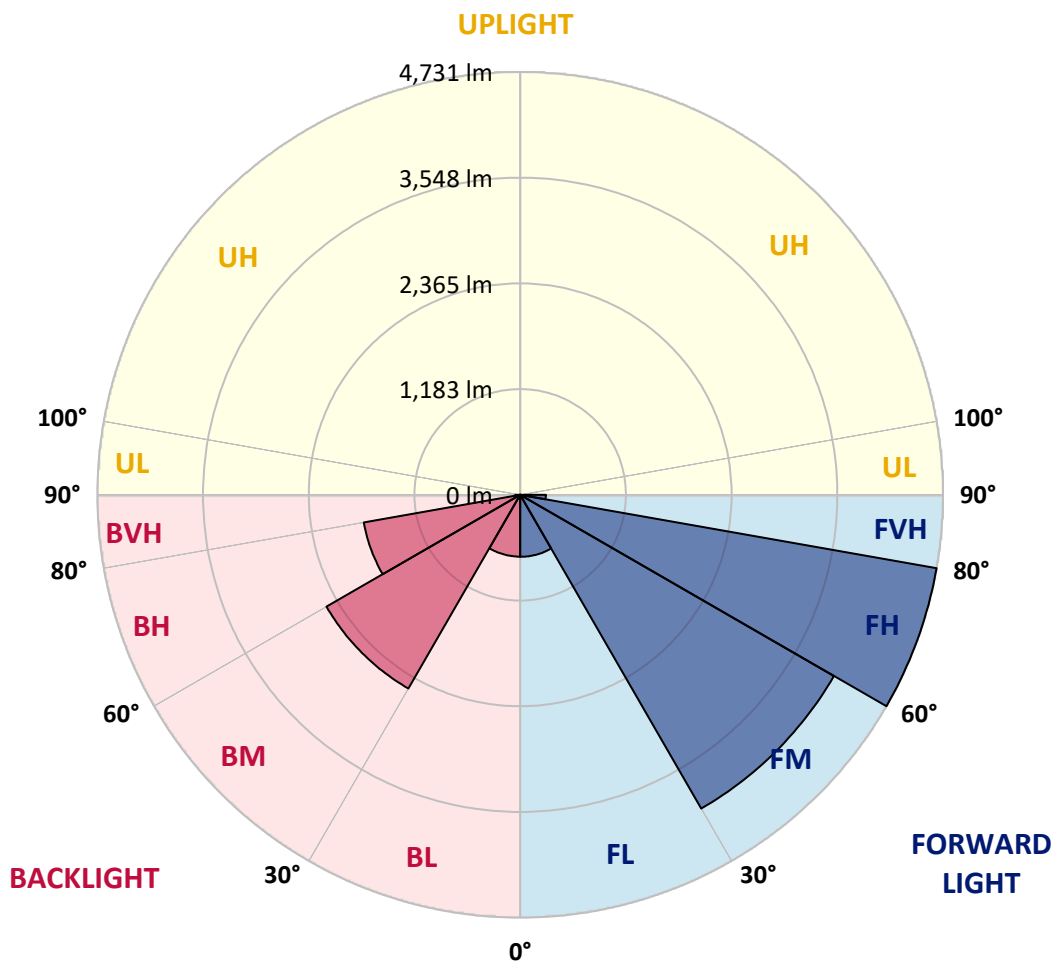
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	693.6	4.7			
FM	(30°-60°)	4052.8	27.4			
FH	(60°-80°)	4730.9	32.0			G2/5000
FVH	(80°-90°)	287.5	1.9			G3/500
BL	(0°-30°)	691.4	4.7	B2/1000		
BM	(30°-60°)	2502.2	16.9	B3/5000		
BH	(60°-80°)	1776.2	12.0	B3/2500		G3/2500
BVH	(80°-90°)	54.6	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1591.9	1591.9	1591.9	1591.9	1591.9	1591.9	1591.9	1591.9	1591.9	1591.9	1591.9
2.5°	1590.0	1589.0	1588.0	1588.0	1587.0	1588.0	1589.0	1590.0	1589.0	1590.0	1589.0
5°	1587.0	1587.0	1586.0	1586.0	1586.0	1586.0	1587.0	1588.0	1587.0	1589.0	1587.0
7.5°	1574.1	1580.1	1578.1	1580.1	1582.0	1584.0	1585.0	1587.0	1590.0	1591.9	1590.0
10°	1557.3	1560.2	1561.2	1563.2	1567.2	1572.1	1576.1	1581.0	1588.0	1590.0	1591.9
12.5°	1526.6	1530.5	1533.5	1537.5	1543.4	1551.3	1558.3	1566.2	1578.1	1586.0	1592.9
15°	1503.8	1508.7	1509.7	1514.7	1520.6	1529.5	1538.4	1550.3	1566.2	1580.1	1593.9
17.5°	1518.6	1520.6	1518.6	1518.6	1520.6	1524.6	1531.5	1541.4	1558.3	1575.1	1591.9
20°	1563.2	1563.2	1561.2	1560.2	1558.3	1554.3	1553.3	1552.3	1563.2	1576.1	1591.0
22.5°	1605.8	1605.8	1604.8	1608.8	1607.8	1607.8	1604.8	1599.9	1594.9	1592.9	1602.8
25°	1632.6	1636.5	1638.5	1644.4	1648.4	1654.4	1656.3	1655.3	1648.4	1636.5	1633.5
27.5°	1676.1	1679.1	1681.1	1688.0	1696.0	1702.9	1709.8	1718.7	1718.7	1707.8	1693.0
30°	1760.3	1756.4	1758.4	1760.3	1767.3	1777.2	1786.1	1798.0	1803.9	1800.0	1780.2
32.5°	1838.6	1842.6	1844.6	1850.5	1857.4	1872.3	1883.2	1897.1	1909.9	1911.9	1902.0
35°	1953.5	1951.5	1948.6	1969.4	1977.3	1994.1	2007.0	2026.8	2036.7	2045.7	2039.7
37.5°	2134.8	2128.9	2124.9	2130.8	2141.7	2152.6	2171.5	2186.3	2203.2	2224.0	2217.0
40°	2391.4	2403.3	2386.4	2394.4	2403.3	2378.5	2395.3	2409.2	2437.9	2438.9	2437.9
42.5°	2725.2	2734.1	2730.2	2735.1	2719.3	2711.4	2704.4	2711.4	2747.0	2742.1	2718.3
45°	3059.1	3071.9	3069.0	3071.0	3101.7	3088.8	3099.7	3101.7	3138.3	3128.4	3110.6
47.5°	3344.4	3366.2	3371.1	3388.9	3430.6	3464.2	3510.8	3545.5	3563.3	3575.2	3589.1
50°	3570.2	3586.1	3613.8	3658.4	3718.8	3777.3	3882.3	3950.6	4013.0	4056.6	4101.2
52.5°	3719.8	3737.6	3780.2	3847.6	3934.8	4041.8	4164.6	4307.3	4439.0	4516.3	4582.7
55°	3781.2	3799.1	3851.6	3939.7	4055.6	4192.3	4368.7	4569.8	4745.1	4922.4	5024.5
57.5°	3745.6	3765.4	3825.8	3924.9	4064.6	4243.9	4462.8	4709.5	4966.0	5234.5	5439.5
60°	3640.6	3658.4	3726.7	3829.8	3989.3	4191.4	4453.9	4762.9	5123.5	5521.8	5911.1
62.5°	3495.9	3522.7	3583.1	3688.1	3846.6	4067.5	4366.7	4768.9	5286.0	5927.9	6685.8
65°	3311.7	3331.5	3385.0	3468.2	3642.5	3873.4	4189.4	4681.7	5357.3	6267.7	7349.5
66°	3216.6	3235.4	3284.9	3363.2	3522.7	3744.6	4060.6	4564.8	5278.1	6265.7	7419.8
67.5°	3049.2	3058.1	3093.7	3171.0	3275.0	3474.1	3767.4	4239.9	4942.3	6001.2	7223.7
70°	2557.8	2570.7	2605.4	2645.0	2683.6	2754.9	2960.0	3272.1	3833.7	4849.1	6015.1
72.5°	1769.3	1789.1	1826.7	1900.0	1960.5	2050.6	2130.8	2234.9	2421.1	3126.4	4303.3
75°	1278.9	1285.8	1341.3	1470.1	1591.9	1772.2	1931.7	1982.3	1918.9	1908.0	2528.1
77.5°	762.8	772.7	852.9	982.7	1109.5	1354.2	1681.1	1933.7	2073.4	2023.9	1913.9
80°	321.0	334.8	382.4	416.1	521.1	726.1	1049.1	1445.3	1813.8	2040.7	1989.2
82.5°	103.0	119.9	141.7	171.4	202.1	270.4	419.0	627.1	990.6	1477.0	1815.8
85°	37.6	38.6	53.5	74.3	82.2	95.1	121.8	188.2	334.8	553.8	1030.3
87.5°	14.9	17.8	20.8	28.7	29.7	30.7	34.7	44.6	43.6	37.6	195.2
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°	1591.9	1591.9	1591.9	1591.9	1591.9	1591.9	1591.9	1591.9	1591.9	1591.9	1591.9
2.5°	1590.0	1591.9	1591.0	1591.9	1591.9	1590.0	1590.0	1593.9	1591.0	1592.9	1592.9
5°	1589.0	1591.0	1590.0	1591.9	1591.9	1591.0	1591.0	1596.9	1595.9	1598.9	1600.9
7.5°	1592.9	1593.9	1592.9	1592.9	1595.9	1594.9	1595.9	1597.9	1602.8	1607.8	1611.8
10°	1597.9	1599.9	1602.8	1603.8	1607.8	1606.8	1609.8	1612.7	1617.7	1622.7	1627.6
12.5°	1604.8	1610.8	1619.7	1621.7	1625.6	1628.6	1633.5	1636.5	1640.5	1648.4	1654.4
15°	1610.8	1621.7	1632.6	1636.5	1640.5	1644.4	1649.4	1652.4	1659.3	1666.2	1673.2
17.5°	1612.7	1625.6	1639.5	1644.4	1648.4	1655.3	1661.3	1667.2	1675.2	1684.1	1692.0
20°	1613.7	1631.6	1649.4	1655.3	1664.3	1674.2	1684.1	1689.0	1699.9	1710.8	1717.8
22.5°	1622.7	1644.4	1669.2	1680.1	1689.0	1706.9	1719.7	1727.7	1740.5	1749.5	1752.4
25°	1647.4	1670.2	1699.9	1716.8	1731.6	1757.4	1773.2	1788.1	1795.0	1806.9	1803.9
27.5°	1692.0	1709.8	1748.5	1771.2	1790.1	1823.7	1854.5	1868.3	1879.2	1885.2	1878.2
30°	1768.3	1775.2	1817.8	1845.5	1877.2	1929.7	1963.4	1981.3	1995.1	1996.1	1978.3
32.5°	1882.2	1871.3	1908.9	1948.6	1990.2	2053.6	2099.1	2118.0	2128.9	2129.9	2090.2
35°	2036.7	2017.9	2049.6	2088.2	2139.8	2223.0	2280.4	2302.2	2319.1	2311.1	2252.7
37.5°	2231.9	2230.9	2245.8	2295.3	2353.7	2460.7	2521.2	2533.0	2532.1	2508.3	2420.1
40°	2448.8	2431.0	2433.0	2468.6	2536.0	2676.7	2760.9	2780.7	2773.8	2739.1	2624.2
42.5°	2722.3	2714.3	2687.6	2706.4	2768.8	2940.2	3042.2	3062.0	3068.0	3010.5	2874.8
45°	3105.6	3098.7	3039.3	3043.2	3088.8	3269.1	3375.1	3407.8	3408.8	3354.3	3177.9
47.5°	3570.2	3564.3	3494.9	3475.1	3497.9	3658.4	3790.2	3797.1	3799.1	3723.8	3540.5
50°	4097.2	4080.4	4027.9	4007.1	3980.4	4157.7	4263.7	4262.7	4251.8	4168.6	3962.5
52.5°	4606.4	4644.1	4624.3	4583.6	4584.6	4712.4	4812.5	4757.0	4763.9	4684.7	4447.9
55°	5150.3	5246.4	5318.7	5333.6	5326.6	5392.0	5447.5	5348.4	5311.8	5298.9	5047.3
57.5°	5727.8	5973.5	6196.4	6289.5	6253.8	6373.7	6423.2	6320.2	6322.2	6423.2	6206.3
60°	6499.5	7119.7	7681.3	7855.7	7936.9	8135.1	8046.9	8040.9	8196.5	8327.2	7925.0
62.5°	7670.4	8697.7	9594.3	9724.0	9789.4	9834.0	9794.4	9686.4	9846.9	9862.7	9242.6
65°	8558.1	9763.6	10630.4	10792.9	10781.0	10554.2	10334.3	10118.3	10116.3	9957.8	9159.4
66°	8654.1	9864.7	10709.7	10853.3	10800.8	10451.1	10171.8	9891.4	9801.3	9563.5	8753.2
67.5°	8444.1	9688.4	10527.4	10656.2	10544.3	10012.3	9631.9	9252.5	9116.8	8785.9	7959.7
70°	7218.7	8500.6	9623.0	9809.2	9676.5	8970.2	8406.5	7989.4	7619.9	7294.0	6612.5
72.5°	5597.1	6556.0	7743.8	7937.9	7948.8	7396.0	6761.0	6360.8	5930.9	5604.0	5092.8
75°	3671.3	4396.4	5049.2	4983.9	5002.7	4567.8	4189.4	3856.5	3467.2	3209.6	2965.9
77.5°	2145.7	2405.2	2345.8	2183.3	2046.6	1608.8	1151.1	790.5	689.5	719.2	811.3
80°	1865.4	1719.7	1346.3	1183.8	1076.8	731.1	393.3	277.4	243.7	246.7	261.5
82.5°	2008.0	2083.3	1709.8	1407.7	1227.4	860.9	462.6	230.8	166.4	194.2	214.0
85°	1558.3	1983.2	1828.7	1545.4	1299.7	915.3	472.5	146.6	99.1	132.7	167.4
87.5°	443.8	702.4	561.7	496.3	400.2	273.4	112.9	58.4	53.5	69.3	96.1
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°	1591.9	1591.9	1591.9	1591.9	1591.9	1591.9	1591.9	1591.9	1591.9	1591.9	1591.9
2.5°	1593.9	1593.9	1596.9	1597.9	1598.9	1598.9	1600.9	1600.9	1601.8	1605.8	1604.8
5°	1603.8	1606.8	1610.8	1612.7	1615.7	1616.7	1619.7	1619.7	1622.7	1625.6	1624.6
7.5°	1615.7	1618.7	1621.7	1624.6	1627.6	1631.6	1630.6	1629.6	1628.6	1626.6	1624.6
10°	1632.6	1635.5	1638.5	1637.5	1635.5	1633.5	1625.6	1616.7	1612.7	1604.8	1598.9
12.5°	1660.3	1663.3	1660.3	1652.4	1641.5	1628.6	1611.8	1596.9	1588.0	1576.1	1569.2
15°	1681.1	1684.1	1678.1	1664.3	1646.4	1629.6	1606.8	1588.0	1572.1	1559.3	1549.3
17.5°	1696.9	1695.0	1682.1	1666.2	1647.4	1633.5	1612.7	1591.9	1573.1	1555.3	1541.4
20°	1719.7	1708.8	1690.0	1670.2	1651.4	1639.5	1622.7	1603.8	1584.0	1558.3	1540.4
22.5°	1749.5	1729.6	1704.9	1685.1	1667.2	1655.3	1638.5	1620.7	1601.8	1572.1	1547.4
25°	1792.0	1760.3	1731.6	1710.8	1695.0	1683.1	1662.3	1643.5	1622.7	1592.9	1561.2
27.5°	1851.5	1805.9	1776.2	1755.4	1739.5	1725.7	1698.9	1676.1	1649.4	1619.7	1582.0
30°	1928.8	1873.3	1840.6	1822.8	1805.9	1786.1	1757.4	1723.7	1689.0	1649.4	1608.8
32.5°	2024.8	1962.4	1931.7	1913.9	1892.1	1865.4	1827.7	1783.1	1731.6	1679.1	1628.6
35°	2161.6	2090.2	2056.5	2025.8	1994.1	1954.5	1898.0	1833.7	1765.3	1696.9	1634.5
37.5°	2297.3	2230.9	2189.3	2157.6	2108.1	2043.7	1965.4	1876.3	1785.1	1697.9	1622.7
40°	2489.5	2412.2	2363.6	2307.2	2226.9	2126.9	2013.0	1893.1	1780.2	1675.2	1586.0
42.5°	2725.2	2637.1	2564.7	2462.7	2337.9	2193.3	2035.7	1883.2	1745.5	1624.6	1526.6
45°	3023.4	2908.5	2787.6	2627.2	2436.0	2233.9	2034.8	1848.5	1686.1	1549.3	1452.3
47.5°	3371.1	3209.6	3006.6	2761.9	2500.3	2243.8	2003.1	1786.1	1596.9	1446.3	1334.4
50°	3728.7	3494.9	3206.7	2865.9	2533.0	2219.0	1932.7	1684.1	1480.0	1308.6	1187.8
52.5°	4169.6	3807.0	3388.0	2936.2	2519.2	2145.7	1815.8	1540.4	1322.5	1155.1	1016.4
55°	4694.6	4165.6	3560.3	2974.9	2457.8	2014.0	1638.5	1352.2	1123.4	970.8	846.0
57.5°	5563.4	4727.3	3854.5	3032.3	2336.9	1817.8	1422.5	1126.3	911.4	781.6	681.6
60°	7061.2	5879.4	4476.7	3174.0	2169.5	1538.4	1148.1	882.7	705.3	601.3	531.0
62.5°	8106.3	6577.8	4811.5	3125.4	1885.2	1211.5	849.0	631.0	514.1	445.8	398.2
65°	7903.2	6302.4	4408.3	2654.9	1477.0	856.9	564.7	427.0	360.6	318.0	294.2
66°	7538.7	5998.3	4101.2	2383.5	1280.9	714.2	465.6	353.7	310.1	279.4	263.5
67.5°	6874.0	5368.2	3549.4	1912.9	958.9	527.0	353.7	275.4	251.6	235.8	224.9
70°	5691.2	4244.8	2443.9	1130.3	507.2	295.2	224.9	203.1	192.2	185.2	184.3
72.5°	4363.7	3045.2	1413.6	546.8	271.4	196.1	172.4	164.4	160.5	158.5	158.5
75°	2695.5	1717.8	632.0	274.4	187.2	160.5	149.6	145.6	144.6	144.6	144.6
77.5°	948.0	598.3	283.3	201.1	164.4	144.6	135.7	133.7	135.7	135.7	135.7
80°	261.5	230.8	205.1	178.3	148.6	133.7	125.8	124.8	128.8	129.8	125.8
82.5°	204.1	192.2	175.3	159.5	135.7	121.8	117.9	119.9	121.8	118.9	112.9
85°	174.4	166.4	122.8	122.8	110.0	106.0	105.0	107.0	106.0	98.1	90.1
87.5°	99.1	87.2	66.4	72.3	77.3	79.3	66.4	71.3	70.3	62.4	58.4
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°	1591.9	1591.9	1591.9	1591.9	1591.9
2.5°	1606.8	1606.8	1608.8	1608.8	1607.8
5°	1626.6	1626.6	1629.6	1627.6	1628.6
7.5°	1622.7	1618.7	1618.7	1616.7	1615.7
10°	1594.9	1588.0	1584.0	1586.0	1583.0
12.5°	1563.2	1557.3	1553.3	1552.3	1551.3
15°	1543.4	1536.5	1533.5	1531.5	1531.5
17.5°	1532.5	1524.6	1520.6	1517.6	1516.7
20°	1527.6	1517.6	1511.7	1508.7	1506.7
22.5°	1529.5	1517.6	1509.7	1505.8	1503.8
25°	1537.5	1522.6	1512.7	1507.7	1504.8
27.5°	1551.3	1531.5	1520.6	1513.7	1509.7
30°	1568.2	1540.4	1524.6	1514.7	1510.7
32.5°	1579.1	1541.4	1521.6	1506.7	1502.8
35°	1577.1	1530.5	1504.8	1485.9	1483.0
37.5°	1557.3	1501.8	1470.1	1445.3	1442.4
40°	1514.7	1458.2	1421.6	1396.8	1390.8
42.5°	1455.2	1396.8	1357.2	1334.4	1326.5
45°	1368.1	1296.7	1260.1	1241.3	1230.4
47.5°	1245.2	1177.9	1137.2	1121.4	1107.5
50°	1105.5	1031.2	1001.5	983.7	967.8
52.5°	941.1	877.7	854.9	838.1	825.2
55°	781.6	737.0	710.3	692.5	693.4
57.5°	628.1	601.3	586.5	567.6	569.6
60°	494.3	471.5	471.5	459.7	455.7
62.5°	377.4	368.5	365.5	361.6	354.6
65°	286.3	286.3	287.3	287.3	283.3
66°	257.6	260.5	264.5	264.5	259.5
67.5°	222.9	226.9	230.8	232.8	232.8
70°	184.3	189.2	191.2	193.2	192.2
72.5°	161.5	165.4	165.4	166.4	164.4
75°	146.6	148.6	149.6	147.6	146.6
77.5°	135.7	136.7	135.7	134.7	133.7
80°	122.8	121.8	118.9	114.9	113.9
82.5°	106.0	102.0	100.1	94.1	93.1
85°	85.2	80.2	76.3	68.4	64.4
87.5°	56.5	54.5	51.5	37.6	30.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)