

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: P146628

Luminaire Tested: **LDRL-T3-E06-E-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P146628
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-E06-E-8030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(6) LIGHTBARS WITH AccuLED OPTICS - TYPE 3
Light Source: (126) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15120 lumens
Efficiency: N/A
Efficacy: 100.5 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

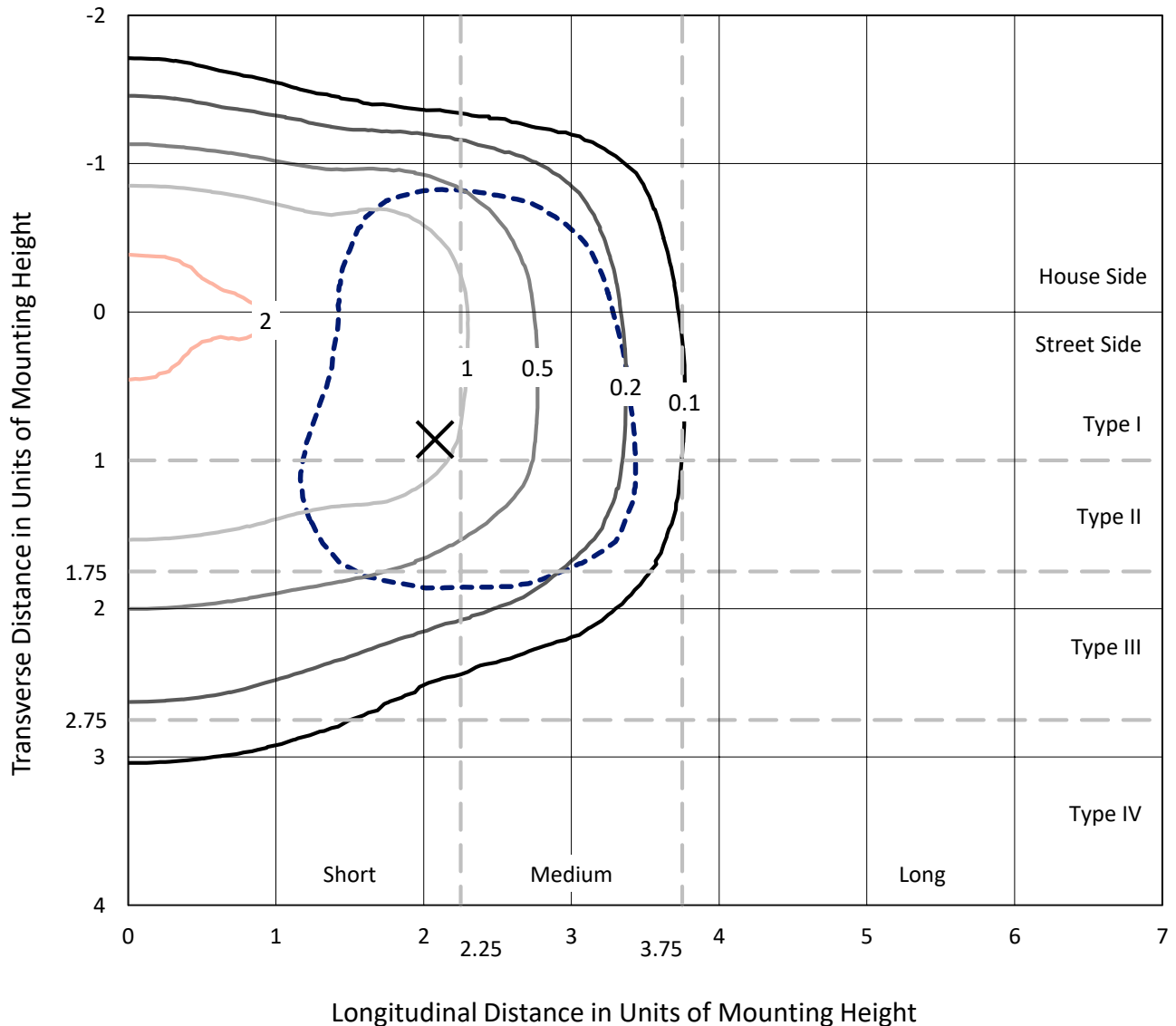
Input Watts (W): 150.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

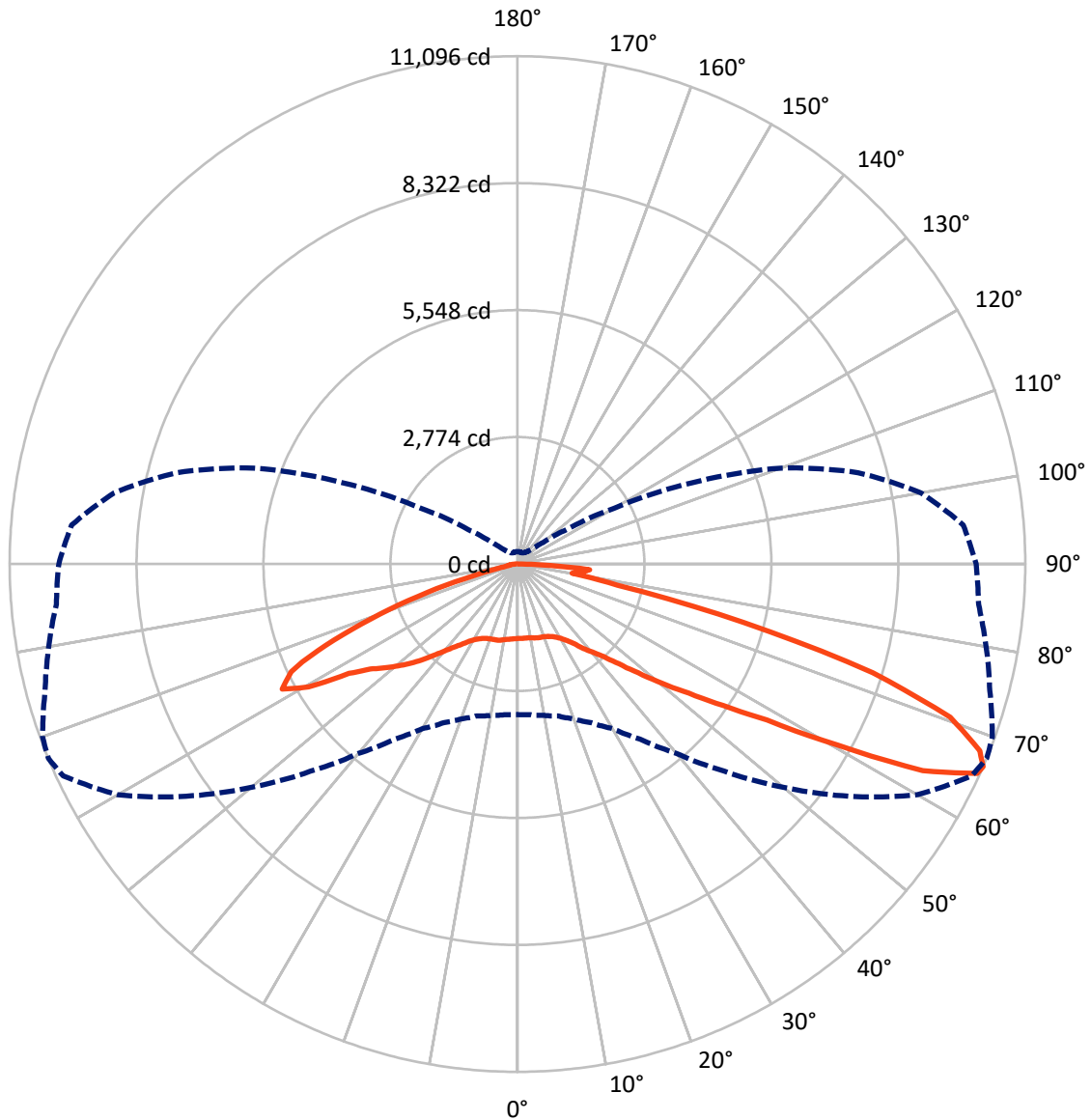
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 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	5136.7	0.0	5136.7
	% Fixture	34.0	0.0	34.0
Street Side	Lumens	9983.2	0.0	9983.2
	% Fixture	66.0	0.0	66.0
Total	Lumens	15120.0	0.0	15120.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.4	1.0
10°-20°	463.3	3.1
20°-30°	796.4	5.3
30°-40°	1280.9	8.5
40°-50°	2111.3	14.0
50°-60°	3309.4	21.9
60°-70°	4580.0	30.3
70°-80°	2072.7	13.7
80°-90°	349.7	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°	15120.0	100.0
0°-180°	15120.0	100.0



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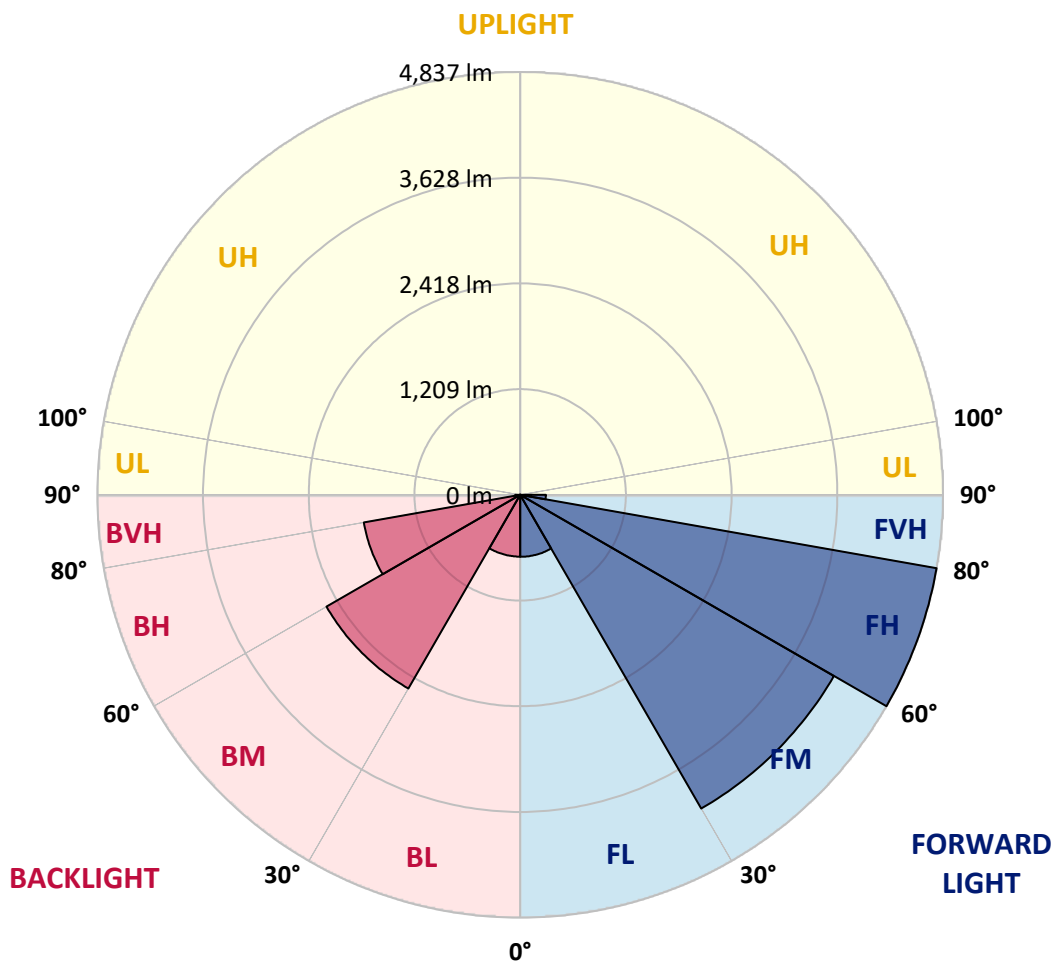
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	709.1	4.7			
FM	(30°-60°)	4143.4	27.4			
FH	(60°-80°)	4836.7	32.0			G2/5000
FVH	(80°-90°)	293.9	1.9			G3/500
BL	(0°-30°)	706.9	4.7	B2/1000		
BM	(30°-60°)	2558.2	16.9	B3/5000		
BH	(60°-80°)	1815.9	12.0	B3/2500		G3/2500
BVH	(80°-90°)	55.8	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°	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6
2.5°	1625.5	1624.5	1623.5	1623.5	1622.5	1623.5	1624.5	1625.5	1624.5	1625.5	1624.5
5°	1622.5	1622.5	1621.5	1621.5	1621.5	1621.5	1622.5	1623.5	1622.5	1624.5	1622.5
7.5°	1609.3	1615.4	1613.4	1615.4	1617.4	1619.4	1620.5	1622.5	1625.5	1627.6	1625.5
10°	1592.1	1595.1	1596.2	1598.2	1602.2	1607.3	1611.3	1616.4	1623.5	1625.5	1627.6
12.5°	1560.7	1564.8	1567.8	1571.8	1577.9	1586.0	1593.1	1601.2	1613.4	1621.5	1628.6
15°	1537.4	1542.5	1543.5	1548.6	1554.6	1563.7	1572.9	1585.0	1601.2	1615.4	1629.6
17.5°	1552.6	1554.6	1552.6	1552.6	1554.6	1558.7	1565.8	1575.9	1593.1	1610.3	1627.6
20°	1598.2	1598.2	1596.2	1595.1	1593.1	1589.1	1588.1	1587.0	1598.2	1611.3	1626.5
22.5°	1641.7	1641.7	1640.7	1644.8	1643.8	1643.8	1640.7	1635.7	1630.6	1628.6	1638.7
25°	1669.1	1673.1	1675.2	1681.2	1685.3	1691.4	1693.4	1692.4	1685.3	1673.1	1670.1
27.5°	1713.6	1716.7	1718.7	1725.8	1733.9	1741.0	1748.1	1757.2	1757.2	1746.0	1730.9
30°	1799.7	1795.7	1797.7	1799.7	1806.8	1816.9	1826.1	1838.2	1844.3	1840.2	1820.0
32.5°	1879.7	1883.8	1885.8	1891.9	1899.0	1914.2	1925.3	1939.5	1952.7	1954.7	1944.6
35°	1997.2	1995.2	1992.2	2013.4	2021.5	2038.7	2051.9	2072.2	2082.3	2091.4	2085.3
37.5°	2182.6	2176.5	2172.4	2178.5	2189.7	2200.8	2220.0	2235.2	2252.4	2273.7	2266.6
40°	2444.9	2457.0	2439.8	2447.9	2457.0	2431.7	2448.9	2463.1	2492.5	2493.5	2492.5
42.5°	2786.2	2795.3	2791.2	2796.3	2780.1	2772.0	2764.9	2772.0	2808.5	2803.4	2779.1
45°	3127.5	3140.7	3137.6	3139.6	3171.0	3157.9	3169.0	3171.0	3208.5	3198.4	3180.2
47.5°	3419.2	3441.5	3446.5	3464.8	3507.3	3541.7	3589.3	3624.8	3643.0	3655.2	3669.3
50°	3650.1	3666.3	3694.7	3740.2	3802.0	3861.8	3969.1	4039.0	4102.8	4147.4	4192.9
52.5°	3803.0	3821.3	3864.8	3933.7	4022.8	4132.2	4257.8	4403.6	4538.3	4617.3	4685.2
55°	3865.8	3884.0	3937.7	4027.9	4146.4	4286.1	4466.4	4672.0	4851.3	5032.5	5136.9
57.5°	3829.4	3849.6	3911.4	4012.7	4155.5	4338.8	4562.6	4814.8	5077.1	5351.6	5561.2
60°	3722.0	3740.2	3810.1	3915.4	4078.5	4285.1	4553.5	4869.5	5238.1	5645.3	6043.3
62.5°	3574.1	3601.5	3663.3	3770.6	3932.7	4158.5	4464.4	4875.6	5404.2	6060.5	6835.3
65°	3385.8	3406.0	3460.7	3545.8	3724.0	3960.0	4283.1	4786.4	5477.2	6407.9	7513.9
66°	3288.5	3307.8	3358.4	3438.4	3601.5	3828.3	4151.4	4666.9	5396.1	6405.9	7585.8
67.5°	3117.4	3126.5	3162.9	3241.9	3348.3	3551.9	3851.6	4334.7	5052.8	6135.5	7385.3
70°	2615.0	2628.2	2663.6	2704.1	2743.6	2816.6	3026.2	3345.2	3919.5	4957.6	6149.7
72.5°	1808.8	1829.1	1867.6	1942.5	2004.3	2096.5	2178.5	2284.9	2475.3	3196.4	4399.6
75°	1307.5	1314.6	1371.3	1503.0	1627.6	1811.9	1974.9	2026.6	1961.8	1950.6	2584.6
77.5°	779.8	790.0	872.0	1004.7	1134.3	1384.5	1718.7	1977.0	2119.8	2069.1	1956.7
80°	328.1	342.3	390.9	425.4	532.7	742.4	1072.5	1477.7	1854.4	2086.3	2033.7
82.5°	105.3	122.5	144.8	175.2	206.6	276.5	428.4	641.1	1012.8	1510.1	1856.4
85°	38.5	39.5	54.7	76.0	84.1	97.2	124.6	192.4	342.3	566.1	1053.3
87.5°	15.2	18.2	21.3	29.4	30.4	31.4	35.4	45.6	44.6	38.5	199.5
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°	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6
2.5°	1625.5	1627.6	1626.5	1627.6	1627.6	1625.5	1625.5	1629.6	1626.5	1628.6	1628.6
5°	1624.5	1626.5	1625.5	1627.6	1627.6	1626.5	1626.5	1632.6	1631.6	1634.6	1636.7
7.5°	1628.6	1629.6	1628.6	1628.6	1631.6	1630.6	1631.6	1633.6	1638.7	1643.8	1647.8
10°	1633.6	1635.7	1638.7	1639.7	1643.8	1642.7	1645.8	1648.8	1653.9	1658.9	1664.0
12.5°	1640.7	1646.8	1655.9	1657.9	1662.0	1665.0	1670.1	1673.1	1677.2	1685.3	1691.4
15°	1646.8	1657.9	1669.1	1673.1	1677.2	1681.2	1686.3	1689.3	1696.4	1703.5	1710.6
17.5°	1648.8	1662.0	1676.2	1681.2	1685.3	1692.4	1698.4	1704.5	1712.6	1721.7	1729.8
20°	1649.8	1668.1	1686.3	1692.4	1701.5	1711.6	1721.7	1726.8	1737.9	1749.1	1756.2
22.5°	1658.9	1681.2	1706.5	1717.7	1726.8	1745.0	1758.2	1766.3	1779.5	1788.6	1791.6
25°	1684.3	1707.6	1737.9	1755.2	1770.4	1796.7	1812.9	1828.1	1835.2	1847.3	1844.3
27.5°	1729.8	1748.1	1787.6	1810.9	1830.1	1864.5	1895.9	1910.1	1921.3	1927.3	1920.2
30°	1807.8	1814.9	1858.5	1886.8	1919.2	1972.9	2007.3	2025.6	2039.8	2040.8	2022.5
32.5°	1924.3	1913.2	1951.6	1992.2	2034.7	2099.5	2146.1	2165.3	2176.5	2177.5	2137.0
35°	2082.3	2063.1	2095.5	2135.0	2187.6	2272.7	2331.4	2353.7	2370.9	2362.8	2303.1
37.5°	2281.8	2280.8	2296.0	2346.6	2406.4	2515.8	2577.5	2589.7	2588.7	2564.4	2474.2
40°	2503.6	2485.4	2487.4	2523.9	2592.7	2736.6	2822.6	2842.9	2835.8	2800.4	2682.9
42.5°	2783.1	2775.0	2747.7	2766.9	2830.7	3006.0	3110.3	3130.5	3136.6	3077.9	2939.1
45°	3175.1	3168.0	3107.2	3111.3	3157.9	3342.2	3450.6	3484.0	3485.0	3429.3	3249.0
47.5°	3650.1	3644.0	3573.1	3552.9	3576.2	3740.2	3874.9	3882.0	3884.0	3807.1	3619.7
50°	4188.9	4171.7	4118.0	4096.7	4069.4	4250.7	4359.0	4358.0	4346.9	4261.8	4051.2
52.5°	4709.5	4748.0	4727.7	4686.2	4687.2	4817.8	4920.1	4863.4	4870.5	4789.5	4547.4
55°	5265.5	5363.7	5437.7	5452.9	5445.8	5512.6	5569.3	5468.0	5430.6	5417.4	5160.2
57.5°	5855.9	6107.1	6335.0	6430.2	6393.7	6516.3	6566.9	6461.6	6463.6	6566.9	6345.1
60°	6644.9	7278.9	7853.2	8031.4	8114.5	8317.0	8226.9	8220.8	8379.8	8513.5	8102.3
62.5°	7842.0	8892.3	9808.9	9941.5	10008.4	10054.0	10013.4	9903.1	10067.1	10083.3	9449.3
65°	8749.5	9982.0	10868.2	11034.3	11022.2	10790.3	10565.4	10344.6	10342.6	10180.6	9364.2
66°	8847.7	10085.4	10949.3	11096.1	11042.4	10684.9	10399.3	10112.7	10020.5	9777.5	8949.0
67.5°	8633.0	9905.1	10762.9	10894.6	10780.1	10236.3	9847.3	9459.5	9320.7	8982.4	8137.8
70°	7380.2	8690.7	9838.2	10028.6	9892.9	9170.8	8594.5	8168.1	7790.4	7457.2	6760.4
72.5°	5722.3	6702.6	7917.0	8115.5	8126.6	7561.5	6912.3	6503.1	6063.6	5729.3	5206.7
75°	3753.4	4494.8	5162.2	5095.3	5114.6	4670.0	4283.1	3942.8	3544.8	3281.4	3032.3
77.5°	2193.7	2459.1	2398.3	2232.2	2092.4	1644.8	1176.9	808.2	704.9	735.3	829.5
80°	1907.1	1758.2	1376.4	1210.3	1100.9	747.4	402.1	283.6	249.1	252.2	267.4
82.5°	2052.9	2129.9	1748.1	1439.2	1254.8	880.1	473.0	236.0	170.1	198.5	218.8
85°	1593.1	2027.6	1869.6	1580.0	1328.8	935.8	483.1	149.9	101.3	135.7	171.2
87.5°	453.7	718.1	574.3	507.4	409.2	279.5	115.5	59.8	54.7	70.9	98.2
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6
2.5°	1629.6	1629.6	1632.6	1633.6	1634.6	1634.6	1636.7	1636.7	1637.7	1641.7	1640.7
5°	1639.7	1642.7	1646.8	1648.8	1651.9	1652.9	1655.9	1655.9	1658.9	1662.0	1661.0
7.5°	1651.9	1654.9	1657.9	1661.0	1664.0	1668.1	1667.1	1666.0	1665.0	1663.0	1661.0
10°	1669.1	1672.1	1675.2	1674.1	1672.1	1670.1	1662.0	1652.9	1648.8	1640.7	1634.6
12.5°	1697.4	1700.5	1697.4	1689.3	1678.2	1665.0	1647.8	1632.6	1623.5	1611.3	1604.3
15°	1718.7	1721.7	1715.7	1701.5	1683.3	1666.0	1642.7	1623.5	1607.3	1594.1	1584.0
17.5°	1734.9	1732.9	1719.7	1703.5	1684.3	1670.1	1648.8	1627.6	1608.3	1590.1	1575.9
20°	1758.2	1747.1	1727.8	1707.6	1688.3	1676.2	1658.9	1639.7	1619.4	1593.1	1574.9
22.5°	1788.6	1768.3	1743.0	1722.8	1704.5	1692.4	1675.2	1656.9	1637.7	1607.3	1582.0
25°	1832.1	1799.7	1770.4	1749.1	1732.9	1720.7	1699.5	1680.2	1658.9	1628.6	1596.2
27.5°	1892.9	1846.3	1815.9	1794.7	1778.5	1764.3	1736.9	1713.6	1686.3	1655.9	1617.4
30°	1971.9	1915.2	1881.8	1863.5	1846.3	1826.1	1796.7	1762.3	1726.8	1686.3	1644.8
32.5°	2070.1	2006.3	1974.9	1956.7	1934.4	1907.1	1868.6	1823.0	1770.4	1716.7	1665.0
35°	2209.9	2137.0	2102.6	2071.2	2038.7	1998.2	1940.5	1874.7	1804.8	1734.9	1671.1
37.5°	2348.7	2280.8	2238.3	2205.9	2155.2	2089.4	2009.4	1918.2	1825.0	1735.9	1658.9
40°	2545.1	2466.1	2416.5	2358.8	2276.7	2174.5	2058.0	1935.4	1820.0	1712.6	1621.5
42.5°	2786.2	2696.0	2622.1	2517.8	2390.2	2242.3	2081.3	1925.3	1784.5	1661.0	1560.7
45°	3091.0	2973.5	2850.0	2685.9	2490.4	2283.8	2080.3	1889.9	1723.8	1584.0	1484.7
47.5°	3446.5	3281.4	3073.8	2823.7	2556.3	2294.0	2047.9	1826.1	1632.6	1478.7	1364.2
50°	3812.1	3573.1	3278.4	2930.0	2589.7	2268.6	1976.0	1721.7	1513.1	1337.9	1214.3
52.5°	4262.8	3892.1	3463.7	3001.9	2575.5	2193.7	1856.4	1574.9	1352.1	1180.9	1039.1
55°	4799.6	4258.8	3640.0	3041.4	2512.7	2059.0	1675.2	1382.5	1148.5	992.5	864.9
57.5°	5687.8	4833.0	3940.8	3100.1	2389.2	1858.5	1454.4	1151.5	931.8	799.1	696.8
60°	7219.2	6010.9	4576.8	3245.0	2218.0	1572.9	1173.8	902.4	721.1	614.8	542.9
62.5°	8287.7	6724.9	4919.1	3195.3	1927.3	1238.6	868.0	645.1	525.6	455.8	407.1
65°	8080.0	6443.4	4506.9	2714.3	1510.1	876.1	577.3	436.5	368.7	325.1	300.8
66°	7707.3	6132.4	4192.9	2436.8	1309.5	730.2	476.0	361.6	317.0	285.6	269.4
67.5°	7027.7	5488.3	3628.8	1955.7	980.4	538.8	361.6	281.6	257.2	241.0	229.9
70°	5818.5	4339.8	2498.6	1155.6	518.5	301.8	229.9	207.6	196.5	189.4	188.4
72.5°	4461.3	3113.3	1445.3	559.1	277.5	200.5	176.2	168.1	164.1	162.0	162.0
75°	2755.8	1756.2	646.2	280.5	191.4	164.1	152.9	148.9	147.9	147.9	147.9
77.5°	969.2	611.7	289.7	205.6	168.1	147.9	138.8	136.7	138.8	138.8	138.8
80°	267.4	236.0	209.6	182.3	151.9	136.7	128.6	127.6	131.7	132.7	128.6
82.5°	208.6	196.5	179.3	163.1	138.8	124.6	120.5	122.5	124.6	121.5	115.5
85°	178.3	170.1	125.6	125.6	112.4	108.4	107.4	109.4	108.4	100.3	92.2
87.5°	101.3	89.1	67.9	73.9	79.0	81.0	67.9	72.9	71.9	63.8	59.8
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):

	160°	165°	170°	175°	180°
0°	1627.6	1627.6	1627.6	1627.6	1627.6
2.5°	1642.7	1642.7	1644.8	1644.8	1643.8
5°	1663.0	1663.0	1666.0	1664.0	1665.0
7.5°	1658.9	1654.9	1654.9	1652.9	1651.9
10°	1630.6	1623.5	1619.4	1621.5	1618.4
12.5°	1598.2	1592.1	1588.1	1587.0	1586.0
15°	1577.9	1570.8	1567.8	1565.8	1565.8
17.5°	1566.8	1558.7	1554.6	1551.6	1550.6
20°	1561.7	1551.6	1545.5	1542.5	1540.5
22.5°	1563.7	1551.6	1543.5	1539.4	1537.4
25°	1571.8	1556.7	1546.5	1541.5	1538.4
27.5°	1586.0	1565.8	1554.6	1547.5	1543.5
30°	1603.2	1574.9	1558.7	1548.6	1544.5
32.5°	1614.4	1575.9	1555.6	1540.5	1536.4
35°	1612.4	1564.8	1538.4	1519.2	1516.1
37.5°	1592.1	1535.4	1503.0	1477.7	1474.6
40°	1548.6	1490.8	1453.4	1428.0	1422.0
42.5°	1487.8	1428.0	1387.5	1364.2	1356.1
45°	1398.7	1325.7	1288.3	1269.0	1257.9
47.5°	1273.1	1204.2	1162.7	1146.5	1132.3
50°	1130.3	1054.3	1023.9	1005.7	989.5
52.5°	962.1	897.3	874.0	856.8	843.7
55°	799.1	753.5	726.2	707.9	709.0
57.5°	642.1	614.8	599.6	580.3	582.4
60°	505.4	482.1	482.1	469.9	465.9
62.5°	385.9	376.8	373.7	369.7	362.6
65°	292.7	292.7	293.7	293.7	289.7
66°	263.3	266.4	270.4	270.4	265.4
67.5°	227.9	231.9	236.0	238.0	238.0
70°	188.4	193.4	195.5	197.5	196.5
72.5°	165.1	169.1	169.1	170.1	168.1
75°	149.9	151.9	152.9	150.9	149.9
77.5°	138.8	139.8	138.8	137.7	136.7
80°	125.6	124.6	121.5	117.5	116.5
82.5°	108.4	104.3	102.3	96.2	95.2
85°	87.1	82.0	78.0	69.9	65.8
87.5°	57.7	55.7	52.7	38.5	31.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)