

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: P146634

Luminaire Tested: **LDRL-T3-F06-E-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P146634
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-7030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(6) LIGHTBARS WITH AccuLED OPTICS - TYPE 3
Light Source: (42) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13507.7 lumens
Efficiency: N/A
Efficacy: 86.3 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

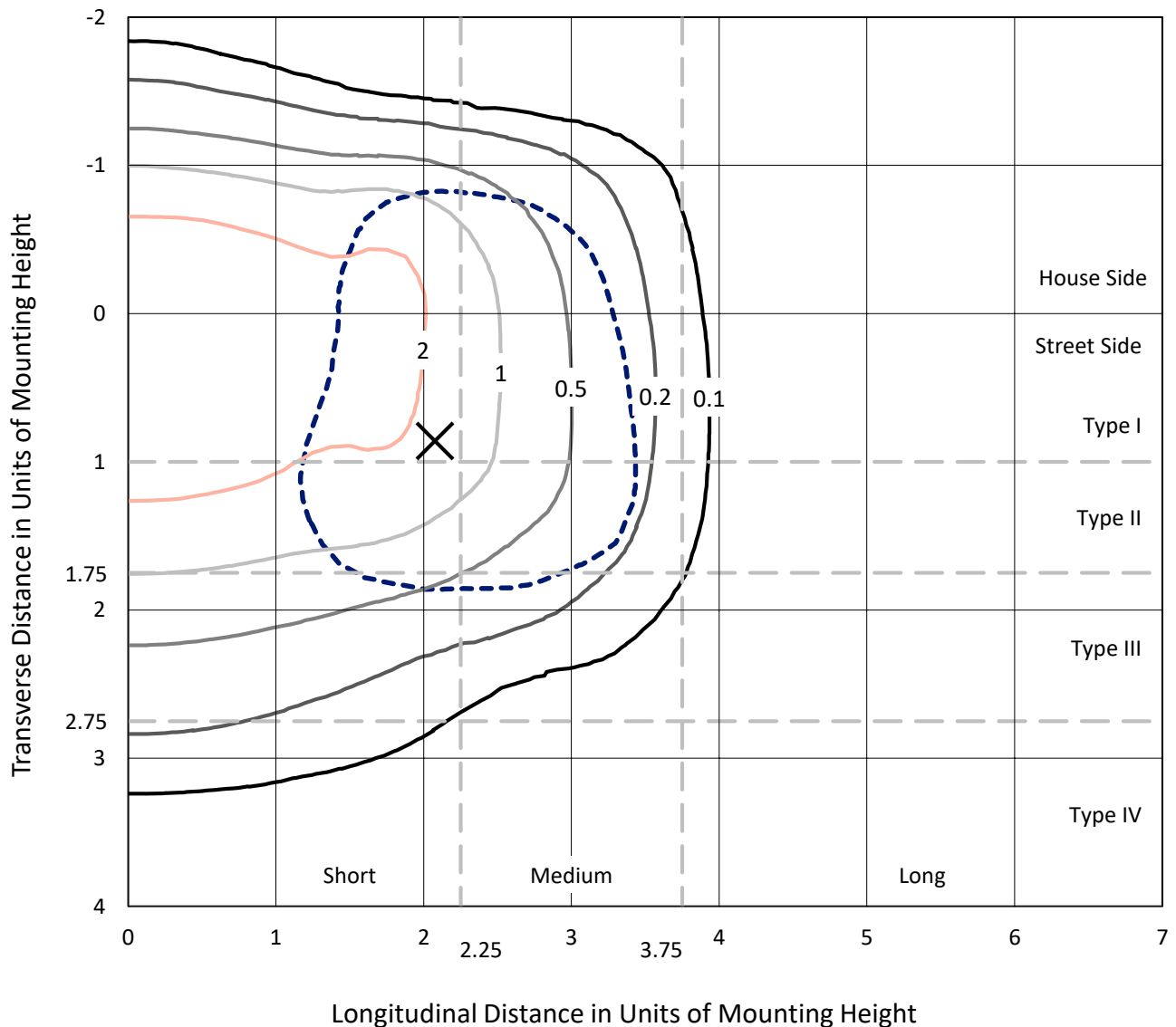
Input Watts (W): 156.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

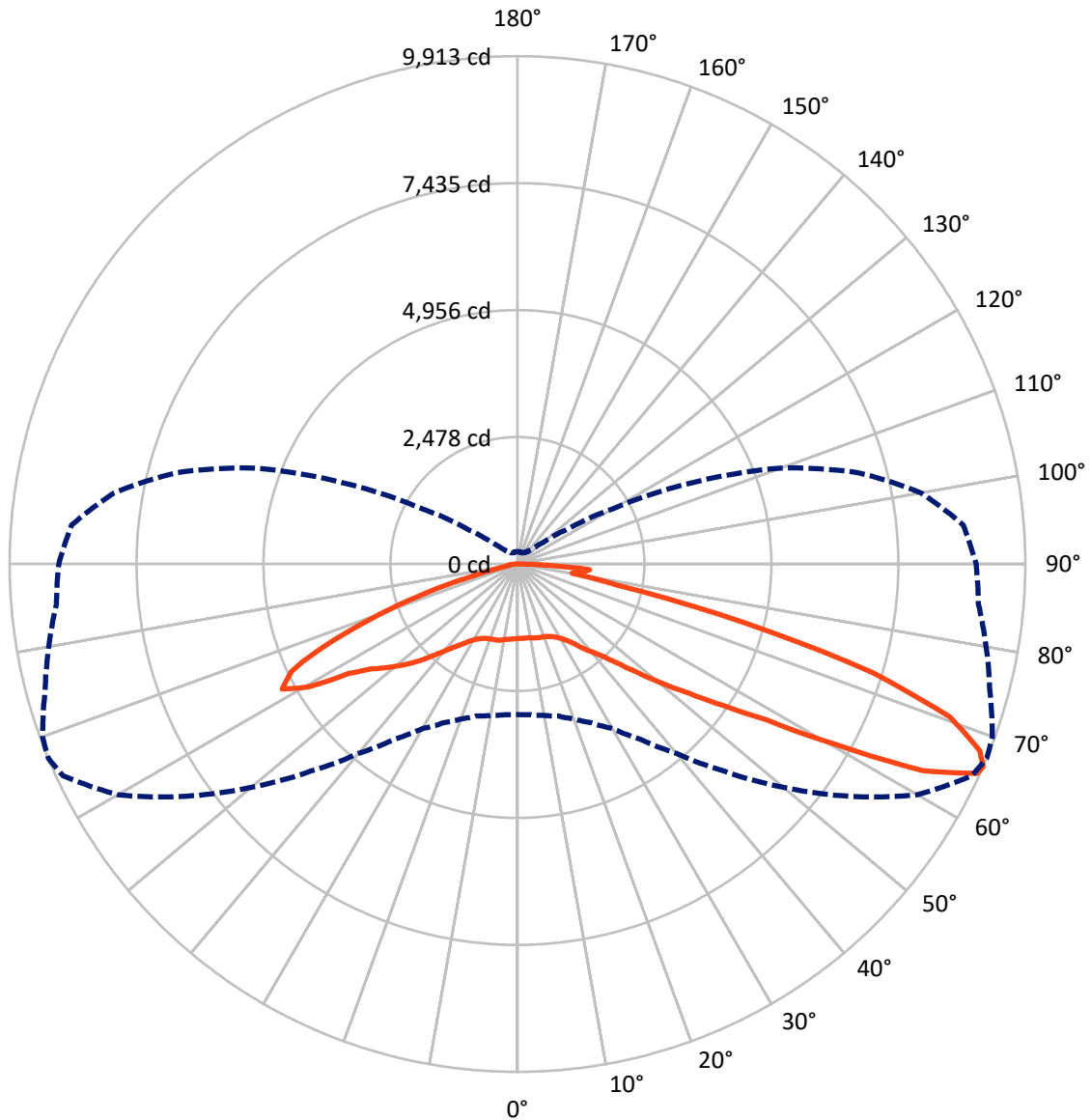
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.6 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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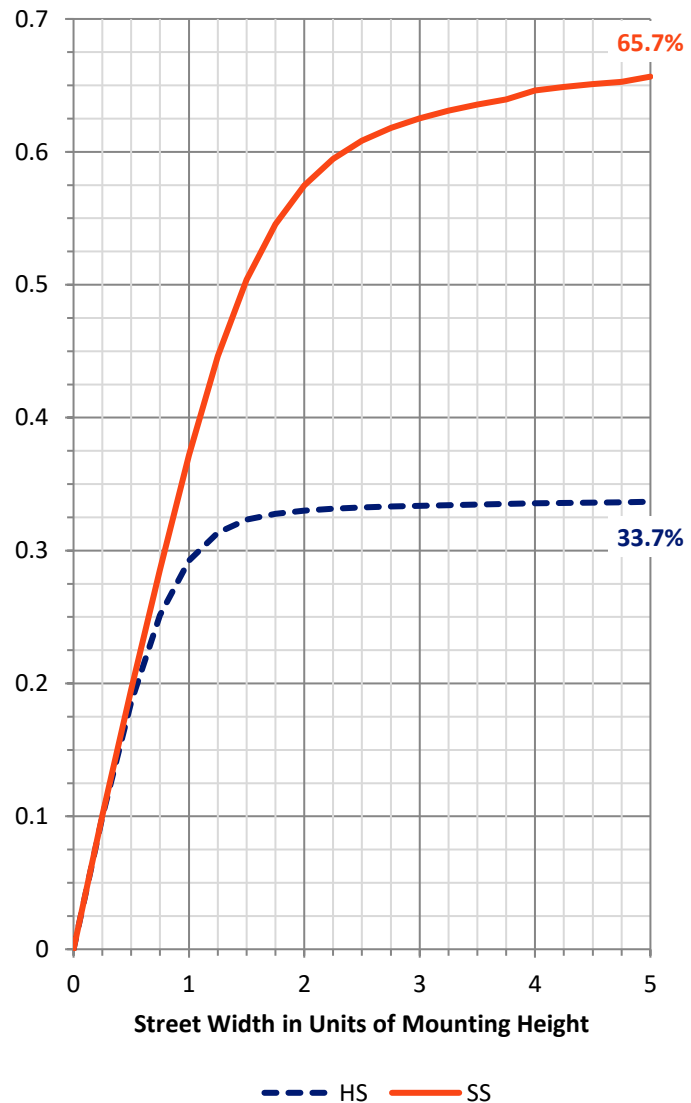
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4589.0	0.0	4589.0
	% Fixture	34.0	0.0	34.0
Street Side	Lumens	8918.7	0.0	8918.7
	% Fixture	66.0	0.0	66.0
Total	Lumens	13507.7	0.0	13507.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.7	1.0
10°-20°	413.9	3.1
20°-30°	711.5	5.3
30°-40°	1144.3	8.5
40°-50°	1886.1	14.0
50°-60°	2956.5	21.9
60°-70°	4091.6	30.3
70°-80°	1851.7	13.7
80°-90°	312.4	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°	13507.7	100.0
0°-180°	13507.7	100.0



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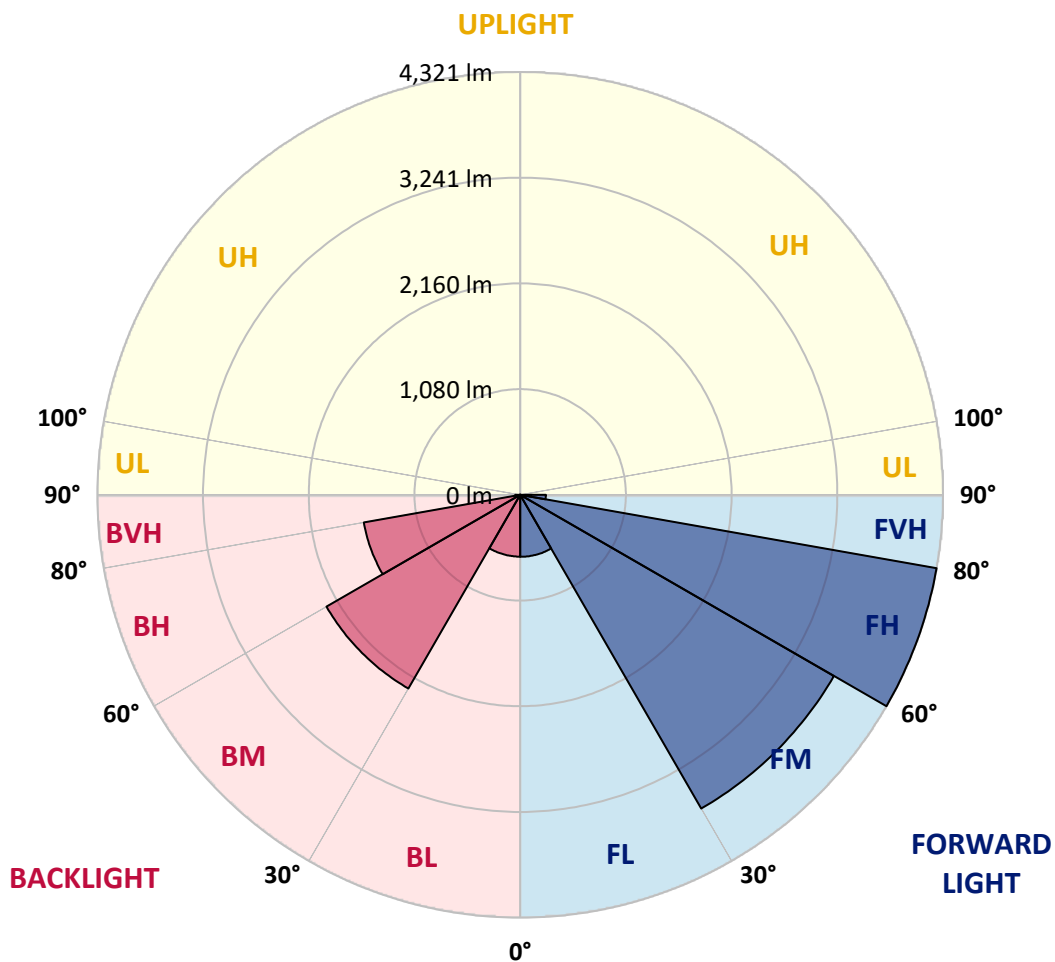
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	633.5	4.7			
FM (30°-60°)	3701.6	27.4			
FH (60°-80°)	4321.0	32.0			G2/5000
FVH (80°-90°)	262.5	1.9			G3/500
BL (0°-30°)	631.5	4.7	B2/1000		
BM (30°-60°)	2285.4	16.9	B2/2500		
BH (60°-80°)	1622.3	12.0	B3/2500		G3/2500
BVH (80°-90°)	49.9	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°	1454.0	1454.0	1454.0	1454.0	1454.0	1454.0	1454.0	1454.0	1454.0	1454.0	1454.0
2.5°	1452.2	1451.3	1450.4	1450.4	1449.5	1450.4	1451.3	1452.2	1451.3	1452.2	1451.3
5°	1449.5	1449.5	1448.6	1448.6	1448.6	1448.6	1449.5	1450.4	1449.5	1451.3	1449.5
7.5°	1437.7	1443.1	1441.3	1443.1	1445.0	1446.8	1447.7	1449.5	1452.2	1454.0	1452.2
10°	1422.3	1425.0	1426.0	1427.8	1431.4	1435.9	1439.5	1444.0	1450.4	1452.2	1454.0
12.5°	1394.3	1397.9	1400.6	1404.2	1409.7	1416.9	1423.2	1430.5	1441.3	1448.6	1454.9
15°	1373.5	1378.0	1378.9	1383.4	1388.9	1397.0	1405.1	1416.0	1430.5	1443.1	1455.8
17.5°	1387.0	1388.9	1387.0	1387.0	1388.9	1392.5	1398.8	1407.9	1423.2	1438.6	1454.0
20°	1427.8	1427.8	1426.0	1425.0	1423.2	1419.6	1418.7	1417.8	1427.8	1439.5	1453.1
22.5°	1466.7	1466.7	1465.8	1469.4	1468.5	1468.5	1465.8	1461.2	1456.7	1454.9	1464.0
25°	1491.1	1494.7	1496.5	1502.0	1505.6	1511.0	1512.8	1511.9	1505.6	1494.7	1492.0
27.5°	1530.9	1533.6	1535.4	1541.8	1549.0	1555.3	1561.7	1569.8	1569.8	1559.9	1546.3
30°	1607.8	1604.2	1606.0	1607.8	1614.1	1623.2	1631.3	1642.2	1647.6	1644.0	1625.9
32.5°	1679.3	1682.9	1684.7	1690.2	1696.5	1710.1	1720.0	1732.7	1744.4	1746.2	1737.2
35°	1784.3	1782.4	1779.7	1798.7	1806.0	1821.3	1833.1	1851.2	1860.3	1868.4	1863.0
37.5°	1949.8	1944.4	1940.8	1946.2	1956.2	1966.1	1983.3	1996.9	2012.3	2031.3	2024.9
40°	2184.2	2195.0	2179.6	2186.9	2195.0	2172.4	2187.8	2200.5	2226.7	2227.6	2226.7
42.5°	2489.1	2497.2	2493.6	2498.1	2483.7	2476.4	2470.1	2476.4	2509.0	2504.5	2482.7
45°	2794.0	2805.8	2803.0	2804.9	2832.9	2821.1	2831.1	2832.9	2866.4	2857.3	2841.0
47.5°	3054.6	3074.5	3079.0	3095.3	3133.3	3164.1	3206.6	3238.3	3254.5	3265.4	3278.1
50°	3260.9	3275.3	3300.7	3341.4	3396.6	3450.0	3545.9	3608.3	3665.3	3705.1	3745.8
52.5°	3397.5	3413.8	3452.7	3514.2	3593.8	3691.6	3803.7	3934.0	4054.4	4124.9	4185.6
55°	3453.6	3469.9	3517.8	3598.4	3704.2	3829.1	3990.1	4173.8	4334.0	4495.9	4589.1
57.5°	3421.0	3439.1	3494.3	3584.8	3712.4	3876.1	4076.1	4301.4	4535.7	4780.9	4968.2
60°	3325.1	3341.4	3403.8	3497.9	3643.6	3828.2	4067.9	4350.2	4679.6	5043.3	5398.9
62.5°	3193.0	3217.4	3272.6	3368.5	3513.3	3715.1	3988.3	4355.7	4828.0	5414.3	6106.4
65°	3024.7	3042.8	3091.7	3167.7	3326.9	3537.7	3826.4	4276.0	4893.1	5724.6	6712.7
66°	2937.9	2955.1	3000.3	3071.8	3217.4	3420.1	3708.7	4169.3	4820.7	5722.8	6776.9
67.5°	2785.0	2793.1	2825.7	2896.2	2991.2	3173.1	3440.9	3872.5	4514.0	5481.2	6597.7
70°	2336.2	2347.9	2379.6	2415.8	2451.1	2516.2	2703.5	2988.5	3501.5	4429.0	5493.9
72.5°	1616.0	1634.1	1668.4	1735.4	1790.6	1872.9	1946.2	2041.2	2211.3	2855.5	3930.4
75°	1168.1	1174.4	1225.1	1342.7	1454.0	1618.7	1764.3	1810.5	1752.6	1742.6	2309.0
77.5°	696.7	705.7	779.0	897.6	1013.4	1236.9	1535.4	1766.2	1893.7	1848.5	1748.1
80°	293.2	305.8	349.2	380.0	475.9	663.2	958.2	1320.1	1656.7	1863.9	1816.8
82.5°	94.1	109.5	129.4	156.5	184.6	247.0	382.7	572.7	904.8	1349.0	1658.5
85°	34.4	35.3	48.9	67.9	75.1	86.9	111.3	171.9	305.8	505.8	941.0
87.5°	13.6	16.3	19.0	26.2	27.1	28.0	31.7	40.7	39.8	34.4	178.2
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°	1454.0	1454.0	1454.0	1454.0	1454.0	1454.0	1454.0	1454.0	1454.0	1454.0	1454.0
2.5°	1452.2	1454.0	1453.1	1454.0	1454.0	1452.2	1452.2	1455.8	1453.1	1454.9	1454.9
5°	1451.3	1453.1	1452.2	1454.0	1454.0	1453.1	1453.1	1458.5	1457.6	1460.3	1462.1
7.5°	1454.9	1455.8	1454.9	1454.9	1457.6	1456.7	1457.6	1459.4	1464.0	1468.5	1472.1
10°	1459.4	1461.2	1464.0	1464.9	1468.5	1467.6	1470.3	1473.0	1477.5	1482.0	1486.6
12.5°	1465.8	1471.2	1479.3	1481.1	1484.8	1487.5	1492.0	1494.7	1498.3	1505.6	1511.0
15°	1471.2	1481.1	1491.1	1494.7	1498.3	1502.0	1506.5	1509.2	1515.5	1521.9	1528.2
17.5°	1473.0	1484.8	1497.4	1502.0	1505.6	1511.9	1517.3	1522.8	1530.0	1538.1	1545.4
20°	1473.9	1490.2	1506.5	1511.9	1520.1	1529.1	1538.1	1542.7	1552.6	1562.6	1568.9
22.5°	1482.0	1502.0	1524.6	1534.5	1542.7	1559.0	1570.7	1578.0	1589.7	1597.9	1600.6
25°	1504.7	1525.5	1552.6	1568.0	1581.6	1605.1	1619.6	1633.1	1639.5	1650.3	1647.6
27.5°	1545.4	1561.7	1597.0	1617.8	1635.0	1665.7	1693.8	1706.4	1716.4	1721.8	1715.5
30°	1615.1	1621.4	1660.3	1685.6	1714.6	1762.5	1793.3	1809.6	1822.3	1823.2	1806.9
32.5°	1719.1	1709.2	1743.5	1779.7	1817.7	1875.6	1917.3	1934.4	1944.4	1945.3	1909.1
35°	1860.3	1843.1	1872.0	1907.3	1954.4	2030.4	2082.8	2102.7	2118.1	2110.9	2057.5
37.5°	2038.5	2037.6	2051.2	2096.4	2149.8	2247.5	2302.7	2313.6	2312.6	2290.9	2210.4
40°	2236.6	2220.4	2222.2	2254.7	2316.3	2444.7	2521.7	2539.8	2533.4	2501.8	2396.8
42.5°	2486.4	2479.1	2454.7	2471.9	2528.9	2685.4	2778.6	2796.7	2802.1	2749.7	2625.7
45°	2836.5	2830.2	2775.9	2779.5	2821.1	2985.8	3082.6	3112.5	3113.4	3063.6	2902.6
47.5°	3260.9	3255.4	3192.1	3174.0	3194.8	3341.4	3461.7	3468.1	3469.9	3401.1	3233.7
50°	3742.2	3726.8	3678.9	3659.9	3635.5	3797.4	3894.2	3893.3	3883.4	3807.4	3619.2
52.5°	4207.3	4241.7	4223.6	4186.5	4187.4	4304.1	4395.5	4344.8	4351.1	4278.8	4062.5
55°	4704.0	4791.8	4857.8	4871.4	4865.1	4924.8	4975.5	4885.0	4851.5	4839.7	4609.9
57.5°	5231.5	5455.9	5659.5	5744.5	5712.0	5821.4	5866.7	5772.6	5774.4	5866.7	5668.5
60°	5936.3	6502.7	7015.8	7175.0	7249.2	7430.2	7349.6	7344.2	7486.3	7605.7	7238.3
62.5°	7005.8	7944.1	8762.9	8881.4	8941.2	8981.9	8945.7	8847.1	8993.6	9008.1	8441.7
65°	7816.5	8917.6	9709.3	9857.7	9846.9	9639.7	9438.8	9241.5	9239.7	9095.0	8365.7
66°	7904.3	9009.9	9781.7	9912.9	9864.9	9545.6	9290.4	9034.3	8952.0	8734.9	7994.7
67.5°	7712.4	8848.9	9615.2	9732.8	9630.6	9144.7	8797.3	8450.8	8326.8	8024.6	7270.0
70°	6593.2	7764.0	8789.2	8959.3	8838.0	8192.9	7678.1	7297.1	6959.7	6662.0	6039.5
72.5°	5112.1	5987.9	7072.8	7250.1	7260.1	6755.2	6175.2	5809.7	5417.0	5118.4	4651.5
75°	3353.2	4015.5	4611.7	4552.0	4569.2	4172.0	3826.4	3522.4	3166.8	2931.5	2708.9
77.5°	1959.8	2196.8	2142.5	1994.2	1869.3	1469.4	1051.4	722.0	629.7	656.9	741.0
80°	1703.7	1570.7	1229.6	1081.2	983.5	667.7	359.2	253.3	222.6	225.3	238.9
82.5°	1834.0	1902.8	1561.7	1285.7	1121.0	786.3	422.5	210.8	152.0	177.3	195.4
85°	1423.2	1811.4	1670.2	1411.5	1187.1	836.0	431.6	133.9	90.5	121.2	152.9
87.5°	405.3	641.5	513.0	453.3	365.5	249.7	103.1	53.4	48.9	63.3	87.8
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°	1454.0	1454.0	1454.0	1454.0	1454.0	1454.0	1454.0	1454.0	1454.0	1454.0	1454.0
2.5°	1455.8	1455.8	1458.5	1459.4	1460.3	1460.3	1462.1	1462.1	1463.0	1466.7	1465.8
5°	1464.9	1467.6	1471.2	1473.0	1475.7	1476.6	1479.3	1479.3	1482.0	1484.8	1483.9
7.5°	1475.7	1478.4	1481.1	1483.9	1486.6	1490.2	1489.3	1488.4	1487.5	1485.7	1483.9
10°	1491.1	1493.8	1496.5	1495.6	1493.8	1492.0	1484.8	1476.6	1473.0	1465.8	1460.3
12.5°	1516.4	1519.1	1516.4	1509.2	1499.2	1487.5	1472.1	1458.5	1450.4	1439.5	1433.2
15°	1535.4	1538.1	1532.7	1520.1	1503.8	1488.4	1467.6	1450.4	1435.9	1424.1	1415.1
17.5°	1549.9	1548.1	1536.3	1521.9	1504.7	1492.0	1473.0	1454.0	1436.8	1420.5	1407.9
20°	1570.7	1560.8	1543.6	1525.5	1508.3	1497.4	1482.0	1464.9	1446.8	1423.2	1407.0
22.5°	1597.9	1579.8	1557.1	1539.1	1522.8	1511.9	1496.5	1480.2	1463.0	1435.9	1413.3
25°	1636.8	1607.8	1581.6	1562.6	1548.1	1537.2	1518.2	1501.1	1482.0	1454.9	1426.0
27.5°	1691.1	1649.4	1622.3	1603.3	1588.8	1576.1	1551.7	1530.9	1506.5	1479.3	1445.0
30°	1761.6	1711.0	1681.1	1664.8	1649.4	1631.3	1605.1	1574.3	1542.7	1506.5	1469.4
32.5°	1849.4	1792.4	1764.3	1748.1	1728.2	1703.7	1669.3	1628.6	1581.6	1533.6	1487.5
35°	1974.3	1909.1	1878.3	1850.3	1821.3	1785.2	1733.6	1674.8	1612.3	1549.9	1492.9
37.5°	2098.2	2037.6	1999.6	1970.6	1925.4	1866.6	1795.1	1713.7	1630.4	1550.8	1482.0
40°	2273.7	2203.2	2158.8	2107.3	2034.0	1942.6	1838.5	1729.1	1625.9	1530.0	1448.6
42.5°	2489.1	2408.6	2342.5	2249.3	2135.3	2003.2	1859.3	1720.0	1594.2	1483.9	1394.3
45°	2761.4	2656.5	2546.1	2399.5	2224.9	2040.3	1858.4	1688.3	1540.0	1415.1	1326.4
47.5°	3079.0	2931.5	2746.0	2522.6	2283.7	2049.4	1829.5	1631.3	1458.5	1321.0	1218.8
50°	3405.6	3192.1	2928.8	2617.6	2313.6	2026.7	1765.2	1538.1	1351.8	1195.2	1084.8
52.5°	3808.3	3477.1	3094.4	2681.8	2300.9	1959.8	1658.5	1407.0	1207.9	1055.0	928.3
55°	4287.8	3804.7	3251.8	2717.1	2244.8	1839.4	1496.5	1235.0	1026.0	886.7	772.7
57.5°	5081.3	4317.7	3520.5	2769.6	2134.4	1660.3	1299.3	1028.7	832.4	713.9	622.5
60°	6449.4	5369.9	4088.8	2899.0	1981.5	1405.1	1048.7	806.2	644.2	549.2	485.0
62.5°	7403.9	6007.8	4394.6	2854.6	1721.8	1106.6	775.4	576.4	469.6	407.2	363.7
65°	7218.4	5756.3	4026.3	2424.8	1349.0	782.6	515.7	390.0	329.3	290.4	268.7
66°	6885.5	5478.5	3745.8	2176.9	1169.9	652.4	425.3	323.0	283.2	255.2	240.7
67.5°	6278.4	4903.1	3241.9	1747.2	875.8	481.3	323.0	251.5	229.8	215.3	205.4
70°	5198.0	3877.0	2232.1	1032.4	463.3	269.6	205.4	185.5	175.5	169.2	168.3
72.5°	3985.6	2781.3	1291.1	499.4	247.9	179.1	157.4	150.2	146.6	144.8	144.8
75°	2461.9	1568.9	577.3	250.6	171.0	146.6	136.6	133.0	132.1	132.1	132.1
77.5°	865.9	546.5	258.8	183.7	150.2	132.1	124.0	122.1	124.0	124.0	124.0
80°	238.9	210.8	187.3	162.9	135.7	122.1	114.9	114.0	117.6	118.5	114.9
82.5°	186.4	175.5	160.1	145.7	124.0	111.3	107.7	109.5	111.3	108.6	103.1
85°	159.2	152.0	112.2	112.2	100.4	96.8	95.9	97.7	96.8	89.6	82.3
87.5°	90.5	79.6	60.6	66.0	70.6	72.4	60.6	65.1	64.2	57.0	53.4
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°	1454.0	1454.0	1454.0	1454.0	1454.0
2.5°	1467.6	1467.6	1469.4	1469.4	1468.5
5°	1485.7	1485.7	1488.4	1486.6	1487.5
7.5°	1482.0	1478.4	1478.4	1476.6	1475.7
10°	1456.7	1450.4	1446.8	1448.6	1445.9
12.5°	1427.8	1422.3	1418.7	1417.8	1416.9
15°	1409.7	1403.3	1400.6	1398.8	1398.8
17.5°	1399.7	1392.5	1388.9	1386.1	1385.2
20°	1395.2	1386.1	1380.7	1378.0	1376.2
22.5°	1397.0	1386.1	1378.9	1375.3	1373.5
25°	1404.2	1390.7	1381.6	1377.1	1374.4
27.5°	1416.9	1398.8	1388.9	1382.5	1378.9
30°	1432.3	1407.0	1392.5	1383.4	1379.8
32.5°	1442.2	1407.9	1389.8	1376.2	1372.6
35°	1440.4	1397.9	1374.4	1357.2	1354.5
37.5°	1422.3	1371.7	1342.7	1320.1	1317.4
40°	1383.4	1331.9	1298.4	1275.8	1270.3
42.5°	1329.1	1275.8	1239.6	1218.8	1211.5
45°	1249.5	1184.4	1150.9	1133.7	1123.8
47.5°	1137.3	1075.8	1038.7	1024.2	1011.6
50°	1009.7	941.9	914.7	898.5	884.0
52.5°	859.6	801.6	780.8	765.5	753.7
55°	713.9	673.2	648.7	632.4	633.4
57.5°	573.6	549.2	535.6	518.4	520.3
60°	451.5	430.7	430.7	419.8	416.2
62.5°	344.7	336.6	333.9	330.2	323.9
65°	261.5	261.5	262.4	262.4	258.8
66°	235.2	238.0	241.6	241.6	237.1
67.5°	203.6	207.2	210.8	212.6	212.6
70°	168.3	172.8	174.6	176.4	175.5
72.5°	147.5	151.1	151.1	152.0	150.2
75°	133.9	135.7	136.6	134.8	133.9
77.5°	124.0	124.9	124.0	123.1	122.1
80°	112.2	111.3	108.6	105.0	104.1
82.5°	96.8	93.2	91.4	86.0	85.1
85°	77.8	73.3	69.7	62.4	58.8
87.5°	51.6	49.8	47.0	34.4	28.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)