

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: P146598

Luminaire Tested: **LDRL-T3-E03-E-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P146598
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-E03-E-8030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 3
Light Source: (63) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7560 lumens
Efficiency: N/A
Efficacy: 100.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

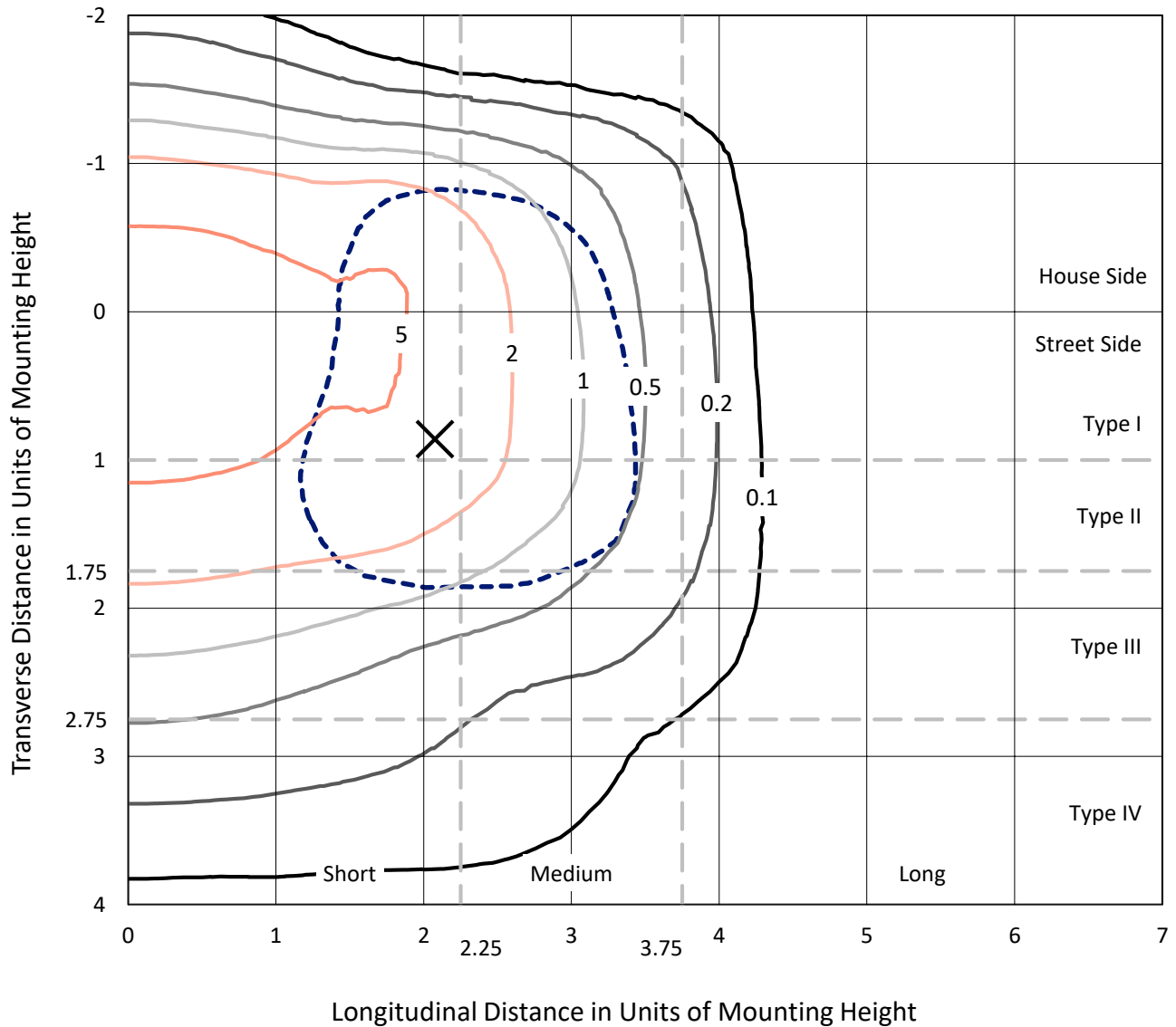
Input Watts (W): 75.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

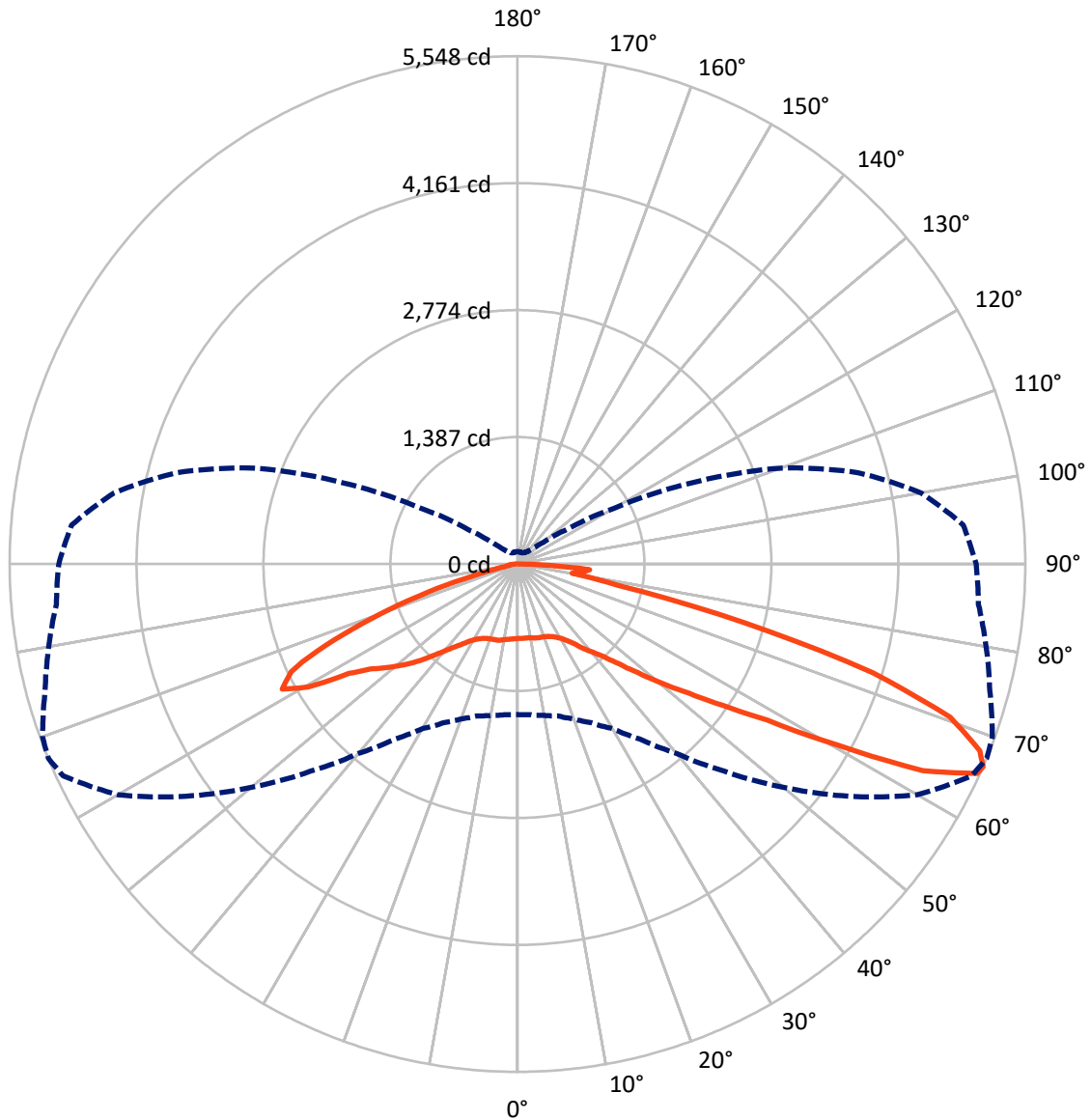
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.1 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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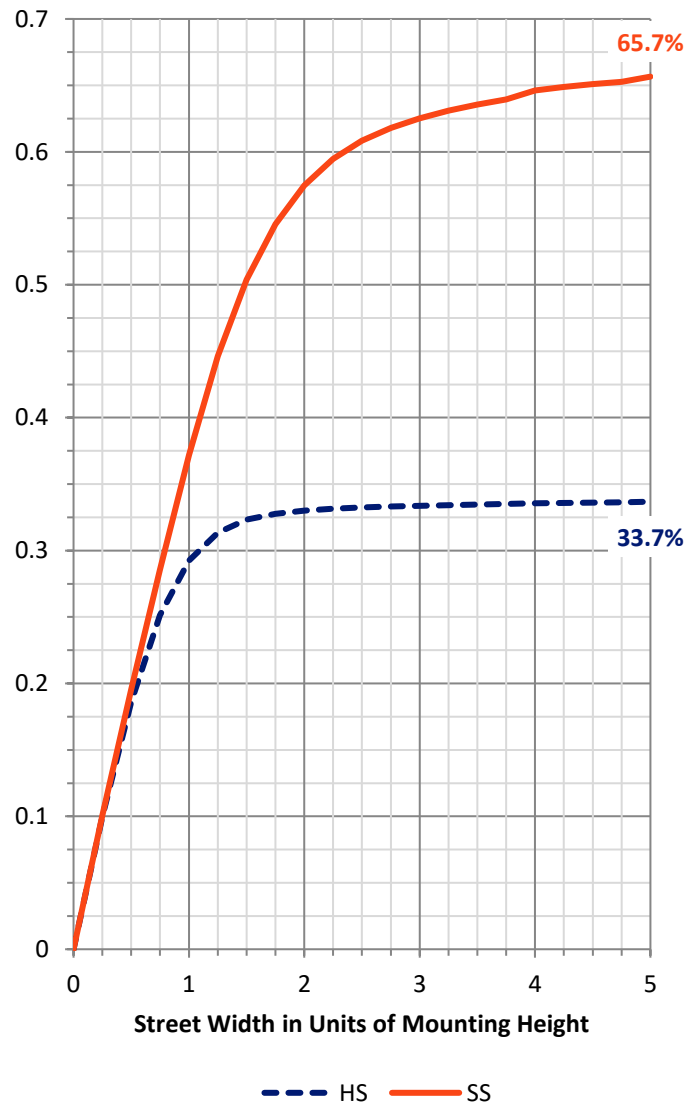
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2568.4	0.0	2568.4
	% Fixture	34.0	0.0	34.0
Street Side	Lumens	4991.6	0.0	4991.6
	% Fixture	66.0	0.0	66.0
Total	Lumens	7560.0	0.0	7560.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.2	1.0
10°-20°	231.6	3.1
20°-30°	398.2	5.3
30°-40°	640.5	8.5
40°-50°	1055.6	14.0
50°-60°	1654.7	21.9
60°-70°	2290.0	30.3
70°-80°	1036.3	13.7
80°-90°	174.8	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°	7560.0	100.0
0°-180°	7560.0	100.0



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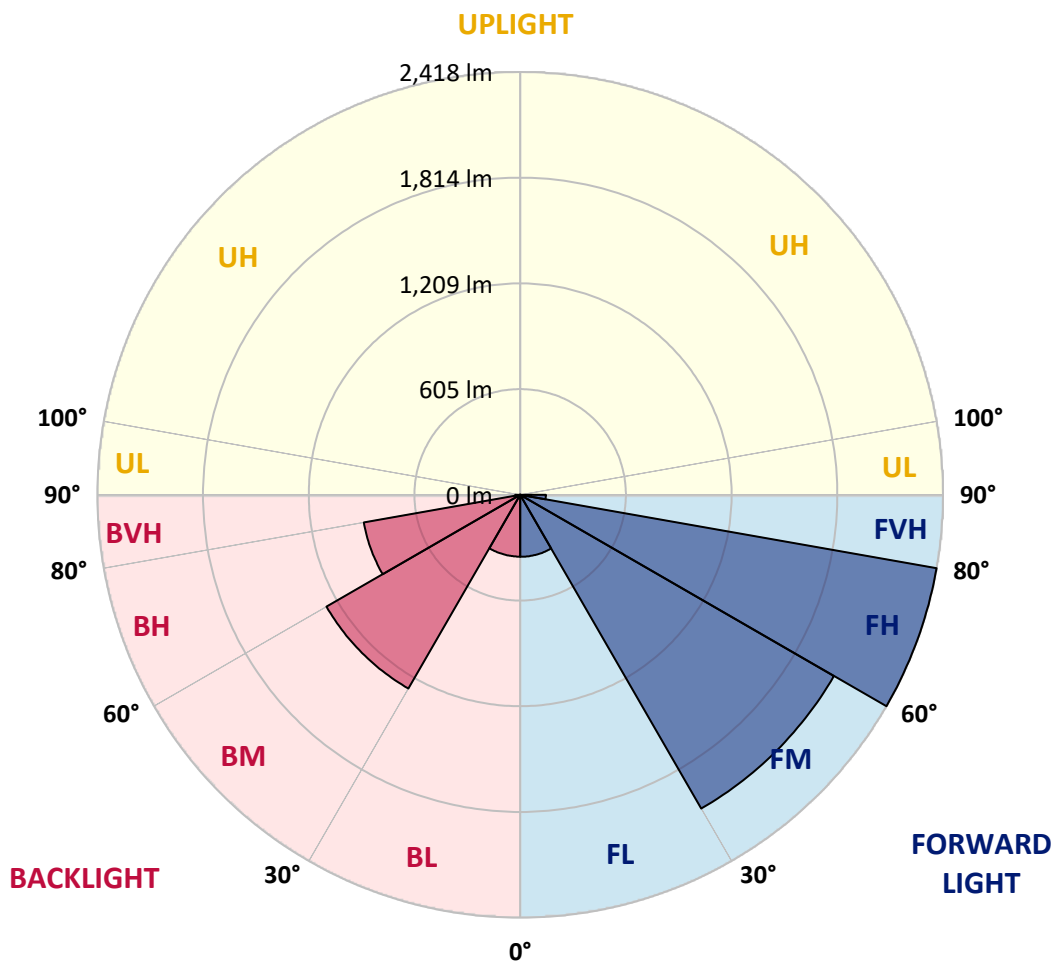
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	354.6	4.7			
FM	(30°-60°)	2071.7	27.4			
FH	(60°-80°)	2418.4	32.0			G2/5000
FVH	(80°-90°)	146.9	1.9			G2/225
BL	(0°-30°)	353.4	4.7	B1/500		
BM	(30°-60°)	1279.1	16.9	B2/2500		
BH	(60°-80°)	908.0	12.0	B2/1000		G2/1000
BVH	(80°-90°)	27.9	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	813.8	813.8	813.8	813.8	813.8	813.8	813.8	813.8	813.8	813.8	813.8
2.5°	812.8	812.3	811.8	811.8	811.2	811.8	812.3	812.8	812.3	812.8	812.3
5°	811.2	811.2	810.7	810.7	810.7	810.7	811.2	811.8	811.2	812.3	811.2
7.5°	804.7	807.7	806.7	807.7	808.7	809.7	810.2	811.2	812.8	813.8	812.8
10°	796.1	797.6	798.1	799.1	801.1	803.6	805.7	808.2	811.8	812.8	813.8
12.5°	780.4	782.4	783.9	785.9	789.0	793.0	796.6	800.6	806.7	810.7	814.3
15°	768.7	771.2	771.7	774.3	777.3	781.9	786.4	792.5	800.6	807.7	814.8
17.5°	776.3	777.3	776.3	776.3	777.3	779.3	782.9	787.9	796.6	805.2	813.8
20°	799.1	799.1	798.1	797.6	796.6	794.5	794.0	793.5	799.1	805.7	813.3
22.5°	820.9	820.9	820.4	822.4	821.9	821.9	820.4	817.8	815.3	814.3	819.3
25°	834.5	836.6	837.6	840.6	842.6	845.7	846.7	846.2	842.6	836.6	835.0
27.5°	856.8	858.3	859.4	862.9	866.9	870.5	874.0	878.6	878.6	873.0	865.4
30°	899.9	897.8	898.9	899.9	903.4	908.5	913.0	919.1	922.1	920.1	910.0
32.5°	939.9	941.9	942.9	945.9	949.5	957.1	962.7	969.7	976.3	977.3	972.3
35°	998.6	997.6	996.1	1006.7	1010.8	1019.4	1026.0	1036.1	1041.1	1045.7	1042.7
37.5°	1091.3	1088.2	1086.2	1089.3	1094.8	1100.4	1110.0	1117.6	1126.2	1136.9	1133.3
40°	1222.4	1228.5	1219.9	1224.0	1228.5	1215.9	1224.5	1231.6	1246.2	1246.7	1246.2
42.5°	1393.1	1397.6	1395.6	1398.2	1390.1	1386.0	1382.5	1386.0	1404.2	1401.7	1389.5
45°	1563.7	1570.3	1568.8	1569.8	1585.5	1578.9	1584.5	1585.5	1604.3	1599.2	1590.1
47.5°	1709.6	1720.7	1723.3	1732.4	1753.6	1770.9	1794.7	1812.4	1821.5	1827.6	1834.7
50°	1825.0	1833.1	1847.3	1870.1	1901.0	1930.9	1984.6	2019.5	2051.4	2073.7	2096.5
52.5°	1901.5	1910.6	1932.4	1966.8	2011.4	2066.1	2128.9	2201.8	2269.2	2308.7	2342.6
55°	1932.9	1942.0	1968.9	2013.9	2073.2	2143.1	2233.2	2336.0	2425.6	2516.3	2568.4
57.5°	1914.7	1924.8	1955.7	2006.3	2077.7	2169.4	2281.3	2407.4	2538.6	2675.8	2780.6
60°	1861.0	1870.1	1905.1	1957.7	2039.3	2142.6	2276.7	2434.7	2619.1	2822.6	3021.7
62.5°	1787.1	1800.7	1831.6	1885.3	1966.3	2079.3	2232.2	2437.8	2702.1	3030.3	3417.7
65°	1692.9	1703.0	1730.4	1772.9	1862.0	1980.0	2141.5	2393.2	2738.6	3204.0	3756.9
66°	1644.3	1653.9	1679.2	1719.2	1800.7	1914.2	2075.7	2333.5	2698.1	3202.9	3792.9
67.5°	1558.7	1563.2	1581.5	1621.0	1674.1	1775.9	1925.8	2167.4	2526.4	3067.7	3692.6
70°	1307.5	1314.1	1331.8	1352.1	1371.8	1408.3	1513.1	1672.6	1959.7	2478.8	3074.8
72.5°	904.4	914.5	933.8	971.3	1002.2	1048.2	1089.3	1142.4	1237.6	1598.2	2199.8
75°	653.8	657.3	685.7	751.5	813.8	905.9	987.5	1013.3	980.9	975.3	1292.3
77.5°	389.9	395.0	436.0	502.3	567.2	692.2	859.4	988.5	1059.9	1034.6	978.4
80°	164.1	171.2	195.5	212.7	266.4	371.2	536.3	738.8	927.2	1043.2	1016.8
82.5°	52.7	61.3	72.4	87.6	103.3	138.2	214.2	320.5	506.4	755.0	928.2
85°	19.2	19.7	27.3	38.0	42.0	48.6	62.3	96.2	171.2	283.1	526.7
87.5°	7.6	9.1	10.6	14.7	15.2	15.7	17.7	22.8	22.3	19.2	99.8
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):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	813.8	813.8	813.8	813.8	813.8	813.8	813.8	813.8	813.8	813.8	813.8
2.5°	812.8	813.8	813.3	813.8	813.8	812.8	812.8	814.8	813.3	814.3	814.3
5°	812.3	813.3	812.8	813.8	813.8	813.3	813.3	816.3	815.8	817.3	818.3
7.5°	814.3	814.8	814.3	814.3	815.8	815.3	815.8	816.8	819.3	821.9	823.9
10°	816.8	817.8	819.3	819.9	821.9	821.4	822.9	824.4	826.9	829.5	832.0
12.5°	820.4	823.4	828.0	829.0	831.0	832.5	835.0	836.6	838.6	842.6	845.7
15°	823.4	829.0	834.5	836.6	838.6	840.6	843.1	844.7	848.2	851.8	855.3
17.5°	824.4	831.0	838.1	840.6	842.6	846.2	849.2	852.3	856.3	860.9	864.9
20°	824.9	834.0	843.1	846.2	850.7	855.8	860.9	863.4	869.0	874.5	878.1
22.5°	829.5	840.6	853.3	858.8	863.4	872.5	879.1	883.2	889.7	894.3	895.8
25°	842.1	853.8	869.0	877.6	885.2	898.3	906.4	914.0	917.6	923.7	922.1
27.5°	864.9	874.0	893.8	905.4	915.1	932.3	948.0	955.1	960.6	963.7	960.1
30°	903.9	907.5	929.2	943.4	959.6	986.5	1003.7	1012.8	1019.9	1020.4	1011.3
32.5°	962.1	956.6	975.8	996.1	1017.3	1049.8	1073.1	1082.7	1088.2	1088.7	1068.5
35°	1041.1	1031.5	1047.7	1067.5	1093.8	1136.3	1165.7	1176.9	1185.5	1181.4	1151.5
37.5°	1140.9	1140.4	1148.0	1173.3	1203.2	1257.9	1288.8	1294.9	1294.3	1282.2	1237.1
40°	1251.8	1242.7	1243.7	1261.9	1296.4	1368.3	1411.3	1421.4	1417.9	1400.2	1341.4
42.5°	1391.6	1387.5	1373.8	1383.5	1415.4	1503.0	1555.1	1565.3	1568.3	1538.9	1469.6
45°	1587.5	1584.0	1553.6	1555.6	1578.9	1671.1	1725.3	1742.0	1742.5	1714.7	1624.5
47.5°	1825.0	1822.0	1786.6	1776.4	1788.1	1870.1	1937.5	1941.0	1942.0	1903.5	1809.9
50°	2094.4	2085.8	2059.0	2048.4	2034.7	2125.3	2179.5	2179.0	2173.4	2130.9	2025.6
52.5°	2354.7	2374.0	2363.8	2343.1	2343.6	2408.9	2460.1	2431.7	2435.3	2394.7	2273.7
55°	2632.7	2681.9	2718.8	2726.4	2722.9	2756.3	2784.7	2734.0	2715.3	2708.7	2580.1
57.5°	2928.0	3053.6	3167.5	3215.1	3196.9	3258.1	3283.5	3230.8	3231.8	3283.5	3172.6
60°	3322.5	3639.5	3926.6	4015.7	4057.2	4158.5	4113.4	4110.4	4189.9	4256.8	4051.2
62.5°	3921.0	4446.1	4904.4	4970.8	5004.2	5027.0	5006.7	4951.5	5033.6	5041.7	4724.7
65°	4374.7	4991.0	5434.1	5517.2	5511.1	5395.1	5282.7	5172.3	5171.3	5090.3	4682.1
66°	4423.9	5042.7	5474.6	5548.1	5521.2	5342.5	5199.7	5056.3	5010.3	4888.7	4474.5
67.5°	4316.5	4952.5	5381.5	5447.3	5390.1	5118.1	4923.7	4729.7	4660.3	4491.2	4068.9
70°	3690.1	4345.4	4919.1	5014.3	4946.5	4585.4	4297.3	4084.1	3895.2	3728.6	3380.2
72.5°	2861.1	3351.3	3958.5	4057.7	4063.3	3780.7	3456.1	3251.6	3031.8	2864.7	2603.4
75°	1876.7	2247.4	2581.1	2547.7	2557.3	2335.0	2141.5	1971.4	1772.4	1640.7	1516.1
77.5°	1096.9	1229.5	1199.1	1116.1	1046.2	822.4	588.4	404.1	352.5	367.6	414.7
80°	953.5	879.1	688.2	605.1	550.5	373.7	201.0	141.8	124.6	126.1	133.7
82.5°	1026.5	1064.9	874.0	719.6	627.4	440.1	236.5	118.0	85.1	99.3	109.4
85°	796.6	1013.8	934.8	790.0	664.4	467.9	241.6	74.9	50.6	67.9	85.6
87.5°	226.9	359.0	287.1	253.7	204.6	139.8	57.7	29.9	27.3	35.4	49.1
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°	813.8	813.8	813.8	813.8	813.8	813.8	813.8	813.8	813.8	813.8	813.8
2.5°	814.8	814.8	816.3	816.8	817.3	817.3	818.3	818.3	818.8	820.9	820.4
5°	819.9	821.4	823.4	824.4	825.9	826.4	828.0	828.0	829.5	831.0	830.5
7.5°	825.9	827.4	829.0	830.5	832.0	834.0	833.5	833.0	832.5	831.5	830.5
10°	834.5	836.1	837.6	837.1	836.1	835.0	831.0	826.4	824.4	820.4	817.3
12.5°	848.7	850.2	848.7	844.7	839.1	832.5	823.9	816.3	811.8	805.7	802.1
15°	859.4	860.9	857.8	850.7	841.6	833.0	821.4	811.8	803.6	797.1	792.0
17.5°	867.5	866.4	859.9	851.8	842.1	835.0	824.4	813.8	804.2	795.0	787.9
20°	879.1	873.5	863.9	853.8	844.2	838.1	829.5	819.9	809.7	796.6	787.4
22.5°	894.3	884.2	871.5	861.4	852.3	846.2	837.6	828.5	818.8	803.6	791.0
25°	916.1	899.9	885.2	874.5	866.4	860.4	849.7	840.1	829.5	814.3	798.1
27.5°	946.5	923.2	908.0	897.3	889.2	882.1	868.5	856.8	843.1	828.0	808.7
30°	986.0	957.6	940.9	931.8	923.2	913.0	898.3	881.1	863.4	843.1	822.4
32.5°	1035.1	1003.2	987.5	978.4	967.2	953.5	934.3	911.5	885.2	858.3	832.5
35°	1105.0	1068.5	1051.3	1035.6	1019.4	999.1	970.3	937.3	902.4	867.5	835.6
37.5°	1174.3	1140.4	1119.1	1102.9	1077.6	1044.7	1004.7	959.1	912.5	868.0	829.5
40°	1272.6	1233.1	1208.3	1179.4	1138.4	1087.2	1029.0	967.7	910.0	856.3	810.7
42.5°	1393.1	1348.0	1311.1	1258.9	1195.1	1121.2	1040.6	962.7	892.3	830.5	780.4
45°	1545.5	1486.8	1425.0	1343.0	1245.2	1141.9	1040.1	944.9	861.9	792.0	742.4
47.5°	1723.3	1640.7	1536.9	1411.8	1278.1	1147.0	1023.9	913.0	816.3	739.3	682.1
50°	1906.1	1786.6	1639.2	1465.0	1294.9	1134.3	988.0	860.9	756.6	668.9	607.2
52.5°	2131.4	1946.1	1731.9	1501.0	1287.8	1096.9	928.2	787.4	676.0	590.5	519.6
55°	2399.8	2129.4	1820.0	1520.7	1256.4	1029.5	837.6	691.2	574.3	496.3	432.5
57.5°	2843.9	2416.5	1970.4	1550.1	1194.6	929.2	727.2	575.8	465.9	399.5	348.4
60°	3609.6	3005.5	2288.4	1622.5	1109.0	786.4	586.9	451.2	360.6	307.4	271.4
62.5°	4143.8	3362.5	2459.6	1597.7	963.7	619.3	434.0	322.6	262.8	227.9	203.6
65°	4040.0	3221.7	2253.5	1357.1	755.0	438.0	288.6	218.3	184.3	162.6	150.4
66°	3853.7	3066.2	2096.5	1218.4	654.8	365.1	238.0	180.8	158.5	142.8	134.7
67.5°	3513.9	2744.2	1814.4	977.8	490.2	269.4	180.8	140.8	128.6	120.5	115.0
70°	2909.2	2169.9	1249.3	577.8	259.3	150.9	115.0	103.8	98.2	94.7	94.2
72.5°	2230.7	1556.7	722.6	279.5	138.8	100.3	88.1	84.1	82.0	81.0	81.0
75°	1377.9	878.1	323.1	140.3	95.7	82.0	76.5	74.4	73.9	73.9	73.9
77.5°	484.6	305.9	144.8	102.8	84.1	73.9	69.4	68.4	69.4	69.4	69.4
80°	133.7	118.0	104.8	91.2	76.0	68.4	64.3	63.8	65.8	66.3	64.3
82.5°	104.3	98.2	89.6	81.5	69.4	62.3	60.3	61.3	62.3	60.8	57.7
85°	89.1	85.1	62.8	62.8	56.2	54.2	53.7	54.7	54.2	50.1	46.1
87.5°	50.6	44.6	33.9	37.0	39.5	40.5	33.9	36.5	36.0	31.9	29.9
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°	813.8	813.8	813.8	813.8	813.8
2.5°	821.4	821.4	822.4	822.4	821.9
5°	831.5	831.5	833.0	832.0	832.5
7.5°	829.5	827.4	827.4	826.4	825.9
10°	815.3	811.8	809.7	810.7	809.2
12.5°	799.1	796.1	794.0	793.5	793.0
15°	789.0	785.4	783.9	782.9	782.9
17.5°	783.4	779.3	777.3	775.8	775.3
20°	780.9	775.8	772.8	771.2	770.2
22.5°	781.9	775.8	771.7	769.7	768.7
25°	785.9	778.3	773.3	770.7	769.2
27.5°	793.0	782.9	777.3	773.8	771.7
30°	801.6	787.4	779.3	774.3	772.3
32.5°	807.2	787.9	777.8	770.2	768.2
35°	806.2	782.4	769.2	759.6	758.1
37.5°	796.1	767.7	751.5	738.8	737.3
40°	774.3	745.4	726.7	714.0	711.0
42.5°	743.9	714.0	693.8	682.1	678.1
45°	699.3	662.9	644.1	634.5	628.9
47.5°	636.5	602.1	581.3	573.2	566.1
50°	565.1	527.2	512.0	502.8	494.7
52.5°	481.1	448.7	437.0	428.4	421.8
55°	399.5	376.8	363.1	354.0	354.5
57.5°	321.1	307.4	299.8	290.2	291.2
60°	252.7	241.0	241.0	235.0	232.9
62.5°	192.9	188.4	186.9	184.8	181.3
65°	146.3	146.3	146.9	146.9	144.8
66°	131.7	133.2	135.2	135.2	132.7
67.5°	113.9	116.0	118.0	119.0	119.0
70°	94.2	96.7	97.7	98.7	98.2
72.5°	82.5	84.6	84.6	85.1	84.1
75°	74.9	76.0	76.5	75.5	74.9
77.5°	69.4	69.9	69.4	68.9	68.4
80°	62.8	62.3	60.8	58.7	58.2
82.5°	54.2	52.2	51.1	48.1	47.6
85°	43.5	41.0	39.0	34.9	32.9
87.5°	28.9	27.9	26.3	19.2	15.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)