

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: P163226

Luminaire Tested: **LDRL-SL2-E01-E-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P163226
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33726)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: LDRL-SL2-E01-E-7030-HSS
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (21) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1624.4 lumens
Efficiency: N/A
Efficacy: 65.8 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 1' x H: 0.1')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 24.7
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

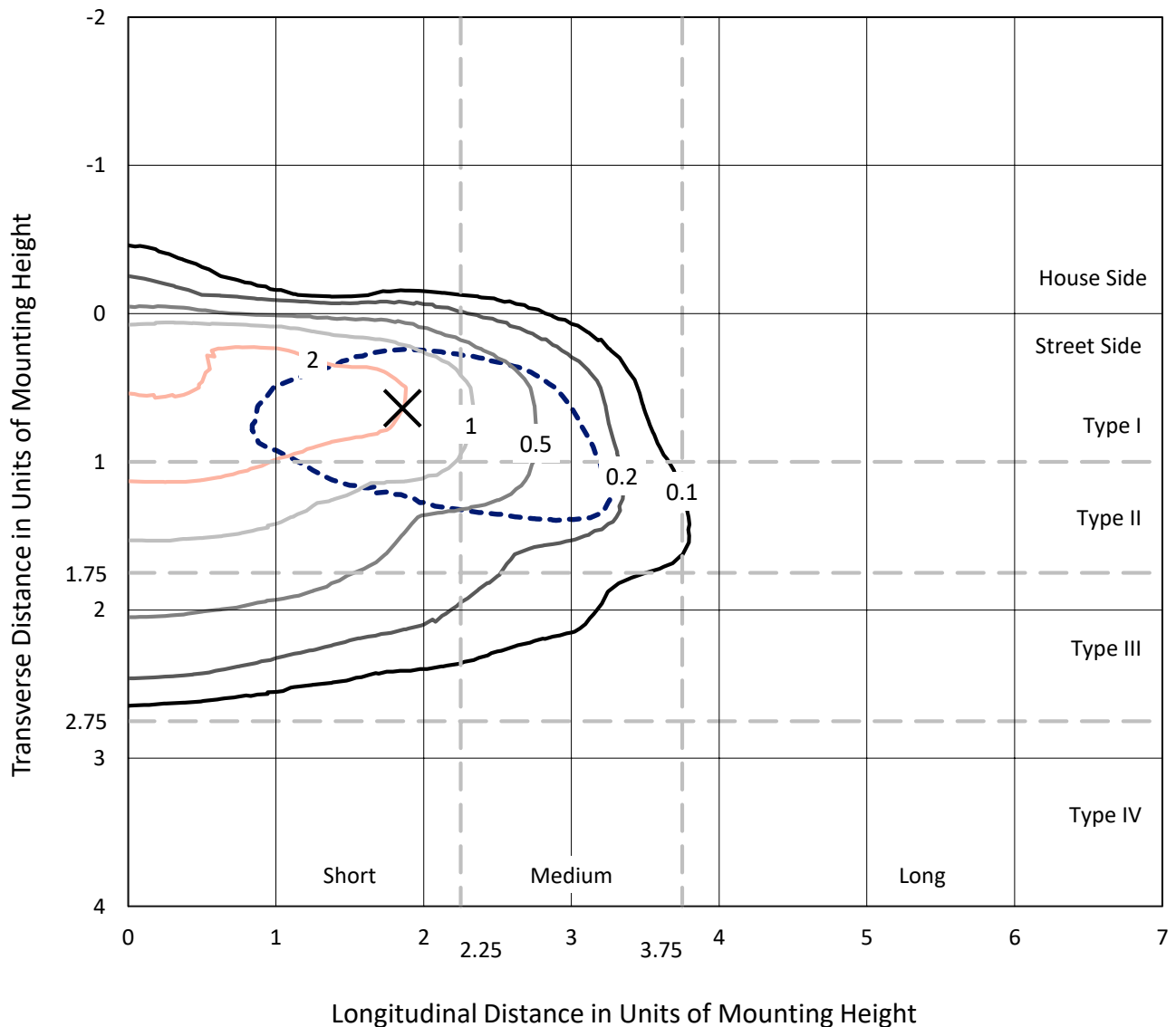


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Iso-Footcandle Lines of Horizontal Illumination

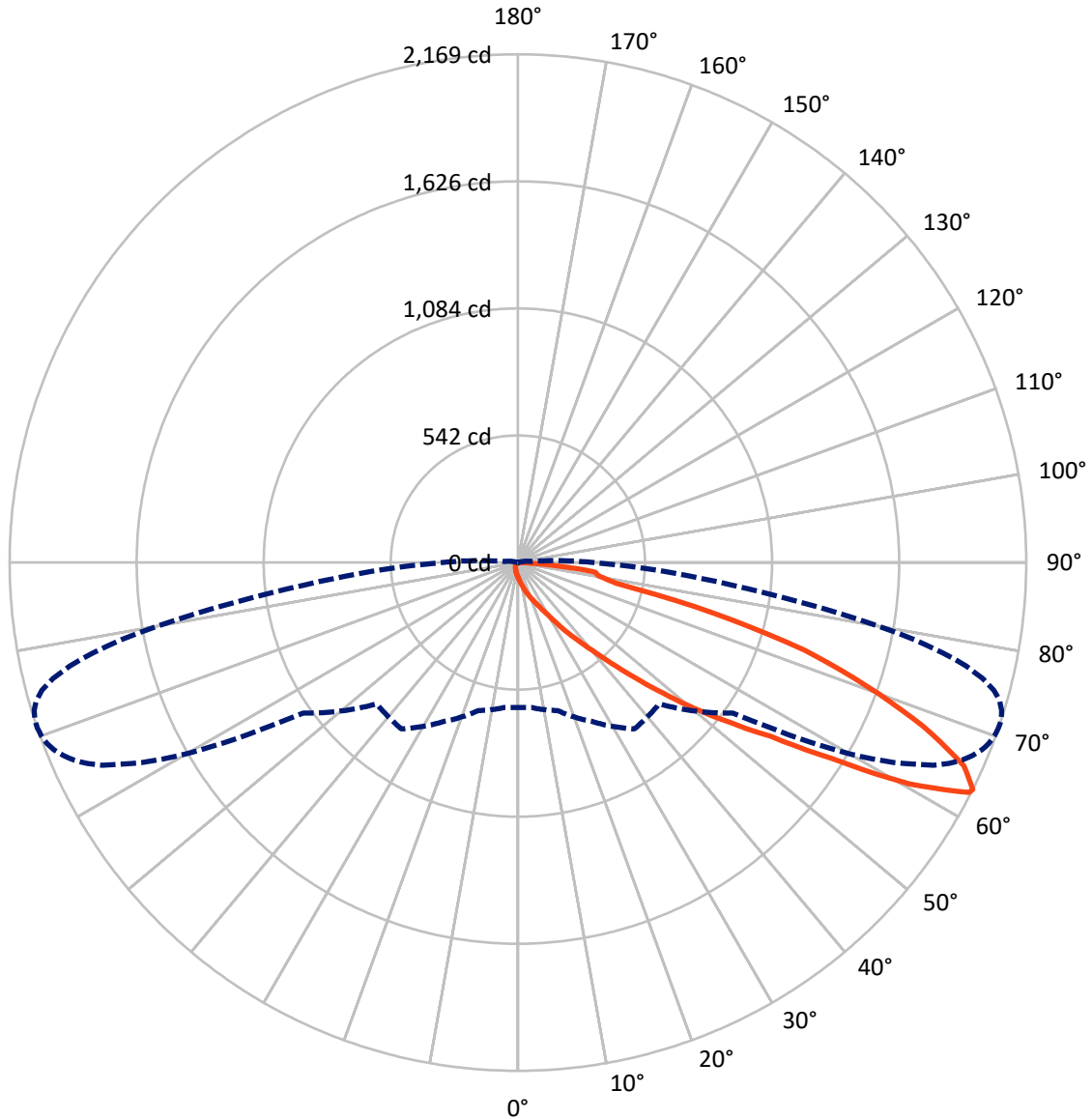
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.4 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 71-Deg Lateral - - - Horizontal Cone Through 63-Deg Vertical

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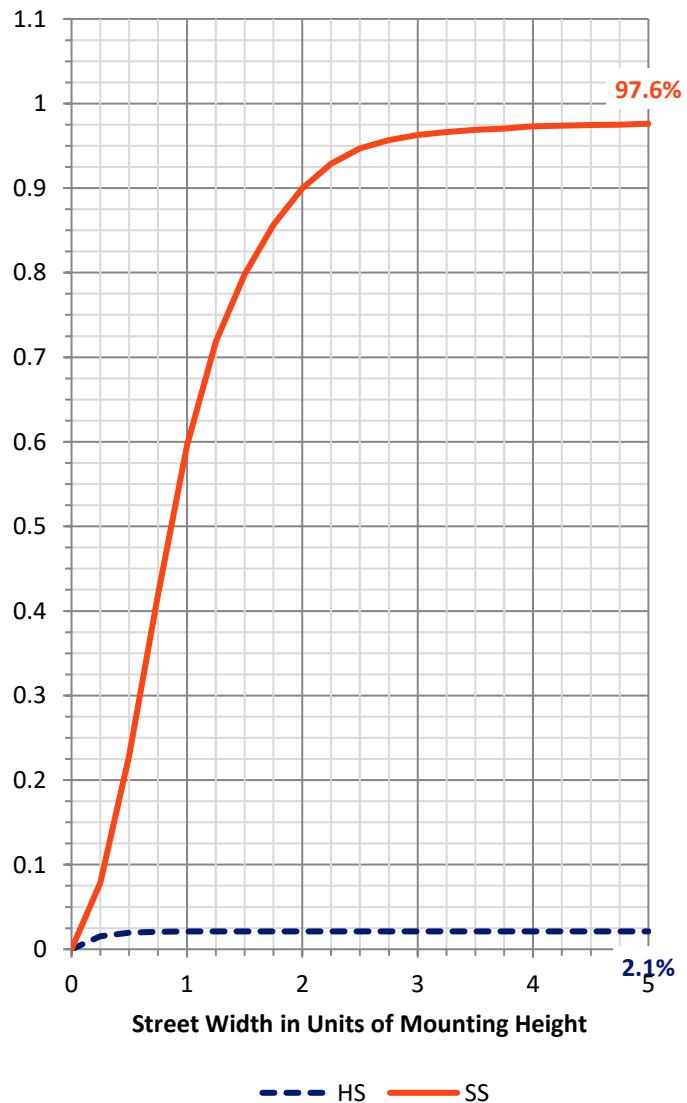
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	34.5	0.0	34.5
	% Fixture	2.1	0.0	2.1
Street Side	Lumens	1589.9	0.0	1589.9
	% Fixture	97.9	0.0	97.9
Total	Lumens	1624.4	0.0	1624.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	6.9	0.4
10°-20°	26.7	1.6
20°-30°	54.3	3.3
30°-40°	132.5	8.2
40°-50°	296.4	18.2
50°-60°	416.8	25.7
60°-70°	490.1	30.2
70°-80°	177.0	10.9
80°-90°	23.7	1.5
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°	1624.4	100.0
0°-180°	1624.4	100.0



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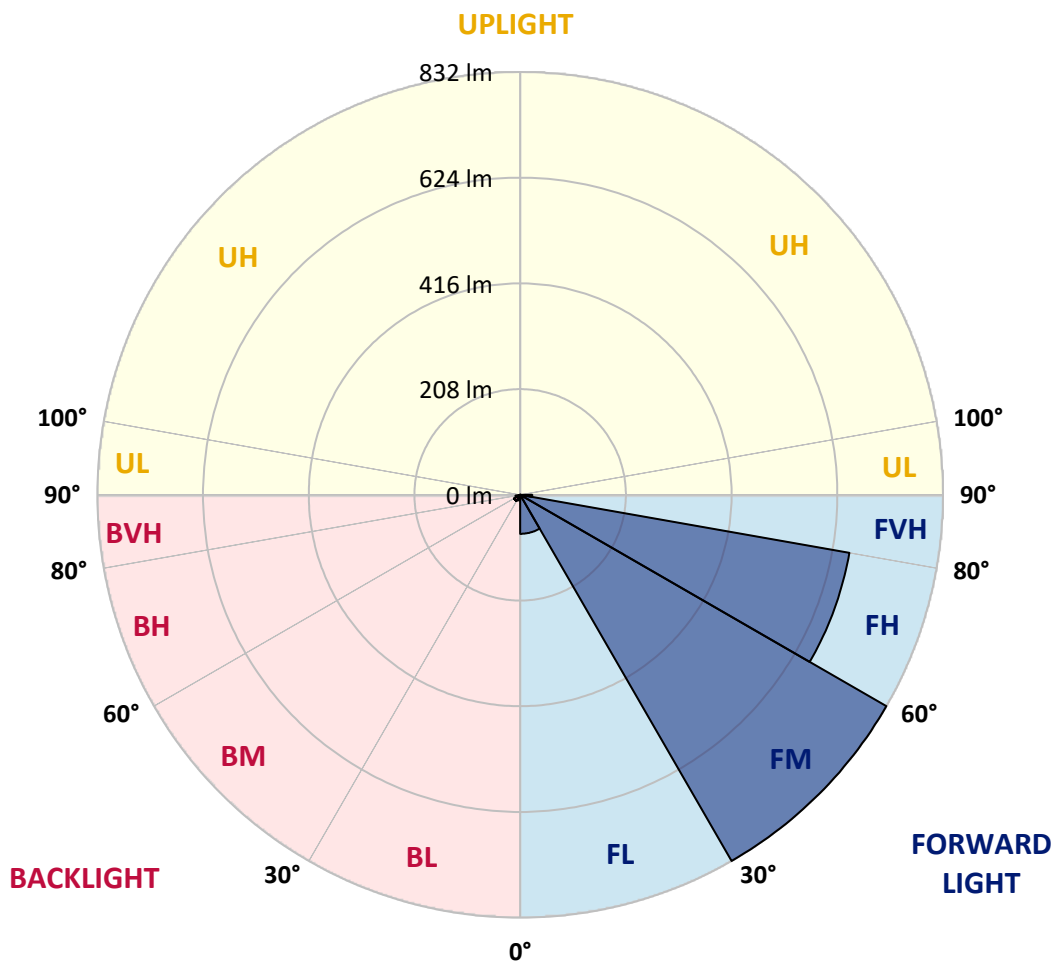
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	76.8	4.7			
FM (30°-60°)	831.9	51.2			
FH (60°-80°)	657.7	40.5			G0/660
FVH (80°-90°)	23.6	1.5			G1/100
BL (0°-30°)	11.1	0.7	B0/110		
BM (30°-60°)	13.9	0.9	B0/220		
BH (60°-80°)	9.5	0.6	B0/110		G0/110
BVH (80°-90°)	0.1	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3
2.5°	81.5	82.4	81.8	80.3	78.5	76.2	74.1	74.1	73.8	72.9	73.2
5°	106.9	107.2	106.0	102.5	99.2	94.2	88.6	88.0	87.4	86.5	86.2
7.5°	131.7	132.9	131.7	127.9	121.4	113.7	104.8	104.0	102.2	102.2	101.0
10°	157.1	157.1	155.9	151.5	145.6	134.7	123.4	122.0	119.9	119.3	117.5
12.5°	175.1	175.1	174.5	172.2	167.4	157.7	144.1	142.6	140.0	139.1	137.0
15°	182.2	182.2	182.5	184.6	184.9	180.4	166.3	165.1	162.4	160.1	159.2
17.5°	186.6	186.3	186.3	189.3	194.6	197.6	188.4	187.2	184.3	183.1	180.1
20°	196.4	195.8	194.0	194.0	199.0	209.4	209.4	209.1	205.8	205.0	203.5
22.5°	210.9	210.3	205.0	200.5	202.9	215.9	228.0	227.4	226.2	225.0	224.1
25°	234.5	232.4	223.3	210.3	208.2	222.1	242.2	243.6	244.5	244.5	245.1
27.5°	270.2	267.6	251.3	227.1	217.9	232.1	257.8	260.8	263.4	264.0	266.7
30°	319.8	315.1	291.8	256.3	235.4	246.9	280.8	284.1	287.9	289.1	293.2
32.5°	401.3	398.7	376.2	323.1	278.2	275.8	313.0	317.2	322.2	324.3	329.3
35°	525.4	526.0	507.6	459.8	397.8	365.3	370.6	374.2	375.9	382.1	384.8
37.5°	609.5	611.0	615.1	596.2	551.9	518.9	477.2	481.1	471.9	472.8	473.1
40°	655.6	660.3	684.5	702.8	699.3	680.1	646.7	648.8	631.7	627.8	609.2
42.5°	686.3	692.5	731.2	787.9	816.8	834.3	826.6	825.7	812.4	807.4	791.7
45°	705.5	711.1	759.8	843.4	910.2	961.0	981.9	984.3	973.1	968.0	955.0
47.5°	704.6	711.1	763.4	864.1	962.4	1043.6	1102.7	1105.6	1112.4	1108.0	1108.9
50°	665.6	671.8	724.4	828.9	947.1	1081.4	1189.5	1199.0	1209.9	1217.3	1220.8
52.5°	618.4	622.8	669.5	768.7	881.5	1065.8	1240.9	1257.2	1273.4	1287.3	1297.0
55°	601.0	606.0	642.6	725.0	828.9	1000.2	1264.8	1288.8	1311.8	1334.5	1353.1
57.5°	610.1	614.8	641.1	704.3	797.6	931.1	1271.6	1308.8	1346.6	1383.5	1420.2
60°	643.8	648.8	671.2	723.5	789.4	891.2	1245.0	1306.8	1369.7	1434.1	1494.6
62.5°	630.5	632.6	665.6	757.2	848.4	857.3	1148.5	1234.7	1330.7	1429.9	1527.7
63°	617.8	620.2	653.8	748.0	866.5	852.3	1118.7	1209.6	1310.9	1417.8	1524.1
65°	560.2	560.5	586.2	660.6	846.4	861.1	985.8	1072.6	1188.9	1317.1	1451.5
67.5°	418.2	416.1	440.9	497.6	664.5	861.4	846.1	894.8	975.7	1089.4	1209.9
70°	148.3	145.0	185.2	263.7	414.0	704.6	727.1	730.3	752.7	814.2	889.8
72.5°	48.1	49.0	59.1	96.6	190.8	474.3	658.3	648.2	642.3	642.0	652.1
75°	19.2	19.5	23.6	42.8	85.6	228.6	576.5	582.1	584.1	587.1	590.3
77.5°	9.2	10.0	13.3	23.9	42.5	113.1	412.6	460.1	487.3	508.2	520.9
80°	3.3	3.8	7.4	14.8	19.8	52.0	217.4	262.2	302.1	353.5	397.8
82.5°	0.0	0.0	1.5	10.3	10.9	21.0	89.2	104.5	119.6	155.0	199.0
85°	0.0	0.0	0.0	3.0	3.3	3.5	30.1	36.3	40.8	47.5	54.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.9	1.8	4.4	6.8
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):

	60°	61°	62°	64°	65°	66°	67°	68°	69°	70°	71°
0°	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3
2.5°	72.6	72.4	72.4	71.8	71.5	70.9	70.6	69.7	69.4	69.4	69.4
5°	85.9	84.8	84.2	82.7	81.8	81.5	80.0	79.4	78.5	78.8	77.4
7.5°	100.7	98.6	97.7	95.7	95.1	93.0	92.4	91.0	90.1	88.3	87.7
10°	116.9	114.3	112.8	109.6	108.7	107.2	105.4	103.6	102.2	100.4	99.5
12.5°	135.5	133.2	132.0	127.6	125.5	123.4	121.1	118.7	116.4	114.9	112.8
15°	157.4	153.6	152.4	148.3	144.7	142.0	138.8	135.9	134.1	131.1	129.1
17.5°	179.0	175.1	174.2	168.0	164.2	162.4	158.9	155.0	151.8	148.8	145.6
20°	200.5	197.9	195.5	189.6	185.5	182.5	177.8	173.9	171.3	167.1	163.0
22.5°	222.1	219.4	217.7	211.4	207.6	203.5	199.3	195.2	191.4	186.3	181.6
25°	244.2	242.5	241.6	236.0	232.4	228.6	224.4	219.7	215.0	209.4	204.4
27.5°	267.3	267.8	266.1	264.9	261.1	258.4	251.9	248.7	245.1	238.3	232.1
30°	296.5	298.3	297.7	298.6	296.2	294.4	289.4	285.3	281.1	274.6	267.6
32.5°	333.4	335.8	337.0	340.2	339.0	338.4	337.0	331.1	328.1	316.9	313.9
35°	390.4	389.2	394.2	396.9	395.7	395.1	393.4	390.1	386.6	378.6	371.2
37.5°	464.5	465.7	467.5	462.2	458.6	458.3	453.0	449.8	444.7	435.9	427.0
40°	600.4	593.0	584.7	562.3	552.5	546.9	531.3	526.8	518.3	506.2	497.0
42.5°	777.0	769.6	744.8	707.3	687.2	659.4	646.7	631.1	619.0	599.2	588.6
45°	952.4	931.1	928.2	884.5	859.7	823.0	800.3	774.0	746.6	720.6	701.7
47.5°	1100.3	1095.6	1081.2	1054.6	1031.5	1000.8	971.6	931.1	902.8	865.9	831.9
50°	1218.8	1218.5	1213.1	1197.8	1178.6	1153.8	1128.1	1093.8	1061.7	1016.5	980.2
52.5°	1307.4	1312.1	1313.9	1309.1	1301.7	1279.9	1266.9	1238.2	1211.1	1172.7	1133.4
55°	1372.3	1389.8	1398.6	1408.6	1406.6	1398.9	1398.3	1379.7	1367.3	1336.9	1309.1
57.5°	1452.6	1481.3	1508.8	1557.5	1559.3	1576.4	1585.2	1594.1	1596.5	1584.4	1575.2
60°	1554.8	1613.3	1665.3	1767.2	1793.7	1835.7	1862.8	1892.4	1917.5	1919.5	1918.9
62.5°	1626.9	1717.0	1800.8	1952.0	2003.7	2052.1	2088.4	2117.1	2134.5	2152.2	2160.5
63°	1628.9	1727.6	1816.8	1972.7	2027.0	2073.1	2107.6	2134.2	2152.5	2163.2	2168.5
65°	1579.0	1698.6	1805.0	1960.3	2011.4	2057.7	2075.8	2093.2	2102.0	2106.2	2090.5
67.5°	1338.4	1455.3	1579.3	1753.0	1796.7	1852.2	1867.0	1875.8	1880.0	1879.1	1865.8
70°	1000.8	1098.9	1236.8	1435.2	1493.1	1547.4	1581.1	1595.6	1600.3	1598.8	1579.0
72.5°	698.7	756.3	870.0	1090.9	1169.7	1239.4	1281.1	1302.6	1307.1	1298.2	1279.9
75°	586.8	589.8	615.4	736.2	810.1	884.5	931.4	945.0	936.1	909.3	862.6
77.5°	523.9	530.4	530.4	548.4	562.9	583.5	588.0	554.9	516.5	466.9	426.7
80°	439.4	462.2	478.1	491.4	492.9	488.8	477.8	459.2	429.7	391.9	349.9
82.5°	267.0	311.9	330.2	398.7	432.3	455.1	453.3	428.5	406.1	366.8	331.1
85°	67.3	72.6	78.8	102.5	114.9	140.3	156.2	163.6	166.3	152.7	138.2
87.5°	6.5	4.4	7.4	5.6	8.0	5.9	8.0	7.4	9.2	9.7	10.6
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):

	72°	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°
0°	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3
2.5°	68.8	68.5	68.2	67.9	67.6	67.3	66.7	66.7	66.1	65.9	65.6
5°	76.5	75.9	75.6	75.0	74.1	73.5	72.6	71.5	70.6	70.3	69.7
7.5°	86.2	84.8	84.2	83.3	82.1	80.3	79.2	78.3	76.8	75.9	74.1
10°	97.2	95.7	93.9	92.1	90.4	88.3	86.8	85.6	83.3	82.1	80.0
12.5°	111.0	108.4	106.3	104.0	101.6	99.2	97.5	93.9	91.8	89.2	87.4
15°	125.2	122.8	120.5	117.5	114.0	110.2	108.4	105.1	102.5	98.3	96.0
17.5°	142.3	137.9	134.4	130.8	127.6	124.0	120.5	115.5	111.6	108.1	103.4
20°	159.2	153.9	150.0	145.3	140.6	135.0	130.8	127.3	122.0	117.2	112.2
22.5°	177.2	171.9	165.7	161.0	154.4	150.0	144.4	138.5	133.2	127.0	120.8
25°	199.0	193.4	186.3	180.1	172.8	166.6	159.8	153.0	146.5	139.4	131.4
27.5°	225.9	220.0	212.3	205.0	195.2	187.5	181.0	171.9	163.6	154.7	145.6
30°	259.9	253.4	243.9	233.3	223.6	215.0	205.8	193.7	184.6	173.9	162.1
32.5°	304.2	296.5	283.8	273.7	261.7	250.4	237.7	225.6	212.6	198.7	185.2
35°	360.0	352.9	338.1	323.4	310.1	296.8	280.8	267.0	248.7	231.8	214.4
37.5°	417.9	405.2	391.6	375.6	359.1	343.1	323.7	304.5	283.5	265.2	243.3
40°	484.0	468.7	457.4	440.3	417.0	394.2	376.2	352.3	326.0	301.5	275.8
42.5°	574.7	557.5	537.5	511.5	494.7	468.1	444.7	416.4	381.8	354.4	323.4
45°	679.5	656.2	636.7	611.6	591.2	558.1	531.0	493.2	458.6	422.6	384.8
47.5°	799.1	770.2	741.8	717.0	684.5	652.1	617.5	577.3	533.0	493.5	448.6
50°	936.4	895.4	856.1	824.2	779.6	742.1	704.6	659.4	610.4	564.9	513.9
52.5°	1089.1	1041.6	989.6	940.6	888.9	840.8	795.6	743.6	689.0	633.4	576.5
55°	1273.4	1237.7	1176.5	1114.2	1045.1	980.7	922.6	858.2	791.7	718.8	658.8
57.5°	1561.9	1544.5	1493.4	1431.1	1341.0	1262.8	1164.1	1085.3	989.0	888.6	811.2
60°	1952.9	1931.4	1902.7	1852.2	1780.7	1674.4	1565.8	1443.2	1296.7	1157.6	1025.6
62.5°	2161.4	2153.7	2130.4	2095.5	2028.8	1944.9	1835.4	1700.7	1535.3	1366.4	1198.1
63°	2167.6	2157.9	2137.8	2102.3	2043.6	1962.4	1854.9	1724.0	1562.2	1390.0	1218.2
65°	2083.7	2079.9	2059.5	2020.8	1980.7	1918.7	1835.4	1722.9	1587.0	1424.3	1253.3
67.5°	1848.1	1836.5	1805.3	1793.4	1765.4	1722.3	1658.8	1581.4	1484.2	1356.4	1208.7
70°	1563.1	1546.0	1506.7	1485.7	1451.5	1424.3	1385.6	1330.4	1270.4	1181.3	1071.1
72.5°	1261.0	1225.6	1189.5	1134.9	1087.1	1038.6	995.8	956.8	891.0	854.9	771.4
75°	818.9	754.5	692.8	610.1	535.7	469.8	405.8	373.3	305.6	278.2	238.9
77.5°	388.6	352.6	304.2	266.7	218.8	178.7	145.9	109.6	85.9	67.3	51.4
80°	313.6	283.2	254.0	220.0	184.0	146.8	112.5	84.2	59.7	41.3	29.2
82.5°	279.7	246.6	210.6	187.2	162.7	133.2	109.3	89.2	65.9	48.1	32.8
85°	108.7	91.6	70.6	57.6	44.9	36.9	33.4	23.0	18.0	14.2	10.9
87.5°	9.4	7.7	6.2	4.1	4.4	2.4	2.6	1.8	1.5	1.5	1.2
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):

	83°	84°	85°	86°	87°	88°	89°	90°	95°	105°	115°
0°	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3
2.5°	65.3	65.0	64.7	64.1	64.1	63.5	63.2	62.9	61.4	58.2	55.5
5°	68.5	67.9	67.3	66.4	65.9	65.0	64.4	63.5	60.2	54.0	48.7
7.5°	73.2	72.1	71.2	69.4	68.5	67.3	66.4	65.0	59.7	50.2	42.8
10°	78.8	76.8	75.3	73.2	71.5	70.0	68.5	66.4	59.1	46.1	37.5
12.5°	85.6	83.3	80.3	78.0	75.6	73.5	71.5	68.8	58.2	42.5	33.4
15°	92.4	88.9	86.8	83.6	80.3	77.4	74.4	72.1	58.5	38.7	29.8
17.5°	100.1	96.6	92.1	88.6	85.1	81.2	77.7	72.9	57.0	35.7	27.2
20°	107.5	102.5	98.3	93.9	88.9	84.2	79.7	75.6	55.8	32.8	24.8
22.5°	115.5	109.6	104.2	98.6	92.4	87.1	81.8	76.5	53.7	30.1	22.7
25°	125.2	118.4	110.7	104.0	97.5	91.0	84.2	77.7	51.7	27.8	21.3
27.5°	137.0	128.2	120.5	111.9	102.8	94.5	87.1	80.0	49.6	26.0	19.8
30°	152.1	141.8	130.8	119.9	110.2	100.7	90.4	81.5	47.5	24.2	18.3
32.5°	172.2	159.2	145.9	133.2	120.2	108.1	97.2	85.6	46.4	22.7	16.8
35°	198.7	181.9	165.7	149.7	134.1	119.3	105.1	92.1	46.4	21.0	15.1
37.5°	223.8	204.4	183.7	163.9	145.3	128.2	111.3	95.7	44.0	19.5	13.6
40°	251.0	227.7	203.5	180.1	157.7	136.4	117.2	99.2	41.9	17.7	12.1
42.5°	292.7	263.1	231.5	204.4	177.5	151.2	127.3	106.0	39.3	15.9	10.6
45°	347.3	309.8	272.6	239.5	205.2	173.1	144.7	118.4	38.7	14.5	9.2
47.5°	405.8	361.5	317.8	275.5	235.4	197.9	163.9	132.3	38.7	13.0	8.0
50°	463.9	408.4	361.8	312.7	267.6	223.3	182.8	146.8	39.0	11.8	6.5
52.5°	516.5	457.2	404.9	348.2	298.3	246.9	202.9	161.0	38.4	10.3	5.3
55°	589.4	519.8	459.2	396.6	338.1	280.3	230.3	182.2	38.7	9.2	4.4
57.5°	723.8	642.0	569.1	487.0	419.6	344.9	284.4	225.9	42.2	7.7	3.3
60°	916.7	810.3	707.9	607.8	522.1	433.2	354.7	285.9	49.6	6.2	2.4
62.5°	1046.3	907.2	785.0	674.5	575.0	482.0	396.3	318.0	54.6	5.0	1.5
63°	1059.6	915.8	792.9	678.9	577.3	484.3	398.1	320.4	54.9	4.7	1.5
65°	1084.7	930.5	797.4	679.8	575.0	481.1	396.9	320.1	55.5	3.8	1.2
67.5°	1056.0	907.8	771.7	654.4	554.3	461.9	382.1	308.3	55.2	2.6	0.9
70°	944.4	821.6	702.0	592.7	501.7	418.2	347.9	281.1	50.8	1.8	0.6
72.5°	693.4	609.8	517.1	438.2	378.0	313.9	267.8	211.1	39.3	1.2	0.3
75°	205.5	187.2	157.4	138.8	122.6	101.3	90.1	70.3	20.1	0.6	0.0
77.5°	41.0	37.2	33.4	30.4	28.6	24.5	23.3	19.2	8.3	0.3	0.0
80°	21.6	17.7	15.1	13.3	11.5	9.4	8.0	6.5	1.5	0.0	0.0
82.5°	20.7	13.9	10.0	8.3	7.1	5.6	4.4	3.3	0.9	0.0	0.0
85°	7.7	5.9	4.4	3.5	3.0	2.6	2.1	1.8	0.0	0.0	0.0
87.5°	1.2	0.9	0.9	0.6	0.6	0.3	0.3	0.3	0.0	0.0	0.0
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):

	125°	135°	145°	155°	165°	175°	180°
0°	62.3	62.3	62.3	62.3	62.3	62.3	62.3
2.5°	52.9	50.5	49.3	47.8	47.8	47.5	48.1
5°	44.0	40.8	38.4	36.6	36.9	36.0	36.3
7.5°	37.2	34.0	31.9	30.7	30.4	30.1	30.1
10°	32.2	29.2	27.5	26.6	26.3	26.3	26.3
12.5°	28.6	25.7	24.2	23.6	23.6	23.3	23.3
15°	25.7	23.3	21.8	21.3	21.3	21.0	21.3
17.5°	23.3	21.0	19.8	19.2	19.2	18.9	18.9
20°	21.3	19.2	18.0	17.1	17.1	16.8	17.1
22.5°	19.5	17.4	15.9	15.4	15.1	14.8	15.1
25°	17.7	15.7	14.2	13.3	13.0	13.0	12.7
27.5°	16.2	14.2	12.4	11.5	11.2	11.2	10.9
30°	14.8	12.4	10.6	9.7	9.4	9.4	9.4
32.5°	13.3	10.6	9.2	8.3	8.0	8.0	8.0
35°	11.8	9.2	7.7	6.8	6.5	6.5	6.5
37.5°	10.0	7.7	5.9	5.3	5.0	4.7	4.7
40°	8.6	5.9	4.4	3.8	3.3	3.3	3.3
42.5°	7.1	4.7	3.3	2.4	2.1	1.8	2.1
45°	5.9	3.5	2.1	1.2	0.9	0.9	0.9
47.5°	4.7	2.4	0.9	0.3	0.3	0.3	0.3
50°	3.5	1.5	0.3	0.0	0.0	0.3	0.3
52.5°	2.6	0.9	0.0	0.0	0.0	0.0	0.0
55°	1.5	0.3	0.0	0.0	0.0	0.0	0.0
57.5°	0.9	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.6	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.3	0.0	0.0	0.0	0.0	0.0	0.0
63°	0.3	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.3	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)