

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: P163227

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P163227
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-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) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1778.5 lumens
Efficiency: N/A
Efficacy: 72.0 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

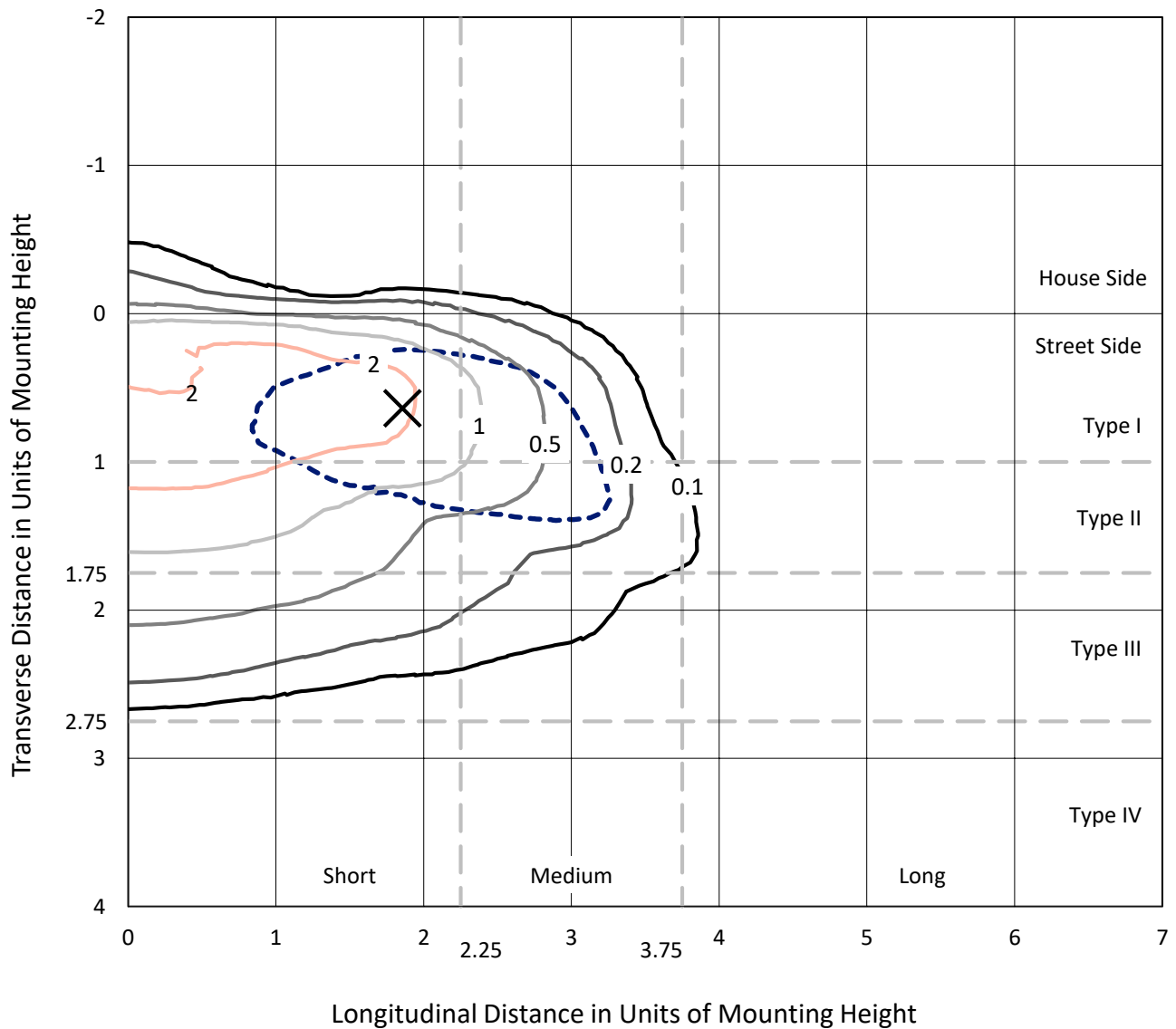
Input Watts (W): 24.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

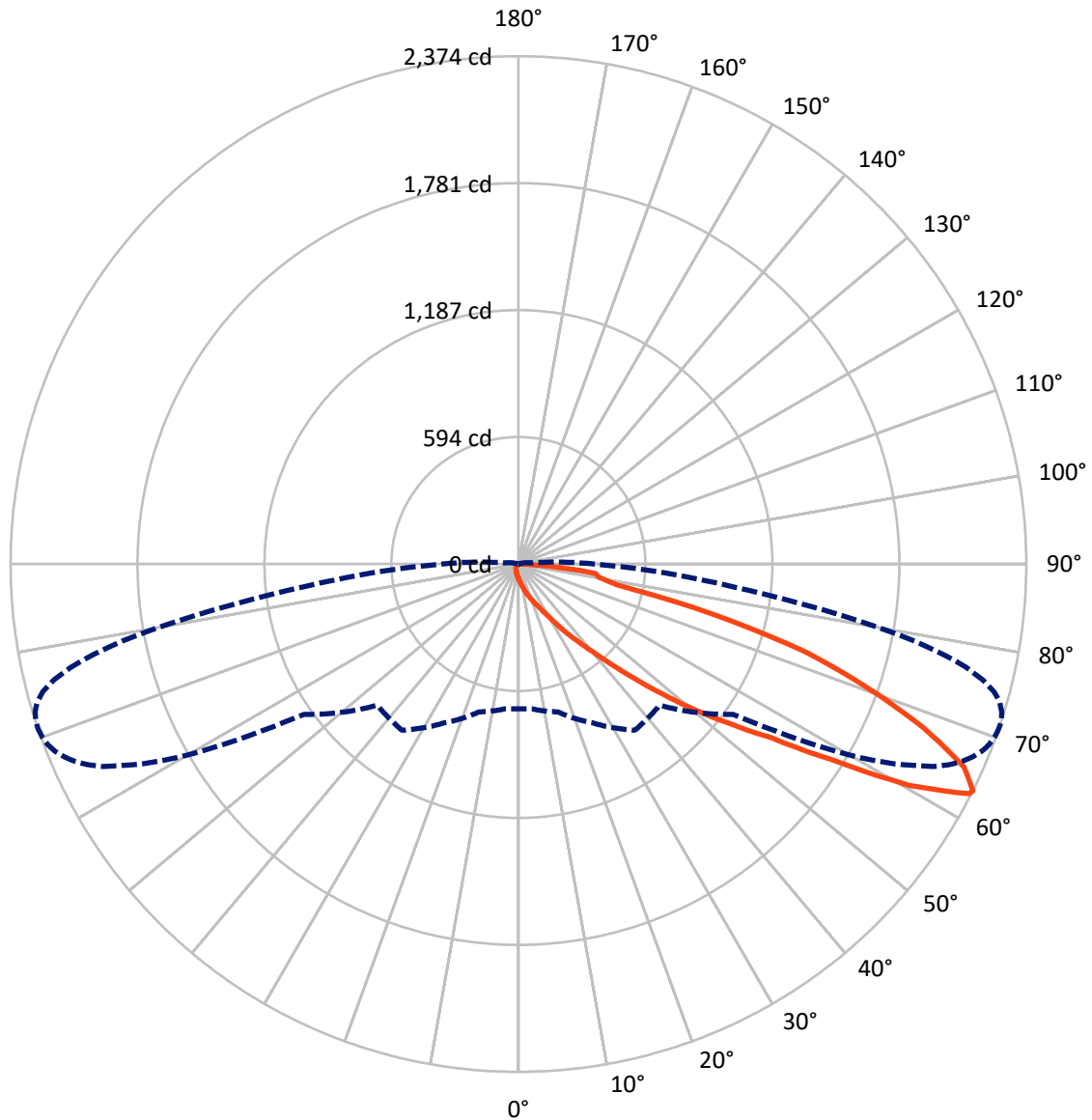
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.7 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	37.8	0.0	37.8
	% Fixture	2.1	0.0	2.1
Street Side	Lumens	1740.8	0.0	1740.8
	% Fixture	97.9	0.0	97.9
Total	Lumens	1778.5	0.0	1778.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	7.5	0.4
10°-20°	29.2	1.6
20°-30°	59.4	3.3
30°-40°	145.1	8.2
40°-50°	324.6	18.2
50°-60°	456.4	25.7
60°-70°	536.6	30.2
70°-80°	193.8	10.9
80°-90°	25.9	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°	1778.5	100.0
0°-180°	1778.5	100.0



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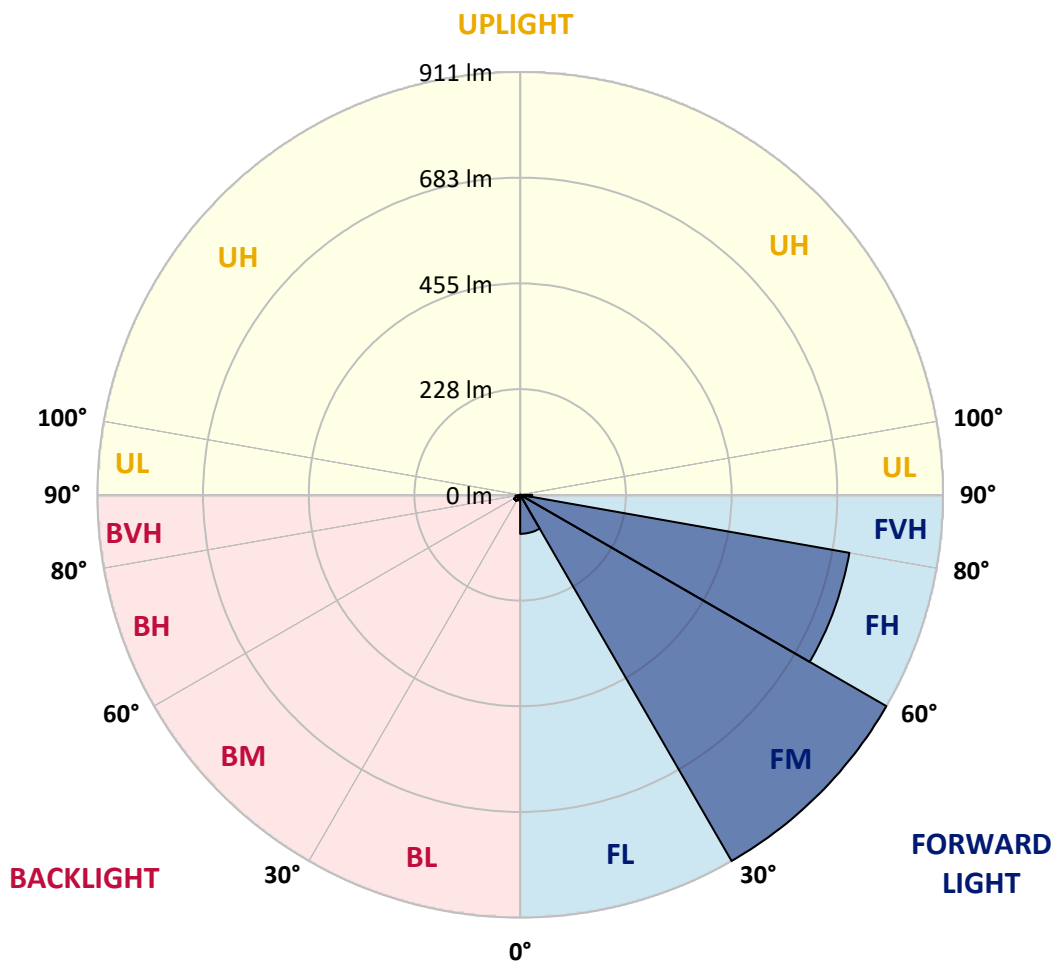
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	84.0	4.7			
FM (30°-60°)	910.8	51.2			
FH (60°-80°)	720.1	40.5			G1/1800
FVH (80°-90°)	25.9	1.5			G1/100
BL (0°-30°)	12.1	0.7	B0/110		
BM (30°-60°)	15.2	0.9	B0/220		
BH (60°-80°)	10.4	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°	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2
2.5°	89.2	90.2	89.6	87.9	86.0	83.4	81.2	81.2	80.8	79.9	80.2
5°	117.0	117.4	116.1	112.2	108.6	103.1	97.0	96.4	95.7	94.7	94.4
7.5°	144.2	145.5	144.2	140.0	132.9	124.5	114.8	113.8	111.9	111.9	110.6
10°	172.0	172.0	170.7	165.9	159.4	147.4	135.2	133.5	131.3	130.6	128.7
12.5°	191.7	191.7	191.1	188.5	183.3	172.7	157.8	156.2	153.3	152.3	150.0
15°	199.5	199.5	199.8	202.1	202.4	197.6	182.0	180.7	177.8	175.2	174.3
17.5°	204.3	204.0	204.0	207.3	213.1	216.3	206.3	205.0	201.8	200.5	197.2
20°	215.0	214.4	212.4	212.4	217.9	229.2	229.2	228.9	225.4	224.4	222.8
22.5°	230.9	230.2	224.4	219.5	222.1	236.4	249.6	249.0	247.7	246.4	245.4
25°	256.7	254.5	244.4	230.2	227.9	243.1	265.1	266.7	267.7	267.7	268.4
27.5°	295.8	292.9	275.2	248.6	238.6	254.1	282.3	285.5	288.4	289.1	292.0
30°	350.2	345.0	319.5	280.7	257.7	270.3	307.5	311.0	315.2	316.5	321.1
32.5°	439.4	436.5	411.9	353.7	304.6	302.0	342.7	347.3	352.8	355.0	360.5
35°	575.2	575.9	555.8	503.4	435.5	400.0	405.8	409.7	411.6	418.4	421.3
37.5°	667.4	669.0	673.5	652.8	604.3	568.1	522.5	526.7	516.7	517.7	518.0
40°	717.8	723.0	749.5	769.5	765.6	744.6	708.1	710.4	691.6	687.4	667.0
42.5°	751.4	758.2	800.6	862.6	894.3	913.4	905.0	904.0	889.5	884.0	866.8
45°	772.4	778.6	831.9	923.4	996.5	1052.1	1075.1	1077.7	1065.4	1059.9	1045.6
47.5°	771.5	778.6	835.8	946.1	1053.7	1142.6	1207.3	1210.5	1218.0	1213.1	1214.1
50°	728.8	735.6	793.1	907.6	1036.9	1184.0	1302.4	1312.7	1324.7	1332.8	1336.6
52.5°	677.1	681.9	733.0	841.6	965.1	1166.9	1358.6	1376.4	1394.2	1409.4	1420.1
55°	658.0	663.5	703.6	793.8	907.6	1095.1	1384.8	1411.0	1436.2	1461.1	1481.5
57.5°	668.0	673.2	701.9	771.1	873.3	1019.5	1392.3	1433.0	1474.4	1514.8	1554.9
60°	704.9	710.4	734.9	792.2	864.3	975.8	1363.2	1430.7	1499.6	1570.1	1636.4
62.5°	690.3	692.6	728.8	829.0	928.9	938.6	1257.4	1351.8	1456.9	1565.6	1672.6
63°	676.4	679.0	715.9	819.0	948.7	933.1	1224.8	1324.4	1435.3	1552.3	1668.7
65°	613.4	613.7	641.8	723.3	926.7	942.8	1079.3	1174.3	1301.7	1442.1	1589.2
67.5°	457.8	455.6	482.7	544.8	727.5	943.2	926.3	979.7	1068.3	1192.8	1324.7
70°	162.3	158.8	202.7	288.7	453.3	771.5	796.0	799.6	824.2	891.4	974.2
72.5°	52.7	53.7	64.7	105.7	208.9	519.3	720.7	709.7	703.2	702.9	713.9
75°	21.0	21.3	25.9	46.9	93.8	250.3	631.1	637.3	639.5	642.8	646.3
77.5°	10.0	11.0	14.5	26.2	46.6	123.8	451.7	503.7	533.5	556.5	570.4
80°	3.6	4.2	8.1	16.2	21.7	56.9	238.0	287.1	330.8	387.0	435.5
82.5°	0.0	0.0	1.6	11.3	12.0	23.0	97.6	114.5	130.9	169.7	217.9
85°	0.0	0.0	0.0	3.2	3.6	3.9	33.0	39.8	44.6	52.1	60.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.0	1.9	4.8	7.4
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):

	60°	61°	62°	64°	65°	66°	67°	68°	69°	70°	71°
0°	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2
2.5°	79.5	79.2	79.2	78.6	78.2	77.6	77.3	76.3	76.0	76.0	76.0
5°	94.1	92.8	92.1	90.5	89.6	89.2	87.6	87.0	86.0	86.3	84.7
7.5°	110.3	108.0	107.0	104.8	104.1	101.8	101.2	99.6	98.6	96.7	96.0
10°	128.0	125.1	123.5	120.0	119.0	117.4	115.4	113.5	111.9	109.9	109.0
12.5°	148.4	145.8	144.5	139.7	137.4	135.2	132.6	130.0	127.4	125.8	123.5
15°	172.3	168.1	166.8	162.3	158.4	155.5	152.0	148.7	146.8	143.6	141.3
17.5°	195.9	191.7	190.8	184.0	179.8	177.8	174.0	169.7	166.2	163.0	159.4
20°	219.5	216.6	214.0	207.6	203.1	199.8	194.6	190.4	187.5	183.0	178.5
22.5°	243.1	240.2	238.3	231.5	227.3	222.8	218.2	213.7	209.5	204.0	198.8
25°	267.4	265.5	264.5	258.3	254.5	250.3	245.7	240.6	235.4	229.2	223.7
27.5°	292.6	293.3	291.3	290.0	285.8	282.9	275.8	272.2	268.4	260.9	254.1
30°	324.6	326.6	325.9	326.9	324.3	322.4	316.9	312.3	307.8	300.7	292.9
32.5°	365.0	367.6	368.9	372.5	371.2	370.5	368.9	362.5	359.2	346.9	343.7
35°	427.4	426.1	431.6	434.6	433.3	432.6	430.7	427.1	423.2	414.5	406.4
37.5°	508.6	509.9	511.8	506.0	502.1	501.8	496.0	492.4	486.9	477.2	467.5
40°	657.3	649.2	640.2	615.6	605.0	598.8	581.7	576.8	567.4	554.2	544.2
42.5°	850.7	842.6	815.4	774.4	752.4	722.0	708.1	691.0	677.7	656.0	644.4
45°	1042.7	1019.5	1016.2	968.4	941.2	901.1	876.2	847.4	817.4	788.9	768.2
47.5°	1204.7	1199.6	1183.7	1154.6	1129.4	1095.8	1063.8	1019.5	988.4	948.0	910.8
50°	1334.4	1334.1	1328.2	1311.4	1290.4	1263.3	1235.1	1197.6	1162.4	1112.9	1073.1
52.5°	1431.4	1436.6	1438.5	1433.3	1425.2	1401.3	1387.1	1355.7	1326.0	1283.9	1240.9
55°	1502.5	1521.6	1531.3	1542.3	1540.0	1531.6	1531.0	1510.6	1497.0	1463.7	1433.3
57.5°	1590.5	1621.8	1651.9	1705.2	1707.2	1725.9	1735.6	1745.3	1747.9	1734.7	1724.6
60°	1702.3	1766.4	1823.3	1934.8	1963.9	2009.8	2039.6	2071.9	2099.4	2101.6	2101.0
62.5°	1781.2	1879.8	1971.7	2137.2	2193.8	2246.8	2286.6	2318.0	2337.0	2356.4	2365.5
63°	1783.5	1891.5	1989.1	2159.8	2219.3	2269.8	2307.6	2336.7	2356.8	2368.4	2374.2
65°	1728.8	1859.8	1976.2	2146.3	2202.2	2253.0	2272.7	2291.8	2301.5	2306.0	2288.9
67.5°	1465.3	1593.4	1729.2	1919.3	1967.1	2027.9	2044.1	2053.8	2058.3	2057.3	2042.8
70°	1095.8	1203.1	1354.1	1571.4	1634.8	1694.2	1731.1	1747.0	1752.1	1750.5	1728.8
72.5°	765.0	828.0	952.5	1194.4	1280.7	1357.0	1402.6	1426.2	1431.1	1421.4	1401.3
75°	642.5	645.7	673.8	806.1	886.9	968.4	1019.8	1034.7	1025.0	995.5	944.4
77.5°	573.6	580.7	580.7	600.4	616.3	638.9	643.8	607.5	565.5	511.2	467.2
80°	481.1	506.0	523.5	538.0	539.6	535.1	523.1	502.8	470.4	429.1	383.1
82.5°	292.3	341.4	361.5	436.5	473.4	498.3	496.3	469.2	444.6	401.6	362.5
85°	73.7	79.5	86.3	112.2	125.8	153.6	171.0	179.1	182.0	167.2	151.3
87.5°	7.1	4.8	8.1	6.1	8.7	6.5	8.7	8.1	10.0	10.7	11.6
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°	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2
2.5°	75.3	75.0	74.7	74.4	74.0	73.7	73.1	73.1	72.4	72.1	71.8
5°	83.7	83.1	82.8	82.1	81.2	80.5	79.5	78.2	77.3	77.0	76.3
7.5°	94.4	92.8	92.1	91.2	89.9	87.9	86.7	85.7	84.1	83.1	81.2
10°	106.4	104.8	102.8	100.9	98.9	96.7	95.1	93.8	91.2	89.9	87.6
12.5°	121.6	118.7	116.4	113.8	111.2	108.6	106.7	102.8	100.6	97.6	95.7
15°	137.1	134.5	131.9	128.7	124.8	120.6	118.7	115.1	112.2	107.7	105.1
17.5°	155.8	151.0	147.1	143.2	139.7	135.8	131.9	126.4	122.2	118.3	113.2
20°	174.3	168.5	164.3	159.1	153.9	147.8	143.2	139.4	133.5	128.4	122.9
22.5°	194.0	188.2	181.4	176.2	169.1	164.3	158.1	151.6	145.8	139.0	132.2
25°	217.9	211.8	204.0	197.2	189.1	182.4	174.9	167.5	160.4	152.6	143.9
27.5°	247.3	240.9	232.5	224.4	213.7	205.3	198.2	188.2	179.1	169.4	159.4
30°	284.5	277.4	267.1	255.4	244.8	235.4	225.4	212.1	202.1	190.4	177.5
32.5°	333.0	324.6	310.7	299.7	286.5	274.2	260.3	247.0	232.8	217.6	202.7
35°	394.1	386.4	370.2	354.0	339.5	324.9	307.5	292.3	272.2	253.8	234.7
37.5°	457.5	443.6	428.7	411.3	393.2	375.7	354.4	333.4	310.4	290.4	266.4
40°	529.9	513.1	500.8	482.1	456.5	431.6	411.9	385.7	357.0	330.1	302.0
42.5°	629.2	610.4	588.5	560.0	541.6	512.5	486.9	455.9	418.1	388.0	354.0
45°	744.0	718.4	697.1	669.6	647.3	611.1	581.3	540.0	502.1	462.7	421.3
47.5°	874.9	843.2	812.2	785.0	749.5	713.9	676.1	632.1	583.6	540.3	491.1
50°	1025.3	980.3	937.3	902.4	853.6	812.5	771.5	722.0	668.3	618.5	562.6
52.5°	1192.4	1140.4	1083.5	1029.8	973.2	920.5	871.1	814.1	754.3	693.5	631.1
55°	1394.2	1355.1	1288.1	1219.9	1144.3	1073.8	1010.1	939.6	866.8	787.0	721.3
57.5°	1710.1	1691.0	1635.1	1566.9	1468.2	1382.6	1274.6	1188.2	1082.8	972.9	888.2
60°	2138.2	2114.6	2083.2	2027.9	1949.7	1833.3	1714.3	1580.1	1419.7	1267.5	1122.9
62.5°	2366.5	2358.0	2332.5	2294.3	2221.3	2129.5	2009.5	1862.1	1681.0	1496.0	1311.7
63°	2373.2	2362.6	2340.6	2301.8	2237.4	2148.5	2030.8	1887.6	1710.4	1521.9	1333.7
65°	2281.4	2277.2	2254.9	2212.5	2168.6	2100.7	2009.5	1886.3	1737.6	1559.4	1372.2
67.5°	2023.4	2010.8	1976.5	1963.6	1932.9	1885.7	1816.1	1731.4	1625.1	1485.1	1323.4
70°	1711.4	1692.6	1649.6	1626.7	1589.2	1559.4	1517.1	1456.6	1391.0	1293.3	1172.7
72.5°	1380.6	1341.8	1302.4	1242.6	1190.2	1137.2	1090.3	1047.6	975.5	936.0	844.5
75°	896.6	826.1	758.5	668.0	586.5	514.4	444.3	408.7	334.6	304.6	261.6
77.5°	425.5	386.1	333.0	292.0	239.6	195.6	159.7	120.0	94.1	73.7	56.3
80°	343.4	310.1	278.1	240.9	201.4	160.7	123.2	92.1	65.3	45.3	32.0
82.5°	306.2	270.0	230.5	205.0	178.2	145.8	119.6	97.6	72.1	52.7	35.9
85°	119.0	100.2	77.3	63.0	49.1	40.4	36.5	25.2	19.7	15.5	12.0
87.5°	10.3	8.4	6.8	4.5	4.8	2.6	2.9	1.9	1.6	1.6	1.3
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°	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2
2.5°	71.5	71.1	70.8	70.2	70.2	69.5	69.2	68.9	67.3	63.7	60.8
5°	75.0	74.4	73.7	72.7	72.1	71.1	70.5	69.5	66.0	59.2	53.3
7.5°	80.2	78.9	77.9	76.0	75.0	73.7	72.7	71.1	65.3	55.0	46.9
10°	86.3	84.1	82.4	80.2	78.2	76.6	75.0	72.7	64.7	50.4	41.1
12.5°	93.8	91.2	87.9	85.4	82.8	80.5	78.2	75.3	63.7	46.6	36.5
15°	101.2	97.3	95.1	91.5	87.9	84.7	81.5	78.9	64.0	42.4	32.7
17.5°	109.6	105.7	100.9	97.0	93.1	88.9	85.0	79.9	62.4	39.1	29.7
20°	117.7	112.2	107.7	102.8	97.3	92.1	87.3	82.8	61.1	35.9	27.2
22.5°	126.4	120.0	114.1	108.0	101.2	95.4	89.6	83.7	58.8	33.0	24.9
25°	137.1	129.7	121.2	113.8	106.7	99.6	92.1	85.0	56.6	30.4	23.3
27.5°	150.0	140.3	131.9	122.5	112.5	103.5	95.4	87.6	54.3	28.5	21.7
30°	166.5	155.2	143.2	131.3	120.6	110.3	98.9	89.2	52.1	26.5	20.0
32.5°	188.5	174.3	159.7	145.8	131.6	118.3	106.4	93.8	50.8	24.9	18.4
35°	217.6	199.2	181.4	163.9	146.8	130.6	115.1	100.9	50.8	23.0	16.5
37.5°	245.1	223.7	201.1	179.4	159.1	140.3	121.9	104.8	48.2	21.3	14.9
40°	274.8	249.3	222.8	197.2	172.7	149.4	128.4	108.6	45.9	19.4	13.3
42.5°	320.4	288.1	253.5	223.7	194.3	165.5	139.4	116.1	43.0	17.5	11.6
45°	380.2	339.2	298.4	262.2	224.7	189.5	158.4	129.7	42.4	15.8	10.0
47.5°	444.3	395.8	347.9	301.7	257.7	216.6	179.4	144.9	42.4	14.2	8.7
50°	508.0	447.2	396.1	342.4	292.9	244.4	200.1	160.7	42.7	12.9	7.1
52.5°	565.5	500.5	443.3	381.2	326.6	270.3	222.1	176.2	42.0	11.3	5.8
55°	645.4	569.1	502.8	434.2	370.2	306.8	252.2	199.5	42.4	10.0	4.8
57.5°	792.5	702.9	623.1	533.2	459.5	377.6	311.4	247.3	46.2	8.4	3.6
60°	1003.6	887.2	775.0	665.4	571.6	474.3	388.3	313.0	54.3	6.8	2.6
62.5°	1145.6	993.3	859.4	738.5	629.5	527.7	433.9	348.2	59.8	5.5	1.6
63°	1160.1	1002.6	868.1	743.3	632.1	530.3	435.8	350.8	60.1	5.2	1.6
65°	1187.6	1018.8	873.0	744.3	629.5	526.7	434.6	350.5	60.8	4.2	1.3
67.5°	1156.2	993.9	844.9	716.5	606.9	505.7	418.4	337.6	60.5	2.9	1.0
70°	1034.0	899.5	768.6	648.9	549.3	457.8	380.9	307.8	55.6	1.9	0.6
72.5°	759.2	667.7	566.2	479.8	413.9	343.7	293.3	231.2	43.0	1.3	0.3
75°	225.0	205.0	172.3	152.0	134.2	110.9	98.6	77.0	22.0	0.6	0.0
77.5°	44.9	40.7	36.5	33.3	31.4	26.8	25.5	21.0	9.1	0.3	0.0
80°	23.6	19.4	16.5	14.5	12.6	10.3	8.7	7.1	1.6	0.0	0.0
82.5°	22.6	15.2	11.0	9.1	7.8	6.1	4.8	3.6	1.0	0.0	0.0
85°	8.4	6.5	4.8	3.9	3.2	2.9	2.3	1.9	0.0	0.0	0.0
87.5°	1.3	1.0	1.0	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°	68.2	68.2	68.2	68.2	68.2	68.2	68.2
2.5°	57.9	55.3	54.0	52.4	52.4	52.1	52.7
5°	48.2	44.6	42.0	40.1	40.4	39.4	39.8
7.5°	40.7	37.2	34.9	33.6	33.3	33.0	33.0
10°	35.2	32.0	30.1	29.1	28.8	28.8	28.8
12.5°	31.4	28.1	26.5	25.9	25.9	25.5	25.5
15°	28.1	25.5	23.9	23.3	23.3	23.0	23.3
17.5°	25.5	23.0	21.7	21.0	21.0	20.7	20.7
20°	23.3	21.0	19.7	18.8	18.8	18.4	18.8
22.5°	21.3	19.1	17.5	16.8	16.5	16.2	16.5
25°	19.4	17.1	15.5	14.5	14.2	14.2	13.9
27.5°	17.8	15.5	13.6	12.6	12.3	12.3	12.0
30°	16.2	13.6	11.6	10.7	10.3	10.3	10.3
32.5°	14.5	11.6	10.0	9.1	8.7	8.7	8.7
35°	12.9	10.0	8.4	7.4	7.1	7.1	7.1
37.5°	11.0	8.4	6.5	5.8	5.5	5.2	5.2
40°	9.4	6.5	4.8	4.2	3.6	3.6	3.6
42.5°	7.8	5.2	3.6	2.6	2.3	1.9	2.3
45°	6.5	3.9	2.3	1.3	1.0	1.0	1.0
47.5°	5.2	2.6	1.0	0.3	0.3	0.3	0.3
50°	3.9	1.6	0.3	0.0	0.0	0.3	0.3
52.5°	2.9	1.0	0.0	0.0	0.0	0.0	0.0
55°	1.6	0.3	0.0	0.0	0.0	0.0	0.0
57.5°	1.0	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)