

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: P163523

Luminaire Tested: **LDRL-SL3-F02-E-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P163523
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33727)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: LDRL-SL3-F02-E-7050-HSS
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (14) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2849.2 lumens
Efficiency: N/A
Efficacy: 51.8 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 1' x H: 0.1')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 55
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

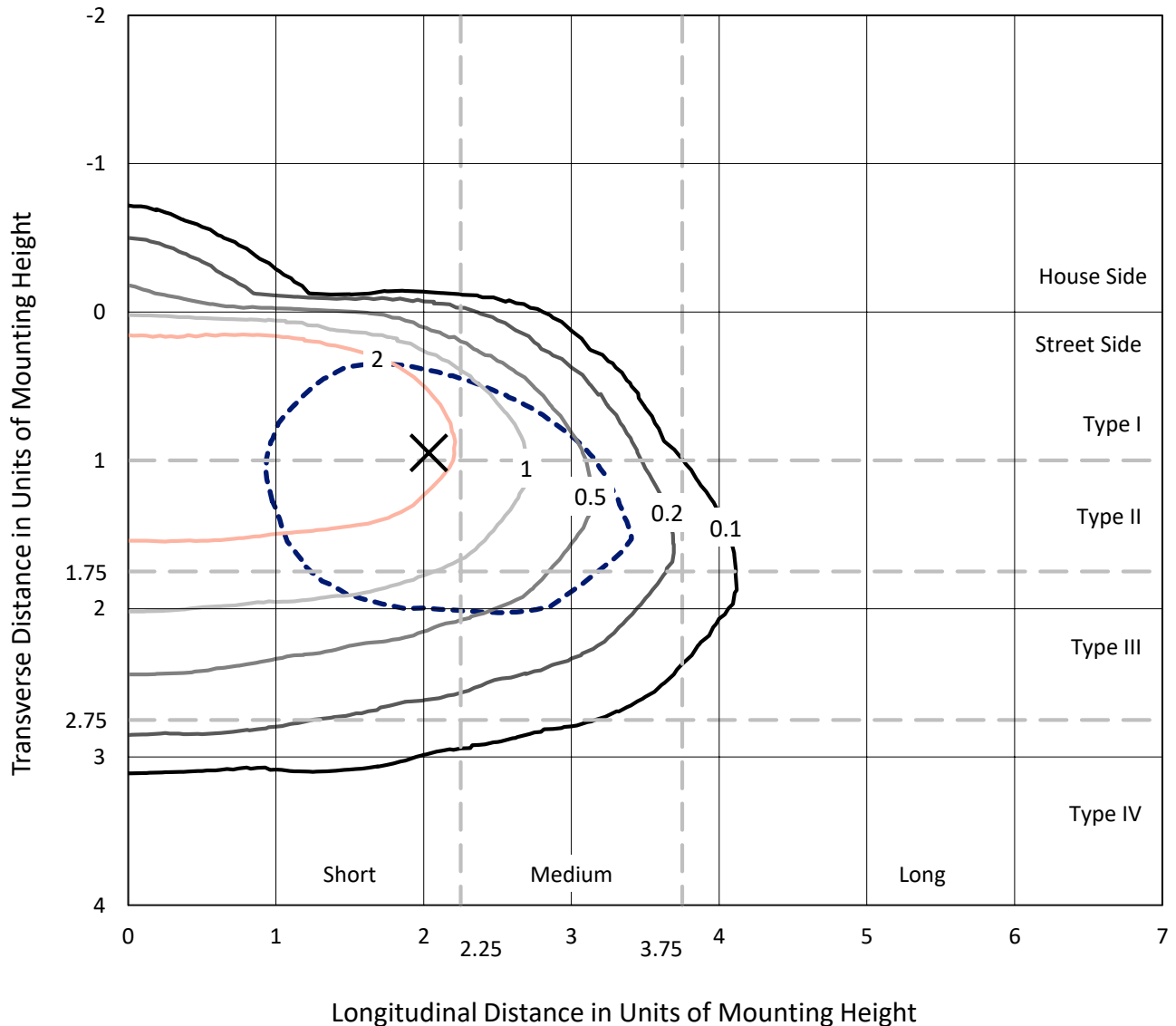


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

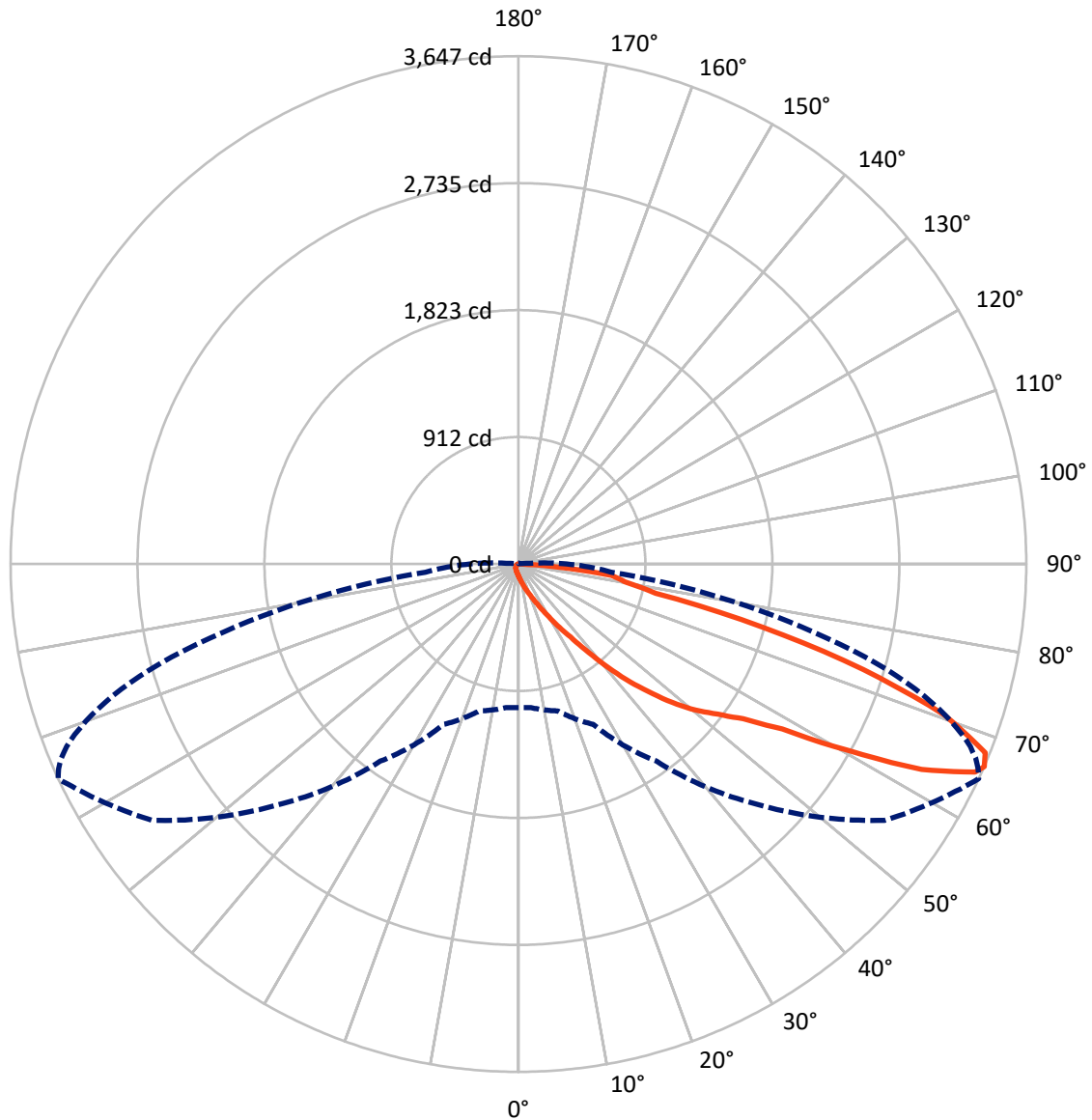


Based on 10 foot mounting height. Maximum calculated value = 4.7 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	61.7	0.0	61.7
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	2787.5	0.0	2787.5
	% Fixture	97.8	0.0	97.8
Total	Lumens	2849.2	0.0	2849.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	9.6	0.3
10°-20°	40.8	1.4
20°-30°	88.0	3.1
30°-40°	188.0	6.6
40°-50°	415.8	14.6
50°-60°	704.7	24.7
60°-70°	940.3	33.0
70°-80°	414.2	14.5
80°-90°	47.7	1.7
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°	2849.2	100.0
0°-180°	2849.2	100.0



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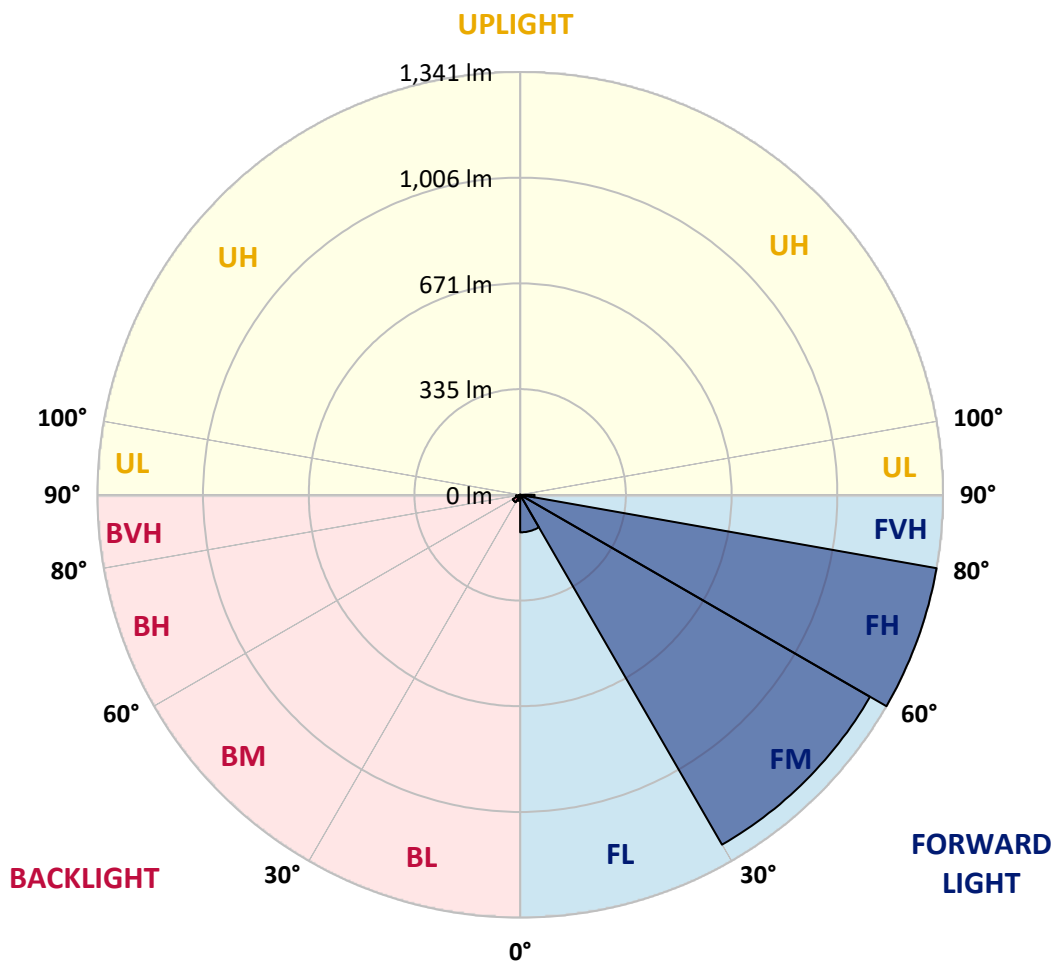
CATALOG NUMBER: LDRL-SL3-F02-E-7050-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	119.0	4.2			
FM	(30°-60°)	1281.4	45.0			
FH	(60°-80°)	1341.3	47.1			G1/1800
FVH	(80°-90°)	45.8	1.6			G1/100
BL	(0°-30°)	19.5	0.7	B0/110		
BM	(30°-60°)	27.1	1.0	B0/220		
BH	(60°-80°)	13.2	0.5	B0/110		G0/110
BVH	(80°-90°)	1.9	0.1			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0
2.5°	108.5	107.9	105.7	105.7	102.4	100.2	97.5	94.8	94.8	94.2	93.7
5°	143.5	140.2	139.7	133.7	128.7	121.6	115.0	106.3	105.2	104.1	103.5
7.5°	182.4	181.9	176.9	169.8	160.0	146.8	133.7	119.4	117.2	116.1	113.9
10°	232.8	230.1	223.5	211.4	196.7	179.1	157.8	135.3	132.6	130.4	129.3
12.5°	281.0	276.1	272.3	256.9	238.3	212.5	186.8	154.5	152.3	149.5	145.2
15°	325.9	321.5	315.0	301.8	281.0	248.7	218.5	179.1	173.7	169.8	166.5
17.5°	361.0	358.2	350.6	335.8	313.3	284.9	248.7	204.3	199.9	195.0	189.0
20°	394.4	390.6	378.5	358.2	334.2	312.2	284.3	237.2	231.1	225.1	218.5
22.5°	426.2	422.3	402.6	369.2	343.4	334.2	324.3	274.4	265.1	260.2	253.6
25°	470.5	462.3	431.6	378.5	344.0	351.1	368.1	322.6	313.9	306.7	296.3
27.5°	530.2	519.3	471.1	392.2	346.2	369.7	418.5	381.3	371.9	363.7	352.2
30°	597.6	590.5	533.0	425.1	362.1	397.1	474.9	455.8	444.8	434.9	421.2
32.5°	665.5	655.7	598.7	487.5	404.8	450.3	545.6	542.3	528.1	518.7	503.9
35°	725.2	720.3	678.1	589.9	502.3	543.4	639.8	643.6	631.0	621.2	604.7
37.5°	765.8	765.8	757.6	700.1	657.3	688.0	778.4	778.9	766.3	743.9	735.7
40°	786.6	792.6	822.2	833.1	831.0	870.4	960.2	950.4	940.0	928.5	901.1
42.5°	829.3	834.8	897.8	973.4	1022.7	1074.7	1136.6	1133.3	1120.7	1099.9	1074.7
45°	901.6	908.7	983.8	1103.7	1205.1	1279.1	1318.5	1303.1	1290.5	1270.8	1257.7
47.5°	993.7	1007.3	1092.3	1240.7	1362.8	1485.0	1526.1	1485.6	1474.6	1459.3	1437.9
50°	1091.7	1104.9	1195.2	1365.0	1503.1	1648.8	1717.3	1648.8	1632.9	1628.0	1603.9
52.5°	1176.6	1187.6	1274.6	1460.9	1610.5	1781.3	1881.1	1790.7	1779.2	1762.7	1745.2
55°	1227.0	1235.8	1317.4	1506.9	1683.3	1900.8	2039.4	1959.9	1943.0	1936.4	1911.2
57.5°	1244.0	1252.8	1326.1	1512.9	1722.7	2009.8	2231.6	2234.3	2214.1	2190.5	2182.9
60°	1244.0	1253.8	1315.7	1498.1	1761.1	2125.9	2488.0	2716.4	2672.6	2668.2	2640.3
62.5°	1192.5	1201.8	1264.2	1452.7	1812.6	2282.6	2845.1	3248.3	3235.7	3207.2	3161.2
65°	1080.8	1086.2	1147.6	1336.5	1792.9	2426.6	3154.6	3602.1	3581.9	3526.0	3466.8
66°	1030.3	1034.8	1092.3	1270.3	1728.2	2446.4	3209.4	3646.5	3613.1	3566.0	3499.2
67.5°	957.5	965.2	1005.7	1147.0	1573.2	2377.9	3174.9	3615.3	3586.2	3529.3	3462.4
70°	639.2	633.8	776.7	880.3	1198.5	1937.5	2848.4	3246.1	3246.6	3219.8	3193.0
72.5°	303.5	306.7	348.4	541.8	784.4	1294.4	2267.2	2591.0	2628.2	2580.0	2546.6
75°	218.0	223.0	248.1	331.4	467.8	776.7	1469.7	1812.0	1813.1	1727.7	1651.5
77.5°	63.5	66.3	93.1	204.3	350.6	524.2	844.1	1007.3	983.8	922.4	864.9
80°	26.3	26.3	27.4	65.2	140.8	356.0	590.5	775.7	772.9	749.4	715.4
82.5°	9.9	10.4	13.1	26.8	33.4	87.7	393.9	673.2	671.6	638.2	614.1
85°	1.1	1.1	3.3	11.5	12.6	16.4	78.9	296.9	295.3	296.9	260.2
87.5°	0.0	0.0	0.5	1.1	1.6	2.2	3.3	11.5	12.6	12.1	10.9
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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0
2.5°	93.7	92.6	92.6	92.0	92.0	92.0	91.5	90.9	90.9	90.4	89.8
5°	102.4	101.3	100.8	99.7	99.1	98.6	97.5	96.9	95.9	95.3	94.8
7.5°	112.8	110.7	110.1	108.5	106.8	105.7	104.6	103.0	101.9	99.7	99.1
10°	126.0	123.2	121.1	118.9	117.2	114.5	112.8	110.7	108.5	106.8	105.2
12.5°	143.0	139.1	135.8	133.7	129.8	126.5	123.2	121.6	117.2	115.0	112.3
15°	161.6	157.2	153.4	149.0	146.2	140.8	136.4	131.5	129.3	125.4	121.1
17.5°	185.7	178.6	172.5	168.2	162.7	157.2	152.3	147.4	140.8	136.4	130.9
20°	211.4	205.4	197.2	189.5	183.0	176.4	169.2	162.7	156.7	149.5	143.0
22.5°	244.3	235.6	225.7	218.0	209.3	202.1	192.3	183.5	173.7	164.3	156.7
25°	285.9	274.4	265.1	254.2	243.8	232.8	220.7	209.8	197.2	188.4	175.3
27.5°	337.4	326.5	313.9	299.6	289.2	272.8	256.9	243.2	228.4	214.7	199.9
30°	403.2	387.3	374.1	360.4	339.6	323.7	305.1	286.5	266.2	252.5	230.1
32.5°	482.1	465.0	445.3	425.6	406.5	384.0	361.0	338.0	315.5	290.3	267.3
35°	578.5	558.2	535.7	514.3	484.8	460.7	431.6	399.9	374.7	345.6	316.6
37.5°	706.1	672.6	652.9	630.5	590.5	557.6	525.3	493.5	449.2	418.5	377.4
40°	866.0	846.3	814.0	777.8	741.7	698.4	654.6	612.4	560.9	518.2	470.5
42.5°	1053.9	1024.9	992.0	940.0	903.3	852.3	802.5	746.6	683.6	628.8	573.0
45°	1230.3	1195.8	1170.6	1118.5	1080.2	1019.9	959.7	900.5	827.7	757.0	692.4
47.5°	1420.9	1392.4	1350.8	1308.6	1269.7	1201.8	1136.6	1064.9	988.2	904.4	820.5
50°	1588.5	1566.1	1537.6	1486.7	1443.4	1386.4	1309.7	1231.4	1134.4	1051.2	955.9
52.5°	1730.9	1713.4	1673.4	1637.3	1598.4	1544.7	1476.2	1401.2	1296.6	1205.1	1096.6
55°	1899.1	1886.5	1851.5	1829.0	1794.5	1743.0	1678.9	1609.3	1498.7	1399.0	1276.3
57.5°	2174.6	2164.8	2134.1	2124.8	2090.9	2045.9	1967.0	1892.5	1763.3	1639.5	1499.3
60°	2630.9	2611.2	2566.3	2543.3	2471.5	2411.3	2308.9	2206.4	2050.3	1892.5	1723.8
62.5°	3119.5	3064.2	2978.8	2905.4	2803.5	2698.9	2561.9	2405.3	2222.3	2035.0	1841.1
65°	3383.0	3288.8	3180.9	3064.2	2932.2	2778.3	2605.7	2417.9	2221.2	2023.5	1818.6
66°	3413.1	3306.9	3192.4	3062.6	2915.8	2752.0	2576.7	2379.5	2175.2	1982.4	1777.5
67.5°	3375.4	3264.2	3143.1	2999.1	2840.2	2670.4	2486.3	2281.4	2084.8	1889.2	1689.9
70°	3110.8	3000.1	2892.2	2740.5	2571.2	2400.3	2226.1	1997.2	1810.9	1631.3	1453.8
72.5°	2484.1	2409.1	2302.3	2172.4	2007.6	1807.1	1661.9	1457.1	1295.5	1121.3	983.8
75°	1552.4	1446.7	1314.7	1149.2	1023.2	860.6	775.7	620.1	528.1	447.5	369.7
77.5°	793.7	714.3	621.7	528.6	439.3	350.6	271.1	191.7	129.3	89.8	66.8
80°	655.7	585.6	508.9	424.0	345.1	267.8	192.8	131.5	83.8	54.8	42.7
82.5°	541.8	482.6	414.1	335.2	266.8	210.3	146.2	95.3	59.2	38.4	30.1
85°	230.6	209.3	161.6	128.2	96.4	71.2	49.8	33.4	23.5	19.2	17.5
87.5°	9.9	10.9	10.4	8.2	6.0	6.0	5.5	4.4	4.4	4.4	4.4
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):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0
2.5°	89.8	89.3	88.7	88.7	88.2	87.7	84.4	81.6	78.3	76.1	73.9
5°	93.7	93.1	92.0	91.5	90.4	89.8	82.7	76.7	71.8	67.9	65.2
7.5°	97.5	96.9	95.3	93.7	93.1	92.0	80.5	72.8	66.3	61.9	59.2
10°	102.4	100.8	99.1	96.9	95.3	93.7	78.3	68.5	61.4	57.5	54.8
12.5°	109.5	106.8	104.1	101.3	99.1	96.4	77.2	64.6	57.5	53.1	50.4
15°	117.8	113.9	110.7	107.4	103.5	100.8	75.1	61.4	54.2	49.8	46.6
17.5°	125.4	121.1	116.1	111.2	107.4	103.5	72.8	58.1	50.9	46.6	43.3
20°	136.4	129.8	123.8	117.8	112.3	107.4	69.6	54.8	48.2	43.3	40.0
22.5°	148.4	140.8	133.1	124.9	117.8	111.2	66.8	52.0	45.5	40.5	36.7
25°	163.8	154.5	144.1	133.7	125.4	116.7	64.1	49.3	42.7	37.8	34.0
27.5°	185.1	172.0	160.5	147.4	134.8	124.9	61.9	47.1	40.0	35.1	31.2
30°	214.2	195.0	176.9	162.7	147.9	133.7	59.7	44.4	37.8	32.3	27.9
32.5°	246.5	224.0	203.2	181.9	163.2	146.8	57.5	42.2	35.1	29.6	25.8
35°	286.5	258.0	230.1	205.4	183.0	161.0	55.3	40.0	32.9	26.8	23.0
37.5°	344.0	308.4	271.7	239.9	210.9	181.9	53.7	37.8	30.1	24.1	20.3
40°	422.9	376.9	332.0	288.7	250.9	214.7	51.5	35.6	27.9	21.9	18.1
42.5°	508.3	452.5	393.3	344.6	292.5	247.0	49.3	33.4	25.8	19.7	15.9
45°	614.6	545.0	473.3	407.0	343.4	284.9	47.1	31.2	23.0	17.5	13.7
47.5°	730.7	642.0	560.9	477.6	402.1	332.0	44.4	29.6	20.8	15.3	12.1
50°	850.1	756.5	654.0	559.3	469.4	379.0	41.6	26.8	18.6	13.7	9.9
52.5°	978.9	868.2	763.6	645.8	541.2	441.0	38.9	24.6	17.0	12.1	8.2
55°	1142.6	1018.9	896.1	764.1	638.2	512.7	36.2	21.9	14.8	10.4	6.6
57.5°	1348.6	1201.8	1051.2	902.2	749.4	606.9	34.0	19.2	12.6	8.8	5.5
60°	1543.1	1371.6	1189.2	1017.7	845.2	679.2	30.7	17.0	10.9	7.1	5.5
62.5°	1643.9	1448.3	1251.6	1062.7	878.6	705.0	27.4	14.2	9.3	6.0	4.9
65°	1619.2	1419.8	1229.2	1038.6	858.4	688.5	24.1	12.6	8.2	5.5	4.9
66°	1583.6	1386.4	1194.7	1013.4	841.4	671.0	22.5	12.1	7.7	5.5	4.4
67.5°	1505.8	1315.2	1132.2	963.5	794.8	637.6	20.3	10.9	7.1	4.9	4.4
70°	1286.2	1113.1	966.8	816.7	679.2	537.4	16.4	9.3	6.0	4.4	4.4
72.5°	851.2	733.5	636.0	547.2	457.4	355.0	13.7	7.7	4.9	4.4	3.8
75°	321.0	290.3	249.2	224.0	195.5	171.4	10.9	4.9	3.8	3.8	3.8
77.5°	57.0	52.6	46.6	42.7	39.4	36.2	8.8	3.3	3.3	3.8	3.8
80°	38.4	35.6	32.3	29.6	27.4	24.6	6.0	2.7	3.3	3.3	3.8
82.5°	27.4	25.8	24.1	21.9	20.3	18.1	3.8	2.7	3.3	3.3	3.3
85°	16.4	15.3	14.2	13.1	11.5	10.9	2.7	2.7	2.7	3.3	3.3
87.5°	4.4	3.8	4.4	4.4	3.3	3.8	2.2	2.2	2.2	2.7	2.7
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):

	145°	155°	165°	175°	180°
0°	86.0	86.0	86.0	86.0	86.0
2.5°	72.8	72.8	71.8	73.4	73.4
5°	63.0	63.0	62.4	63.0	63.0
7.5°	57.5	57.0	57.0	57.0	57.5
10°	52.6	52.0	52.0	52.0	52.0
12.5°	48.2	47.6	47.1	47.6	47.6
15°	44.4	43.3	43.3	43.3	43.3
17.5°	41.1	40.0	39.4	39.4	39.4
20°	37.8	36.2	36.2	36.2	36.2
22.5°	34.5	32.9	32.9	32.9	32.9
25°	31.2	29.6	29.6	29.6	29.6
27.5°	28.5	26.8	26.8	26.8	26.8
30°	25.2	24.1	24.1	24.6	24.1
32.5°	23.0	21.3	21.3	21.9	21.9
35°	20.3	19.2	19.2	19.2	19.2
37.5°	17.5	16.4	16.4	16.4	16.4
40°	15.3	14.2	13.7	14.2	14.2
42.5°	13.1	12.1	11.5	11.5	11.5
45°	11.5	9.9	9.3	9.9	9.9
47.5°	9.3	8.2	8.2	8.8	8.8
50°	7.1	7.1	7.7	8.8	8.8
52.5°	6.6	6.6	7.7	8.8	8.8
55°	6.0	6.6	7.7	8.2	8.8
57.5°	5.5	6.6	7.7	8.2	8.2
60°	5.5	6.0	7.1	8.2	8.2
62.5°	4.9	5.5	6.6	7.7	7.7
65°	4.9	5.5	6.6	7.7	7.7
66°	4.9	5.5	6.6	7.7	7.7
67.5°	4.9	5.5	6.6	7.7	7.7
70°	4.9	5.5	6.6	7.1	7.1
72.5°	4.4	4.9	6.0	7.1	7.1
75°	4.4	4.9	6.0	7.1	7.1
77.5°	4.4	4.9	6.0	7.1	7.1
80°	4.4	4.9	6.0	6.6	7.1
82.5°	3.8	4.9	5.5	6.6	6.6
85°	3.8	4.4	5.5	6.0	6.6
87.5°	3.3	3.8	4.4	5.5	5.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)