

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: P163560

Luminaire Tested: **LDRL-SL3-F06-E-8030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P163560
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-F06-E-8030-HSS
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(6) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (42) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7030.5 lumens
Efficiency: N/A
Efficacy: 44.9 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 1' x H: 0.1')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B0 - U0 - G2

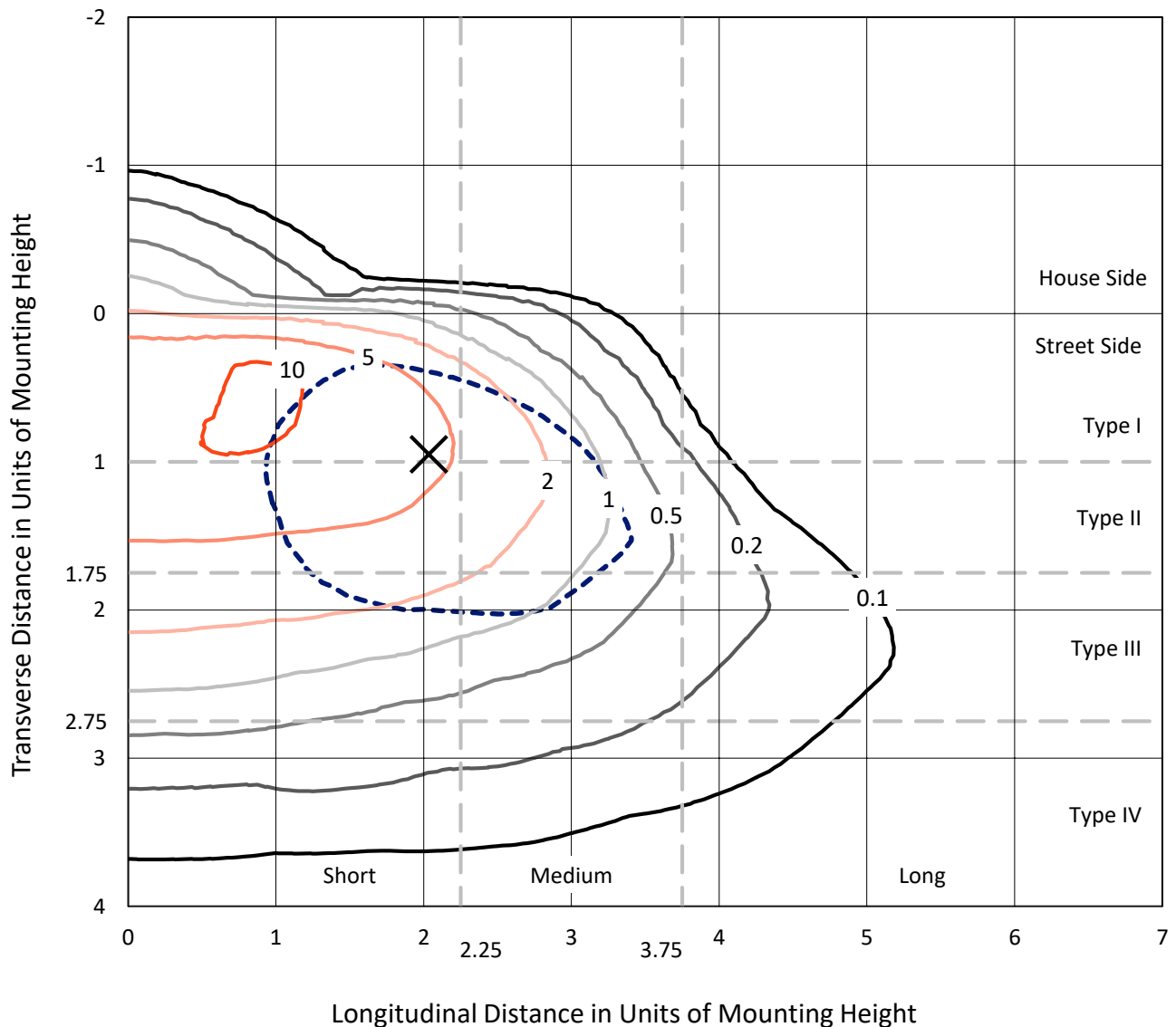
Input Watts (W): 156.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

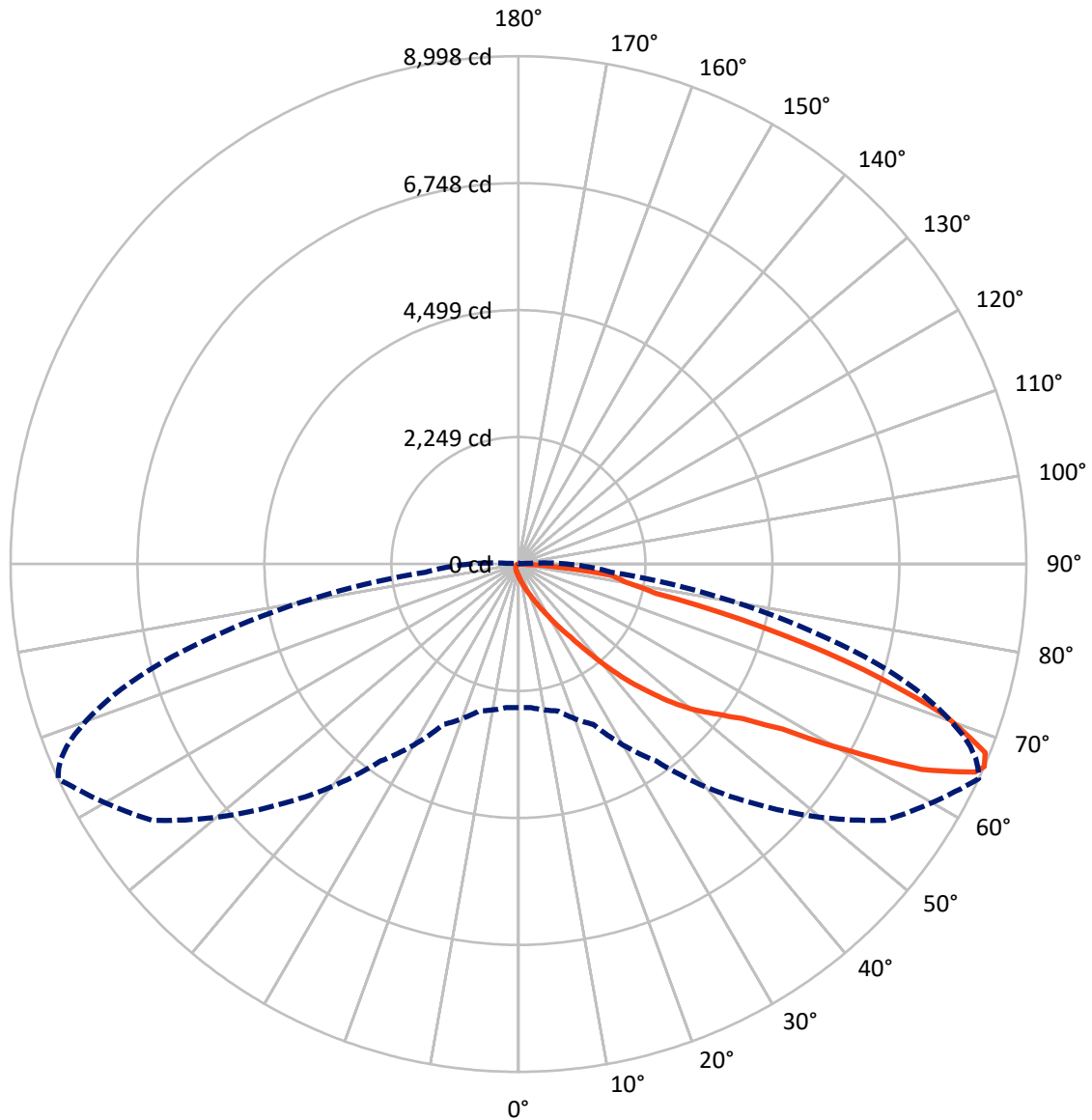
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.6 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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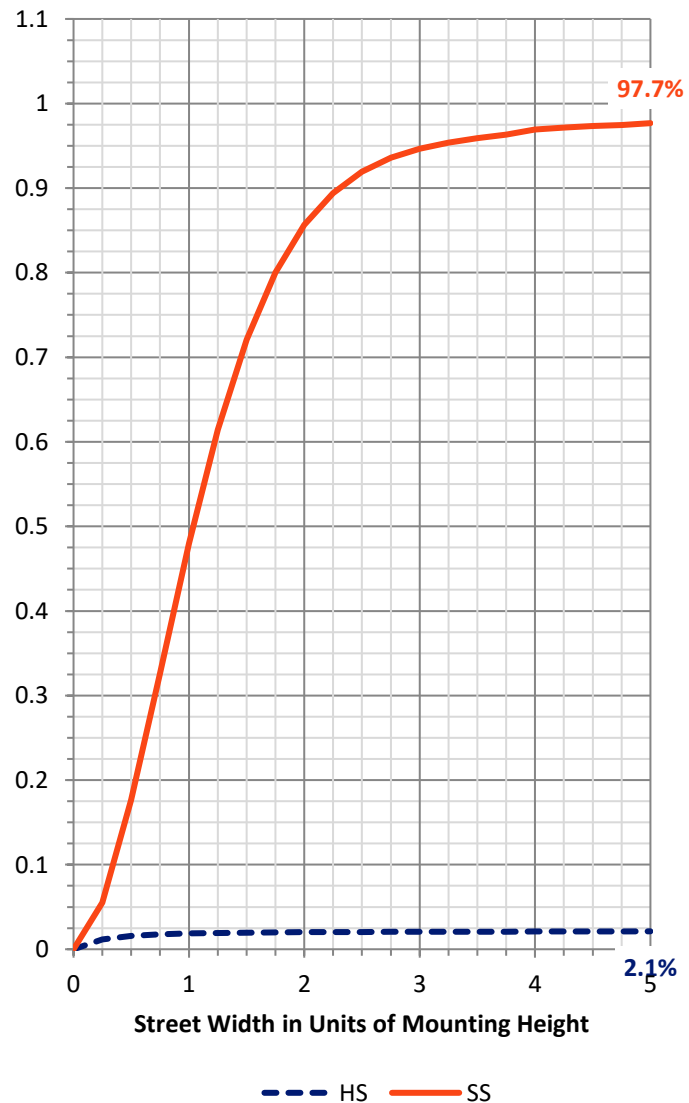
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	152.3	0.0	152.3
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	6878.2	0.0	6878.2
	% Fixture	97.8	0.0	97.8
Total	Lumens	7030.5	0.0	7030.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.8	0.3
10°-20°	100.7	1.4
20°-30°	217.2	3.1
30°-40°	464.0	6.6
40°-50°	1026.0	14.6
50°-60°	1738.8	24.7
60°-70°	2320.3	33.0
70°-80°	1022.0	14.5
80°-90°	117.7	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°	7030.5	100.0
0°-180°	7030.5	100.0



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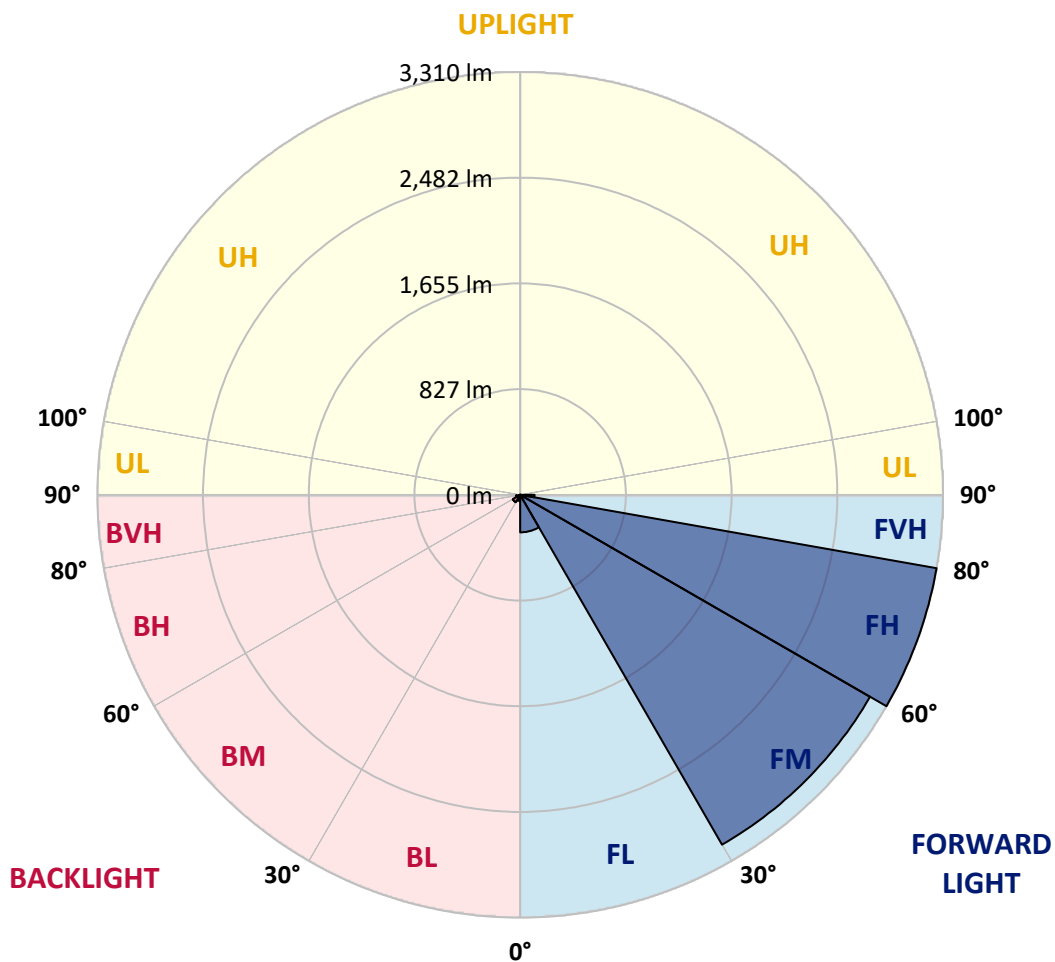
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	293.7	4.2			
FM	(30°-60°)	3161.9	45.0			
FH	(60°-80°)	3309.6	47.1			G2/5000
FVH	(80°-90°)	113.0	1.6			G2/225
BL	(0°-30°)	48.1	0.7	B0/110		
BM	(30°-60°)	66.9	1.0	B0/220		
BH	(60°-80°)	32.7	0.5	B0/110		G0/110
BVH	(80°-90°)	4.7	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-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	212.2	212.2	212.2	212.2	212.2	212.2	212.2	212.2	212.2	212.2	212.2
2.5°	267.6	266.3	260.9	260.9	252.7	247.3	240.6	233.9	233.9	232.5	231.1
5°	354.2	346.1	344.6	329.8	317.6	300.1	283.9	262.2	259.5	256.8	255.4
7.5°	450.1	448.7	436.6	419.0	394.7	362.3	329.8	294.6	289.3	286.5	281.2
10°	574.5	567.7	551.5	521.7	485.3	442.0	389.3	333.8	327.1	321.7	319.0
12.5°	693.4	681.2	671.8	633.9	587.9	524.5	460.9	381.2	375.7	369.0	358.2
15°	804.2	793.4	777.2	744.8	693.4	613.7	539.3	442.0	428.5	419.0	410.9
17.5°	890.8	884.0	865.1	828.6	773.1	702.9	613.7	504.2	493.4	481.2	466.3
20°	973.2	963.8	934.0	884.0	824.5	770.5	701.5	585.3	570.4	555.5	539.3
22.5°	1051.6	1042.1	993.4	911.0	847.5	824.5	800.2	677.1	654.2	642.0	625.8
25°	1161.1	1140.8	1065.1	934.0	848.9	866.4	908.3	796.1	774.5	756.9	731.2
27.5°	1308.4	1281.4	1162.4	967.8	854.2	912.3	1032.6	940.8	917.8	897.5	869.1
30°	1474.7	1457.0	1315.2	1048.9	893.4	980.0	1171.9	1124.6	1097.5	1073.2	1039.4
32.5°	1642.2	1617.9	1477.4	1203.0	998.9	1111.1	1346.3	1338.2	1303.0	1280.0	1243.5
35°	1789.6	1777.4	1673.3	1455.7	1239.5	1340.8	1578.7	1588.2	1557.1	1532.8	1492.2
37.5°	1889.6	1889.6	1869.3	1727.4	1622.0	1697.7	1920.7	1922.1	1891.0	1835.5	1815.3
40°	1941.0	1955.8	2028.8	2055.8	2050.5	2147.8	2369.5	2345.1	2319.5	2291.0	2223.5
42.5°	2046.4	2059.9	2215.4	2401.9	2523.5	2652.0	2804.6	2796.5	2765.5	2714.1	2652.0
45°	2224.8	2242.4	2427.6	2723.5	2973.6	3156.1	3253.4	3215.6	3184.5	3135.8	3103.4
47.5°	2451.9	2485.7	2695.2	3061.5	3362.9	3664.3	3765.7	3665.7	3638.6	3600.8	3548.1
50°	2693.9	2726.3	2949.3	3368.3	3708.9	4068.5	4237.4	4068.5	4029.2	4017.1	3957.7
52.5°	2903.4	2930.4	3145.3	3604.9	3973.9	4395.5	4641.6	4418.5	4390.2	4349.6	4306.3
55°	3027.7	3049.4	3250.7	3718.4	4153.7	4690.3	5032.2	4836.2	4794.3	4778.1	4715.9
57.5°	3069.6	3091.2	3272.3	3733.3	4251.0	4959.2	5506.6	5513.4	5463.4	5405.3	5386.4
60°	3069.6	3093.9	3246.7	3696.7	4345.5	5245.7	6139.2	6702.9	6594.7	6583.9	6515.0
62.5°	2942.5	2965.5	3119.6	3584.6	4472.6	5632.4	7020.5	8015.3	7984.3	7913.9	7800.4
65°	2666.9	2680.3	2831.7	3298.0	4424.0	5987.9	7784.2	8888.5	8838.5	8700.6	8554.6
66°	2542.4	2553.3	2695.2	3134.5	4264.4	6036.5	7919.4	8997.9	8915.5	8799.3	8634.4
67.5°	2362.7	2381.6	2481.7	2830.4	3881.9	5867.5	7834.2	8920.9	8849.3	8708.7	8543.8
70°	1577.4	1563.9	1916.6	2172.1	2957.4	4780.8	7028.6	8009.9	8011.3	7945.0	7878.8
72.5°	748.8	756.9	859.7	1336.8	1935.5	3193.9	5594.5	6393.4	6485.2	6366.3	6283.8
75°	537.9	550.1	612.3	817.8	1154.3	1916.6	3626.5	4471.3	4474.0	4263.1	4075.2
77.5°	156.8	163.5	229.8	504.2	865.1	1293.5	2082.9	2485.7	2427.6	2276.2	2134.3
80°	64.9	64.9	67.6	160.9	347.4	878.6	1457.0	1914.0	1907.2	1849.1	1765.2
82.5°	24.3	25.7	32.4	66.2	82.4	216.3	971.9	1661.2	1657.1	1574.7	1515.2
85°	2.7	2.7	8.1	28.3	31.1	40.6	194.6	732.6	728.6	732.6	642.0
87.5°	0.0	0.0	1.3	2.7	4.0	5.4	8.1	28.3	31.1	29.8	27.0
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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	212.2	212.2	212.2	212.2	212.2	212.2	212.2	212.2	212.2	212.2	212.2
2.5°	231.1	228.4	228.4	227.1	227.1	227.1	225.7	224.4	224.4	223.0	221.6
5°	252.7	250.1	248.7	246.0	244.6	243.3	240.6	239.2	236.5	235.2	233.9
7.5°	278.4	273.1	271.6	267.6	263.5	260.9	258.2	254.1	251.4	246.0	244.6
10°	310.9	304.1	298.7	293.3	289.3	282.5	278.4	273.1	267.6	263.5	259.5
12.5°	352.7	343.3	335.2	329.8	320.3	312.2	304.1	300.1	289.3	283.9	277.1
15°	398.7	387.9	378.5	367.6	360.9	347.4	336.5	324.4	319.0	309.5	298.7
17.5°	458.2	440.6	425.7	414.9	401.4	387.9	375.7	363.6	347.4	336.5	323.1
20°	521.7	506.8	486.6	467.7	451.5	435.3	417.6	401.4	386.6	369.0	352.7
22.5°	602.8	581.2	556.9	537.9	516.4	498.7	474.4	452.8	428.5	405.5	386.6
25°	705.6	677.1	654.2	627.1	601.5	574.5	544.7	517.7	486.6	464.9	432.5
27.5°	832.7	805.6	774.5	739.3	713.7	673.1	633.9	600.1	563.6	529.8	493.4
30°	994.9	955.6	923.2	889.4	838.0	798.8	752.9	706.9	656.9	623.1	567.7
32.5°	1189.5	1147.5	1098.9	1050.2	1003.0	947.5	890.8	834.0	778.6	716.4	659.6
35°	1427.4	1377.4	1321.9	1269.2	1196.2	1136.7	1065.1	986.7	924.5	852.9	781.2
37.5°	1742.3	1659.8	1611.1	1555.8	1457.0	1375.9	1296.3	1217.8	1108.4	1032.6	931.3
40°	2136.9	2088.3	2008.5	1919.3	1830.1	1723.3	1615.2	1511.1	1384.1	1278.7	1161.1
42.5°	2600.6	2529.0	2447.9	2319.5	2228.9	2103.2	1980.2	1842.3	1686.9	1551.7	1413.8
45°	3035.8	2950.6	2888.5	2760.1	2665.4	2516.8	2368.1	2222.1	2042.4	1868.0	1708.5
47.5°	3506.2	3435.9	3333.2	3229.1	3133.1	2965.5	2804.6	2627.6	2438.4	2231.6	2024.7
50°	3919.8	3864.4	3794.1	3668.4	3561.6	3421.0	3231.8	3038.5	2799.3	2593.9	2358.7
52.5°	4271.2	4228.0	4129.3	4040.1	3944.1	3811.7	3642.7	3457.5	3199.4	2973.6	2706.0
55°	4686.2	4655.1	4568.6	4513.2	4428.0	4301.0	4142.8	3971.1	3698.2	3452.1	3149.4
57.5°	5366.1	5341.7	5266.1	5243.1	5159.3	5048.4	4853.8	4669.9	4351.0	4045.5	3699.5
60°	6492.0	6443.4	6332.5	6275.7	6098.6	5950.0	5697.2	5444.5	5059.2	4669.9	4253.7
62.5°	7697.6	7561.1	7350.3	7169.2	6917.7	6659.6	6321.7	5935.1	5483.6	5021.4	4542.9
65°	8347.8	8115.4	7849.1	7561.1	7235.4	6855.5	6429.8	5966.2	5480.9	4993.0	4487.5
66°	8422.1	8159.9	7877.4	7557.1	7194.8	6790.7	6358.2	5871.6	5367.4	4891.7	4386.1
67.5°	8328.9	8054.5	7755.8	7400.3	7008.3	6589.3	6135.2	5629.6	5144.4	4661.8	4169.9
70°	7676.1	7403.0	7136.7	6762.3	6344.7	5923.0	5493.1	4928.1	4468.5	4025.2	3587.3
72.5°	6129.7	5944.5	5681.0	5360.6	4953.8	4459.1	4100.9	3595.4	3196.7	2766.8	2427.6
75°	3830.6	3569.7	3244.0	2835.7	2524.9	2123.5	1914.0	1530.0	1303.0	1104.3	912.3
77.5°	1958.5	1762.5	1534.1	1304.4	1084.1	865.1	669.0	473.1	319.0	221.6	164.9
80°	1617.9	1444.9	1255.7	1046.2	851.6	660.9	475.8	324.4	206.8	135.2	105.4
82.5°	1336.8	1190.8	1021.9	827.2	658.2	519.0	360.9	235.2	146.0	94.6	74.3
85°	569.0	516.4	398.7	316.3	237.9	175.7	123.0	82.4	58.1	47.3	43.2
87.5°	24.3	27.0	25.7	20.2	14.9	14.9	13.5	10.8	10.8	10.8	10.8
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):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	212.2	212.2	212.2	212.2	212.2	212.2	212.2	212.2	212.2	212.2	212.2
2.5°	221.6	220.3	219.0	219.0	217.6	216.3	208.2	201.4	193.3	187.9	182.4
5°	231.1	229.8	227.1	225.7	223.0	221.6	204.1	189.2	177.1	167.6	160.9
7.5°	240.6	239.2	235.2	231.1	229.8	227.1	198.7	179.8	163.5	152.8	146.0
10°	252.7	248.7	244.6	239.2	235.2	231.1	193.3	169.0	151.4	141.9	135.2
12.5°	270.3	263.5	256.8	250.1	244.6	237.9	190.5	159.5	141.9	131.1	124.3
15°	290.6	281.2	273.1	265.0	255.4	248.7	185.2	151.4	133.8	123.0	114.9
17.5°	309.5	298.7	286.5	274.4	265.0	255.4	179.8	143.3	125.7	114.9	106.8
20°	336.5	320.3	305.5	290.6	277.1	265.0	171.6	135.2	119.0	106.8	98.7
22.5°	366.3	347.4	328.4	308.2	290.6	274.4	164.9	128.4	112.2	100.0	90.5
25°	404.2	381.2	355.5	329.8	309.5	287.9	158.1	121.7	105.4	93.2	83.8
27.5°	456.8	424.4	396.1	363.6	332.5	308.2	152.8	116.2	98.7	86.5	77.0
30°	528.5	481.2	436.6	401.4	365.0	329.8	147.3	109.4	93.2	79.8	68.9
32.5°	608.3	552.8	501.5	448.7	402.8	362.3	141.9	104.1	86.5	73.0	63.5
35°	706.9	636.6	567.7	506.8	451.5	397.4	136.5	98.7	81.1	66.2	56.8
37.5°	848.9	761.0	670.5	592.0	520.4	448.7	132.4	93.2	74.3	59.4	50.0
40°	1043.5	930.0	819.1	712.3	619.0	529.8	127.1	87.9	68.9	54.1	44.6
42.5°	1254.4	1116.5	970.5	850.2	721.8	609.6	121.7	82.4	63.5	48.7	39.2
45°	1516.6	1344.9	1167.8	1004.3	847.5	702.9	116.2	77.0	56.8	43.2	33.8
47.5°	1803.1	1584.1	1384.1	1178.6	992.1	819.1	109.4	73.0	51.3	37.9	29.8
50°	2097.7	1866.6	1613.9	1380.0	1158.4	935.3	102.8	66.2	46.0	33.8	24.3
52.5°	2415.4	2142.4	1884.2	1593.6	1335.5	1088.1	96.0	60.8	41.9	29.8	20.2
55°	2819.5	2514.1	2211.3	1885.5	1574.7	1265.2	89.2	54.1	36.5	25.7	16.2
57.5°	3327.8	2965.5	2593.9	2226.2	1849.1	1497.6	83.8	47.3	31.1	21.7	13.5
60°	3807.6	3384.5	2934.4	2511.3	2085.6	1676.0	75.7	41.9	27.0	17.6	13.5
62.5°	4056.3	3573.8	3088.5	2622.2	2168.0	1739.6	67.6	35.1	23.0	14.9	12.1
65°	3995.5	3503.5	3033.1	2562.8	2118.0	1699.0	59.4	31.1	20.2	13.5	12.1
66°	3907.6	3421.0	2947.9	2500.6	2076.2	1655.8	55.4	29.8	18.9	13.5	10.8
67.5°	3715.7	3245.3	2793.9	2377.6	1961.3	1573.3	50.0	27.0	17.6	12.1	10.8
70°	3173.7	2746.5	2385.7	2015.3	1676.0	1325.9	40.6	23.0	14.9	10.8	10.8
72.5°	2100.5	1809.9	1569.2	1350.3	1128.6	875.9	33.8	18.9	12.1	10.8	9.4
75°	792.1	716.4	615.0	552.8	482.5	423.1	27.0	12.1	9.4	9.4	9.4
77.5°	140.5	129.8	114.9	105.4	97.3	89.2	21.7	8.1	8.1	9.4	9.4
80°	94.6	87.9	79.8	73.0	67.6	60.8	14.9	6.8	8.1	8.1	9.4
82.5°	67.6	63.5	59.4	54.1	50.0	44.6	9.4	6.8	8.1	8.1	8.1
85°	40.6	37.9	35.1	32.4	28.3	27.0	6.8	6.8	6.8	8.1	8.1
87.5°	10.8	9.4	10.8	10.8	8.1	9.4	5.4	5.4	5.4	6.8	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):

	145°	155°	165°	175°	180°
0°	212.2	212.2	212.2	212.2	212.2
2.5°	179.8	179.8	177.1	181.1	181.1
5°	155.4	155.4	154.1	155.4	155.4
7.5°	141.9	140.5	140.5	140.5	141.9
10°	129.8	128.4	128.4	128.4	128.4
12.5°	119.0	117.6	116.2	117.6	117.6
15°	109.4	106.8	106.8	106.8	106.8
17.5°	101.3	98.7	97.3	97.3	97.3
20°	93.2	89.2	89.2	89.2	89.2
22.5°	85.1	81.1	81.1	81.1	81.1
25°	77.0	73.0	73.0	73.0	73.0
27.5°	70.3	66.2	66.2	66.2	66.2
30°	62.2	59.4	59.4	60.8	59.4
32.5°	56.8	52.7	52.7	54.1	54.1
35°	50.0	47.3	47.3	47.3	47.3
37.5°	43.2	40.6	40.6	40.6	40.6
40°	37.9	35.1	33.8	35.1	35.1
42.5°	32.4	29.8	28.3	28.3	28.3
45°	28.3	24.3	23.0	24.3	24.3
47.5°	23.0	20.2	20.2	21.7	21.7
50°	17.6	17.6	18.9	21.7	21.7
52.5°	16.2	16.2	18.9	21.7	21.7
55°	14.9	16.2	18.9	20.2	21.7
57.5°	13.5	16.2	18.9	20.2	20.2
60°	13.5	14.9	17.6	20.2	20.2
62.5°	12.1	13.5	16.2	18.9	18.9
65°	12.1	13.5	16.2	18.9	18.9
66°	12.1	13.5	16.2	18.9	18.9
67.5°	12.1	13.5	16.2	18.9	18.9
70°	12.1	13.5	16.2	17.6	17.6
72.5°	10.8	12.1	14.9	17.6	17.6
75°	10.8	12.1	14.9	17.6	17.6
77.5°	10.8	12.1	14.9	17.6	17.6
80°	10.8	12.1	14.9	16.2	17.6
82.5°	9.4	12.1	13.5	16.2	16.2
85°	9.4	10.8	13.5	14.9	16.2
87.5°	8.1	9.4	10.8	13.5	13.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)