

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: P163556

Luminaire Tested: **LDRL-SL3-E06-E-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P163556
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-E06-E-7030-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: (126) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9216.3 lumens
Efficiency: N/A
Efficacy: 61.2 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): 150.5
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

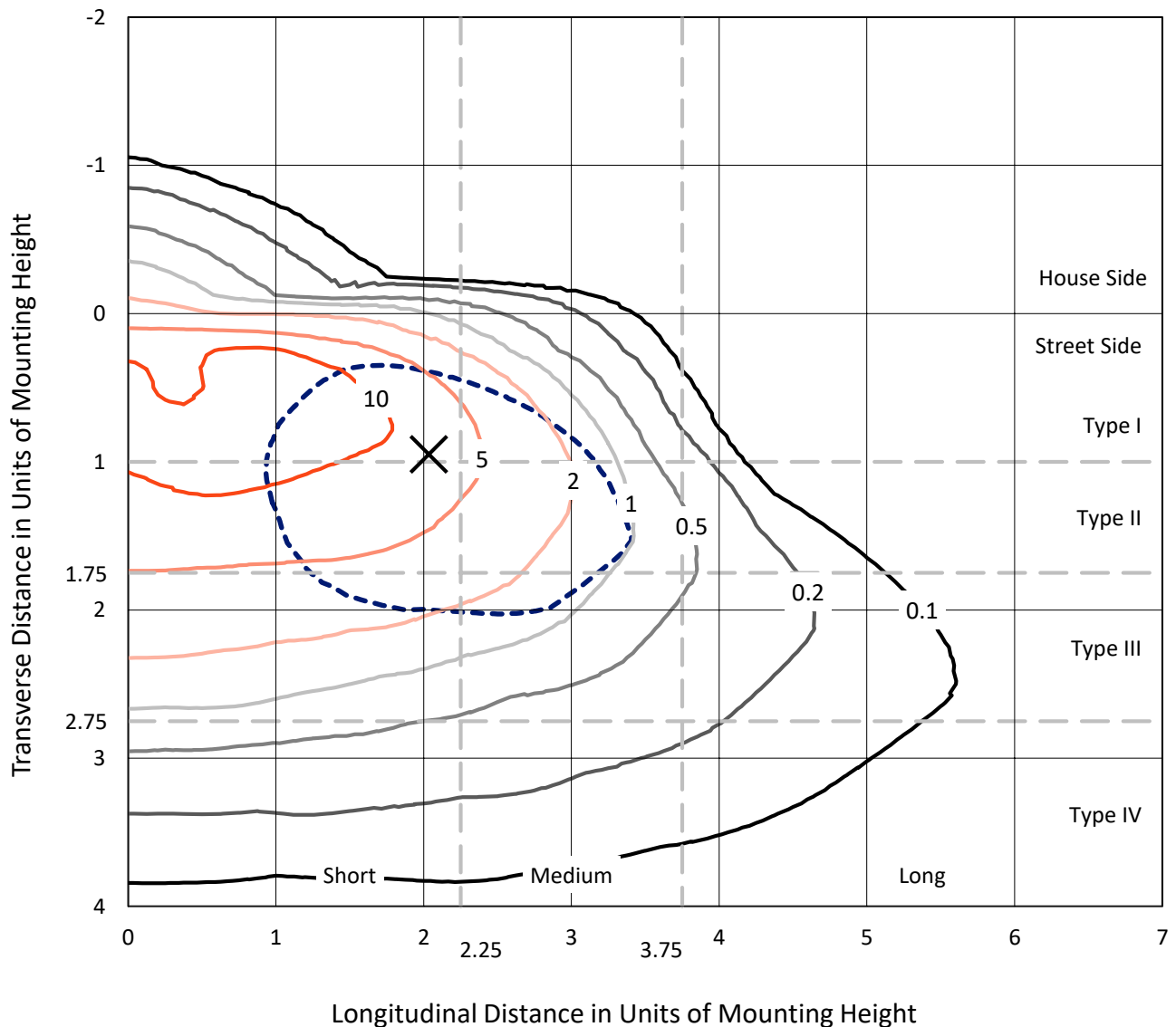


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Iso-Footcandle Lines of Horizontal Illumination

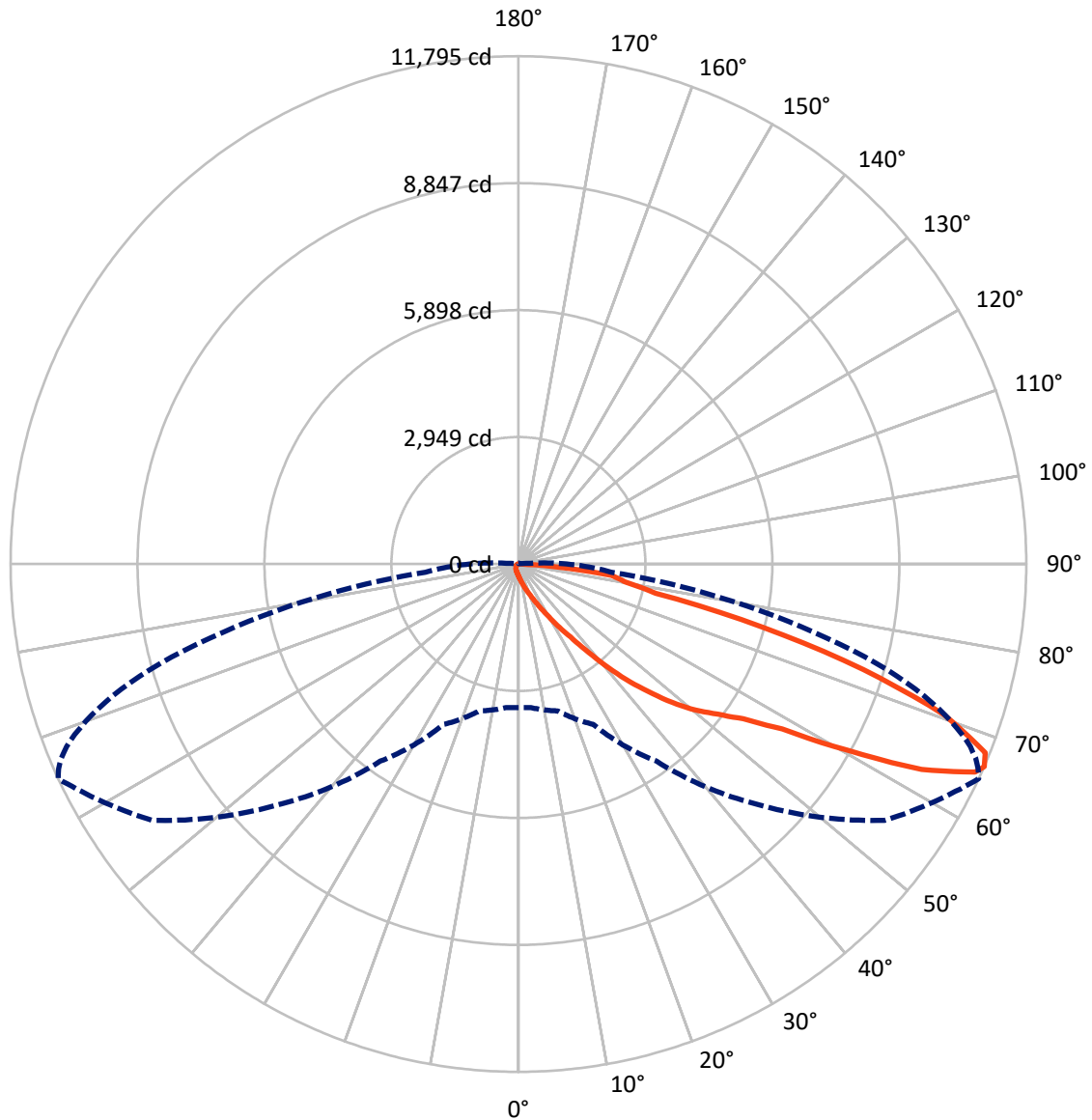
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 15.2 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	199.7	0.0	199.7
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	9016.7	0.0	9016.7
	% Fixture	97.8	0.0	97.8
Total	Lumens	9216.3	0.0	9216.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.1	0.3
10°-20°	132.0	1.4
20°-30°	284.8	3.1
30°-40°	608.2	6.6
40°-50°	1345.0	14.6
50°-60°	2279.4	24.7
60°-70°	3041.6	33.0
70°-80°	1339.8	14.5
80°-90°	154.3	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°	9216.3	100.0
0°-180°	9216.3	100.0



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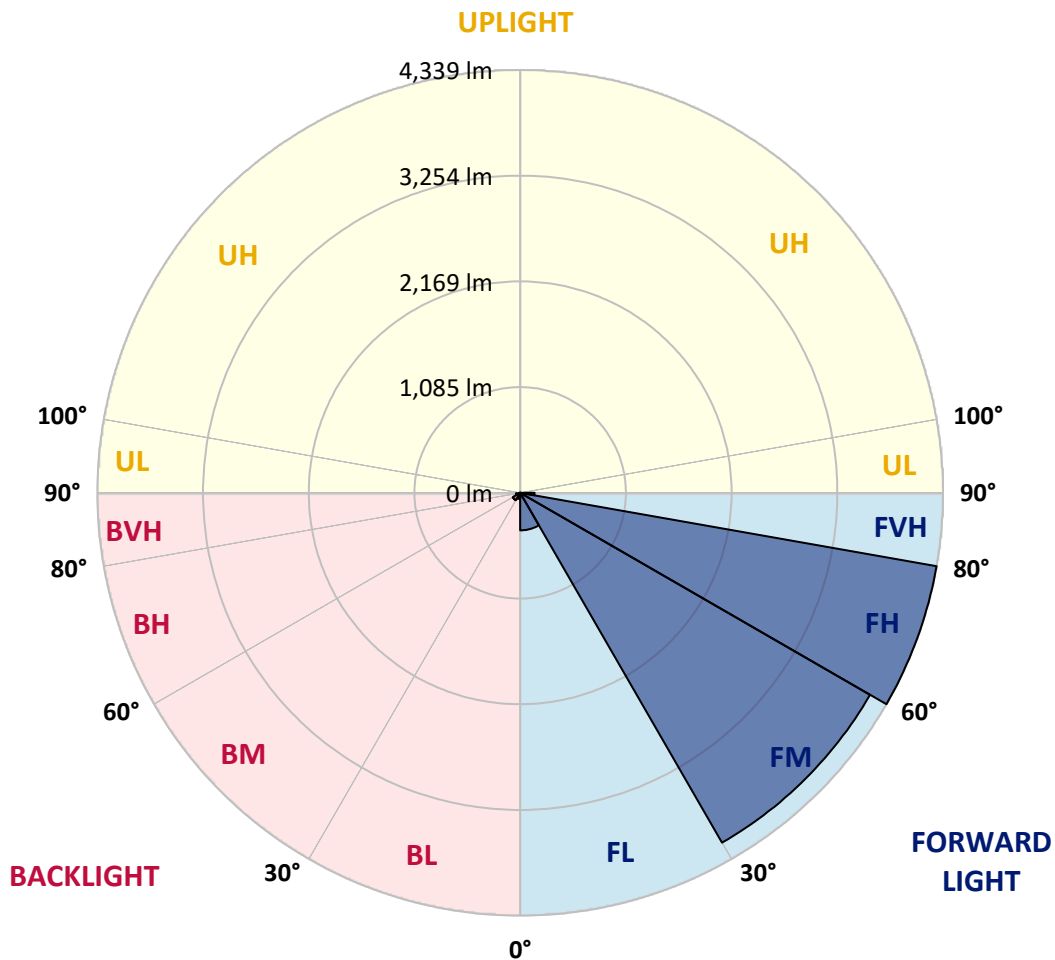
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	385.0	4.2			
FM	(30°-60°)	4144.9	45.0			
FH	(60°-80°)	4338.6	47.1			G2/5000
FVH	(80°-90°)	148.2	1.6			G2/225
BL	(0°-30°)	63.0	0.7	B0/110		
BM	(30°-60°)	87.7	1.0	B0/220		
BH	(60°-80°)	42.8	0.5	B0/110		G0/110
BVH	(80°-90°)	6.2	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°	278.2	278.2	278.2	278.2	278.2	278.2	278.2	278.2	278.2	278.2	278.2
2.5°	350.8	349.1	342.0	342.0	331.3	324.2	315.4	306.6	306.6	304.8	302.9
5°	464.3	453.6	451.8	432.4	416.4	393.4	372.1	343.7	340.2	336.7	334.8
7.5°	590.0	588.2	572.3	549.3	517.4	474.9	432.4	386.2	379.2	375.6	368.6
10°	753.1	744.2	722.9	683.9	636.1	579.4	510.3	437.6	428.8	421.7	418.1
12.5°	908.9	893.0	880.7	831.0	770.7	687.5	604.2	499.7	492.6	483.7	469.5
15°	1054.3	1040.1	1018.9	976.3	908.9	804.5	706.9	579.4	561.7	549.3	538.7
17.5°	1167.7	1158.8	1134.1	1086.2	1013.5	921.4	804.5	660.9	646.8	630.8	611.3
20°	1275.8	1263.4	1224.4	1158.8	1080.9	1010.0	919.6	767.2	747.7	728.2	706.9
22.5°	1378.6	1366.1	1302.3	1194.2	1110.9	1080.9	1049.0	887.7	857.6	841.6	820.4
25°	1522.0	1495.5	1396.2	1224.4	1112.8	1135.8	1190.7	1043.6	1015.2	992.2	958.6
27.5°	1715.2	1679.8	1523.8	1268.6	1119.8	1196.0	1353.7	1233.2	1203.1	1176.6	1139.3
30°	1933.2	1910.0	1724.0	1375.0	1171.2	1284.6	1536.2	1474.3	1438.7	1406.9	1362.6
32.5°	2152.8	2120.9	1936.7	1577.0	1309.4	1456.5	1764.8	1754.2	1708.1	1678.0	1630.1
35°	2345.9	2330.0	2193.6	1908.3	1624.9	1757.7	2069.5	2082.0	2041.2	2009.3	1956.2
37.5°	2477.1	2477.1	2450.5	2264.5	2126.3	2225.5	2517.9	2519.6	2478.9	2406.2	2379.7
40°	2544.4	2563.9	2659.6	2695.0	2688.0	2815.6	3106.1	3074.2	3040.6	3003.3	2914.8
42.5°	2682.6	2700.4	2904.1	3148.6	3308.1	3476.5	3676.6	3666.0	3625.3	3557.9	3476.5
45°	2916.5	2939.5	3182.3	3570.3	3898.1	4137.4	4264.9	4215.3	4174.5	4110.7	4068.2
47.5°	3214.2	3258.5	3533.1	4013.3	4408.4	4803.5	4936.5	4805.4	4769.9	4720.3	4651.2
50°	3531.4	3573.9	3866.2	4415.5	4862.1	5333.3	5554.9	5333.3	5281.9	5266.0	5188.1
52.5°	3806.0	3841.4	4123.1	4725.6	5209.4	5762.1	6084.7	5792.2	5755.1	5701.9	5645.2
55°	3969.0	3997.4	4261.3	4874.4	5445.0	6148.5	6596.7	6339.8	6284.9	6263.6	6182.1
57.5°	4023.9	4052.3	4289.7	4894.0	5572.6	6501.0	7218.6	7227.5	7161.9	7085.8	7061.0
60°	4023.9	4055.8	4256.1	4846.1	5696.6	6876.7	8047.9	8786.8	8645.0	8630.8	8540.5
62.5°	3857.3	3887.5	4089.5	4699.1	5863.2	7383.5	9203.2	10507.2	10466.6	10374.4	10225.5
65°	3496.0	3513.6	3712.1	4323.4	5799.4	7849.5	10204.3	11651.9	11586.4	11405.6	11214.3
66°	3332.9	3347.1	3533.1	4109.0	5590.3	7913.3	10381.5	11795.4	11687.3	11535.0	11318.8
67.5°	3097.2	3122.0	3253.2	3710.4	5088.8	7691.8	10269.8	11694.4	11600.5	11416.3	11200.0
70°	2067.8	2050.1	2512.5	2847.5	3876.8	6267.2	9213.8	10500.2	10502.0	10415.2	10328.3
72.5°	981.6	992.2	1126.9	1752.4	2537.3	4186.9	7333.8	8381.0	8501.5	8345.5	8237.5
75°	705.2	721.2	802.6	1072.0	1513.2	2512.5	4754.0	5861.4	5864.9	5588.5	5342.2
77.5°	205.5	214.4	301.2	660.9	1134.1	1695.7	2730.5	3258.5	3182.3	2983.8	2797.8
80°	85.1	85.1	88.6	210.9	455.4	1151.7	1910.0	2509.0	2500.1	2424.0	2314.0
82.5°	31.9	33.6	42.5	86.8	108.1	283.5	1274.0	2177.7	2172.3	2064.2	1986.3
85°	3.5	3.5	10.6	37.2	40.8	53.2	255.2	960.3	955.1	960.3	841.6
87.5°	0.0	0.0	1.8	3.5	5.3	7.1	10.6	37.2	40.8	39.0	35.4
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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	278.2	278.2	278.2	278.2	278.2	278.2	278.2	278.2	278.2	278.2	278.2
2.5°	302.9	299.4	299.4	297.7	297.7	297.7	295.9	294.2	294.2	292.3	290.6
5°	331.3	327.8	326.1	322.4	320.7	318.9	315.4	313.6	310.1	308.3	306.6
7.5°	365.0	358.0	356.1	350.8	345.5	342.0	338.5	333.1	329.6	322.4	320.7
10°	407.5	398.6	391.6	384.5	379.2	370.3	365.0	358.0	350.8	345.5	340.2
12.5°	462.4	450.0	439.4	432.4	419.9	409.3	398.6	393.4	379.2	372.1	363.2
15°	522.7	508.6	496.2	481.9	473.0	455.4	441.1	425.3	418.1	405.7	391.6
17.5°	600.6	577.6	558.1	544.0	526.2	508.6	492.6	476.7	455.4	441.1	423.5
20°	683.9	664.4	637.9	613.1	591.9	570.6	547.5	526.2	506.8	483.7	462.4
22.5°	790.2	762.0	730.1	705.2	676.9	653.8	621.9	593.6	561.7	531.6	506.8
25°	924.9	887.7	857.6	822.1	788.5	753.1	714.1	678.7	637.9	609.5	567.0
27.5°	1091.5	1056.0	1015.2	969.2	935.6	882.4	831.0	786.7	738.8	694.5	646.8
30°	1304.2	1252.8	1210.2	1165.9	1098.5	1047.1	987.0	926.7	861.1	816.9	744.2
32.5°	1559.3	1504.3	1440.5	1376.7	1314.8	1242.1	1167.7	1093.3	1020.6	939.1	864.7
35°	1871.1	1805.6	1732.9	1663.8	1568.1	1490.1	1396.2	1293.5	1212.0	1118.1	1024.1
37.5°	2284.0	2175.8	2112.0	2039.5	1910.0	1803.7	1699.3	1596.5	1453.0	1353.7	1220.9
40°	2801.3	2737.5	2633.0	2516.0	2399.1	2259.1	2117.4	1980.9	1814.4	1676.3	1522.0
42.5°	3409.1	3315.2	3208.9	3040.6	2921.9	2757.0	2595.8	2415.1	2211.3	2034.1	1853.4
45°	3979.7	3868.0	3786.5	3618.2	3494.1	3299.2	3104.4	2913.0	2677.4	2448.7	2239.6
47.5°	4596.3	4504.1	4369.5	4233.1	4107.2	3887.5	3676.6	3444.6	3196.4	2925.4	2654.2
50°	5138.5	5065.8	4973.6	4808.9	4668.9	4484.6	4236.6	3983.2	3669.6	3400.3	3092.0
52.5°	5599.1	5542.5	5413.1	5296.2	5170.4	4996.8	4775.3	4532.5	4194.0	3898.1	3547.3
55°	6143.1	6102.3	5989.0	5916.3	5804.6	5638.1	5430.8	5205.8	4847.9	4525.4	4128.5
57.5°	7034.4	7002.5	6903.3	6873.1	6763.3	6618.0	6362.8	6121.8	5703.7	5303.2	4849.7
60°	8510.4	8446.6	8301.3	8226.8	7994.7	7799.8	7468.5	7137.2	6632.1	6121.8	5576.1
62.5°	10090.8	9911.9	9635.4	9398.0	9068.5	8730.0	8287.1	7780.3	7188.5	6582.6	5955.3
65°	10943.1	10638.4	10289.3	9911.9	9484.9	8986.9	8428.8	7821.1	7185.0	6545.3	5882.7
66°	11040.5	10696.8	10326.5	9906.6	9431.7	8901.9	8334.9	7697.0	7036.1	6412.5	5749.7
67.5°	10918.3	10558.6	10167.0	9701.1	9187.2	8638.0	8042.6	7379.8	6743.8	6111.2	5466.3
70°	10062.6	9704.6	9355.5	8864.7	8317.3	7764.4	7201.0	6460.3	5857.8	5276.7	4702.6
72.5°	8035.5	7792.7	7447.2	7027.2	6493.9	5845.4	5375.9	4713.2	4190.5	3627.1	3182.3
75°	5021.5	4679.6	4252.6	3717.4	3309.9	2783.7	2509.0	2005.7	1708.1	1447.6	1196.0
77.5°	2567.4	2310.5	2011.1	1709.9	1421.1	1134.1	877.0	620.1	418.1	290.6	216.1
80°	2120.9	1894.1	1646.1	1371.5	1116.3	866.4	623.7	425.3	271.0	177.2	138.2
82.5°	1752.4	1561.1	1339.6	1084.4	862.9	680.4	473.0	308.3	191.4	124.1	97.4
85°	746.0	676.9	522.7	414.6	311.8	230.4	161.2	108.1	76.2	62.0	56.7
87.5°	31.9	35.4	33.6	26.5	19.5	19.5	17.8	14.1	14.1	14.1	14.1
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):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	278.2	278.2	278.2	278.2	278.2	278.2	278.2	278.2	278.2	278.2	278.2
2.5°	290.6	288.8	287.0	287.0	285.3	283.5	272.9	264.0	253.4	246.3	239.2
5°	302.9	301.2	297.7	295.9	292.3	290.6	267.5	248.0	232.1	219.8	210.9
7.5°	315.4	313.6	308.3	302.9	301.2	297.7	260.4	235.6	214.4	200.2	191.4
10°	331.3	326.1	320.7	313.6	308.3	302.9	253.4	221.5	198.5	186.0	177.2
12.5°	354.3	345.5	336.7	327.8	320.7	311.8	249.8	209.1	186.0	171.9	163.0
15°	381.0	368.6	358.0	347.3	334.8	326.1	242.8	198.5	175.4	161.2	150.6
17.5°	405.7	391.6	375.6	359.7	347.3	334.8	235.6	187.9	164.7	150.6	140.0
20°	441.1	419.9	400.5	381.0	363.2	347.3	225.0	177.2	156.0	140.0	129.3
22.5°	480.2	455.4	430.5	404.0	381.0	359.7	216.1	168.3	147.1	131.1	118.7
25°	529.8	499.7	466.0	432.4	405.7	377.4	207.3	159.5	138.2	122.2	109.8
27.5°	598.9	556.3	519.2	476.7	435.9	404.0	200.2	152.3	129.3	113.4	100.9
30°	692.8	630.8	572.3	526.2	478.4	432.4	193.1	143.5	122.2	104.6	90.3
32.5°	797.4	724.7	657.4	588.2	528.1	474.9	186.0	136.5	113.4	95.7	83.3
35°	926.7	834.5	744.2	664.4	591.9	520.9	179.0	129.3	106.3	86.8	74.4
37.5°	1112.8	997.6	878.9	776.1	682.2	588.2	173.6	122.2	97.4	77.9	65.5
40°	1367.9	1219.1	1073.8	933.8	811.5	694.5	166.6	115.2	90.3	70.9	58.4
42.5°	1644.4	1463.6	1272.3	1114.5	946.2	799.1	159.5	108.1	83.3	63.8	51.4
45°	1988.1	1763.1	1530.9	1316.5	1110.9	921.4	152.3	100.9	74.4	56.7	44.3
47.5°	2363.7	2076.6	1814.4	1545.1	1300.5	1073.8	143.5	95.7	67.3	49.6	39.0
50°	2749.9	2447.0	2115.6	1809.1	1518.5	1226.1	134.7	86.8	60.3	44.3	31.9
52.5°	3166.4	2808.4	2470.0	2089.0	1750.7	1426.4	125.8	79.7	54.9	39.0	26.5
55°	3696.1	3295.7	2898.8	2471.7	2064.2	1658.5	116.9	70.9	47.8	33.6	21.3
57.5°	4362.4	3887.5	3400.3	2918.3	2424.0	1963.2	109.8	62.0	40.8	28.4	17.8
60°	4991.4	4436.8	3846.7	3292.1	2734.0	2197.1	99.2	54.9	35.4	23.0	17.8
62.5°	5317.5	4684.8	4048.7	3437.4	2842.1	2280.4	88.6	46.0	30.1	19.5	15.9
65°	5237.7	4592.8	3976.1	3359.5	2776.5	2227.2	77.9	40.8	26.5	17.8	15.9
66°	5122.5	4484.6	3864.5	3278.0	2721.6	2170.6	72.7	39.0	24.8	17.8	14.1
67.5°	4870.9	4254.3	3662.5	3116.8	2571.0	2062.5	65.5	35.4	23.0	15.9	14.1
70°	4160.4	3600.4	3127.4	2641.8	2197.1	1738.2	53.2	30.1	19.5	14.1	14.1
72.5°	2753.5	2372.6	2057.1	1770.1	1479.5	1148.2	44.3	24.8	15.9	14.1	12.4
75°	1038.4	939.1	806.2	724.7	632.5	554.6	35.4	15.9	12.4	12.4	12.4
77.5°	184.2	170.1	150.6	138.2	127.6	116.9	28.4	10.6	10.6	12.4	12.4
80°	124.1	115.2	104.6	95.7	88.6	79.7	19.5	8.9	10.6	10.6	12.4
82.5°	88.6	83.3	77.9	70.9	65.5	58.4	12.4	8.9	10.6	10.6	10.6
85°	53.2	49.6	46.0	42.5	37.2	35.4	8.9	8.9	8.9	10.6	10.6
87.5°	14.1	12.4	14.1	14.1	10.6	12.4	7.1	7.1	7.1	8.9	8.9
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):

	145°	155°	165°	175°	180°
0°	278.2	278.2	278.2	278.2	278.2
2.5°	235.6	235.6	232.1	237.4	237.4
5°	203.8	203.8	202.0	203.8	203.8
7.5°	186.0	184.2	184.2	184.2	186.0
10°	170.1	168.3	168.3	168.3	168.3
12.5°	156.0	154.1	152.3	154.1	154.1
15°	143.5	140.0	140.0	140.0	140.0
17.5°	132.8	129.3	127.6	127.6	127.6
20°	122.2	116.9	116.9	116.9	116.9
22.5°	111.6	106.3	106.3	106.3	106.3
25°	100.9	95.7	95.7	95.7	95.7
27.5°	92.2	86.8	86.8	86.8	86.8
30°	81.5	77.9	77.9	79.7	77.9
32.5°	74.4	69.0	69.0	70.9	70.9
35°	65.5	62.0	62.0	62.0	62.0
37.5°	56.7	53.2	53.2	53.2	53.2
40°	49.6	46.0	44.3	46.0	46.0
42.5°	42.5	39.0	37.2	37.2	37.2
45°	37.2	31.9	30.1	31.9	31.9
47.5°	30.1	26.5	26.5	28.4	28.4
50°	23.0	23.0	24.8	28.4	28.4
52.5°	21.3	21.3	24.8	28.4	28.4
55°	19.5	21.3	24.8	26.5	28.4
57.5°	17.8	21.3	24.8	26.5	26.5
60°	17.8	19.5	23.0	26.5	26.5
62.5°	15.9	17.8	21.3	24.8	24.8
65°	15.9	17.8	21.3	24.8	24.8
66°	15.9	17.8	21.3	24.8	24.8
67.5°	15.9	17.8	21.3	24.8	24.8
70°	15.9	17.8	21.3	23.0	23.0
72.5°	14.1	15.9	19.5	23.0	23.0
75°	14.1	15.9	19.5	23.0	23.0
77.5°	14.1	15.9	19.5	23.0	23.0
80°	14.1	15.9	19.5	21.3	23.0
82.5°	12.4	15.9	17.8	21.3	21.3
85°	12.4	14.1	17.8	19.5	21.3
87.5°	10.6	12.4	14.1	17.8	17.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)