

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: STREETWORKS

Report Number: P165327

Luminaire Tested: **VST-E11-LED-E-U-SL3-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165327
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: STREETWORKS
Catalog Number: VST-E11-LED-E-U-SL3-HSS
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (231) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18844.1 lumens
Efficiency: N/A
Efficacy: 69.9 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.83' x L: 1' x H: 0.1')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B1 - U0 - G4

Input Watts (W): 269.7
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: 28.75 FT



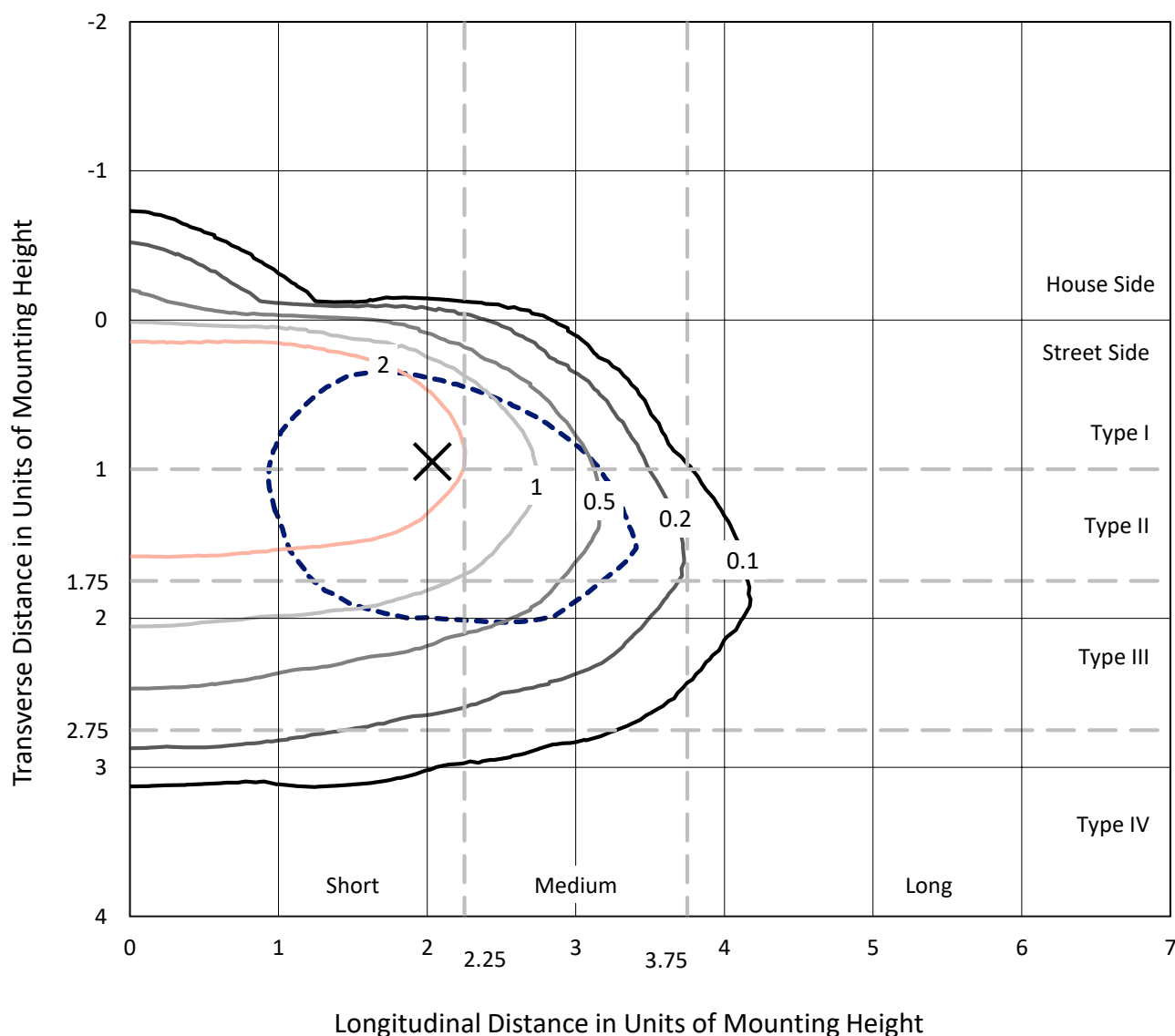
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

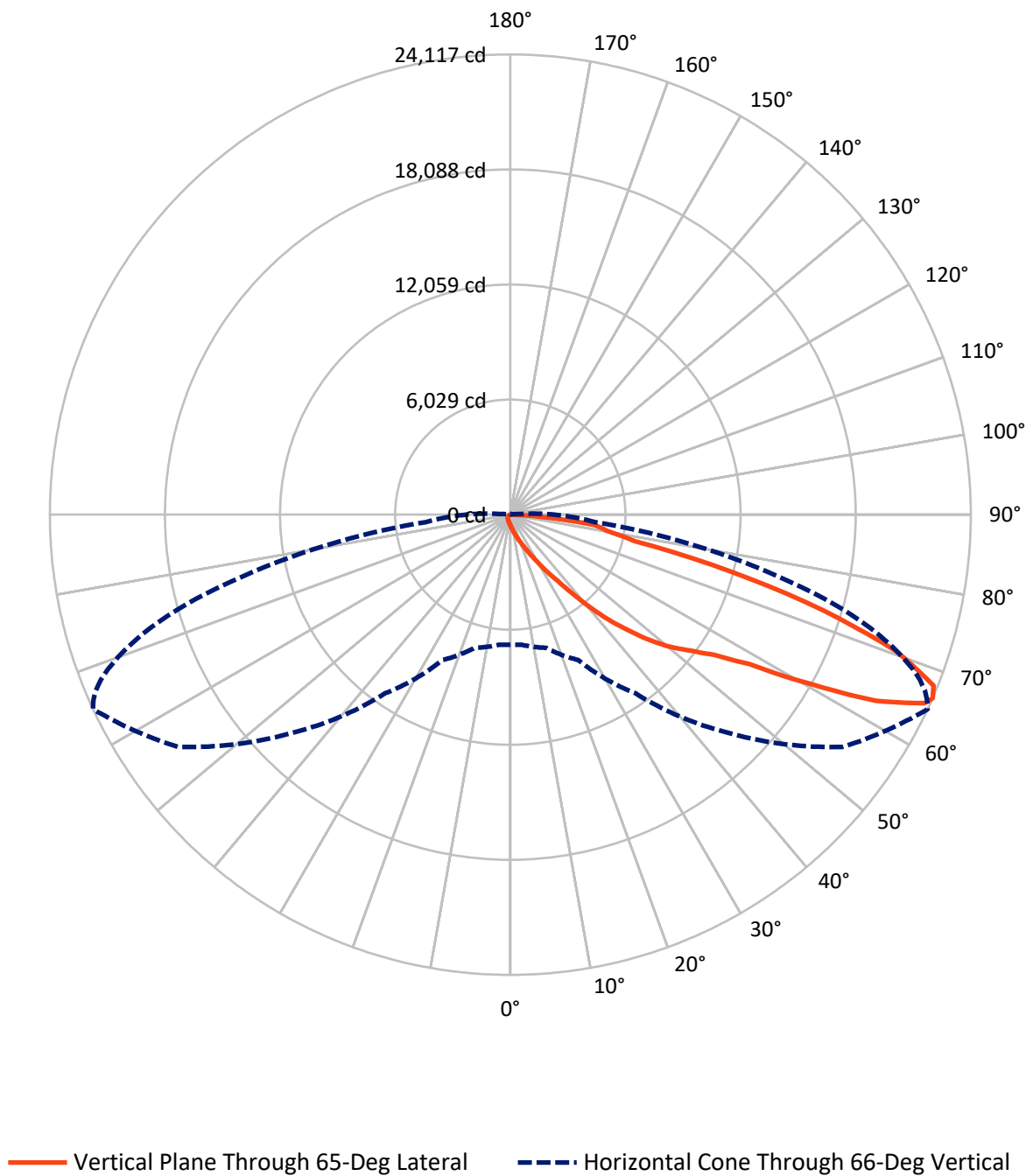


Based on 25 foot mounting height. Maximum calculated value = 5 fc
Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	408.4	0.0	408.4
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	18435.7	0.0	18435.7
	% Fixture	97.8	0.0	97.8
Total	Lumens	18844.1	0.0	18844.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.7	0.3
10°-20°	270.0	1.4
20°-30°	582.3	3.1
30°-40°	1243.5	6.6
40°-50°	2750.1	14.6
50°-60°	4660.5	24.7
60°-70°	6219.1	33.0
70°-80°	2739.4	14.5
80°-90°	315.5	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°	18844.1	100.0
0°-180°	18844.1	100.0

Coefficient of Utilization



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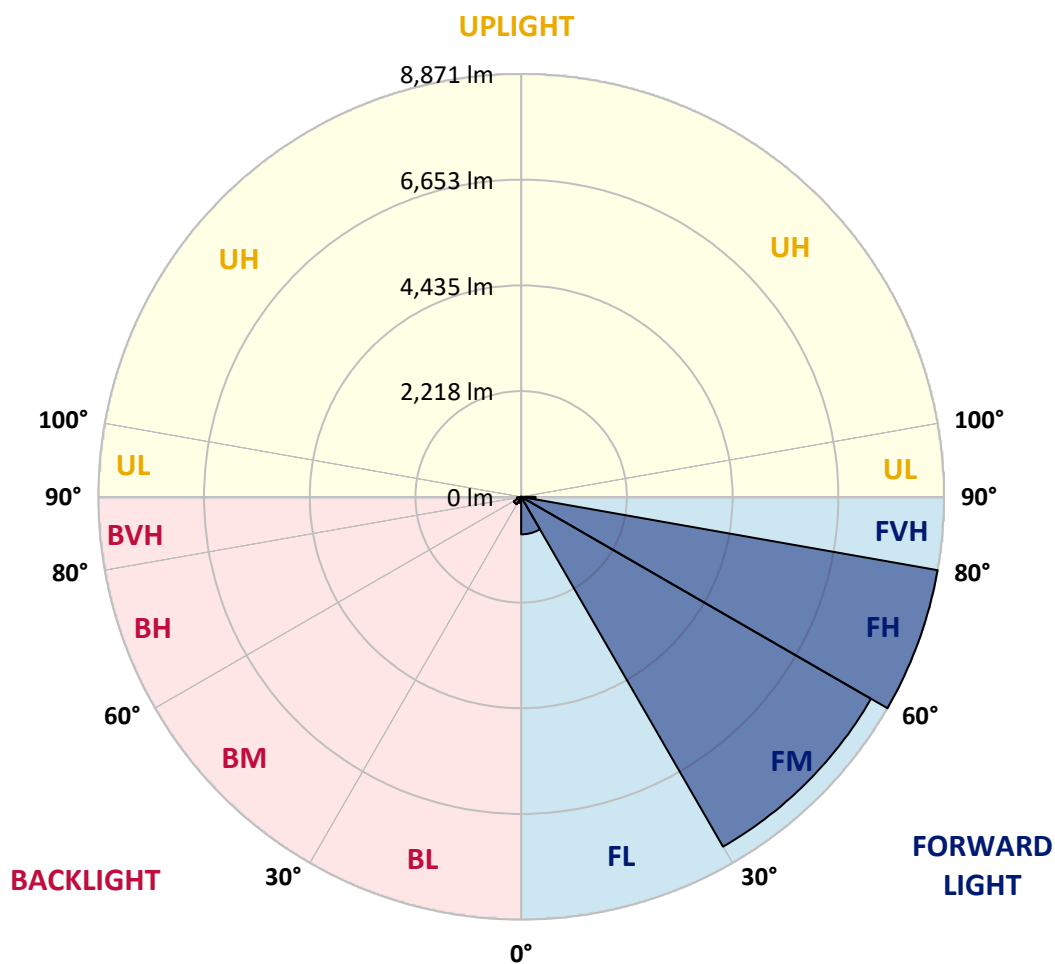
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	787.1	4.2			
FM	(30°-60°)	8474.8	45.0			
FH	(60°-80°)	8870.9	47.1			G4/12000
FVH	(80°-90°)	303.0	1.6			G3/500
BL	(0°-30°)	128.8	0.7	B1/500		
BM	(30°-60°)	179.3	1.0	B0/220		
BH	(60°-80°)	87.6	0.5	B0/110		G0/110
BVH	(80°-90°)	12.6	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G4

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	568.7	568.7	568.7	568.7	568.7	568.7	568.7	568.7	568.7	568.7	568.7
2.5°	717.4	713.7	699.2	699.2	677.4	663.1	644.8	626.8	626.8	623.0	619.5
5°	949.1	927.5	923.8	884.0	851.4	804.3	760.8	702.9	695.6	688.4	684.6
7.5°	1206.5	1202.7	1170.2	1123.1	1058.0	970.9	884.0	789.8	775.3	768.0	753.5
10°	1539.8	1521.5	1478.2	1398.3	1300.6	1184.7	1043.5	894.7	876.7	862.2	854.9
12.5°	1858.6	1826.0	1800.5	1699.1	1575.9	1405.6	1235.3	1021.7	1007.2	989.1	960.1
15°	2155.6	2126.5	2083.2	1996.3	1858.6	1644.7	1445.6	1184.7	1148.4	1123.1	1101.3
17.5°	2387.4	2369.4	2318.6	2220.9	2072.2	1883.9	1644.7	1351.2	1322.4	1289.6	1249.8
20°	2608.5	2583.0	2503.4	2369.4	2209.9	2064.9	1880.3	1568.6	1528.8	1489.0	1445.6
22.5°	2818.6	2793.1	2662.9	2441.8	2271.5	2209.9	2144.8	1815.0	1753.4	1720.8	1677.3
25°	3112.1	3057.8	2854.7	2503.4	2275.2	2322.3	2434.5	2133.8	2075.9	2028.8	1960.0
27.5°	3507.0	3434.4	3115.6	2594.0	2289.5	2445.5	2767.8	2521.4	2459.8	2405.5	2329.6
30°	3952.5	3905.4	3525.1	2811.4	2394.7	2626.6	3140.9	3014.2	2941.8	2876.5	2786.1
32.5°	4401.8	4336.6	3959.8	3224.3	2677.2	2977.9	3608.4	3586.7	3492.5	3430.9	3333.0
35°	4796.7	4764.1	4485.1	3901.7	3322.2	3593.9	4231.5	4256.8	4173.6	4108.3	3999.6
37.5°	5064.8	5064.8	5010.5	4629.9	4347.4	4550.3	5148.0	5151.7	5068.4	4919.9	4865.5
40°	5202.3	5242.2	5438.0	5510.3	5495.8	5756.7	6351.0	6285.6	6216.8	6140.6	5959.6
42.5°	5485.0	5521.1	5937.8	6437.9	6763.9	7108.0	7517.4	7495.6	7412.5	7274.7	7108.0
45°	5963.3	6010.4	6506.7	7300.0	7970.2	8459.4	8720.1	8618.7	8535.3	8405.1	8318.0
47.5°	6571.8	6662.5	7223.9	8205.8	9013.6	9821.5	10093.2	9825.2	9752.8	9651.2	9509.9
50°	7220.4	7307.3	7905.0	9028.1	9941.1	10904.7	11357.7	10904.7	10799.8	10767.0	10607.7
52.5°	7781.8	7854.4	8430.4	9662.2	10651.1	11781.4	12440.8	11843.0	11766.9	11658.2	11542.3
55°	8115.1	8173.2	8712.9	9966.4	11133.1	12571.2	13488.0	12962.6	12850.2	12806.9	12640.1
57.5°	8227.6	8285.4	8771.0	10006.3	11393.8	13292.2	14759.6	14777.6	14643.6	14487.9	14437.1
60°	8227.6	8292.7	8702.1	9908.6	11647.5	14060.2	16454.9	17965.6	17675.9	17646.9	17462.1
62.5°	7887.0	7948.6	8361.5	9607.8	11988.0	15096.4	18817.0	21483.4	21400.3	21211.7	20907.5
65°	7147.8	7184.1	7589.8	8839.8	11857.6	16049.2	20863.9	23823.8	23689.8	23320.2	22929.1
66°	6814.5	6843.5	7223.9	8401.4	11430.1	16179.7	21226.3	24117.3	23896.4	23584.7	23142.7
67.5°	6332.7	6383.5	6651.5	7586.3	10404.9	15726.7	20998.1	23910.9	23718.9	23342.0	22900.0
70°	4228.0	4191.7	5137.2	5821.9	7926.8	12814.1	18838.8	21468.9	21472.7	21295.1	21117.6
72.5°	2007.1	2028.8	2304.1	3582.9	5187.8	8560.9	14995.0	17136.0	17382.4	17063.6	16842.5
75°	1441.9	1474.4	1641.2	2191.9	3093.9	5137.2	9720.0	11984.3	11991.5	11426.4	10923.0
77.5°	420.2	438.5	615.8	1351.2	2318.6	3467.0	5582.7	6662.5	6506.7	6100.8	5720.4
80°	173.8	173.8	181.1	431.2	931.0	2354.9	3905.4	5130.0	5111.9	4956.2	4731.5
82.5°	65.1	68.9	86.9	177.5	221.1	579.7	2604.8	4452.6	4441.6	4220.7	4061.2
85°	7.3	7.3	21.8	76.1	83.4	108.7	521.6	1963.5	1952.7	1963.5	1720.8
87.5°	0.0	0.0	3.5	7.3	10.8	14.5	21.8	76.1	83.4	79.6	72.4
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°	568.7	568.7	568.7	568.7	568.7	568.7	568.7	568.7	568.7	568.7	568.7
2.5°	619.5	612.3	612.3	608.7	608.7	608.7	605.0	601.5	601.5	597.7	594.2
5°	677.4	670.1	666.6	659.3	655.8	652.1	644.8	641.3	634.0	630.3	626.8
7.5°	746.2	731.7	728.2	717.4	706.4	699.2	691.9	681.1	673.9	659.3	655.8
10°	833.4	815.1	800.6	786.1	775.3	757.2	746.2	731.7	717.4	706.4	695.6
12.5°	945.6	920.3	898.5	884.0	858.7	836.9	815.1	804.3	775.3	760.8	742.7
15°	1068.8	1039.7	1014.4	985.4	967.3	931.0	902.0	869.4	854.9	829.6	800.6
17.5°	1228.0	1181.0	1141.1	1112.3	1076.0	1039.7	1007.2	974.6	931.0	902.0	865.9
20°	1398.3	1358.5	1304.2	1253.6	1210.0	1166.7	1119.4	1076.0	1036.2	989.1	945.6
22.5°	1615.9	1557.8	1492.7	1441.9	1384.0	1336.9	1271.6	1213.7	1148.4	1086.8	1036.2
25°	1891.1	1815.0	1753.4	1681.0	1612.2	1539.8	1459.9	1387.5	1304.2	1246.3	1159.4
27.5°	2231.7	2159.3	2075.9	1981.8	1912.9	1804.2	1699.1	1608.6	1510.7	1420.1	1322.4
30°	2666.4	2561.5	2474.3	2383.9	2246.2	2141.0	2017.8	1894.9	1760.7	1670.2	1521.5
32.5°	3188.0	3075.8	2945.4	2814.9	2688.2	2539.7	2387.4	2235.2	2086.7	1920.2	1767.9
35°	3825.8	3691.6	3543.1	3401.9	3206.3	3046.8	2854.7	2644.6	2478.1	2286.0	2094.0
37.5°	4669.9	4448.8	4318.4	4169.9	3905.4	3688.1	3474.2	3264.1	2970.7	2767.8	2496.1
40°	5727.7	5597.2	5383.6	5144.5	4905.3	4619.1	4329.4	4050.4	3709.9	3427.2	3112.1
42.5°	6970.3	6778.4	6561.1	6216.8	5974.1	5637.1	5307.5	4937.9	4521.2	4159.1	3789.5
45°	8136.9	7908.8	7742.0	7397.9	7144.3	6745.6	6347.2	5956.1	5474.0	5006.8	4579.3
47.5°	9397.7	9209.2	8934.0	8655.0	8397.8	7948.6	7517.4	7042.9	6535.5	5981.4	5427.0
50°	10506.3	10357.8	10169.3	9832.5	9546.2	9169.4	8662.3	8144.2	7502.9	6952.2	6321.9
52.5°	11448.1	11332.2	11067.8	10828.6	10571.4	10216.4	9763.6	9267.3	8575.4	7970.2	7253.0
55°	12560.5	12477.1	12245.2	12096.7	11868.6	11528.0	11104.1	10644.0	9912.1	9252.8	8441.2
57.5°	14382.7	14317.6	14114.5	14052.9	13828.3	13531.3	13009.7	12516.9	11662.0	10843.1	9915.8
60°	17400.5	17270.2	16973.0	16821.0	16346.2	15947.8	15270.4	14592.8	13560.4	12516.9	11401.1
62.5°	20632.0	20266.2	19701.0	19215.7	18541.8	17849.7	16944.0	15908.0	14698.0	13458.9	12176.3
65°	22374.7	21751.6	21037.9	20266.2	19393.2	18375.1	17233.9	15991.4	14690.7	13382.8	12027.8
66°	22574.0	21871.1	21114.1	20255.4	19284.5	18201.3	17041.9	15737.7	14386.2	13111.1	11756.1
67.5°	22324.1	21588.6	20788.0	19835.2	18784.5	17661.4	16444.1	15089.1	13788.5	12495.1	11176.4
70°	20574.2	19842.2	19128.6	18125.1	17005.6	15875.4	14723.3	13209.0	11977.2	10788.8	9615.1
72.5°	16429.6	15933.3	15226.9	14368.2	13277.7	11951.7	10991.6	9636.9	8568.1	7416.0	6506.7
75°	10267.2	9568.0	8694.8	7600.8	6767.4	5691.4	5130.0	4101.0	3492.5	2959.9	2445.5
77.5°	5249.4	4724.3	4112.0	3496.0	2905.5	2318.6	1793.2	1268.1	854.9	594.2	442.0
80°	4336.6	3872.9	3365.6	2804.1	2282.5	1771.7	1275.3	869.4	554.4	362.3	282.5
82.5°	3582.9	3191.8	2738.8	2217.2	1764.4	1391.3	967.3	630.3	391.2	253.7	199.3
85°	1525.3	1384.0	1068.8	847.7	637.6	471.0	329.8	221.1	155.8	126.7	115.9
87.5°	65.1	72.4	68.9	54.3	39.8	39.8	36.3	29.0	29.0	29.0	29.0
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):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	568.7	568.7	568.7	568.7	568.7	568.7	568.7	568.7	568.7	568.7	568.7
2.5°	594.2	590.5	587.0	587.0	583.2	579.7	557.9	539.9	518.1	503.6	489.1
5°	619.5	615.8	608.7	605.0	597.7	594.2	547.1	507.1	474.5	449.2	431.2
7.5°	644.8	641.3	630.3	619.5	615.8	608.7	532.6	481.8	438.5	409.4	391.2
10°	677.4	666.6	655.8	641.3	630.3	619.5	518.1	452.8	405.7	380.4	362.3
12.5°	724.5	706.4	688.4	670.1	655.8	637.6	510.8	427.5	380.4	351.3	333.3
15°	779.0	753.5	731.7	710.2	684.6	666.6	496.3	405.7	358.6	329.8	308.0
17.5°	829.6	800.6	768.0	735.5	710.2	684.6	481.8	384.1	336.8	308.0	286.2
20°	902.0	858.7	818.8	779.0	742.7	710.2	460.0	362.3	318.8	286.2	264.4
22.5°	981.9	931.0	880.4	826.1	779.0	735.5	442.0	344.1	300.7	268.2	242.7
25°	1083.3	1021.7	952.8	884.0	829.6	771.8	423.9	326.0	282.5	249.9	224.6
27.5°	1224.5	1137.6	1061.5	974.6	891.2	826.1	409.4	311.5	264.4	231.9	206.6
30°	1416.6	1289.6	1170.2	1076.0	978.1	884.0	394.9	293.5	249.9	213.8	184.8
32.5°	1630.2	1481.7	1344.0	1202.7	1079.5	970.9	380.4	279.0	231.9	195.6	170.3
35°	1894.9	1706.3	1521.5	1358.5	1210.0	1065.0	365.9	264.4	217.4	177.5	152.2
37.5°	2275.2	2039.6	1797.0	1586.9	1394.8	1202.7	355.1	249.9	199.3	159.5	134.0
40°	2796.9	2492.6	2195.4	1909.2	1659.2	1420.1	340.6	235.4	184.8	145.0	119.5
42.5°	3362.0	2992.4	2601.3	2278.8	1934.7	1633.9	326.0	221.1	170.3	130.5	105.2
45°	4064.9	3604.7	3130.2	2691.7	2271.5	1883.9	311.5	206.6	152.2	115.9	90.6
47.5°	4833.0	4246.0	3709.9	3159.2	2659.1	2195.4	293.5	195.6	137.7	101.4	79.6
50°	5622.8	5003.2	4325.6	3698.9	3104.9	2507.1	275.4	177.5	123.2	90.6	65.1
52.5°	6473.9	5742.2	5050.3	4271.3	3579.4	2916.3	257.2	163.0	112.2	79.6	54.3
55°	7557.2	6738.6	5927.0	5053.8	4220.7	3391.1	239.1	145.0	97.9	68.9	43.6
57.5°	8919.5	7948.6	6952.2	5966.8	4956.2	4014.1	224.6	126.7	83.4	57.9	36.3
60°	10205.6	9071.7	7865.2	6731.3	5590.0	4492.4	202.8	112.2	72.4	47.1	36.3
62.5°	10872.2	9578.8	8278.2	7028.3	5811.1	4662.7	181.1	94.2	61.6	39.8	32.6
65°	10709.2	9390.5	8129.7	6868.8	5677.1	4554.0	159.5	83.4	54.3	36.3	32.6
66°	10473.8	9169.4	7901.5	6702.3	5564.7	4438.1	148.5	79.6	50.8	36.3	29.0
67.5°	9959.2	8698.4	7488.4	6372.5	5256.7	4217.0	134.0	72.4	47.1	32.6	29.0
70°	8506.5	7361.6	6394.3	5401.7	4492.4	3554.1	108.7	61.6	39.8	29.0	29.0
72.5°	5629.8	4851.0	4206.2	3619.2	3025.0	2347.6	90.6	50.8	32.6	29.0	25.3
75°	2123.0	1920.2	1648.5	1481.7	1293.4	1133.9	72.4	32.6	25.3	25.3	25.3
77.5°	376.9	347.8	308.0	282.5	260.9	239.1	57.9	21.8	21.8	25.3	25.3
80°	253.7	235.4	213.8	195.6	181.1	163.0	39.8	18.0	21.8	21.8	25.3
82.5°	181.1	170.3	159.5	145.0	134.0	119.5	25.3	18.0	21.8	21.8	21.8
85°	108.7	101.4	94.2	86.9	76.1	72.4	18.0	18.0	18.0	21.8	21.8
87.5°	29.0	25.3	29.0	29.0	21.8	25.3	14.5	14.5	14.5	18.0	18.0
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):

	145°	155°	165°	175°	180°
0°	568.7	568.7	568.7	568.7	568.7
2.5°	481.8	481.8	474.5	485.5	485.5
5°	416.7	416.7	412.9	416.7	416.7
7.5°	380.4	376.9	376.9	376.9	380.4
10°	347.8	344.1	344.1	344.1	344.1
12.5°	318.8	315.3	311.5	315.3	315.3
15°	293.5	286.2	286.2	286.2	286.2
17.5°	271.7	264.4	260.9	260.9	260.9
20°	249.9	239.1	239.1	239.1	239.1
22.5°	228.1	217.4	217.4	217.4	217.4
25°	206.6	195.6	195.6	195.6	195.6
27.5°	188.3	177.5	177.5	177.5	177.5
30°	166.8	159.5	159.5	163.0	159.5
32.5°	152.2	141.2	141.2	145.0	145.0
35°	134.0	126.7	126.7	126.7	126.7
37.5°	115.9	108.7	108.7	108.7	108.7
40°	101.4	94.2	90.6	94.2	94.2
42.5°	86.9	79.6	76.1	76.1	76.1
45°	76.1	65.1	61.6	65.1	65.1
47.5°	61.6	54.3	54.3	57.9	57.9
50°	47.1	47.1	50.8	57.9	57.9
52.5°	43.6	43.6	50.8	57.9	57.9
55°	39.8	43.6	50.8	54.3	57.9
57.5°	36.3	43.6	50.8	54.3	54.3
60°	36.3	39.8	47.1	54.3	54.3
62.5°	32.6	36.3	43.6	50.8	50.8
65°	32.6	36.3	43.6	50.8	50.8
66°	32.6	36.3	43.6	50.8	50.8
67.5°	32.6	36.3	43.6	50.8	50.8
70°	32.6	36.3	43.6	47.1	47.1
72.5°	29.0	32.6	39.8	47.1	47.1
75°	29.0	32.6	39.8	47.1	47.1
77.5°	29.0	32.6	39.8	47.1	47.1
80°	29.0	32.6	39.8	43.6	47.1
82.5°	25.3	32.6	36.3	43.6	43.6
85°	25.3	29.0	36.3	39.8	43.6
87.5°	21.8	25.3	29.0	36.3	36.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)