

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: P165507

Luminaire Tested: **VST-E07-LED-E-U-SL4-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165507
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33728)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E07-LED-E-U-SL4-HSS
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(7) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (147) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14073.4 lumens
Efficiency: N/A
Efficacy: 81.6 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.17' x L: 1' x H: 0.1')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G3

Input Watts (W): 172.5
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: 28.75 FT

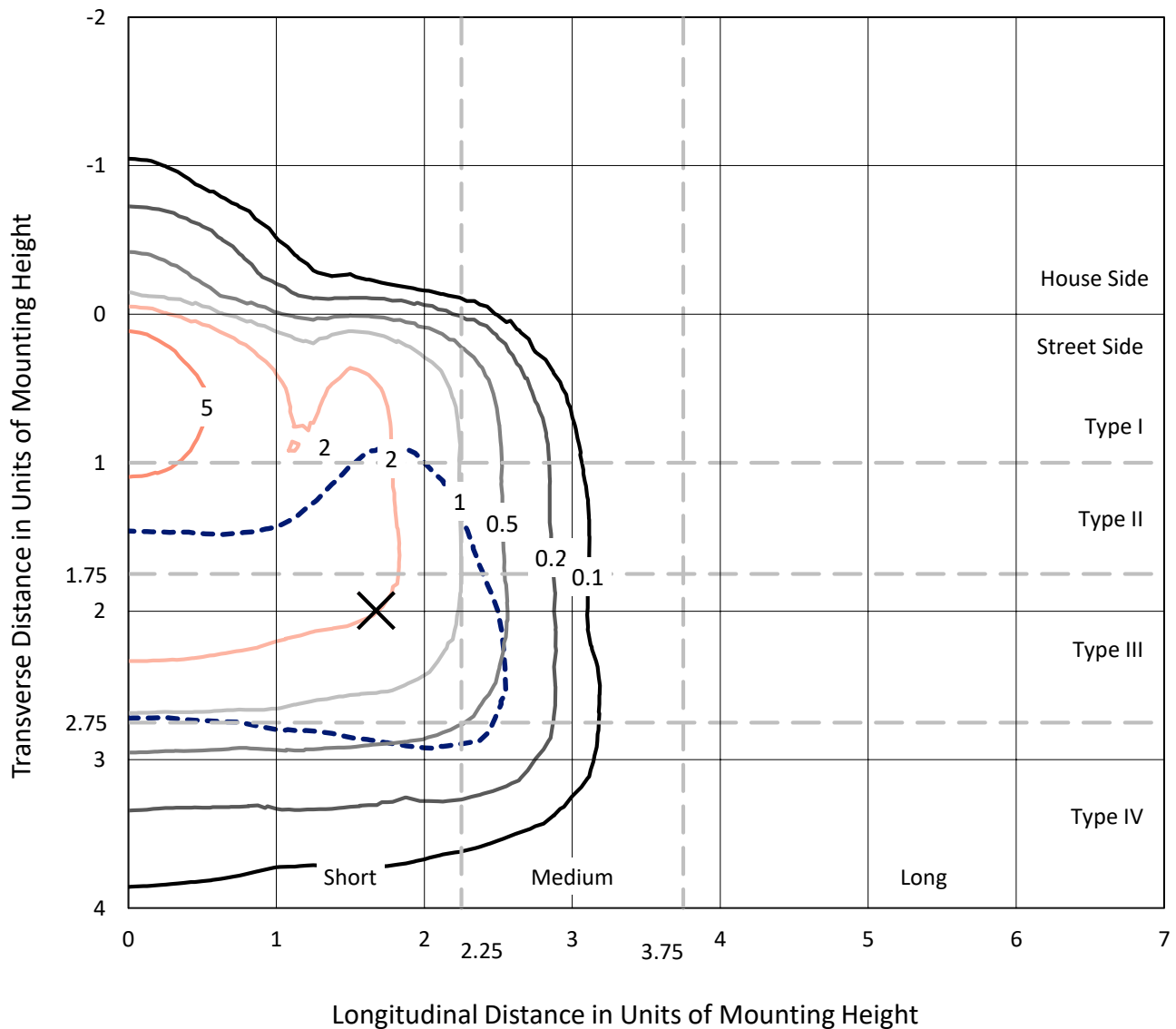


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

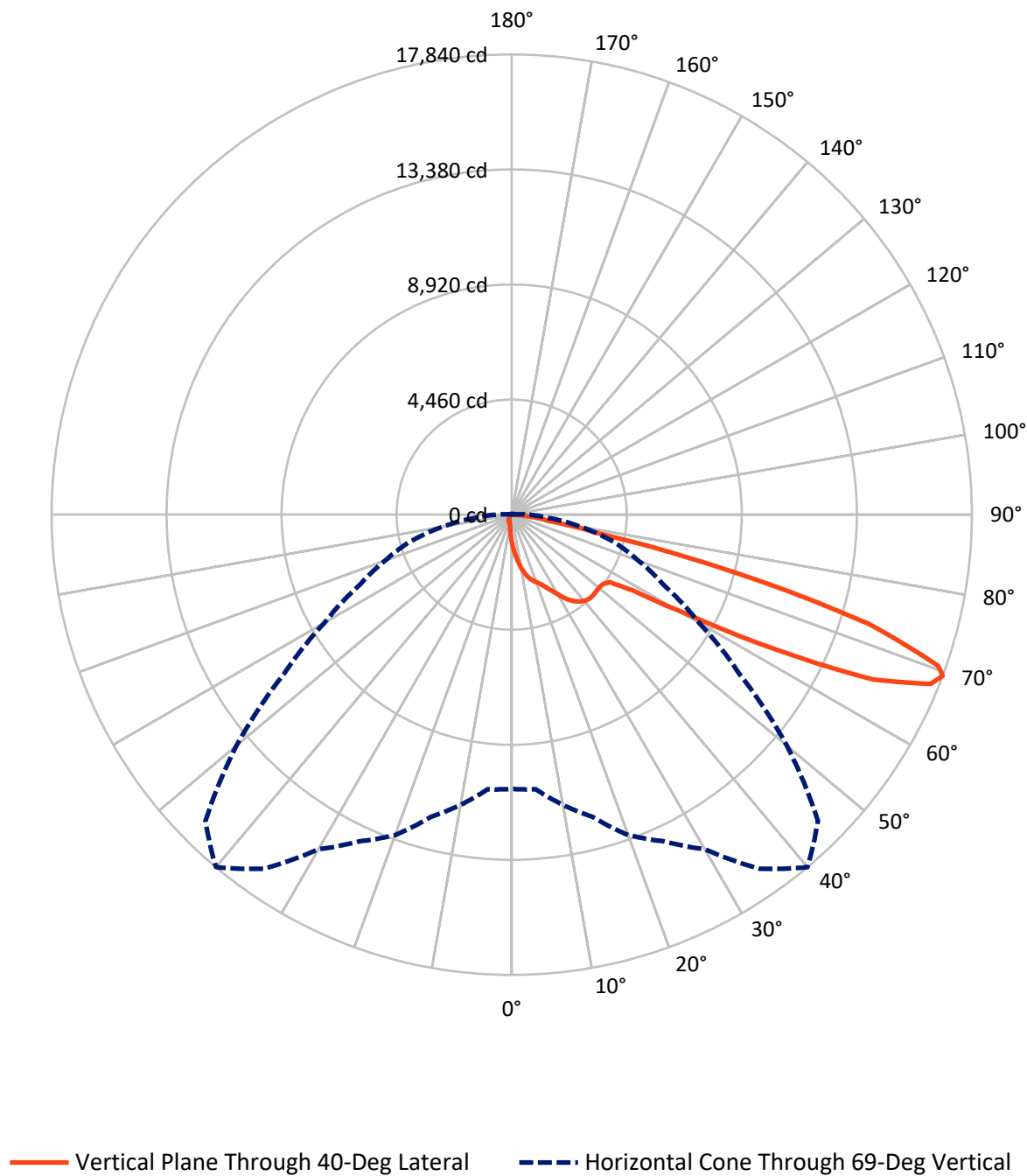


Based on 20 foot mounting height. Maximum calculated value = 7.9 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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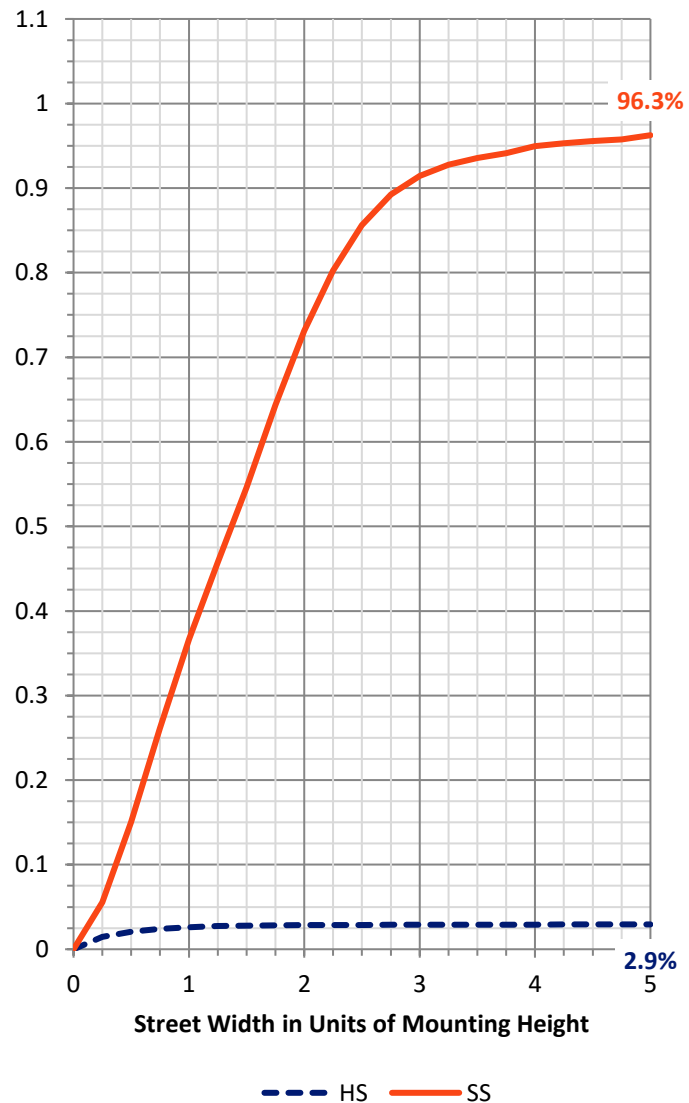
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	419.1	0.0	419.1
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	13654.3	0.0	13654.3
	% Fixture	97.0	0.0	97.0
Total	Lumens	14073.4	0.0	14073.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.2	0.8
10°-20°	376.6	2.7
20°-30°	720.9	5.1
30°-40°	1198.8	8.5
40°-50°	1622.2	11.5
50°-60°	2536.9	18.0
60°-70°	5215.9	37.1
70°-80°	2098.8	14.9
80°-90°	194.1	1.4
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°	14073.4	100.0
0°-180°	14073.4	100.0

Coefficient of Utilization



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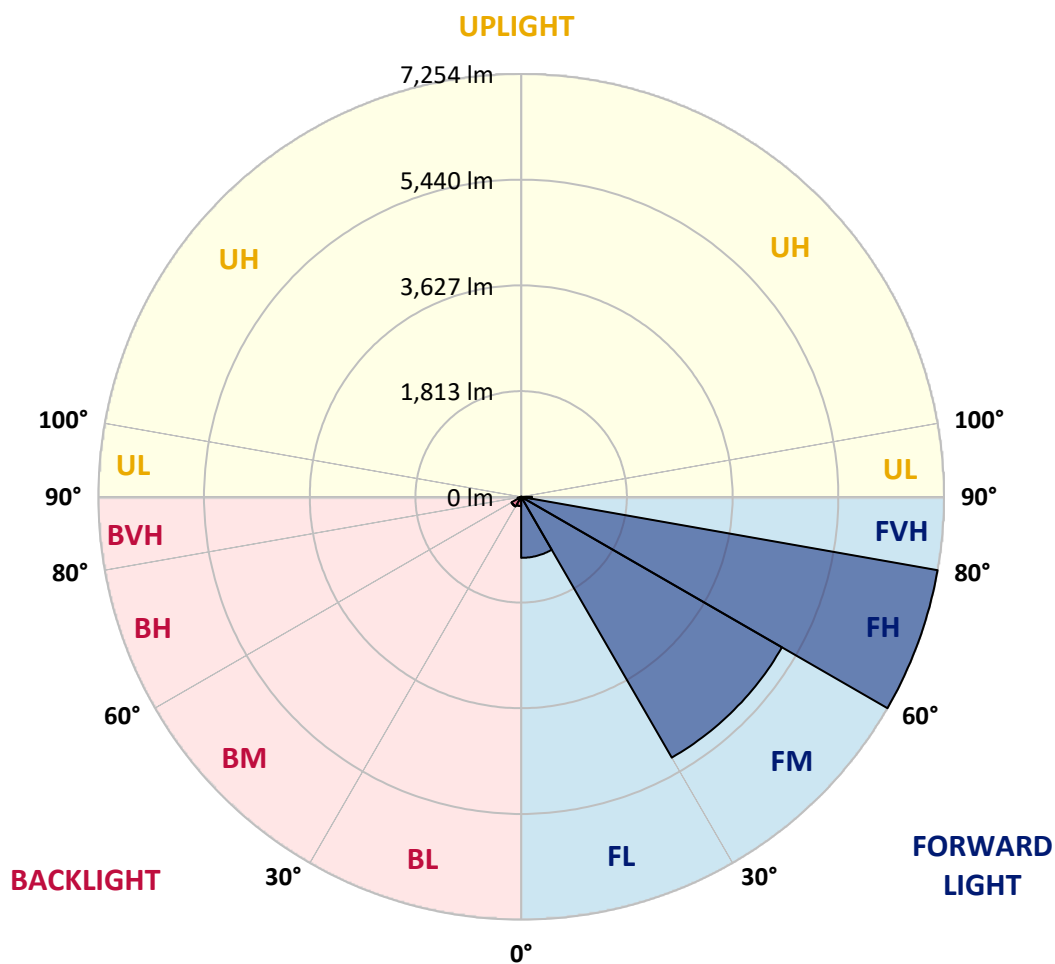
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1047.3	7.4			
FM	(30°-60°)	5166.6	36.7			
FH	(60°-80°)	7253.5	51.5			G3/7500
FVH	(80°-90°)	186.9	1.3			G2/225
BL	(0°-30°)	159.4	1.1	B1/500		
BM	(30°-60°)	191.4	1.4	B0/220		
BH	(60°-80°)	61.1	0.4	B0/110		G0/110
BVH	(80°-90°)	7.2	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1062.9	1062.9	1062.9	1062.9	1062.9	1062.9	1062.9	1062.9	1062.9	1062.9	1062.9
2.5°	1417.9	1401.7	1383.2	1383.2	1360.2	1360.2	1346.4	1309.6	1304.9	1284.1	1263.4
5°	1809.8	1795.9	1773.0	1752.1	1733.8	1701.4	1678.3	1634.5	1586.2	1540.0	1498.6
7.5°	2192.5	2185.5	2144.1	2137.1	2107.1	2054.2	2008.0	1943.5	1860.5	1795.9	1719.9
10°	2547.6	2531.3	2522.1	2482.9	2439.2	2381.5	2310.0	2231.7	2134.9	2033.4	1925.0
12.5°	2828.8	2819.6	2778.0	2761.9	2715.9	2658.2	2568.3	2466.8	2370.1	2238.6	2111.8
15°	3038.6	3022.5	2994.7	2969.4	2914.1	2863.4	2780.4	2669.7	2552.2	2409.3	2257.1
17.5°	3213.8	3183.9	3176.9	3137.7	3080.1	3020.1	2928.0	2826.5	2688.1	2545.2	2379.2
20°	3448.9	3407.5	3393.6	3335.9	3269.1	3186.1	3080.1	2953.3	2808.0	2651.3	2480.7
22.5°	3725.5	3695.6	3665.6	3614.9	3529.7	3412.1	3257.7	3119.3	2934.8	2761.9	2577.5
25°	4117.5	4092.2	4043.8	3974.6	3868.5	3727.9	3541.2	3338.3	3121.6	2900.2	2683.5
27.5°	4497.9	4474.8	4440.2	4387.3	4267.3	4112.9	3882.3	3624.2	3349.8	3082.4	2842.6
30°	4855.3	4834.5	4799.9	4747.0	4640.9	4488.7	4228.1	3951.5	3610.3	3299.1	3011.0
32.5°	5240.3	5233.3	5194.1	5118.1	5025.9	4820.8	4537.1	4239.8	3894.0	3534.3	3197.6
35°	5676.0	5623.0	5586.1	5510.0	5353.3	5134.2	4802.3	4477.2	4112.9	3744.0	3368.3
37.5°	6044.9	5994.2	5948.0	5851.3	5659.9	5380.9	5005.1	4647.7	4272.0	3896.2	3513.4
40°	6314.6	6289.2	6233.9	6107.1	5892.7	5560.8	5154.9	4765.3	4387.3	4009.2	3631.0
42.5°	6515.2	6476.0	6413.8	6282.4	6028.8	5650.7	5214.9	4813.8	4440.2	4078.3	3707.2
45°	6589.0	6556.8	6499.1	6356.1	6081.7	5676.0	5212.6	4799.9	4442.6	4099.1	3757.9
47.5°	6545.1	6512.9	6462.1	6328.4	6058.8	5646.1	5171.2	4760.7	4419.5	4106.1	3803.9
50°	6400.0	6381.5	6342.3	6229.3	5987.2	5588.4	5134.2	4740.0	4414.9	4140.6	3868.5
52.5°	6386.1	6374.6	6326.2	6213.2	5966.5	5569.9	5129.6	4751.6	4454.1	4184.5	3914.7
55°	7803.9	7640.2	7273.7	6962.5	6450.6	5842.1	5362.4	4938.2	4620.1	4357.4	4168.2
57.5°	11091.5	10847.2	10365.3	9772.8	8597.0	7442.0	6517.6	5848.9	5519.2	5399.4	5470.8
60°	12631.5	12587.8	12511.7	12230.4	11628.7	10635.1	9528.4	8332.0	7852.3	7810.9	7956.1
62.5°	13362.4	13334.7	13357.8	13323.2	13136.5	12846.0	12527.8	12011.4	11536.4	11229.8	10579.7
65°	13699.0	13717.5	13848.8	13952.5	13975.6	14051.7	14284.6	14927.8	15398.0	14607.3	12802.2
67.5°	12843.6	12952.0	13254.1	13632.1	14074.8	14503.6	15195.2	16550.8	17516.8	16587.8	14024.1
69°	10632.7	10685.8	11423.4	12135.9	13217.1	13973.4	14976.2	16753.7	17839.6	16790.6	13927.2
70°	8371.0	8419.5	9210.3	10178.6	12006.8	12979.7	14291.5	16410.2	17537.5	16520.8	13429.2
72.5°	3776.4	3707.2	3986.1	4504.8	6492.1	8036.8	10330.7	13295.5	14469.0	13235.6	10047.1
75°	2637.5	2607.5	2637.5	2639.7	2948.7	3803.9	4799.9	7206.8	8912.8	7691.0	4799.9
77.5°	2042.6	2021.9	2001.2	1978.1	2015.0	2257.1	2353.8	2556.7	3319.8	3140.1	1830.5
80°	1616.2	1597.7	1648.4	1632.3	1632.3	1660.0	1641.5	1565.3	1422.4	1318.7	1180.3
82.5°	751.5	756.1	756.1	820.7	989.1	1155.0	1208.1	1132.0	1005.2	855.3	689.4
85°	71.4	80.6	136.1	209.9	417.3	470.3	472.6	391.9	391.9	309.0	248.9
87.5°	0.0	2.2	2.2	2.2	20.7	57.7	48.4	13.9	6.9	6.9	11.5
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1062.9	1062.9	1062.9	1062.9	1062.9	1062.9	1062.9	1062.9	1062.9	1062.9	1062.9
2.5°	1226.5	1219.5	1192.0	1164.2	1138.9	1111.2	1085.8	1060.5	1032.8	1012.1	986.7
5°	1434.0	1383.2	1325.7	1270.4	1214.9	1157.4	1097.5	1044.4	989.1	938.3	889.8
7.5°	1643.7	1544.6	1466.2	1367.1	1277.2	1187.3	1104.3	1019.1	940.7	866.9	797.7
10°	1821.3	1701.4	1579.2	1452.5	1323.3	1203.4	1088.2	986.7	883.0	793.1	707.8
12.5°	1966.6	1814.4	1664.6	1505.4	1360.2	1208.1	1065.1	942.9	820.7	719.3	631.7
15°	2097.9	1922.8	1742.9	1558.5	1374.1	1201.2	1042.0	889.8	765.4	650.2	551.0
17.5°	2204.0	2003.4	1800.5	1593.1	1394.8	1192.0	1012.1	853.0	707.8	587.9	491.1
20°	2296.3	2086.4	1867.5	1634.5	1408.7	1189.6	986.7	807.0	657.0	530.3	435.7
22.5°	2381.5	2171.7	1936.6	1687.6	1429.4	1187.3	963.6	772.4	613.2	486.5	391.9
25°	2478.4	2257.1	2010.4	1742.9	1466.2	1196.6	949.9	744.7	574.0	444.9	357.3
27.5°	2586.8	2353.8	2097.9	1812.0	1514.7	1214.9	945.3	714.7	539.4	405.7	329.7
30°	2738.8	2469.2	2185.5	1881.2	1558.5	1235.8	940.7	696.2	504.8	375.8	302.0
32.5°	2872.7	2582.2	2282.4	1952.7	1606.9	1256.5	938.3	670.9	472.6	345.8	281.3
35°	3013.2	2685.9	2365.4	2021.9	1648.4	1279.5	936.0	652.4	442.7	315.8	260.5
37.5°	3135.4	2773.4	2430.0	2081.8	1694.6	1300.3	938.3	636.3	415.0	290.5	242.1
40°	3239.2	2863.4	2501.4	2137.1	1742.9	1332.5	940.7	620.2	387.4	267.4	226.0
42.5°	3331.4	2948.7	2577.5	2199.4	1798.3	1369.5	954.5	606.3	364.3	246.7	209.9
45°	3402.8	3027.1	2660.4	2287.0	1888.2	1429.4	979.9	597.1	341.2	228.2	196.0
47.5°	3476.6	3142.3	2801.1	2425.4	2019.6	1523.9	1023.7	594.9	322.7	214.3	184.4
50°	3578.1	3257.7	2925.6	2565.9	2139.5	1620.8	1076.6	597.1	299.7	200.6	172.9
52.5°	3651.9	3375.1	3087.0	2810.4	2425.4	1915.8	1281.8	638.5	288.1	189.0	159.0
55°	4087.6	4039.1	4046.0	4092.2	3794.8	3259.9	2144.1	922.2	338.9	214.3	156.8
57.5°	5763.7	5934.2	6033.3	6031.1	5539.9	4594.8	2879.5	1185.0	378.1	248.9	186.8
60°	7967.7	7838.6	7656.5	7206.8	6554.4	5245.0	3220.7	1275.0	327.3	198.2	170.7
62.5°	9915.8	9159.5	8488.6	7760.2	6904.8	5470.8	3289.9	1268.0	285.9	149.8	119.8
65°	11130.7	9770.5	8687.0	7773.9	6766.5	5281.8	3112.3	1164.2	242.1	122.2	99.1
67.5°	11421.2	9440.8	7907.8	6743.4	5652.9	4110.7	2284.7	876.1	189.0	101.5	87.6
69°	10787.1	8391.9	6552.1	5231.1	4112.9	2727.3	1413.3	553.3	145.2	92.3	80.6
70°	9922.6	7299.0	5337.1	4198.2	3045.6	1915.8	989.1	389.6	117.6	85.3	73.8
72.5°	6383.9	3833.9	2623.6	1825.9	1256.5	763.1	387.4	175.3	89.9	71.4	59.9
75°	2476.0	1417.9	1028.3	781.5	611.0	424.2	235.2	113.0	76.0	59.9	46.1
77.5°	1219.5	933.7	763.1	523.3	304.4	189.0	126.8	87.6	62.3	43.8	30.0
80°	963.6	640.9	382.8	237.4	179.8	136.1	96.9	71.4	46.1	27.7	20.7
82.5°	493.4	269.8	198.2	161.4	133.7	106.1	78.4	50.7	30.0	18.5	16.1
85°	154.4	113.0	101.5	99.1	92.3	76.0	55.3	32.3	18.5	11.5	11.5
87.5°	11.5	16.1	20.7	16.1	18.5	16.1	20.7	13.9	9.2	9.2	6.9
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1062.9	1062.9	1062.9	1062.9	1062.9	1062.9	1062.9	1062.9	1062.9	1062.9	1062.9
2.5°	968.2	940.7	915.3	899.1	869.1	857.6	846.2	841.5	820.7	825.3	807.0
5°	846.2	797.7	760.8	723.9	689.4	664.0	643.2	617.8	597.1	587.9	569.4
7.5°	735.4	673.3	624.8	585.6	544.0	511.8	484.1	465.6	447.3	428.8	419.6
10°	638.5	571.8	516.5	477.3	438.1	410.3	389.6	375.8	364.3	357.3	355.0
12.5°	548.7	484.1	433.4	398.9	368.9	355.0	345.8	338.9	336.6	334.3	334.3
15°	479.5	415.0	375.8	350.4	336.6	329.7	327.3	322.7	318.2	315.8	315.8
17.5°	415.0	366.5	338.9	325.1	318.2	313.6	309.0	304.4	299.7	297.4	297.4
20°	371.1	331.9	318.2	309.0	302.0	297.4	290.5	285.9	283.6	281.3	279.0
22.5°	336.6	311.2	302.0	295.1	285.9	279.0	274.4	269.8	265.2	262.8	260.5
25°	311.2	295.1	288.1	279.0	269.8	262.8	255.9	248.9	244.4	242.1	237.4
27.5°	292.7	281.3	272.0	260.5	251.3	244.4	237.4	230.6	226.0	221.3	219.0
30°	276.6	265.2	253.5	244.4	232.8	226.0	216.7	209.9	207.5	202.9	198.2
32.5°	260.5	248.9	237.4	226.0	214.3	205.2	200.6	191.4	186.8	184.4	179.8
35°	242.1	230.6	216.7	207.5	196.0	186.8	179.8	172.9	168.3	163.7	161.4
37.5°	226.0	212.1	198.2	186.8	177.5	168.3	161.4	154.4	149.8	145.2	142.9
40°	207.5	193.6	179.8	168.3	159.0	152.2	145.2	138.3	133.7	131.5	131.5
42.5°	191.4	175.3	161.4	152.2	145.2	136.1	129.1	122.2	119.8	117.6	119.8
45°	175.3	159.0	147.6	138.3	131.5	122.2	115.2	110.6	108.4	110.6	113.0
47.5°	161.4	145.2	133.7	126.8	119.8	113.0	106.1	101.5	101.5	106.1	110.6
50°	147.6	131.5	122.2	117.6	110.6	103.7	94.5	92.3	94.5	99.1	103.7
52.5°	133.7	115.2	108.4	106.1	99.1	92.3	85.3	83.0	85.3	89.9	87.6
55°	119.8	101.5	99.1	96.9	89.9	80.6	73.8	73.8	73.8	71.4	66.9
57.5°	115.2	89.9	87.6	85.3	78.4	69.2	64.5	59.9	57.7	50.7	48.4
60°	119.8	80.6	80.6	76.0	69.2	59.9	53.1	46.1	41.4	36.8	36.8
62.5°	96.9	73.8	71.4	66.9	57.7	48.4	41.4	34.6	32.3	30.0	30.0
65°	78.4	66.9	62.3	55.3	48.4	39.2	32.3	27.7	25.3	25.3	27.7
67.5°	71.4	59.9	53.1	46.1	39.2	30.0	25.3	23.1	23.1	25.3	25.3
69°	66.9	55.3	48.4	41.4	34.6	27.7	23.1	23.1	23.1	23.1	25.3
70°	62.3	53.1	46.1	39.2	30.0	23.1	20.7	20.7	23.1	23.1	25.3
72.5°	48.4	41.4	39.2	32.3	23.1	20.7	18.5	20.7	20.7	23.1	23.1
75°	36.8	30.0	30.0	25.3	18.5	16.1	16.1	18.5	18.5	20.7	20.7
77.5°	25.3	20.7	20.7	18.5	16.1	13.9	13.9	16.1	18.5	18.5	20.7
80°	18.5	16.1	13.9	16.1	13.9	11.5	13.9	16.1	16.1	18.5	18.5
82.5°	13.9	13.9	13.9	13.9	11.5	11.5	13.9	13.9	16.1	18.5	18.5
85°	11.5	11.5	11.5	11.5	11.5	11.5	11.5	13.9	13.9	16.1	16.1
87.5°	6.9	6.9	6.9	9.2	9.2	11.5	11.5	11.5	11.5	13.9	13.9
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):

	165°	170°	175°	180°
0°	1062.9	1062.9	1062.9	1062.9
2.5°	802.3	800.0	790.7	793.1
5°	562.5	548.7	557.9	555.7
7.5°	412.7	410.3	408.1	412.7
10°	352.8	352.8	350.4	352.8
12.5°	331.9	331.9	331.9	331.9
15°	315.8	315.8	313.6	313.6
17.5°	297.4	297.4	297.4	295.1
20°	279.0	276.6	276.6	276.6
22.5°	258.2	255.9	255.9	255.9
25°	237.4	235.2	235.2	235.2
27.5°	216.7	214.3	212.1	212.1
30°	196.0	193.6	191.4	191.4
32.5°	175.3	172.9	170.7	170.7
35°	156.8	156.8	154.4	152.2
37.5°	140.7	140.7	140.7	140.7
40°	129.1	131.5	131.5	131.5
42.5°	122.2	124.5	126.8	129.1
45°	117.6	122.2	124.5	124.5
47.5°	115.2	117.6	119.8	119.8
50°	106.1	103.7	103.7	103.7
52.5°	85.3	80.6	78.4	76.0
55°	62.3	59.9	55.3	55.3
57.5°	43.8	43.8	41.4	41.4
60°	34.6	34.6	32.3	34.6
62.5°	30.0	30.0	30.0	30.0
65°	27.7	27.7	27.7	27.7
67.5°	27.7	27.7	27.7	27.7
69°	25.3	25.3	25.3	25.3
70°	25.3	25.3	25.3	25.3
72.5°	23.1	23.1	23.1	23.1
75°	20.7	23.1	23.1	23.1
77.5°	20.7	20.7	20.7	20.7
80°	18.5	18.5	20.7	20.7
82.5°	18.5	18.5	18.5	18.5
85°	16.1	16.1	18.5	18.5
87.5°	13.9	13.9	16.1	16.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)