

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: P165537

Luminaire Tested: **VST-E10-LED-E-U-SL4-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165537
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-E10-LED-E-U-SL4-HSS
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(10) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (210) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20104.9 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.67' x L: 1' x H: 0.1')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G4

Input Watts (W): 247.7
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

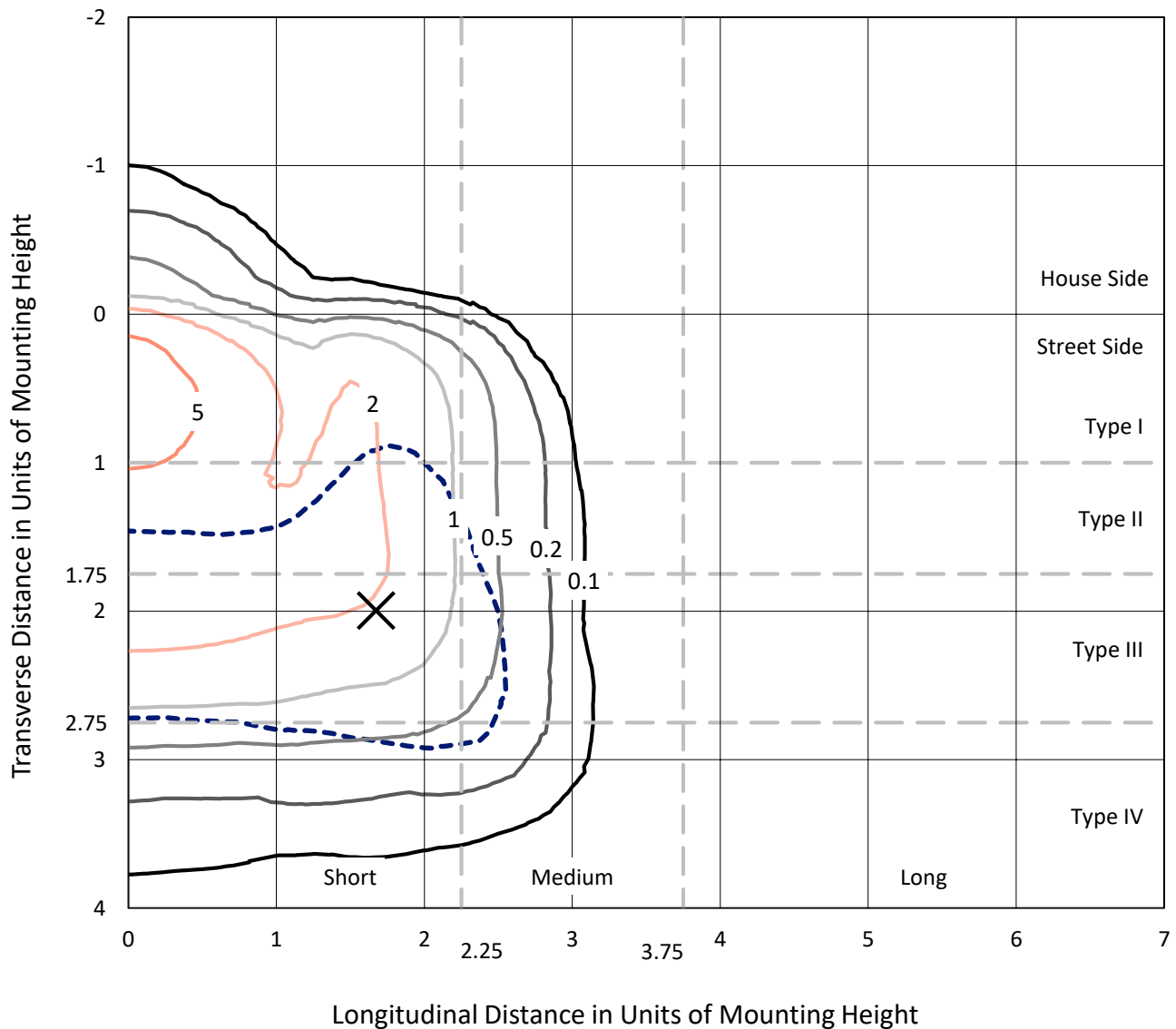


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

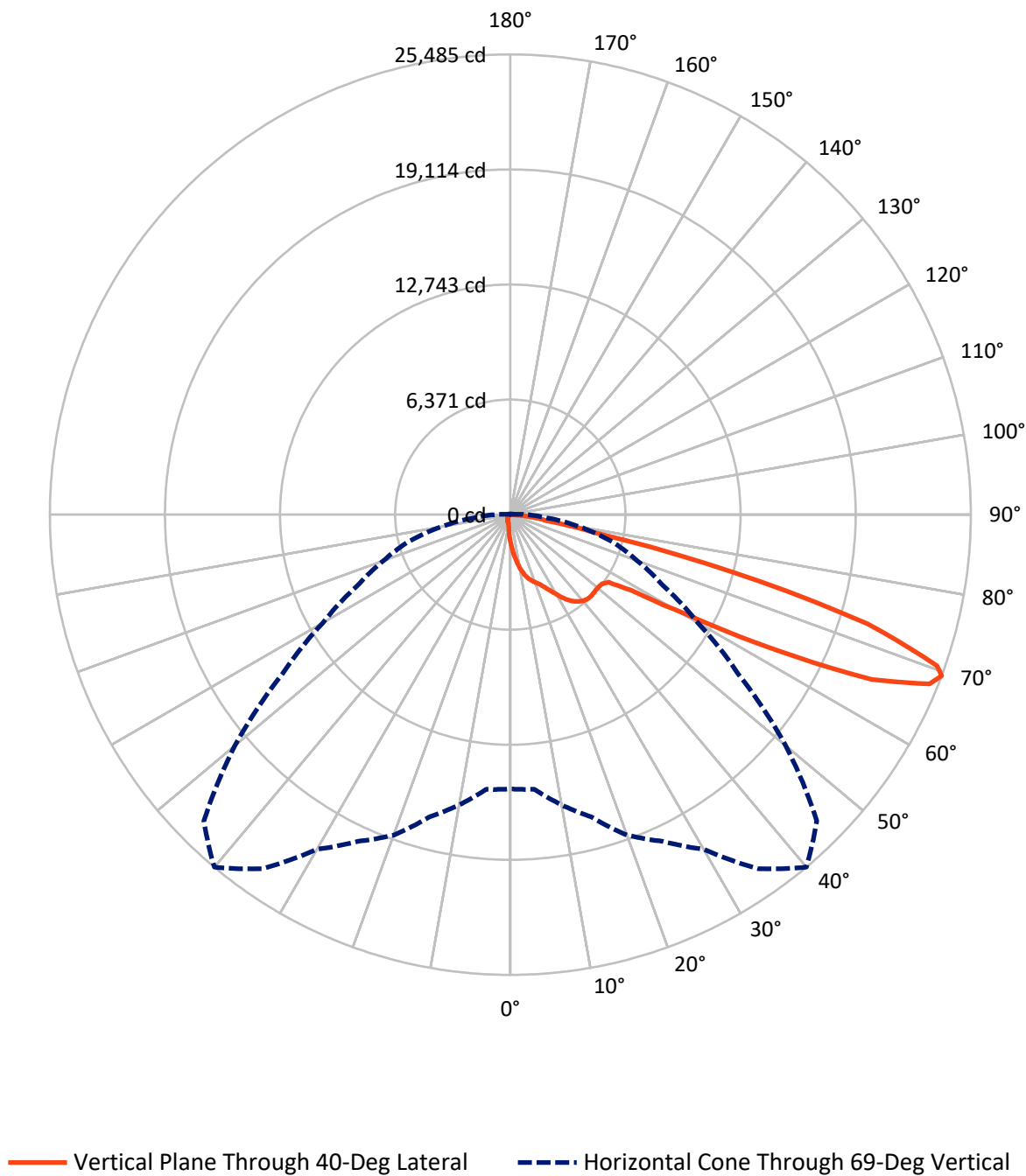


Based on 25 foot mounting height. Maximum calculated value = 7.2 fc
Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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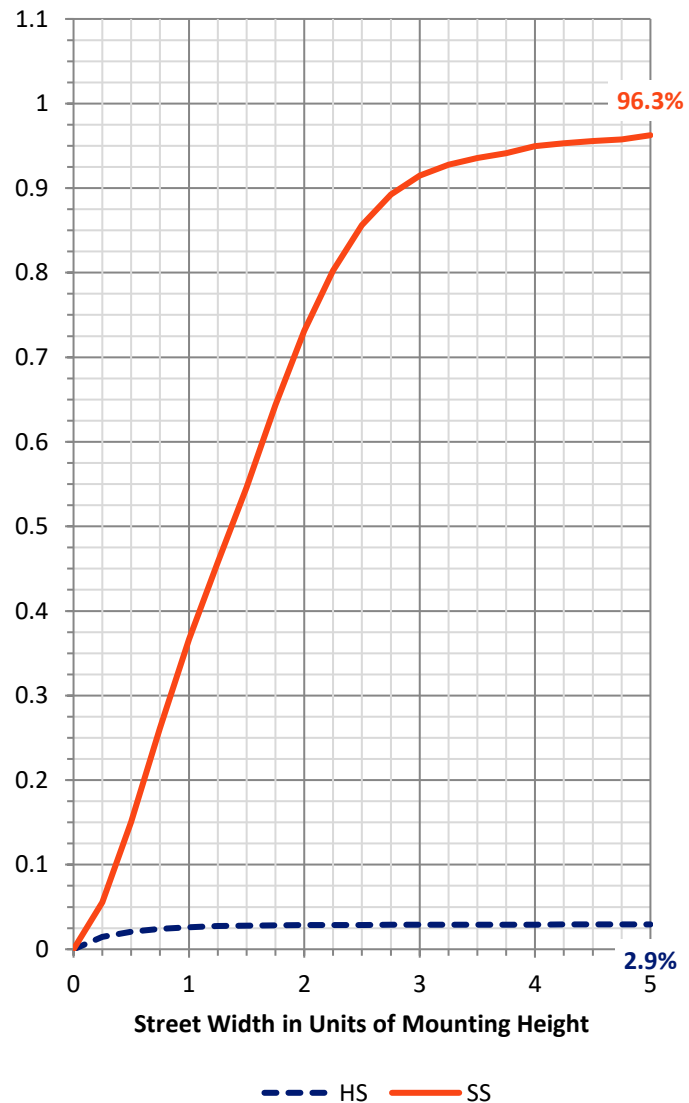
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	598.7	0.0	598.7
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	19506.2	0.0	19506.2
	% Fixture	97.0	0.0	97.0
Total	Lumens	20104.9	0.0	20104.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.1	0.8
10°-20°	538.1	2.7
20°-30°	1029.8	5.1
30°-40°	1712.6	8.5
40°-50°	2317.4	11.5
50°-60°	3624.2	18.0
60°-70°	7451.2	37.1
70°-80°	2998.2	14.9
80°-90°	277.3	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°	20104.9	100.0
0°-180°	20104.9	100.0

Coefficient of Utilization



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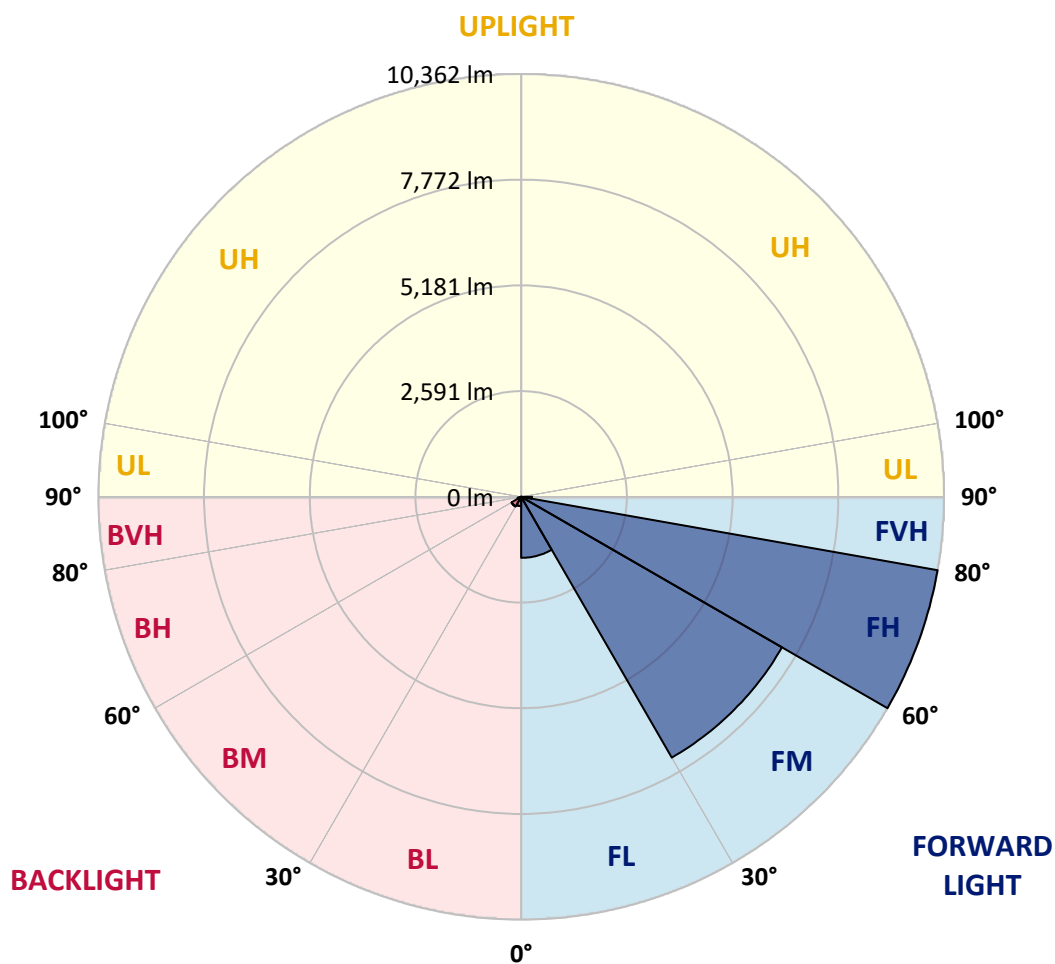
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1496.2	7.4			
FM	(30°-60°)	7380.8	36.7			
FH	(60°-80°)	10362.1	51.5			G4/12000
FVH	(80°-90°)	267.0	1.3			G3/500
BL	(0°-30°)	227.7	1.1	B1/500		
BM	(30°-60°)	273.4	1.4	B1/1000		
BH	(60°-80°)	87.3	0.4	B0/110		G0/110
BVH	(80°-90°)	10.3	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1518.4	1518.4	1518.4	1518.4	1518.4	1518.4	1518.4	1518.4	1518.4	1518.4	1518.4
2.5°	2025.6	2002.4	1976.0	1976.0	1943.2	1943.2	1923.4	1870.8	1864.2	1834.4	1804.8
5°	2585.4	2565.6	2532.8	2503.0	2476.8	2430.6	2397.6	2335.0	2266.0	2200.0	2140.8
7.5°	3132.2	3122.2	3063.0	3053.0	3010.2	2934.6	2868.6	2776.4	2657.8	2565.6	2457.0
10°	3639.4	3616.2	3603.0	3547.0	3484.6	3402.2	3300.0	3188.2	3049.8	2904.8	2750.0
12.5°	4041.2	4028.0	3968.6	3945.6	3879.8	3797.4	3669.0	3524.0	3385.8	3198.0	3016.8
15°	4340.8	4317.8	4278.2	4242.0	4163.0	4090.6	3972.0	3813.8	3646.0	3441.8	3224.4
17.5°	4591.2	4548.4	4538.4	4482.4	4400.2	4314.4	4182.8	4037.8	3840.2	3636.0	3398.8
20°	4927.0	4867.8	4848.0	4765.6	4670.2	4551.6	4400.2	4219.0	4011.4	3787.6	3543.8
22.5°	5322.2	5279.4	5236.6	5164.2	5042.4	4874.4	4653.8	4456.2	4192.6	3945.6	3682.2
25°	5882.2	5846.0	5776.8	5678.0	5526.4	5325.6	5058.8	4769.0	4459.4	4143.2	3833.6
27.5°	6425.6	6392.6	6343.2	6267.6	6096.2	5875.6	5546.2	5177.4	4785.4	4403.4	4060.8
30°	6936.2	6906.4	6857.0	6781.4	6629.8	6412.4	6040.2	5645.0	5157.6	4713.0	4301.4
32.5°	7486.2	7476.2	7420.2	7311.6	7179.8	6886.8	6481.6	6056.8	5562.8	5049.0	4568.0
35°	8108.6	8032.8	7980.2	7871.4	7647.6	7334.6	6860.4	6396.0	5875.6	5348.6	4811.8
37.5°	8635.6	8563.2	8497.2	8359.0	8085.6	7687.0	7150.2	6639.6	6102.8	5566.0	5019.2
40°	9020.8	8984.6	8905.6	8724.4	8418.2	7944.0	7364.2	6807.6	6267.6	5727.4	5187.2
42.5°	9307.4	9251.4	9162.6	8974.8	8612.6	8072.4	7449.8	6876.8	6343.2	5826.2	5296.0
45°	9412.8	9366.8	9284.4	9080.2	8688.2	8108.6	7446.6	6857.0	6346.6	5855.8	5368.4
47.5°	9350.2	9304.2	9231.6	9040.6	8655.4	8065.8	7387.4	6801.0	6313.6	5865.8	5434.2
50°	9142.8	9116.4	9060.4	8899.0	8553.2	7983.4	7334.6	6771.4	6307.0	5915.2	5526.4
52.5°	9123.0	9106.6	9037.4	8876.0	8523.6	7957.0	7328.0	6788.0	6363.0	5977.8	5592.4
55°	11148.4	10914.6	10391.0	9946.4	9215.2	8345.8	7660.6	7054.6	6600.2	6224.8	5954.6
57.5°	15845.0	15496.0	14807.6	13961.2	12281.4	10631.4	9310.8	8355.6	7884.6	7713.4	7815.4
60°	18045.0	17982.6	17873.8	17472.0	16612.4	15193.0	13612.0	11902.8	11217.6	11158.4	11365.8
62.5°	19089.2	19049.6	19082.6	19033.2	18766.4	18351.4	17896.8	17159.2	16480.6	16042.6	15113.8
65°	19570.0	19596.4	19784.0	19932.2	19965.2	20073.8	20406.6	21325.4	21997.2	20867.6	18288.8
67.5°	18348.0	18502.8	18934.4	19474.4	20106.8	20719.4	21707.4	23644.0	25024.0	23696.8	20034.4
69°	15189.6	15265.4	16319.2	17337.0	18881.6	19962.0	21394.6	23933.8	25485.2	23986.6	19896.0
70°	11958.6	12027.8	13157.6	14540.8	17152.6	18542.4	20416.4	23443.2	25053.6	23601.2	19184.6
72.5°	5394.8	5296.0	5694.4	6435.4	9274.4	11481.2	14758.2	18993.6	20670.0	18908.0	14353.0
75°	3767.8	3725.0	3767.8	3771.0	4212.4	5434.2	6857.0	10295.4	12732.6	10987.2	6857.0
77.5°	2918.0	2888.4	2858.8	2825.8	2878.6	3224.4	3362.6	3652.4	4742.6	4485.8	2615.0
80°	2308.8	2282.4	2354.8	2331.8	2331.8	2371.4	2345.0	2236.2	2032.0	1883.8	1686.2
82.5°	1073.6	1080.2	1080.2	1172.4	1413.0	1650.0	1725.8	1617.2	1436.0	1221.8	984.8
85°	102.0	115.2	194.4	299.8	596.2	671.8	675.2	559.8	559.8	441.4	355.6
87.5°	0.0	3.2	3.2	3.2	29.6	82.4	69.2	19.8	9.8	9.8	16.4
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1518.4	1518.4	1518.4	1518.4	1518.4	1518.4	1518.4	1518.4	1518.4	1518.4	1518.4
2.5°	1752.2	1742.2	1702.8	1663.2	1627.0	1587.4	1551.2	1515.0	1475.4	1445.8	1409.6
5°	2048.6	1976.0	1893.8	1814.8	1735.6	1653.4	1567.8	1492.0	1413.0	1340.4	1271.2
7.5°	2348.2	2206.6	2094.6	1953.0	1824.6	1696.2	1577.6	1455.8	1343.8	1238.4	1139.6
10°	2601.8	2430.6	2256.0	2075.0	1890.4	1719.2	1554.6	1409.6	1261.4	1133.0	1011.2
12.5°	2809.4	2592.0	2378.0	2150.6	1943.2	1725.8	1521.6	1347.0	1172.4	1027.6	902.4
15°	2997.0	2746.8	2489.8	2226.4	1963.0	1716.0	1488.6	1271.2	1093.4	928.8	787.2
17.5°	3148.6	2862.0	2572.2	2275.8	1992.6	1702.8	1445.8	1218.6	1011.2	839.8	701.6
20°	3280.4	2980.6	2667.8	2335.0	2012.4	1699.4	1409.6	1152.8	938.6	757.6	622.4
22.5°	3402.2	3102.4	2766.6	2410.8	2042.0	1696.2	1376.6	1103.4	876.0	695.0	559.8
25°	3540.6	3224.4	2872.0	2489.8	2094.6	1709.4	1357.0	1063.8	820.0	635.6	510.4
27.5°	3695.4	3362.6	2997.0	2588.6	2163.8	1735.6	1350.4	1021.0	770.6	579.6	471.0
30°	3912.6	3527.4	3122.2	2687.4	2226.4	1765.4	1343.8	994.6	721.2	536.8	431.4
32.5°	4103.8	3688.8	3260.6	2789.6	2295.6	1795.0	1340.4	958.4	675.2	494.0	401.8
35°	4304.6	3837.0	3379.2	2888.4	2354.8	1827.8	1337.2	932.0	632.4	451.2	372.2
37.5°	4479.2	3962.0	3471.4	2974.0	2420.8	1857.6	1340.4	909.0	592.8	415.0	345.8
40°	4627.4	4090.6	3573.4	3053.0	2489.8	1903.6	1343.8	886.0	553.4	382.0	322.8
42.5°	4759.2	4212.4	3682.2	3142.0	2569.0	1956.4	1363.6	866.2	520.4	352.4	299.8
45°	4861.2	4324.4	3800.6	3267.2	2697.4	2042.0	1399.8	853.0	487.4	326.0	280.0
47.5°	4966.6	4489.0	4001.6	3464.8	2885.2	2177.0	1462.4	849.8	461.0	306.2	263.4
50°	5111.6	4653.8	4179.4	3665.6	3056.4	2315.4	1538.0	853.0	428.2	286.6	247.0
52.5°	5217.0	4821.6	4410.0	4014.8	3464.8	2736.8	1831.2	912.2	411.6	270.0	227.2
55°	5839.4	5770.2	5780.0	5846.0	5421.2	4657.0	3063.0	1317.4	484.2	306.2	224.0
57.5°	8233.8	8477.4	8619.0	8615.8	7914.2	6564.0	4113.6	1692.8	540.2	355.6	266.8
60°	11382.4	11198.0	10937.8	10295.4	9363.4	7492.8	4601.0	1821.4	467.6	283.2	243.8
62.5°	14165.4	13085.0	12126.6	11086.0	9864.0	7815.4	4699.8	1811.4	408.4	214.0	171.2
65°	15901.0	13957.8	12410.0	11105.6	9666.4	7545.4	4446.2	1663.2	345.8	174.6	141.6
67.5°	16316.0	13486.8	11296.8	9633.4	8075.6	5872.4	3263.8	1251.6	270.0	145.0	125.2
69°	15410.2	11988.4	9360.2	7473.0	5875.6	3896.2	2019.0	790.4	207.4	131.8	115.2
70°	14175.2	10427.2	7624.4	5997.4	4350.8	2736.8	1413.0	556.6	168.0	121.8	105.4
72.5°	9119.8	5477.0	3748.0	2608.4	1795.0	1090.2	553.4	250.4	128.4	102.0	85.6
75°	3537.2	2025.6	1469.0	1116.4	872.8	606.0	336.0	161.4	108.6	85.6	65.8
77.5°	1742.2	1333.8	1090.2	747.6	434.8	270.0	181.2	125.2	89.0	62.6	42.8
80°	1376.6	915.6	546.8	339.2	256.8	194.4	138.4	102.0	65.8	39.6	29.6
82.5°	704.8	385.4	283.2	230.6	191.0	151.6	112.0	72.4	42.8	26.4	23.0
85°	220.6	161.4	145.0	141.6	131.8	108.6	79.0	46.2	26.4	16.4	16.4
87.5°	16.4	23.0	29.6	23.0	26.4	23.0	29.6	19.8	13.2	13.2	9.8
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1518.4	1518.4	1518.4	1518.4	1518.4	1518.4	1518.4	1518.4	1518.4	1518.4	1518.4
2.5°	1383.2	1343.8	1307.6	1284.4	1241.6	1225.2	1208.8	1202.2	1172.4	1179.0	1152.8
5°	1208.8	1139.6	1086.8	1034.2	984.8	948.6	918.8	882.6	853.0	839.8	813.4
7.5°	1050.6	961.8	892.6	836.6	777.2	731.2	691.6	665.2	639.0	612.6	599.4
10°	912.2	816.8	737.8	681.8	625.8	586.2	556.6	536.8	520.4	510.4	507.2
12.5°	783.8	691.6	619.2	569.8	527.0	507.2	494.0	484.2	480.8	477.6	477.6
15°	685.0	592.8	536.8	500.6	480.8	471.0	467.6	461.0	454.6	451.2	451.2
17.5°	592.8	523.6	484.2	464.4	454.6	448.0	441.4	434.8	428.2	424.8	424.8
20°	530.2	474.2	454.6	441.4	431.4	424.8	415.0	408.4	405.2	401.8	398.6
22.5°	480.8	444.6	431.4	421.6	408.4	398.6	392.0	385.4	378.8	375.4	372.2
25°	444.6	421.6	411.6	398.6	385.4	375.4	365.6	355.6	349.2	345.8	339.2
27.5°	418.2	401.8	388.6	372.2	359.0	349.2	339.2	329.4	322.8	316.2	312.8
30°	395.2	378.8	362.2	349.2	332.6	322.8	309.6	299.8	296.4	289.8	283.2
32.5°	372.2	355.6	339.2	322.8	306.2	293.2	286.6	273.4	266.8	263.4	256.8
35°	345.8	329.4	309.6	296.4	280.0	266.8	256.8	247.0	240.4	233.8	230.6
37.5°	322.8	303.0	283.2	266.8	253.6	240.4	230.6	220.6	214.0	207.4	204.2
40°	296.4	276.6	256.8	240.4	227.2	217.4	207.4	197.6	191.0	187.8	187.8
42.5°	273.4	250.4	230.6	217.4	207.4	194.4	184.4	174.6	171.2	168.0	171.2
45°	250.4	227.2	210.8	197.6	187.8	174.6	164.6	158.0	154.8	158.0	161.4
47.5°	230.6	207.4	191.0	181.2	171.2	161.4	151.6	145.0	145.0	151.6	158.0
50°	210.8	187.8	174.6	168.0	158.0	148.2	135.0	131.8	135.0	141.6	148.2
52.5°	191.0	164.6	154.8	151.6	141.6	131.8	121.8	118.6	121.8	128.4	125.2
55°	171.2	145.0	141.6	138.4	128.4	115.2	105.4	105.4	105.4	102.0	95.6
57.5°	164.6	128.4	125.2	121.8	112.0	98.8	92.2	85.6	82.4	72.4	69.2
60°	171.2	115.2	115.2	108.6	98.8	85.6	75.8	65.8	59.2	52.6	52.6
62.5°	138.4	105.4	102.0	95.6	82.4	69.2	59.2	49.4	46.2	42.8	42.8
65°	112.0	95.6	89.0	79.0	69.2	56.0	46.2	39.6	36.2	36.2	39.6
67.5°	102.0	85.6	75.8	65.8	56.0	42.8	36.2	33.0	33.0	36.2	36.2
69°	95.6	79.0	69.2	59.2	49.4	39.6	33.0	33.0	33.0	33.0	36.2
70°	89.0	75.8	65.8	56.0	42.8	33.0	29.6	29.6	33.0	33.0	36.2
72.5°	69.2	59.2	56.0	46.2	33.0	29.6	26.4	29.6	29.6	33.0	33.0
75°	52.6	42.8	42.8	36.2	26.4	23.0	23.0	26.4	26.4	29.6	29.6
77.5°	36.2	29.6	29.6	26.4	23.0	19.8	19.8	23.0	26.4	26.4	29.6
80°	26.4	23.0	19.8	23.0	19.8	16.4	19.8	23.0	23.0	26.4	26.4
82.5°	19.8	19.8	19.8	19.8	16.4	16.4	19.8	19.8	23.0	26.4	26.4
85°	16.4	16.4	16.4	16.4	16.4	16.4	16.4	19.8	19.8	23.0	23.0
87.5°	9.8	9.8	9.8	13.2	13.2	16.4	16.4	16.4	16.4	19.8	19.8
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):

	165°	170°	175°	180°
0°	1518.4	1518.4	1518.4	1518.4
2.5°	1146.2	1142.8	1129.6	1133.0
5°	803.6	783.8	797.0	793.8
7.5°	589.6	586.2	583.0	589.6
10°	504.0	504.0	500.6	504.0
12.5°	474.2	474.2	474.2	474.2
15°	451.2	451.2	448.0	448.0
17.5°	424.8	424.8	424.8	421.6
20°	398.6	395.2	395.2	395.2
22.5°	368.8	365.6	365.6	365.6
25°	339.2	336.0	336.0	336.0
27.5°	309.6	306.2	303.0	303.0
30°	280.0	276.6	273.4	273.4
32.5°	250.4	247.0	243.8	243.8
35°	224.0	224.0	220.6	217.4
37.5°	201.0	201.0	201.0	201.0
40°	184.4	187.8	187.8	187.8
42.5°	174.6	177.8	181.2	184.4
45°	168.0	174.6	177.8	177.8
47.5°	164.6	168.0	171.2	171.2
50°	151.6	148.2	148.2	148.2
52.5°	121.8	115.2	112.0	108.6
55°	89.0	85.6	79.0	79.0
57.5°	62.6	62.6	59.2	59.2
60°	49.4	49.4	46.2	49.4
62.5°	42.8	42.8	42.8	42.8
65°	39.6	39.6	39.6	39.6
67.5°	39.6	39.6	39.6	39.6
69°	36.2	36.2	36.2	36.2
70°	36.2	36.2	36.2	36.2
72.5°	33.0	33.0	33.0	33.0
75°	29.6	33.0	33.0	33.0
77.5°	29.6	29.6	29.6	29.6
80°	26.4	26.4	29.6	29.6
82.5°	26.4	26.4	26.4	26.4
85°	23.0	23.0	26.4	26.4
87.5°	19.8	19.8	23.0	23.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)