

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: P165526

Luminaire Tested: **VST-E09-LED-E-U-SL4-HSS-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165526
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-E09-LED-E-U-SL4-HSS-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (189) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16526.5 lumens
Efficiency: N/A
Efficacy: 73.2 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.5' x L: 1' x H: 0.1')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G4

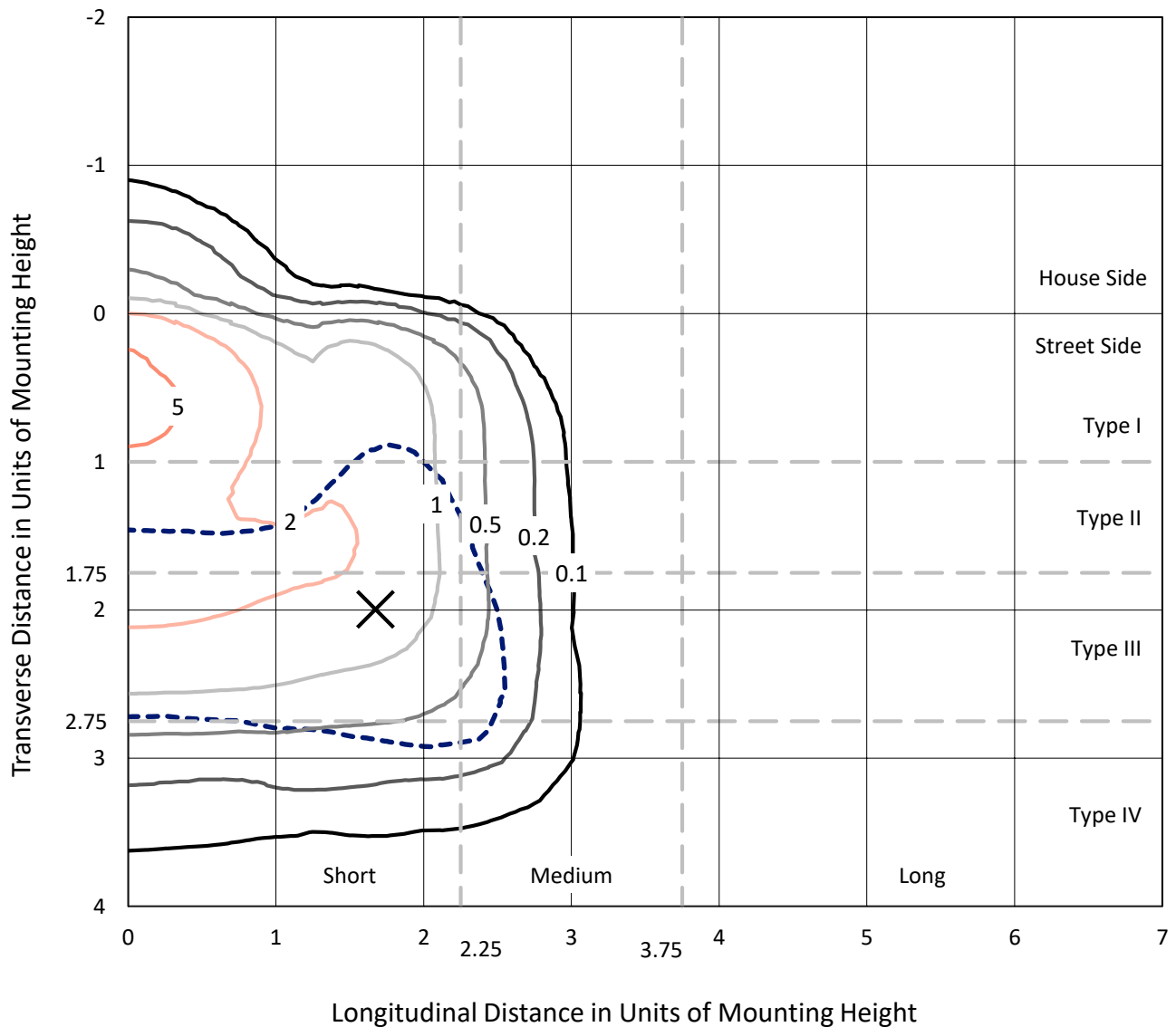
Input Watts (W): 225.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

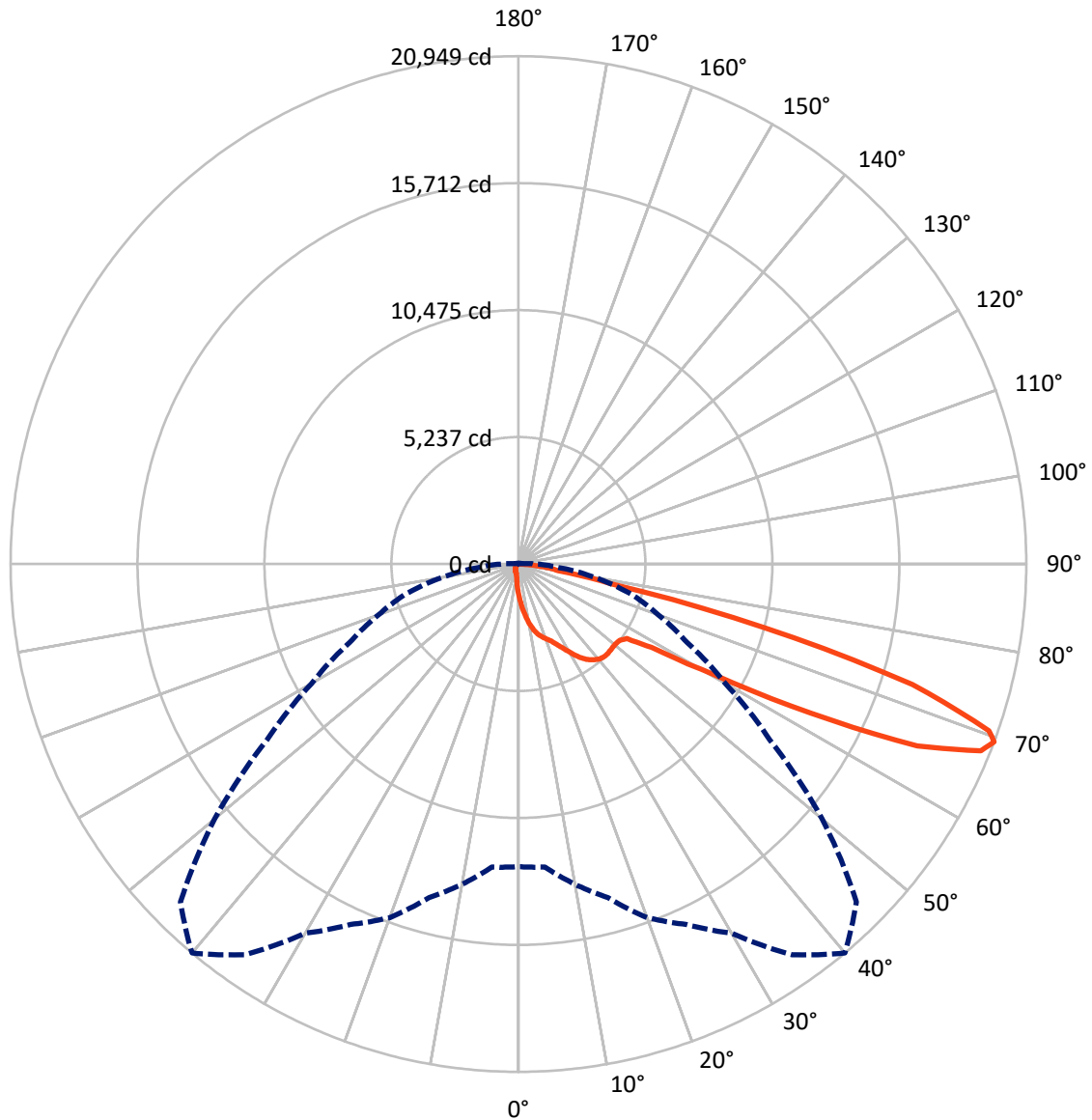
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.9 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical



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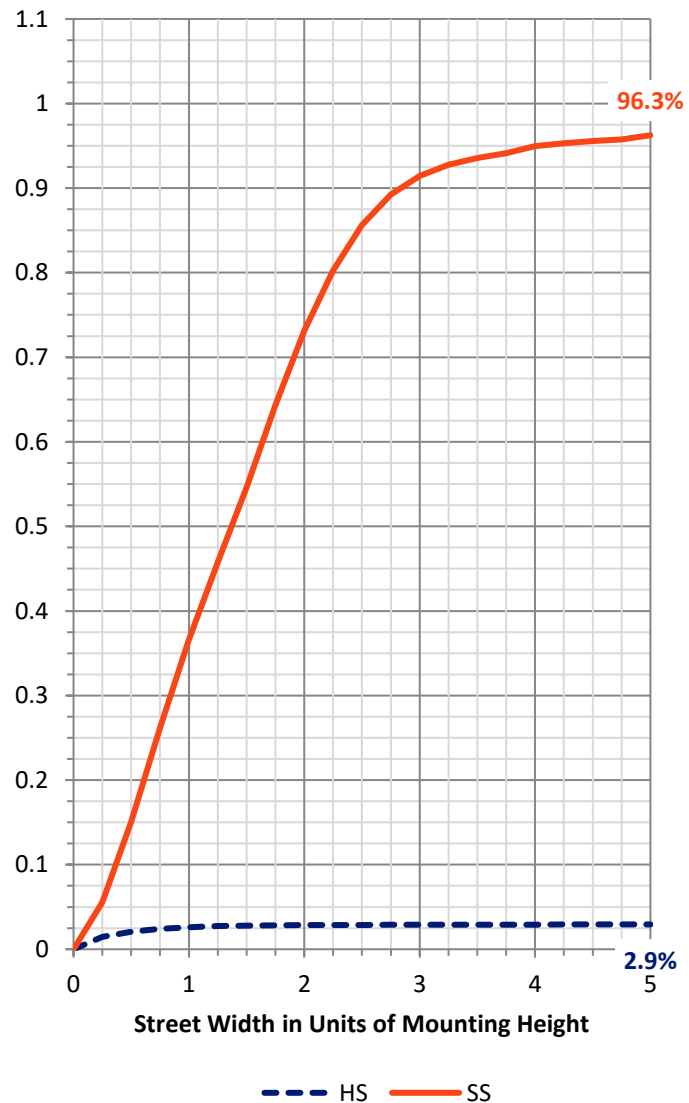
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	492.2	0.0	492.2
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	16034.4	0.0	16034.4
	% Fixture	97.0	0.0	97.0
Total	Lumens	16526.5	0.0	16526.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.3	0.8
10°-20°	442.3	2.7
20°-30°	846.5	5.1
30°-40°	1407.8	8.5
40°-50°	1904.9	11.5
50°-60°	2979.1	18.0
60°-70°	6125.0	37.1
70°-80°	2464.6	14.9
80°-90°	228.0	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°	16526.5	100.0
0°-180°	16526.5	100.0



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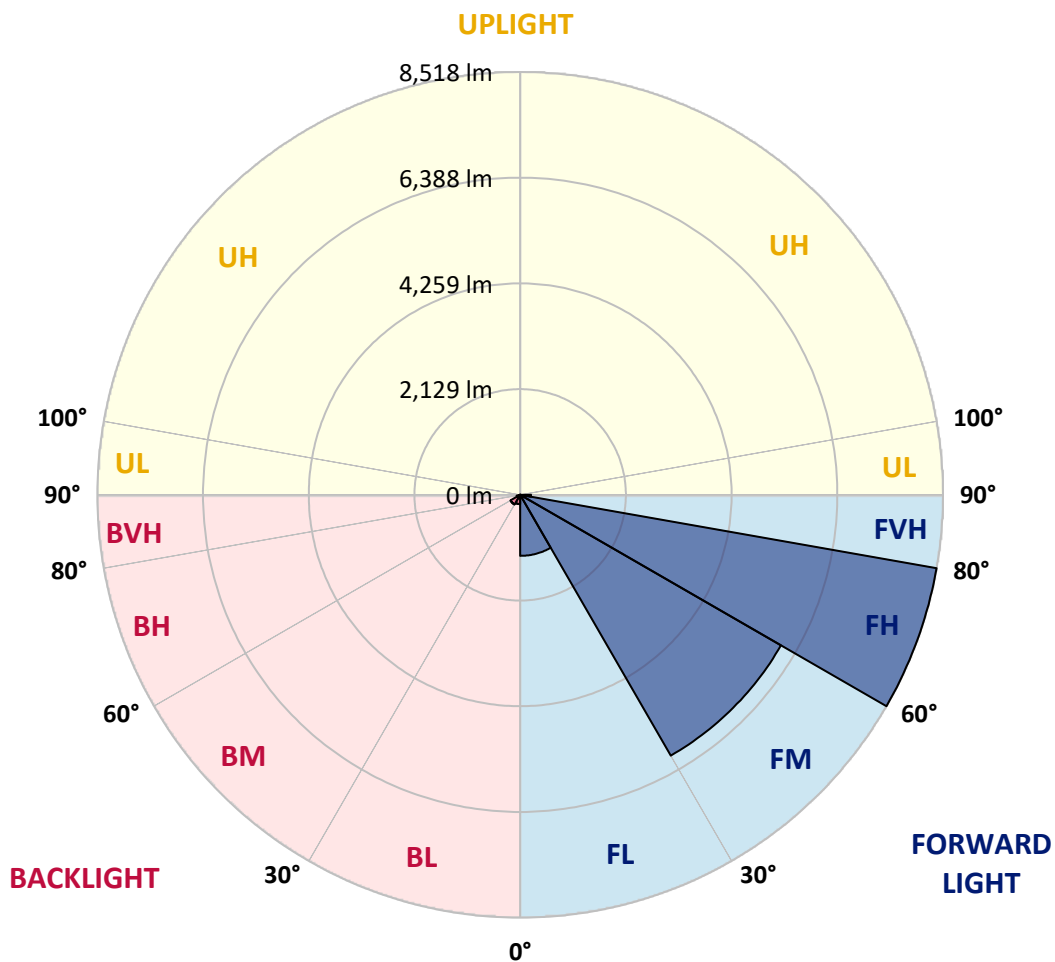
CATALOG NUMBER: VST-E09-LED-E-U-SL4-HSS-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1229.9	7.4			
FM	(30°-60°)	6067.2	36.7			
FH	(60°-80°)	8517.8	51.5			G4/12000
FVH	(80°-90°)	219.5	1.3			G2/225
BL	(0°-30°)	187.2	1.1	B1/500		
BM	(30°-60°)	224.7	1.4	B1/1000		
BH	(60°-80°)	71.8	0.4	B0/110		G0/110
BVH	(80°-90°)	8.5	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-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1
2.5°	1665.1	1646.0	1624.3	1624.3	1597.3	1597.3	1581.1	1537.8	1532.4	1507.9	1483.6
5°	2125.2	2109.0	2082.0	2057.5	2036.0	1998.0	1970.9	1919.4	1862.7	1808.4	1759.8
7.5°	2574.7	2566.5	2517.8	2509.6	2474.4	2412.3	2358.0	2282.2	2184.8	2109.0	2019.7
10°	2991.6	2972.6	2961.7	2915.7	2864.4	2796.7	2712.7	2620.7	2507.0	2387.8	2260.5
12.5°	3321.9	3311.1	3262.2	3243.3	3189.3	3121.5	3016.0	2896.8	2783.2	2628.8	2479.9
15°	3568.2	3549.3	3516.7	3487.0	3422.0	3362.5	3265.0	3135.0	2997.1	2829.2	2650.5
17.5°	3774.0	3738.9	3730.6	3684.6	3617.0	3546.5	3438.3	3319.1	3156.7	2988.8	2793.9
20°	4050.1	4001.4	3985.1	3917.4	3839.0	3741.5	3617.0	3468.1	3297.4	3113.5	2913.1
22.5°	4374.9	4339.7	4304.6	4245.1	4144.9	4006.8	3825.5	3663.1	3446.4	3243.3	3026.8
25°	4835.3	4805.5	4748.6	4667.4	4542.8	4377.7	4158.4	3920.2	3665.7	3405.8	3151.3
27.5°	5281.9	5254.8	5214.2	5152.1	5011.2	4829.8	4559.1	4255.9	3933.7	3619.7	3338.0
30°	5701.7	5677.2	5636.6	5574.4	5449.8	5271.1	4965.1	4640.3	4239.6	3874.2	3535.8
32.5°	6153.8	6145.6	6099.5	6010.2	5901.9	5661.1	5328.0	4978.8	4572.7	4150.4	3755.0
35°	6665.4	6603.1	6559.8	6470.4	6286.4	6029.2	5639.4	5257.6	4829.8	4396.6	3955.4
37.5°	7098.6	7039.1	6984.8	6871.2	6646.5	6318.8	5877.6	5457.9	5016.6	4575.3	4125.9
40°	7415.2	7385.5	7320.5	7171.6	6919.9	6530.1	6053.5	5596.0	5152.1	4708.0	4264.0
42.5°	7650.8	7604.8	7531.8	7377.4	7079.7	6635.6	6123.8	5652.8	5214.2	4789.2	4353.4
45°	7737.5	7699.7	7631.9	7464.1	7141.8	6665.4	6121.2	5636.6	5217.0	4813.6	4412.9
47.5°	7686.0	7648.2	7588.5	7431.5	7114.9	6630.2	6072.6	5590.5	5189.9	4821.8	4467.0
50°	7515.5	7493.8	7447.8	7315.1	7030.9	6562.5	6029.2	5566.2	5184.5	4862.4	4542.8
52.5°	7499.2	7485.8	7428.9	7296.2	7006.5	6540.8	6023.7	5579.8	5230.5	4913.8	4597.0
55°	9164.2	8972.0	8541.6	8176.1	7575.0	6860.4	6297.1	5799.0	5425.5	5116.9	4894.8
57.5°	13024.8	12737.9	12172.1	11476.3	10095.5	8739.2	7653.6	6868.4	6481.3	6340.5	6424.4
60°	14833.3	14782.0	14692.5	14362.3	13655.6	12488.9	11189.3	9784.3	9221.0	9172.4	9342.9
62.5°	15691.6	15659.1	15686.2	15645.6	15426.3	15085.1	14711.4	14105.1	13547.3	13187.3	12423.8
65°	16086.8	16108.5	16262.8	16384.6	16411.7	16501.0	16774.5	17529.8	18082.0	17153.5	15033.7
67.5°	15082.3	15209.6	15564.4	16008.3	16528.1	17031.7	17843.8	19435.7	20570.1	19479.1	16468.6
69°	12486.1	12548.4	13414.6	14251.3	15521.0	16409.1	17586.7	19673.9	20949.2	19717.4	16354.8
70°	9830.2	9887.0	10815.7	11952.8	14099.7	15242.1	16782.6	19270.7	20594.4	19400.5	15770.0
72.5°	4434.6	4353.4	4680.9	5290.0	7623.7	9437.7	12131.5	15613.0	16991.1	15542.7	11798.4
75°	3097.2	3062.0	3097.2	3099.8	3462.7	4467.0	5636.6	8463.0	10466.4	9031.6	5636.6
77.5°	2398.6	2374.3	2350.0	2322.9	2366.3	2650.5	2764.1	3002.3	3898.5	3687.4	2149.6
80°	1897.9	1876.2	1935.7	1916.8	1916.8	1949.3	1927.6	1838.2	1670.3	1548.5	1386.1
82.5°	882.5	887.9	887.9	963.7	1161.5	1356.3	1418.6	1329.4	1180.4	1004.3	809.5
85°	83.8	94.7	159.8	246.4	490.1	552.2	555.0	460.2	460.2	362.8	292.3
87.5°	0.0	2.6	2.6	2.6	24.3	67.7	56.9	16.3	8.1	8.1	13.5
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°	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1
2.5°	1440.3	1432.1	1399.7	1367.2	1337.4	1304.9	1275.1	1245.4	1212.8	1188.5	1158.7
5°	1684.0	1624.3	1556.7	1491.8	1426.7	1359.1	1288.8	1226.4	1161.5	1101.8	1044.9
7.5°	1930.3	1813.9	1721.8	1605.4	1499.8	1394.3	1296.8	1196.7	1104.6	1018.0	936.8
10°	2138.7	1998.0	1854.5	1705.7	1553.9	1413.2	1277.9	1158.7	1036.9	931.3	831.2
12.5°	2309.4	2130.7	1954.8	1767.8	1597.3	1418.6	1250.8	1107.3	963.7	844.7	741.8
15°	2463.6	2257.9	2046.7	1830.1	1613.6	1410.6	1223.7	1044.9	898.8	763.5	647.1
17.5°	2588.2	2352.6	2114.4	1870.7	1637.9	1399.7	1188.5	1001.7	831.2	690.3	576.7
20°	2696.5	2450.1	2193.0	1919.4	1654.2	1396.9	1158.7	947.6	771.5	622.8	511.6
22.5°	2796.7	2550.2	2274.2	1981.7	1678.6	1394.3	1131.6	907.0	720.1	571.3	460.2
25°	2910.4	2650.5	2360.8	2046.7	1721.8	1405.2	1115.5	874.5	674.1	522.5	419.6
27.5°	3037.7	2764.1	2463.6	2127.9	1778.7	1426.7	1110.0	839.3	633.4	476.4	387.2
30°	3216.2	2899.6	2566.5	2209.1	1830.1	1451.2	1104.6	817.6	592.8	441.3	354.6
32.5°	3373.4	3032.3	2680.3	2293.1	1887.0	1475.5	1101.8	787.8	555.0	406.1	330.3
35°	3538.4	3154.1	2777.8	2374.3	1935.7	1502.5	1099.2	766.1	519.8	370.9	306.0
37.5°	3682.0	3256.8	2853.5	2444.7	1989.9	1527.0	1101.8	747.2	487.3	341.1	284.3
40°	3803.8	3362.5	2937.4	2509.6	2046.7	1564.8	1104.6	728.3	454.9	314.0	265.3
42.5°	3912.1	3462.7	3026.8	2582.8	2111.8	1608.2	1120.9	712.0	427.8	289.7	246.4
45°	3996.0	3554.7	3124.2	2685.7	2217.3	1678.6	1150.7	701.2	400.7	268.0	230.2
47.5°	4082.6	3690.0	3289.4	2848.1	2371.7	1789.5	1202.1	698.5	378.9	251.7	216.5
50°	4201.8	3825.5	3435.5	3013.2	2512.4	1903.3	1264.3	701.2	352.0	235.6	203.0
52.5°	4288.5	3963.4	3625.1	3300.2	2848.1	2249.7	1505.3	749.8	338.3	221.9	186.8
55°	4800.1	4743.2	4751.2	4805.5	4456.3	3828.1	2517.8	1082.9	398.0	251.7	184.1
57.5°	6768.3	6968.6	7084.9	7082.3	6505.6	5395.7	3381.4	1391.5	444.1	292.3	219.3
60°	9356.5	9204.9	8991.0	8463.0	7696.9	6159.2	3782.1	1497.2	384.4	232.8	200.4
62.5°	11644.2	10756.1	9968.3	9112.9	8108.4	6424.4	3863.3	1489.0	335.7	175.9	140.7
65°	13070.9	11473.5	10201.2	9129.0	7945.9	6202.4	3654.8	1367.2	284.3	143.5	116.4
67.5°	13412.0	11086.4	9286.1	7918.8	6638.3	4827.2	2682.9	1028.8	221.9	119.2	102.9
69°	12667.4	9854.6	7694.2	6142.9	4829.8	3202.7	1659.6	649.7	170.5	108.3	94.7
70°	11652.2	8571.3	6267.4	4930.0	3576.4	2249.7	1161.5	457.5	138.1	100.1	86.6
72.5°	7496.6	4502.2	3080.9	2144.1	1475.5	896.2	454.9	205.8	105.5	83.8	70.4
75°	2907.6	1665.1	1207.5	917.7	717.5	498.1	276.2	132.7	89.3	70.4	54.1
77.5°	1432.1	1096.4	896.2	614.5	357.4	221.9	148.9	102.9	73.2	51.5	35.2
80°	1131.6	752.6	449.5	278.8	211.1	159.8	113.8	83.8	54.1	32.6	24.3
82.5°	579.4	316.8	232.8	189.6	157.0	124.6	92.1	59.5	35.2	21.7	18.9
85°	181.3	132.7	119.2	116.4	108.3	89.3	64.9	38.0	21.7	13.5	13.5
87.5°	13.5	18.9	24.3	18.9	21.7	18.9	24.3	16.3	10.9	10.9	8.1
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1
2.5°	1137.0	1104.6	1074.9	1055.8	1020.6	1007.1	993.7	988.2	963.7	969.2	947.6
5°	993.7	936.8	893.4	850.1	809.5	779.8	755.3	725.5	701.2	690.3	668.6
7.5°	863.6	790.6	733.7	687.7	638.9	601.1	568.5	546.8	525.3	503.6	492.7
10°	749.8	671.4	606.5	560.5	514.4	481.9	457.5	441.3	427.8	419.6	416.9
12.5°	644.3	568.5	509.0	468.4	433.2	416.9	406.1	398.0	395.2	392.6	392.6
15°	563.1	487.3	441.3	411.5	395.2	387.2	384.4	378.9	373.7	370.9	370.9
17.5°	487.3	430.4	398.0	381.7	373.7	368.3	362.8	357.4	352.0	349.2	349.2
20°	435.8	389.8	373.7	362.8	354.6	349.2	341.1	335.7	333.1	330.3	327.7
22.5°	395.2	365.5	354.6	346.6	335.7	327.7	322.2	316.8	311.4	308.6	306.0
25°	365.5	346.6	338.3	327.7	316.8	308.6	300.5	292.3	287.0	284.3	278.8
27.5°	343.8	330.3	319.4	306.0	295.1	287.0	278.8	270.8	265.3	259.9	257.1
30°	324.9	311.4	297.7	287.0	273.4	265.3	254.5	246.4	243.6	238.2	232.8
32.5°	306.0	292.3	278.8	265.3	251.7	241.0	235.6	224.7	219.3	216.5	211.1
35°	284.3	270.8	254.5	243.6	230.2	219.3	211.1	203.0	197.6	192.2	189.6
37.5°	265.3	249.1	232.8	219.3	208.5	197.6	189.6	181.3	175.9	170.5	167.9
40°	243.6	227.4	211.1	197.6	186.8	178.7	170.5	162.4	157.0	154.4	154.4
42.5°	224.7	205.8	189.6	178.7	170.5	159.8	151.6	143.5	140.7	138.1	140.7
45°	205.8	186.8	173.3	162.4	154.4	143.5	135.3	129.9	127.2	129.9	132.7
47.5°	189.6	170.5	157.0	148.9	140.7	132.7	124.6	119.2	119.2	124.6	129.9
50°	173.3	154.4	143.5	138.1	129.9	121.8	111.0	108.3	111.0	116.4	121.8
52.5°	157.0	135.3	127.2	124.6	116.4	108.3	100.1	97.5	100.1	105.5	102.9
55°	140.7	119.2	116.4	113.8	105.5	94.7	86.6	86.6	86.6	83.8	78.6
57.5°	135.3	105.5	102.9	100.1	92.1	81.2	75.8	70.4	67.7	59.5	56.9
60°	140.7	94.7	94.7	89.3	81.2	70.4	62.3	54.1	48.7	43.2	43.2
62.5°	113.8	86.6	83.8	78.6	67.7	56.9	48.7	40.6	38.0	35.2	35.2
65°	92.1	78.6	73.2	64.9	56.9	46.0	38.0	32.6	29.8	29.8	32.6
67.5°	83.8	70.4	62.3	54.1	46.0	35.2	29.8	27.1	27.1	29.8	29.8
69°	78.6	64.9	56.9	48.7	40.6	32.6	27.1	27.1	27.1	27.1	29.8
70°	73.2	62.3	54.1	46.0	35.2	27.1	24.3	24.3	27.1	27.1	29.8
72.5°	56.9	48.7	46.0	38.0	27.1	24.3	21.7	24.3	24.3	27.1	27.1
75°	43.2	35.2	35.2	29.8	21.7	18.9	18.9	21.7	21.7	24.3	24.3
77.5°	29.8	24.3	24.3	21.7	18.9	16.3	16.3	18.9	21.7	21.7	24.3
80°	21.7	18.9	16.3	18.9	16.3	13.5	16.3	18.9	18.9	21.7	21.7
82.5°	16.3	16.3	16.3	16.3	13.5	13.5	16.3	16.3	18.9	21.7	21.7
85°	13.5	13.5	13.5	13.5	13.5	13.5	13.5	16.3	16.3	18.9	18.9
87.5°	8.1	8.1	8.1	10.9	10.9	13.5	13.5	13.5	13.5	16.3	16.3
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°	1248.1	1248.1	1248.1	1248.1
2.5°	942.2	939.4	928.5	931.3
5°	660.6	644.3	655.1	652.5
7.5°	484.7	481.9	479.2	484.7
10°	414.3	414.3	411.5	414.3
12.5°	389.8	389.8	389.8	389.8
15°	370.9	370.9	368.3	368.3
17.5°	349.2	349.2	349.2	346.6
20°	327.7	324.9	324.9	324.9
22.5°	303.2	300.5	300.5	300.5
25°	278.8	276.2	276.2	276.2
27.5°	254.5	251.7	249.1	249.1
30°	230.2	227.4	224.7	224.7
32.5°	205.8	203.0	200.4	200.4
35°	184.1	184.1	181.3	178.7
37.5°	165.2	165.2	165.2	165.2
40°	151.6	154.4	154.4	154.4
42.5°	143.5	146.2	148.9	151.6
45°	138.1	143.5	146.2	146.2
47.5°	135.3	138.1	140.7	140.7
50°	124.6	121.8	121.8	121.8
52.5°	100.1	94.7	92.1	89.3
55°	73.2	70.4	64.9	64.9
57.5°	51.5	51.5	48.7	48.7
60°	40.6	40.6	38.0	40.6
62.5°	35.2	35.2	35.2	35.2
65°	32.6	32.6	32.6	32.6
67.5°	32.6	32.6	32.6	32.6
69°	29.8	29.8	29.8	29.8
70°	29.8	29.8	29.8	29.8
72.5°	27.1	27.1	27.1	27.1
75°	24.3	27.1	27.1	27.1
77.5°	24.3	24.3	24.3	24.3
80°	21.7	21.7	24.3	24.3
82.5°	21.7	21.7	21.7	21.7
85°	18.9	18.9	21.7	21.7
87.5°	16.3	16.3	18.9	18.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)