

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: P165560

Luminaire Tested: **VST-F12-LED-E-U-SL4-HSS-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165560
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-F12-LED-E-U-SL4-HSS-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (84) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16809.4 lumens
Efficiency: N/A
Efficacy: 54.8 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 1' x H: 0.1')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G4

Input Watts (W): 306.6
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

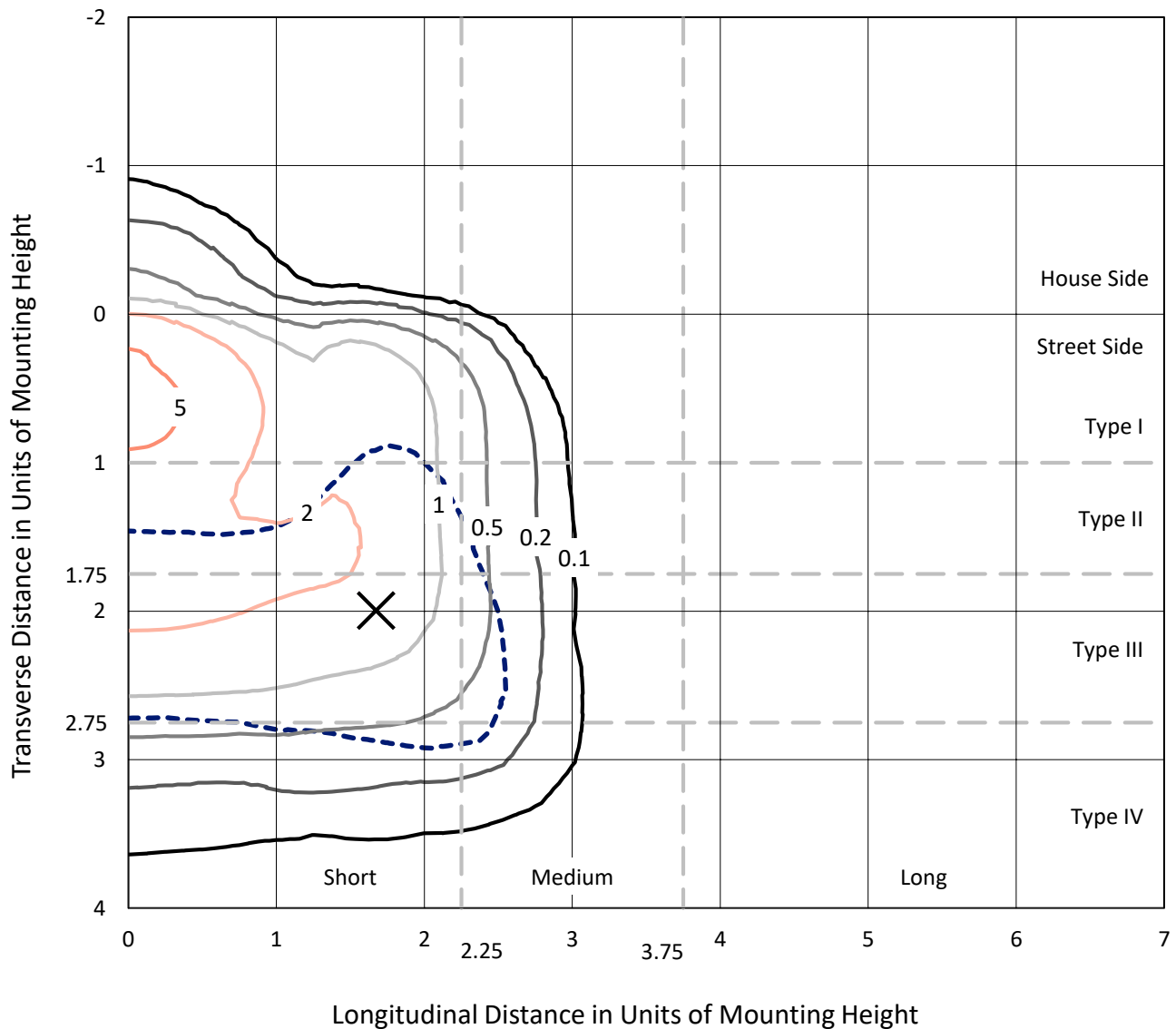


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

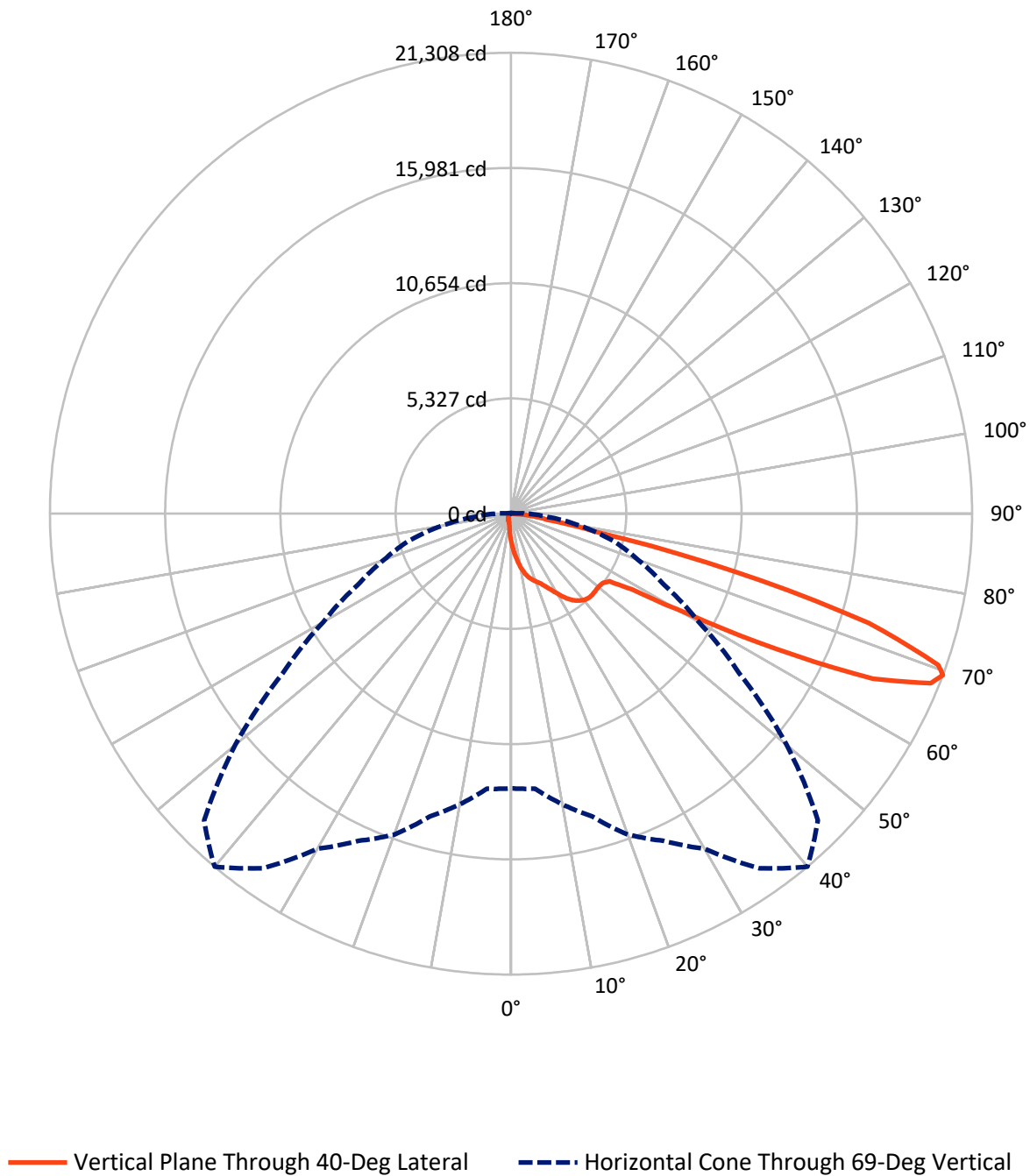


Based on 25 foot mounting height. Maximum calculated value = 6 fc
Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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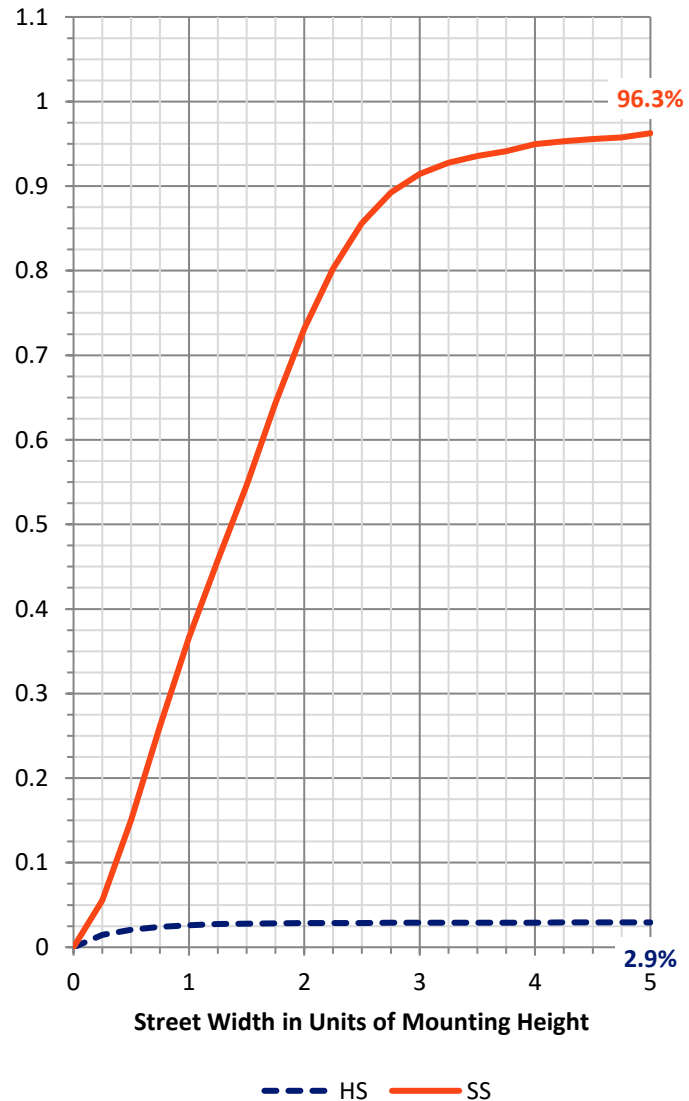
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	500.6	0.0	500.6
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	16308.8	0.0	16308.8
	% Fixture	97.0	0.0	97.0
Total	Lumens	16809.4	0.0	16809.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.5	0.8
10°-20°	449.9	2.7
20°-30°	861.0	5.1
30°-40°	1431.9	8.5
40°-50°	1937.5	11.5
50°-60°	3030.1	18.0
60°-70°	6229.8	37.1
70°-80°	2506.8	14.9
80°-90°	231.9	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°	16809.4	100.0
0°-180°	16809.4	100.0

Coefficient of Utilization



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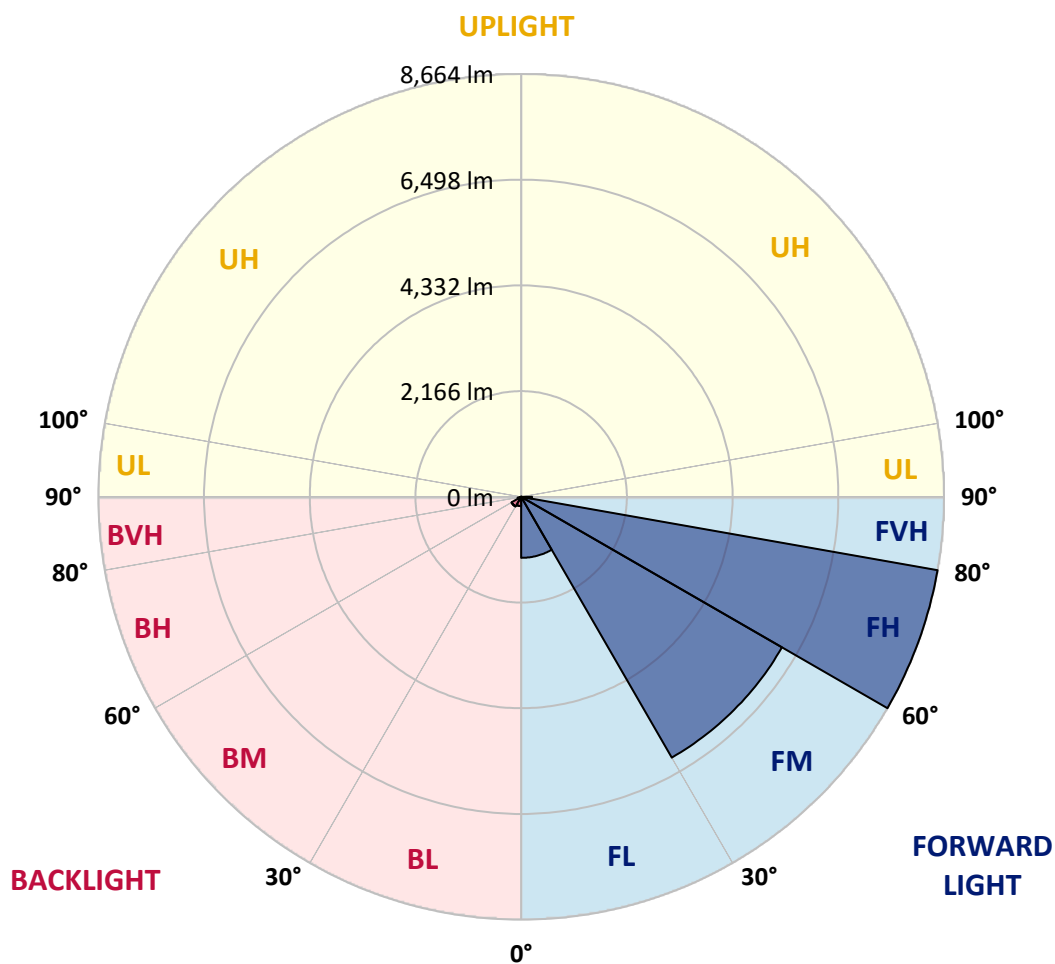
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1250.9	7.4			
FM	(30°-60°)	6171.0	36.7			
FH	(60°-80°)	8663.6	51.5			G4/12000
FVH	(80°-90°)	223.3	1.3			G2/225
BL	(0°-30°)	190.4	1.1	B1/500		
BM	(30°-60°)	228.6	1.4	B1/1000		
BH	(60°-80°)	73.0	0.4	B0/110		G0/110
BVH	(80°-90°)	8.6	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°	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5
2.5°	1693.6	1674.2	1652.1	1652.1	1624.7	1624.7	1608.1	1564.1	1558.6	1533.7	1509.0
5°	2161.6	2145.1	2117.6	2092.7	2070.8	2032.2	2004.6	1952.3	1894.6	1839.4	1789.9
7.5°	2618.8	2610.4	2560.9	2552.6	2516.8	2453.6	2398.4	2321.3	2222.1	2145.1	2054.3
10°	3042.8	3023.4	3012.4	2965.6	2913.4	2844.5	2759.1	2665.6	2549.9	2428.7	2299.2
12.5°	3378.8	3367.7	3318.1	3298.8	3243.8	3174.9	3067.6	2946.4	2830.8	2673.8	2522.3
15°	3629.3	3610.0	3576.9	3546.7	3480.6	3420.1	3320.9	3188.7	3048.4	2877.6	2695.9
17.5°	3838.6	3802.8	3794.5	3747.7	3678.9	3607.2	3497.2	3375.9	3210.7	3040.0	2841.7
20°	4119.4	4069.9	4053.3	3984.4	3904.7	3805.5	3678.9	3527.4	3353.9	3166.7	2962.9
22.5°	4449.8	4414.0	4378.2	4317.7	4215.9	4075.4	3891.0	3725.8	3505.4	3298.8	3078.6
25°	4918.0	4887.7	4829.9	4747.3	4620.5	4452.6	4229.6	3987.3	3728.4	3464.1	3205.2
27.5°	5372.3	5344.7	5303.4	5240.2	5096.9	4912.5	4637.1	4328.7	4001.0	3681.6	3395.2
30°	5799.2	5774.3	5733.0	5669.8	5543.1	5361.3	5050.1	4719.7	4312.2	3940.5	3596.3
32.5°	6259.1	6250.7	6203.9	6113.1	6002.9	5757.9	5419.2	5064.0	4651.0	4221.4	3819.2
35°	6779.5	6716.1	6672.1	6581.1	6394.0	6132.3	5735.9	5347.6	4912.5	4471.9	4023.1
37.5°	7220.1	7159.5	7104.4	6988.8	6760.2	6427.0	5978.2	5551.3	5102.4	4653.6	4196.5
40°	7542.1	7511.9	7445.8	7294.3	7038.3	6641.8	6157.1	5691.7	5240.2	4788.6	4336.9
42.5°	7781.8	7734.9	7660.7	7503.7	7200.8	6749.2	6228.6	5749.6	5303.4	4871.2	4427.9
45°	7869.9	7831.4	7762.5	7591.8	7264.1	6779.5	6226.0	5733.0	5306.3	4895.9	4488.4
47.5°	7817.5	7779.1	7718.4	7558.7	7236.6	6743.7	6176.5	5686.2	5278.7	4904.3	4543.4
50°	7644.1	7622.1	7575.2	7440.3	7151.2	6674.8	6132.3	5661.5	5273.2	4945.6	4620.5
52.5°	7627.6	7613.9	7556.0	7421.1	7126.4	6652.7	6126.8	5675.3	5320.0	4997.9	4675.7
55°	9321.0	9125.5	8687.7	8316.0	7704.7	6977.8	6404.9	5898.2	5518.3	5204.4	4978.5
57.5°	13247.7	12955.9	12380.4	11672.7	10268.3	8888.7	7784.6	6986.0	6592.2	6449.0	6534.3
60°	15087.1	15034.9	14944.0	14608.0	13889.3	12702.6	11380.8	9951.7	9378.8	9329.3	9502.7
62.5°	15960.1	15927.0	15954.6	15913.3	15690.3	15343.3	14963.2	14346.5	13779.1	13412.9	12636.4
65°	16362.1	16384.2	16541.1	16665.0	16692.6	16783.4	17061.6	17829.8	18391.5	17447.0	15290.9
67.5°	15340.4	15469.9	15830.7	16282.2	16810.9	17323.1	18149.2	19768.3	20922.1	19812.5	16750.4
69°	12699.8	12763.1	13644.2	14495.2	15786.6	16689.9	17887.7	20010.6	21307.7	20054.8	16634.7
70°	9998.4	10056.2	11000.8	12157.3	14341.0	15503.0	17069.8	19600.5	20946.9	19732.6	16039.9
72.5°	4510.5	4427.9	4761.0	5380.5	7754.2	9599.2	12339.1	15880.2	17281.8	15808.7	12000.3
75°	3150.2	3114.4	3150.2	3152.9	3521.9	4543.4	5733.0	8607.8	10645.5	9186.2	5733.0
77.5°	2439.7	2414.9	2390.2	2362.6	2406.7	2695.9	2811.4	3053.7	3965.2	3750.5	2186.4
80°	1930.3	1908.3	1968.8	1949.6	1949.6	1982.7	1960.6	1869.6	1698.9	1575.0	1409.8
82.5°	897.6	903.1	903.1	980.2	1181.4	1379.5	1442.9	1352.1	1200.6	1021.5	823.4
85°	85.3	96.3	162.5	250.7	498.5	561.7	564.5	468.0	468.0	369.0	297.3
87.5°	0.0	2.7	2.7	2.7	24.7	68.9	57.9	16.6	8.2	8.2	13.7
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°	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5
2.5°	1465.0	1456.6	1423.7	1390.6	1360.3	1327.2	1296.9	1266.7	1233.6	1208.8	1178.5
5°	1712.8	1652.1	1583.4	1517.3	1451.1	1382.4	1310.8	1247.4	1181.4	1120.7	1062.8
7.5°	1963.3	1844.9	1751.3	1632.9	1525.5	1418.2	1319.0	1217.2	1123.5	1035.4	952.8
10°	2175.3	2032.2	1886.2	1734.9	1580.5	1437.4	1299.8	1178.5	1054.6	947.3	845.4
12.5°	2348.9	2167.1	1988.2	1798.1	1624.7	1442.9	1272.2	1126.2	980.2	859.2	754.5
15°	2505.7	2296.6	2081.7	1861.5	1641.2	1434.7	1244.6	1062.8	914.2	776.6	658.2
17.5°	2632.5	2392.9	2150.6	1902.8	1666.0	1423.7	1208.8	1018.9	845.4	702.1	586.6
20°	2742.7	2492.0	2230.5	1952.3	1682.5	1420.8	1178.5	963.8	784.7	633.4	520.4
22.5°	2844.5	2593.9	2313.1	2015.6	1707.3	1418.2	1151.0	922.5	732.4	581.1	468.0
25°	2960.2	2695.9	2401.2	2081.7	1751.3	1429.2	1134.6	889.4	685.6	531.4	426.7
27.5°	3089.7	2811.4	2505.7	2164.3	1809.1	1451.1	1129.0	853.6	644.3	484.6	393.8
30°	3271.3	2949.2	2610.4	2246.9	1861.5	1476.0	1123.5	831.6	603.0	448.8	360.7
32.5°	3431.1	3084.1	2726.1	2332.3	1919.3	1500.8	1120.7	801.3	564.5	413.0	335.9
35°	3599.0	3208.0	2825.3	2414.9	1968.8	1528.2	1118.0	779.2	528.7	377.2	311.2
37.5°	3745.0	3312.6	2902.4	2486.5	2024.0	1553.1	1120.7	760.0	495.6	347.0	289.1
40°	3868.9	3420.1	2987.7	2552.6	2081.7	1591.6	1123.5	740.8	462.7	319.4	269.9
42.5°	3979.1	3521.9	3078.6	2627.0	2147.9	1635.7	1140.1	724.2	435.1	294.6	250.7
45°	4064.4	3615.6	3177.6	2731.6	2255.2	1707.3	1170.3	713.2	407.5	272.6	234.1
47.5°	4152.5	3753.2	3345.7	2896.9	2412.3	1820.2	1222.7	710.5	385.4	256.0	220.2
50°	4273.7	3891.0	3494.3	3064.7	2555.4	1935.9	1285.9	713.2	358.0	239.6	206.5
52.5°	4361.8	4031.3	3687.1	3356.7	2896.9	2288.2	1531.0	762.7	344.1	225.7	190.0
55°	4882.2	4824.4	4832.6	4887.7	4532.6	3893.6	2560.9	1101.5	404.8	256.0	187.3
57.5°	6884.1	7087.8	7206.2	7203.5	6616.9	5488.0	3439.3	1415.3	451.7	297.3	223.1
60°	9516.6	9362.5	9144.9	8607.8	7828.6	6264.6	3846.8	1522.8	391.0	236.8	203.8
62.5°	11843.4	10940.1	10138.8	9268.8	8247.1	6534.3	3929.4	1514.5	341.5	178.9	143.1
65°	13294.6	11669.9	10375.8	9285.2	8081.9	6308.6	3717.4	1390.6	289.1	146.0	118.4
67.5°	13641.5	11276.1	9445.1	8054.3	6751.9	4909.8	2728.8	1046.4	225.7	121.2	104.7
69°	12884.2	10023.3	7825.9	6248.0	4912.5	3257.5	1688.1	660.8	173.4	110.2	96.3
70°	11851.6	8718.0	6374.6	5014.3	3637.6	2288.2	1181.4	465.4	140.5	101.8	88.1
72.5°	7624.9	4579.2	3133.6	2180.8	1500.8	911.5	462.7	209.4	107.4	85.3	71.6
75°	2957.4	1693.6	1228.2	933.4	729.7	506.7	280.9	134.9	90.8	71.6	55.0
77.5°	1456.6	1115.2	911.5	625.1	363.5	225.7	151.5	104.7	74.4	52.3	35.8
80°	1151.0	765.5	457.2	283.6	214.7	162.5	115.7	85.3	55.0	33.1	24.7
82.5°	589.3	322.2	236.8	192.8	159.7	126.8	93.6	60.5	35.8	22.1	19.2
85°	184.4	134.9	121.2	118.4	110.2	90.8	66.1	38.6	22.1	13.7	13.7
87.5°	13.7	19.2	24.7	19.2	22.1	19.2	24.7	16.6	11.0	11.0	8.2
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°	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5
2.5°	1156.5	1123.5	1093.3	1073.9	1038.1	1024.4	1010.7	1005.1	980.2	985.7	963.8
5°	1010.7	952.8	908.7	864.7	823.4	793.1	768.2	737.9	713.2	702.1	680.1
7.5°	878.4	804.1	746.3	699.5	649.8	611.3	578.2	556.2	534.3	512.2	501.1
10°	762.7	682.9	616.9	570.0	523.2	490.1	465.4	448.8	435.1	426.7	424.1
12.5°	655.3	578.2	517.7	476.4	440.6	424.1	413.0	404.8	402.0	399.3	399.3
15°	572.7	495.6	448.8	418.5	402.0	393.8	391.0	385.4	380.1	377.2	377.2
17.5°	495.6	437.8	404.8	388.3	380.1	374.6	369.0	363.5	358.0	355.2	355.2
20°	443.3	396.5	380.1	369.0	360.7	355.2	347.0	341.5	338.8	335.9	333.3
22.5°	402.0	371.7	360.7	352.5	341.5	333.3	327.7	322.2	316.7	313.9	311.2
25°	371.7	352.5	344.1	333.3	322.2	313.9	305.7	297.3	292.0	289.1	283.6
27.5°	349.6	335.9	324.9	311.2	300.2	292.0	283.6	275.4	269.9	264.4	261.5
30°	330.4	316.7	302.8	292.0	278.1	269.9	258.9	250.7	247.8	242.3	236.8
32.5°	311.2	297.3	283.6	269.9	256.0	245.1	239.6	228.6	223.1	220.2	214.7
35°	289.1	275.4	258.9	247.8	234.1	223.1	214.7	206.5	201.0	195.5	192.8
37.5°	269.9	253.3	236.8	223.1	212.0	201.0	192.8	184.4	178.9	173.4	170.7
40°	247.8	231.3	214.7	201.0	190.0	181.8	173.4	165.2	159.7	157.0	157.0
42.5°	228.6	209.4	192.8	181.8	173.4	162.5	154.2	146.0	143.1	140.5	143.1
45°	209.4	190.0	176.2	165.2	157.0	146.0	137.6	132.1	129.4	132.1	134.9
47.5°	192.8	173.4	159.7	151.5	143.1	134.9	126.8	121.2	121.2	126.8	132.1
50°	176.2	157.0	146.0	140.5	132.1	123.9	112.9	110.2	112.9	118.4	123.9
52.5°	159.7	137.6	129.4	126.8	118.4	110.2	101.8	99.2	101.8	107.4	104.7
55°	143.1	121.2	118.4	115.7	107.4	96.3	88.1	88.1	88.1	85.3	79.9
57.5°	137.6	107.4	104.7	101.8	93.6	82.6	77.1	71.6	68.9	60.5	57.9
60°	143.1	96.3	96.3	90.8	82.6	71.6	63.4	55.0	49.5	44.0	44.0
62.5°	115.7	88.1	85.3	79.9	68.9	57.9	49.5	41.3	38.6	35.8	35.8
65°	93.6	79.9	74.4	66.1	57.9	46.8	38.6	33.1	30.3	30.3	33.1
67.5°	85.3	71.6	63.4	55.0	46.8	35.8	30.3	27.6	27.6	30.3	30.3
69°	79.9	66.1	57.9	49.5	41.3	33.1	27.6	27.6	27.6	27.6	30.3
70°	74.4	63.4	55.0	46.8	35.8	27.6	24.7	24.7	27.6	27.6	30.3
72.5°	57.9	49.5	46.8	38.6	27.6	24.7	22.1	24.7	24.7	27.6	27.6
75°	44.0	35.8	35.8	30.3	22.1	19.2	19.2	22.1	22.1	24.7	24.7
77.5°	30.3	24.7	24.7	22.1	19.2	16.6	16.6	19.2	22.1	22.1	24.7
80°	22.1	19.2	16.6	19.2	16.6	13.7	16.6	19.2	19.2	22.1	22.1
82.5°	16.6	16.6	16.6	16.6	13.7	13.7	16.6	16.6	19.2	22.1	22.1
85°	13.7	13.7	13.7	13.7	13.7	13.7	13.7	16.6	16.6	19.2	19.2
87.5°	8.2	8.2	8.2	11.0	11.0	13.7	13.7	13.7	13.7	16.6	16.6
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°	1269.5	1269.5	1269.5	1269.5
2.5°	958.3	955.5	944.4	947.3
5°	671.9	655.3	666.4	663.7
7.5°	493.0	490.1	487.4	493.0
10°	421.4	421.4	418.5	421.4
12.5°	396.5	396.5	396.5	396.5
15°	377.2	377.2	374.6	374.6
17.5°	355.2	355.2	355.2	352.5
20°	333.3	330.4	330.4	330.4
22.5°	308.3	305.7	305.7	305.7
25°	283.6	280.9	280.9	280.9
27.5°	258.9	256.0	253.3	253.3
30°	234.1	231.3	228.6	228.6
32.5°	209.4	206.5	203.8	203.8
35°	187.3	187.3	184.4	181.8
37.5°	168.1	168.1	168.1	168.1
40°	154.2	157.0	157.0	157.0
42.5°	146.0	148.7	151.5	154.2
45°	140.5	146.0	148.7	148.7
47.5°	137.6	140.5	143.1	143.1
50°	126.8	123.9	123.9	123.9
52.5°	101.8	96.3	93.6	90.8
55°	74.4	71.6	66.1	66.1
57.5°	52.3	52.3	49.5	49.5
60°	41.3	41.3	38.6	41.3
62.5°	35.8	35.8	35.8	35.8
65°	33.1	33.1	33.1	33.1
67.5°	33.1	33.1	33.1	33.1
69°	30.3	30.3	30.3	30.3
70°	30.3	30.3	30.3	30.3
72.5°	27.6	27.6	27.6	27.6
75°	24.7	27.6	27.6	27.6
77.5°	24.7	24.7	24.7	24.7
80°	22.1	22.1	24.7	24.7
82.5°	22.1	22.1	22.1	22.1
85°	19.2	19.2	22.1	22.1
87.5°	16.6	16.6	19.2	19.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)