

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: P159744

Luminaire Tested: **VST-F02-LED-E-U-T4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159744
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33707)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-F02-LED-E-U-T4-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (14) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4488.3 lumens
Efficiency: N/A
Efficacy: 81.6 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 55
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

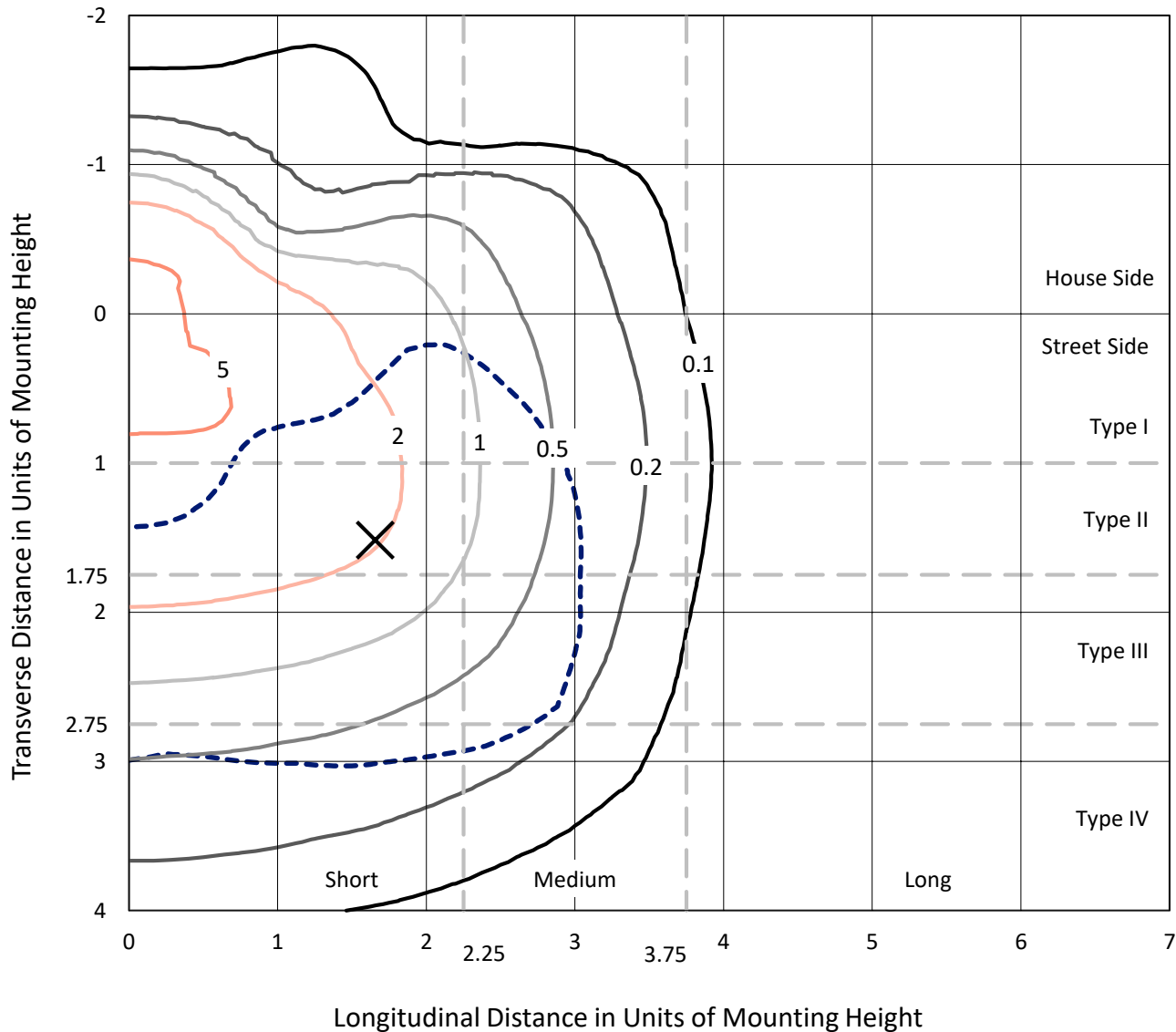


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

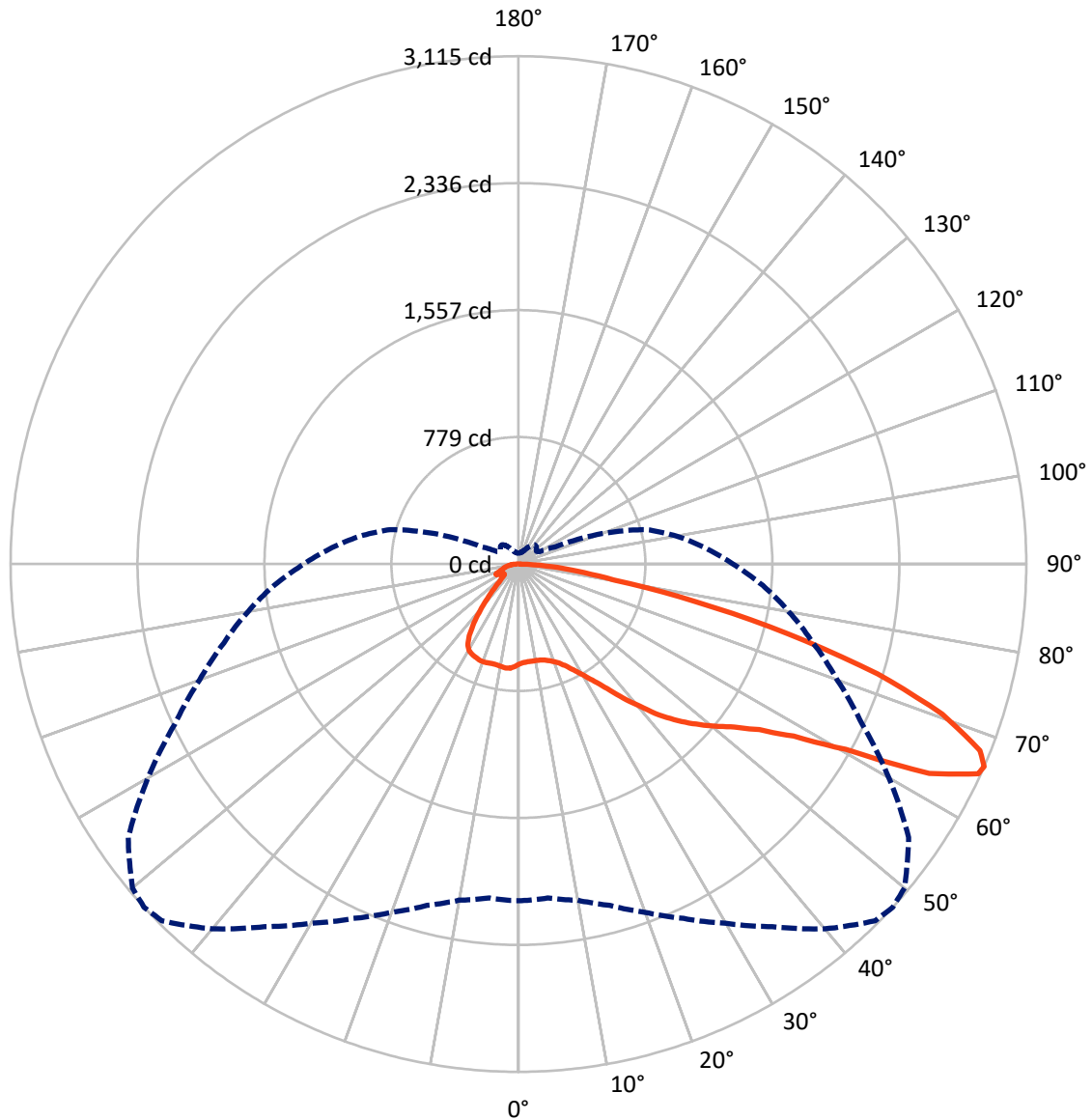


Based on 10 foot mounting height. Maximum calculated value = 6.3 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 47.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical



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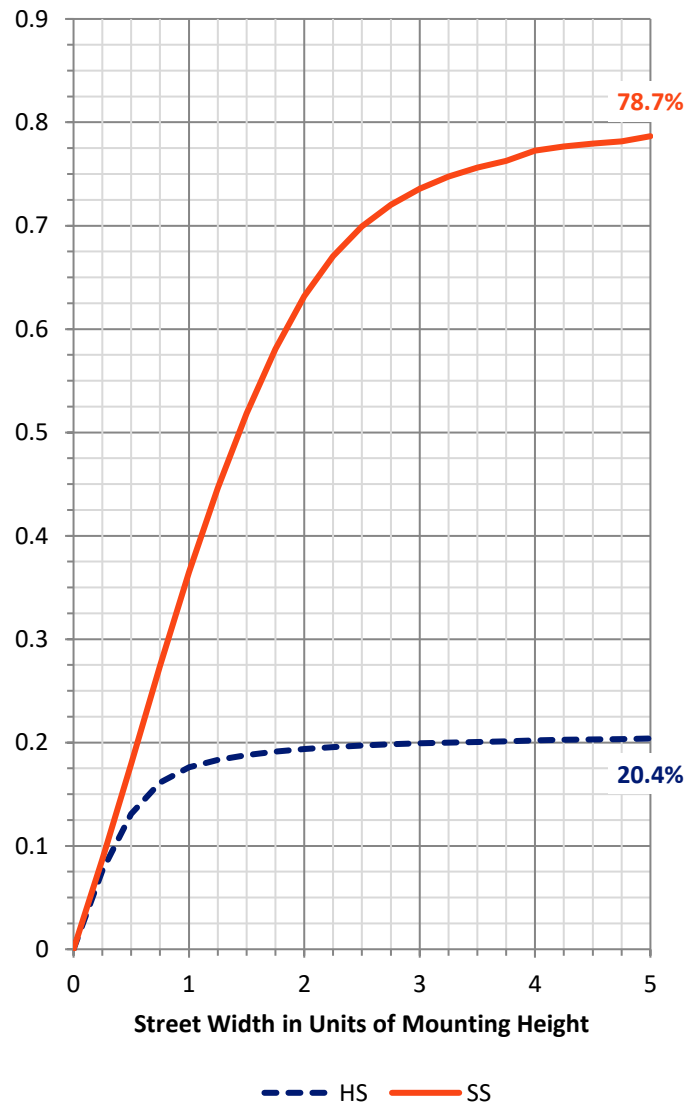
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	929.3	0.0	929.3
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	3559.0	0.0	3559.0
	% Fixture	79.3	0.0	79.3
Total	Lumens	4488.3	0.0	4488.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.2	1.3
10°-20°	177.5	4.0
20°-30°	302.8	6.7
30°-40°	457.1	10.2
40°-50°	594.1	13.2
50°-60°	815.0	18.2
60°-70°	1253.8	27.9
70°-80°	724.8	16.1
80°-90°	104.1	2.3
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°	4488.3	100.0
0°-180°	4488.3	100.0

Coefficient of Utilization



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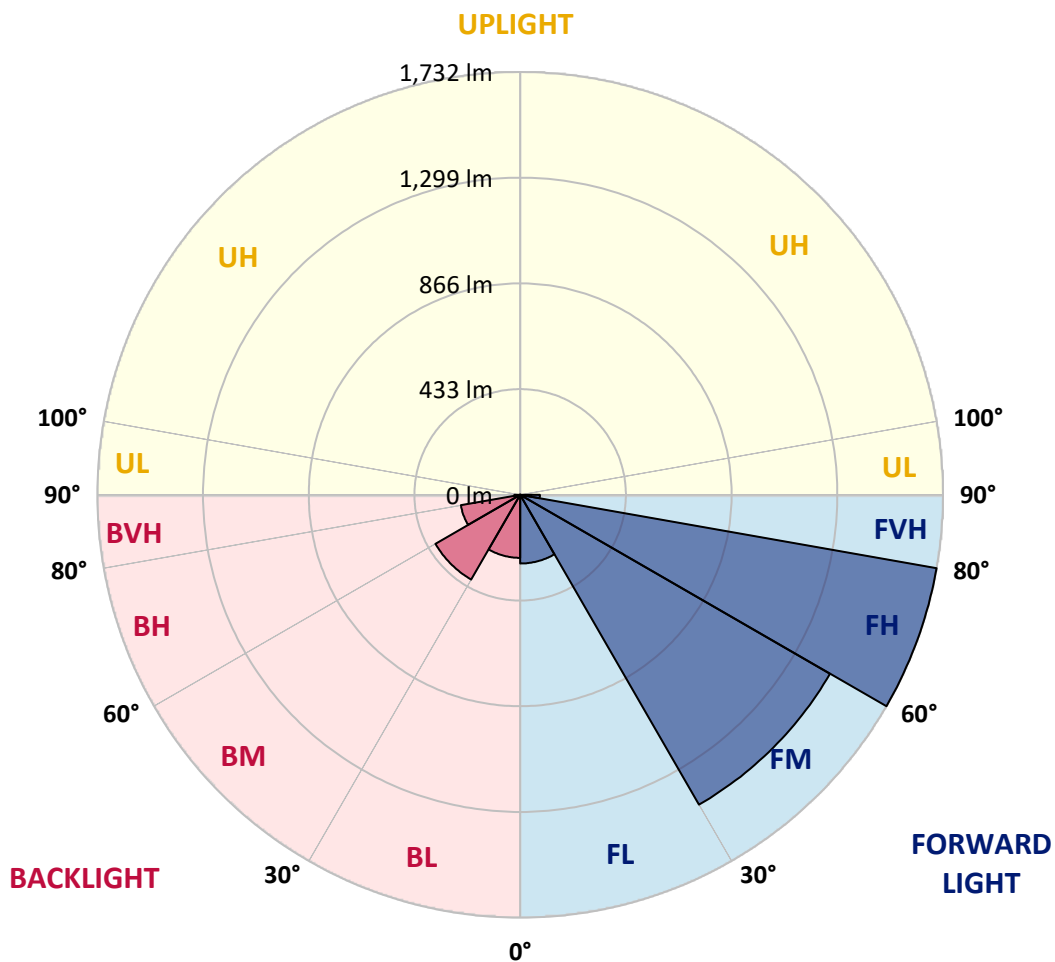
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	281.3	6.3			
FM	(30°-60°)	1465.2	32.6			
FH	(60°-80°)	1731.9	38.6			G1/1800
FVH	(80°-90°)	80.6	1.8			G1/100
BL	(0°-30°)	258.2	5.8	B1/500		
BM	(30°-60°)	400.9	8.9	B1/1000		
BH	(60°-80°)	246.6	5.5	B1/500		G1/500
BVH	(80°-90°)	23.5	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0
2.5°	598.4	598.7	599.0	599.0	599.9	599.9	601.4	602.3	602.6	604.4	605.6
5°	587.2	586.9	587.2	587.8	589.3	590.5	593.5	595.7	597.5	600.5	602.0
7.5°	582.4	583.0	583.6	583.9	585.1	588.1	590.8	592.9	596.6	600.2	601.7
10°	588.7	589.6	588.7	589.3	589.3	592.0	593.2	594.8	597.5	600.8	601.7
12.5°	603.5	605.3	603.5	602.0	600.8	603.2	602.6	601.4	602.9	603.8	603.8
15°	627.9	627.9	626.7	624.6	621.6	621.9	619.2	616.4	615.2	613.1	611.6
17.5°	651.8	651.1	648.4	645.7	643.6	642.7	638.8	635.2	631.0	627.6	624.0
20°	675.0	677.4	674.1	670.1	666.8	664.7	661.7	654.5	649.3	643.9	640.3
22.5°	715.1	713.0	709.4	703.6	700.3	696.7	690.4	682.5	674.7	668.0	663.5
25°	756.4	754.3	749.2	745.0	740.1	737.1	730.1	720.5	713.0	702.7	696.7
27.5°	800.8	799.0	792.9	789.6	786.2	782.6	776.6	766.7	759.7	748.0	741.6
30°	850.8	850.5	842.3	841.7	836.9	833.0	828.8	820.3	813.4	801.7	794.1
32.5°	904.2	903.0	897.2	895.4	898.7	896.0	890.0	881.3	872.2	865.3	856.9
35°	980.2	978.1	974.8	976.3	978.4	985.9	976.6	969.1	958.2	949.1	937.4
37.5°	1035.7	1032.7	1036.6	1045.0	1057.1	1062.8	1071.0	1071.3	1066.1	1054.1	1043.8
40°	1086.7	1085.5	1094.5	1106.3	1128.6	1144.9	1160.2	1167.8	1169.6	1161.8	1146.4
42.5°	1129.8	1133.4	1145.5	1163.6	1194.9	1219.7	1248.3	1266.1	1277.3	1273.0	1266.1
45°	1181.0	1182.8	1197.7	1220.6	1250.4	1291.4	1329.1	1359.3	1378.9	1378.6	1370.8
47.5°	1245.3	1245.6	1258.3	1285.1	1317.1	1358.7	1406.3	1446.5	1472.4	1473.6	1467.6
50°	1321.6	1321.0	1334.9	1360.2	1394.3	1434.4	1485.1	1535.2	1571.3	1571.3	1562.6
52.5°	1419.9	1418.7	1426.3	1448.6	1481.5	1523.7	1574.0	1631.9	1671.2	1679.6	1660.6
55°	1551.1	1552.9	1554.7	1574.3	1602.4	1635.8	1693.8	1747.1	1799.6	1804.4	1793.3
57.5°	1702.8	1696.8	1709.8	1741.7	1773.7	1815.6	1856.6	1919.6	1981.8	1992.4	1990.9
60°	1939.9	1932.1	1945.3	1986.0	2021.3	2087.3	2157.6	2239.1	2312.6	2334.4	2308.1
62.5°	2157.9	2167.6	2185.7	2233.0	2284.3	2372.3	2477.9	2617.6	2757.2	2833.2	2827.8
65°	2138.3	2129.3	2164.0	2228.5	2321.4	2433.6	2564.8	2733.1	2934.2	3086.8	3100.4
66°	2065.6	2056.3	2093.7	2167.6	2273.8	2398.6	2544.3	2715.6	2921.3	3093.8	3114.6
67.5°	1945.6	1936.3	1978.5	2045.8	2155.2	2312.3	2469.8	2657.1	2870.9	3036.2	3053.1
70°	1714.0	1701.3	1734.2	1810.2	1898.9	2050.9	2200.7	2399.2	2618.8	2750.9	2757.2
72.5°	1451.9	1422.4	1457.3	1515.8	1579.1	1705.0	1835.5	1971.2	2146.1	2268.3	2303.3
75°	1053.5	1068.8	1079.1	1117.7	1159.6	1263.7	1340.3	1454.0	1589.4	1677.8	1705.9
77.5°	558.8	582.1	596.6	635.2	704.5	783.8	866.8	937.1	1026.1	1075.5	1109.9
80°	313.7	329.9	353.5	383.9	417.7	478.6	527.8	564.0	576.7	585.4	593.2
82.5°	172.5	213.8	248.8	269.9	289.9	314.3	343.5	373.7	383.3	368.9	361.3
85°	26.8	39.5	120.4	146.9	159.8	178.6	199.7	222.0	222.3	191.2	208.7
87.5°	7.6	8.5	17.2	25.9	25.3	20.5	25.3	46.1	27.1	13.6	15.7
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0
2.5°	606.2	606.8	608.3	609.8	611.3	612.8	613.7	615.2	616.4	618.3	620.4
5°	603.8	605.3	608.0	611.3	614.3	617.0	619.2	622.2	624.9	627.3	631.0
7.5°	603.8	606.8	611.3	614.9	617.7	621.0	624.3	627.3	630.4	632.8	635.2
10°	604.1	607.1	611.6	615.8	618.9	622.5	625.2	627.9	631.3	632.8	635.8
12.5°	605.3	606.5	609.8	614.0	617.7	621.3	624.0	626.7	630.4	631.0	633.1
15°	611.3	609.5	610.4	613.4	617.3	620.4	623.4	625.5	627.9	627.3	629.2
17.5°	622.5	618.0	616.1	616.4	618.3	620.4	621.6	621.9	622.2	619.5	619.8
20°	637.6	631.3	627.0	624.9	622.5	620.4	617.0	613.1	609.5	604.1	603.5
22.5°	660.2	650.8	646.3	640.6	633.4	624.3	616.1	606.5	598.7	590.5	587.5
25°	693.1	683.4	678.6	669.5	656.6	643.6	631.9	618.9	607.4	597.8	593.2
27.5°	737.1	727.4	722.3	713.0	697.0	684.0	667.7	653.9	640.0	625.8	620.1
30°	790.5	782.0	776.3	768.8	754.9	740.7	721.7	700.3	678.3	655.7	644.5
32.5°	853.5	844.2	839.9	831.2	816.7	802.0	780.8	753.4	716.6	681.0	658.7
35°	932.2	921.7	916.9	905.4	888.5	866.8	844.2	807.4	757.6	708.2	671.6
37.5°	1037.5	1014.0	998.0	971.8	944.6	914.2	881.9	844.2	785.3	724.1	673.4
40°	1130.7	1106.9	1076.1	1038.4	996.2	954.2	917.5	874.6	810.7	735.6	667.7
42.5°	1246.5	1204.3	1155.1	1104.1	1048.1	996.5	952.7	902.4	827.9	738.6	651.8
45°	1352.3	1302.0	1236.2	1168.4	1098.7	1033.9	984.7	928.6	842.6	738.6	632.5
47.5°	1448.9	1388.6	1309.9	1225.4	1144.3	1073.4	1017.6	955.4	863.5	748.0	626.7
50°	1538.2	1468.8	1379.2	1281.2	1190.1	1114.4	1054.4	989.8	895.1	772.1	640.6
52.5°	1632.2	1558.7	1449.5	1345.4	1245.0	1163.9	1099.9	1032.4	936.2	810.1	665.0
55°	1755.6	1669.3	1545.4	1430.8	1320.4	1230.8	1158.1	1083.4	981.1	852.9	694.9
57.5°	1950.1	1825.0	1701.0	1552.0	1448.0	1330.0	1250.4	1164.5	1054.1	908.7	739.8
60°	2290.6	2136.8	1987.8	1816.5	1688.0	1564.7	1444.3	1332.2	1199.2	1034.8	838.4
62.5°	2776.8	2620.6	2386.6	2176.9	1983.0	1819.6	1662.7	1520.0	1349.3	1169.6	960.0
65°	3067.3	2888.4	2609.4	2327.7	2092.2	1889.5	1710.1	1535.5	1351.1	1175.9	996.8
66°	3090.5	2921.3	2623.3	2325.6	2081.0	1870.8	1684.1	1503.5	1314.7	1147.0	984.7
67.5°	3047.3	2901.7	2594.9	2284.6	2034.6	1807.5	1615.7	1426.3	1236.5	1081.2	944.6
70°	2743.0	2637.8	2374.8	2084.0	1834.6	1634.3	1432.0	1249.8	1070.0	939.5	838.1
72.5°	2248.7	2115.4	1931.4	1736.0	1539.7	1362.0	1178.0	1023.0	872.2	777.2	705.4
75°	1651.9	1531.8	1329.1	1207.3	1077.6	966.0	842.0	695.2	588.1	540.5	523.0
77.5°	1047.1	916.9	745.9	611.3	525.7	451.8	356.2	283.2	226.8	236.2	261.5
80°	529.0	455.7	341.1	269.3	232.9	193.6	153.2	116.1	84.7	96.8	109.5
82.5°	339.6	283.5	225.9	178.0	150.2	132.4	105.8	76.9	57.3	64.6	79.0
85°	204.5	172.8	137.8	112.8	98.0	81.7	60.0	42.5	42.2	45.2	55.8
87.5°	31.1	44.3	25.6	27.4	29.0	31.1	27.4	23.2	20.2	26.2	33.2
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0
2.5°	622.5	623.1	624.3	625.8	625.5	627.6	628.9	627.6	630.4	630.4	631.9
5°	634.0	634.9	637.0	638.5	639.1	640.9	641.5	641.2	641.8	642.1	642.7
7.5°	637.3	639.7	640.6	641.5	641.8	642.4	642.4	641.8	641.8	641.5	642.1
10°	636.4	637.3	637.9	637.6	637.6	637.0	636.7	636.4	636.4	635.8	636.7
12.5°	633.4	633.4	633.4	632.8	632.8	632.5	632.5	632.5	633.1	633.4	634.9
15°	627.3	627.3	627.9	627.6	628.5	630.1	631.9	633.1	634.6	634.9	635.8
17.5°	618.0	618.3	620.1	624.0	627.9	632.5	635.8	636.7	635.5	632.5	630.4
20°	601.7	605.6	612.8	622.2	631.0	636.7	638.2	634.6	628.9	621.0	616.7
22.5°	587.2	595.1	608.0	623.4	634.3	638.2	633.7	625.2	614.9	605.9	599.6
25°	592.9	602.0	615.5	628.9	635.8	633.7	624.6	612.5	601.7	591.1	580.9
27.5°	617.0	626.1	635.8	639.7	637.3	629.5	616.7	603.8	589.3	574.3	561.6
30°	640.0	645.1	645.7	641.8	633.1	620.4	605.6	590.5	572.2	554.0	538.0
32.5°	647.2	641.2	630.4	619.2	607.1	594.1	577.0	557.0	537.4	517.0	499.1
35°	645.1	620.7	593.8	570.0	555.5	540.8	525.1	498.5	476.5	459.1	447.6
37.5°	626.1	581.5	540.2	505.5	482.9	465.4	442.1	420.1	401.1	393.3	383.9
40°	599.6	531.4	474.1	425.6	402.0	379.7	353.8	336.9	331.4	324.2	324.5
42.5°	561.6	472.9	399.0	343.2	317.6	293.2	274.7	264.8	265.1	259.1	260.3
45°	521.5	414.1	321.2	265.7	240.4	219.5	209.3	206.3	206.6	206.9	205.1
47.5°	497.0	368.3	257.6	201.5	179.2	167.4	161.9	160.4	160.7	161.0	158.9
50°	493.4	344.4	215.0	154.1	139.6	133.0	130.3	128.8	128.8	127.6	125.8
52.5°	503.6	338.4	194.2	133.6	119.8	113.7	111.6	110.4	108.6	106.1	102.8
55°	520.0	343.8	187.9	126.7	113.1	107.0	104.3	103.7	100.7	96.2	90.8
57.5°	550.1	363.4	192.1	128.5	114.3	108.9	107.0	106.4	102.2	95.3	88.4
60°	636.7	420.4	213.2	138.7	123.1	118.5	118.5	117.6	111.9	101.9	92.0
62.5°	756.1	503.9	241.9	152.9	135.1	134.5	139.6	139.9	129.7	113.7	98.0
65°	813.7	543.2	251.8	155.9	138.4	145.4	155.6	155.6	141.1	119.2	98.9
66°	814.0	542.3	248.8	152.3	134.8	143.9	154.4	154.4	139.3	117.6	97.4
67.5°	793.2	525.4	238.9	145.7	126.7	135.1	144.5	144.2	130.6	111.6	93.2
70°	711.5	464.8	210.5	134.8	117.0	117.3	120.7	118.5	109.5	96.5	84.7
72.5°	613.4	388.7	182.5	127.9	109.5	103.7	101.0	99.2	93.5	85.7	78.4
75°	470.5	301.9	158.9	121.6	102.8	92.9	89.3	87.8	83.8	79.3	73.6
77.5°	288.3	206.9	134.8	111.3	95.3	86.3	82.3	79.3	75.4	71.2	67.3
80°	124.3	124.9	108.0	94.4	82.9	72.4	67.3	63.7	61.5	60.0	57.9
82.5°	86.9	89.6	82.3	73.3	63.4	55.8	51.3	50.3	50.6	50.6	50.0
85°	65.2	64.0	57.6	52.5	47.9	43.1	39.5	39.2	40.4	40.4	39.5
87.5°	37.7	38.0	32.6	30.5	31.7	27.1	24.7	25.0	28.0	27.7	27.1
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):

	160°	165°	170°	175°	180°
0°	614.0	614.0	614.0	614.0	614.0
2.5°	631.9	632.8	632.5	633.4	632.5
5°	643.6	643.3	643.0	644.2	642.7
7.5°	641.8	642.1	642.1	642.1	641.8
10°	637.3	638.5	639.1	640.3	640.0
12.5°	635.8	637.6	639.4	641.2	641.5
15°	636.1	637.3	638.2	639.1	639.4
17.5°	628.2	627.9	627.0	626.4	625.8
20°	612.2	610.7	609.2	606.8	608.0
22.5°	592.3	588.1	583.3	579.4	579.1
25°	569.1	561.3	553.4	548.3	546.5
27.5°	548.6	539.3	531.1	526.6	525.4
30°	524.2	515.8	508.5	504.6	502.1
32.5°	488.0	481.3	472.3	469.3	469.0
35°	437.6	432.5	426.2	425.0	423.4
37.5°	380.6	378.8	375.8	372.2	371.6
40°	319.7	320.9	320.0	317.9	314.6
42.5°	260.9	263.0	263.3	264.8	266.3
45°	207.8	209.6	209.6	211.1	212.9
47.5°	159.5	158.3	159.2	160.7	161.6
50°	120.7	119.8	118.2	117.0	115.8
52.5°	97.1	95.3	91.1	89.9	88.7
55°	85.7	82.3	79.3	78.1	78.1
57.5°	82.3	78.1	74.8	73.3	72.7
60°	82.9	76.9	72.7	70.3	69.4
62.5°	85.7	77.2	71.5	68.8	67.9
65°	85.4	76.6	71.2	68.2	67.3
66°	83.8	75.7	70.6	67.9	67.3
67.5°	81.4	74.5	70.0	67.6	66.7
70°	76.6	72.1	68.8	66.7	65.8
72.5°	72.7	69.7	66.7	64.3	63.7
75°	69.1	66.1	63.4	62.1	61.2
77.5°	63.7	60.9	59.4	58.2	57.6
80°	56.4	54.6	52.8	51.6	50.6
82.5°	49.1	46.7	44.9	44.0	43.4
85°	40.1	38.6	35.9	34.1	33.8
87.5°	26.8	25.3	24.4	22.9	21.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)