

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: P165530

Luminaire Tested: **VST-F09-LED-E-U-SL4-HSS-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165530
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-F09-LED-E-U-SL4-HSS-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (63) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12607 lumens
Efficiency: N/A
Efficacy: 53.7 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 - G3

Input Watts (W): 234.8
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



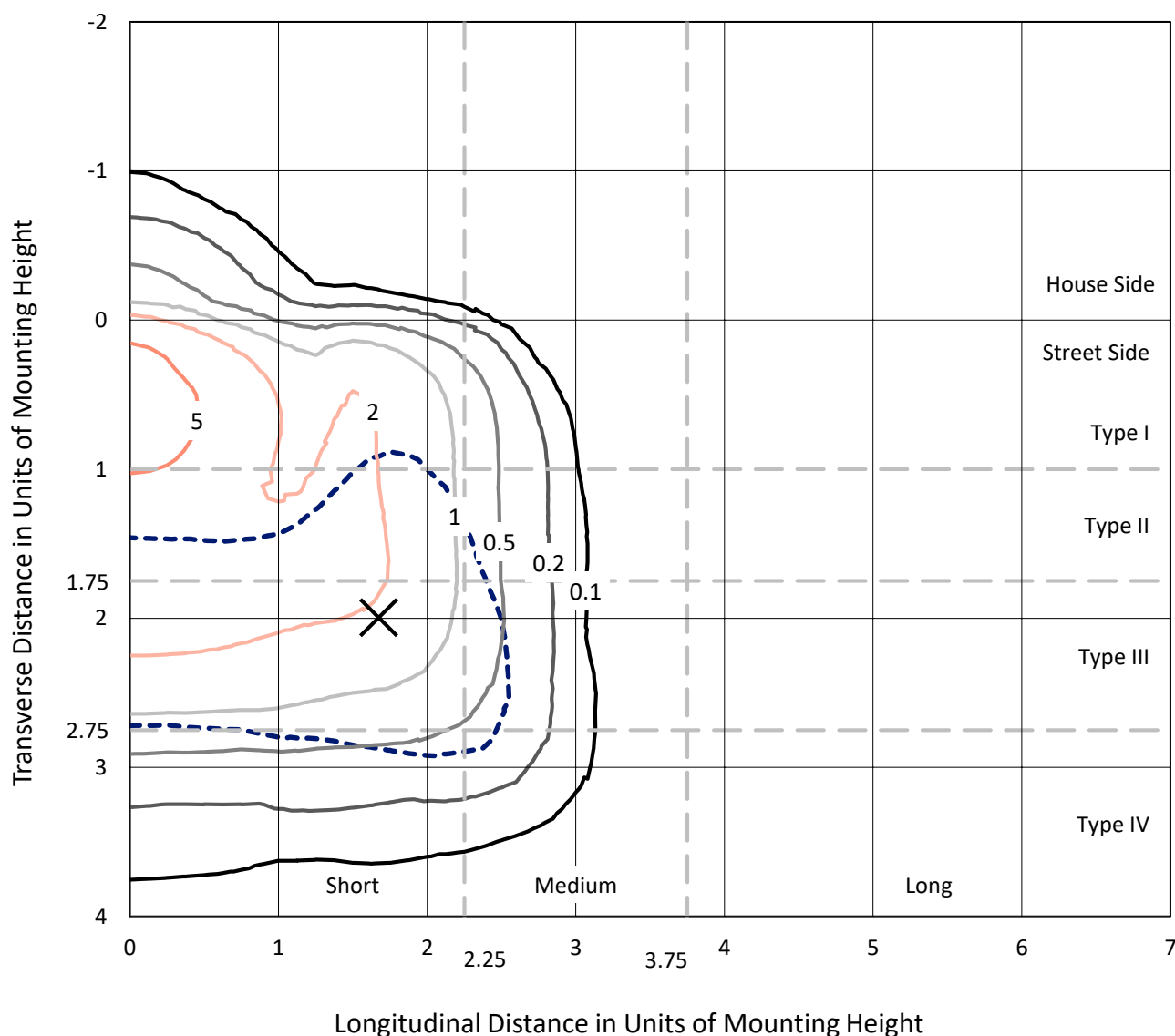
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

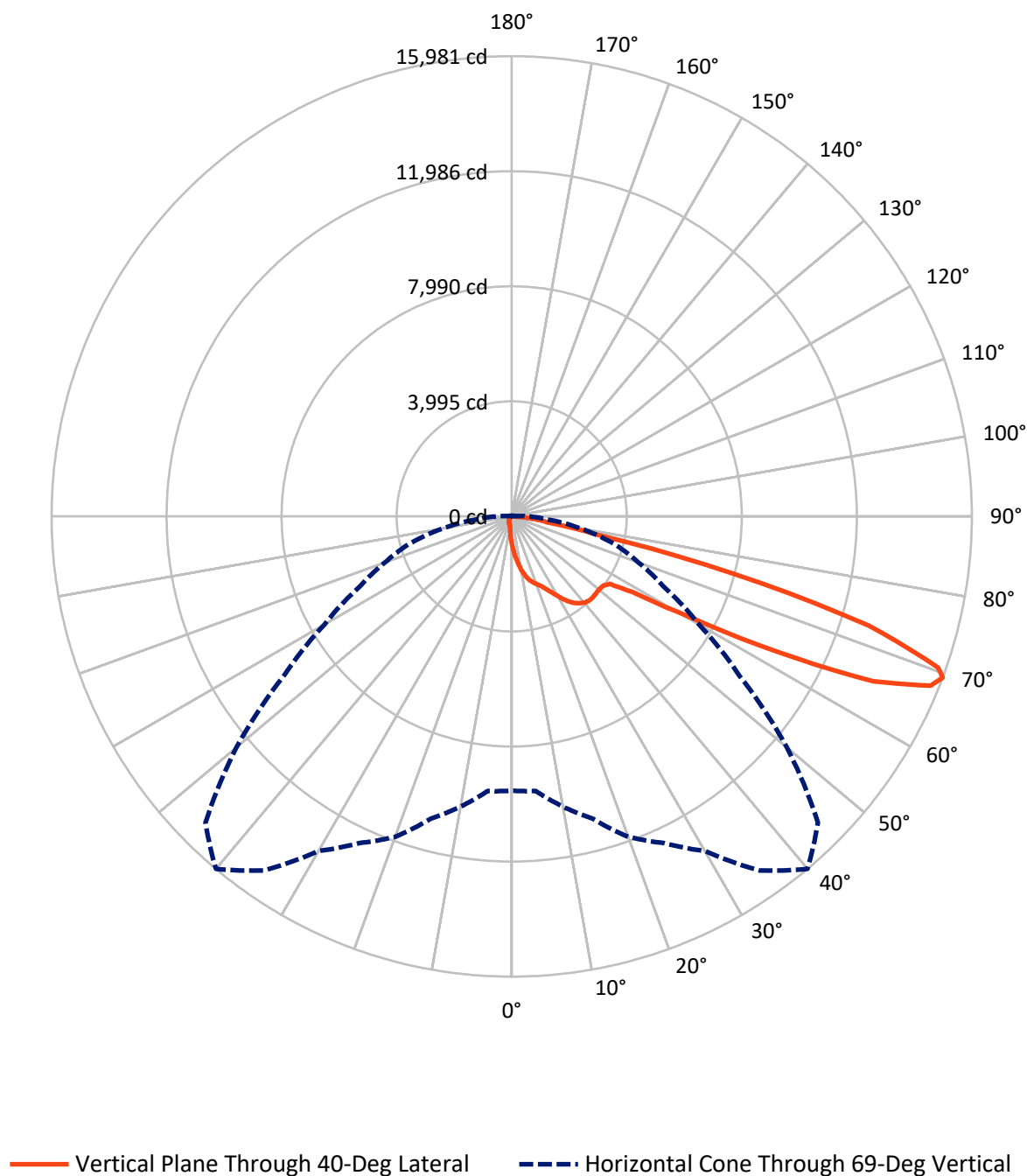


Based on 20 foot mounting height. Maximum calculated value = 7.1 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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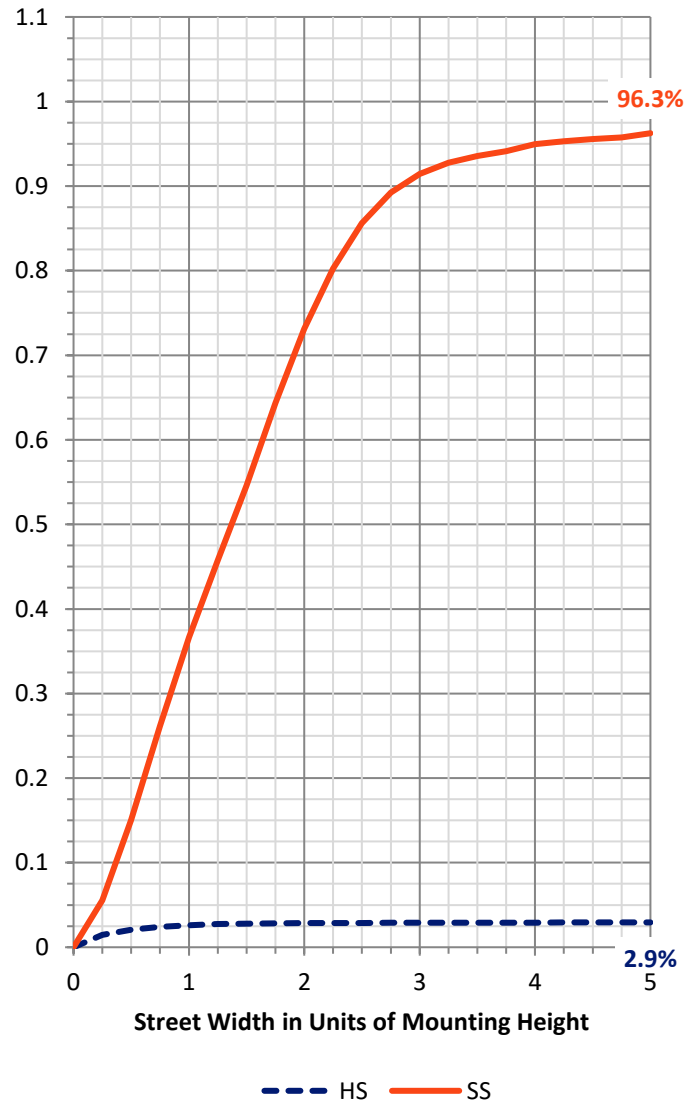
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	375.4	0.0	375.4
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	12231.6	0.0	12231.6
	% Fixture	97.0	0.0	97.0
Total	Lumens	12607.0	0.0	12607.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.9	0.8
10°-20°	337.4	2.7
20°-30°	645.7	5.1
30°-40°	1073.9	8.5
40°-50°	1453.2	11.5
50°-60°	2272.6	18.0
60°-70°	4672.4	37.1
70°-80°	1880.1	14.9
80°-90°	173.9	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°	12607.0	100.0
0°-180°	12607.0	100.0

Coefficient of Utilization



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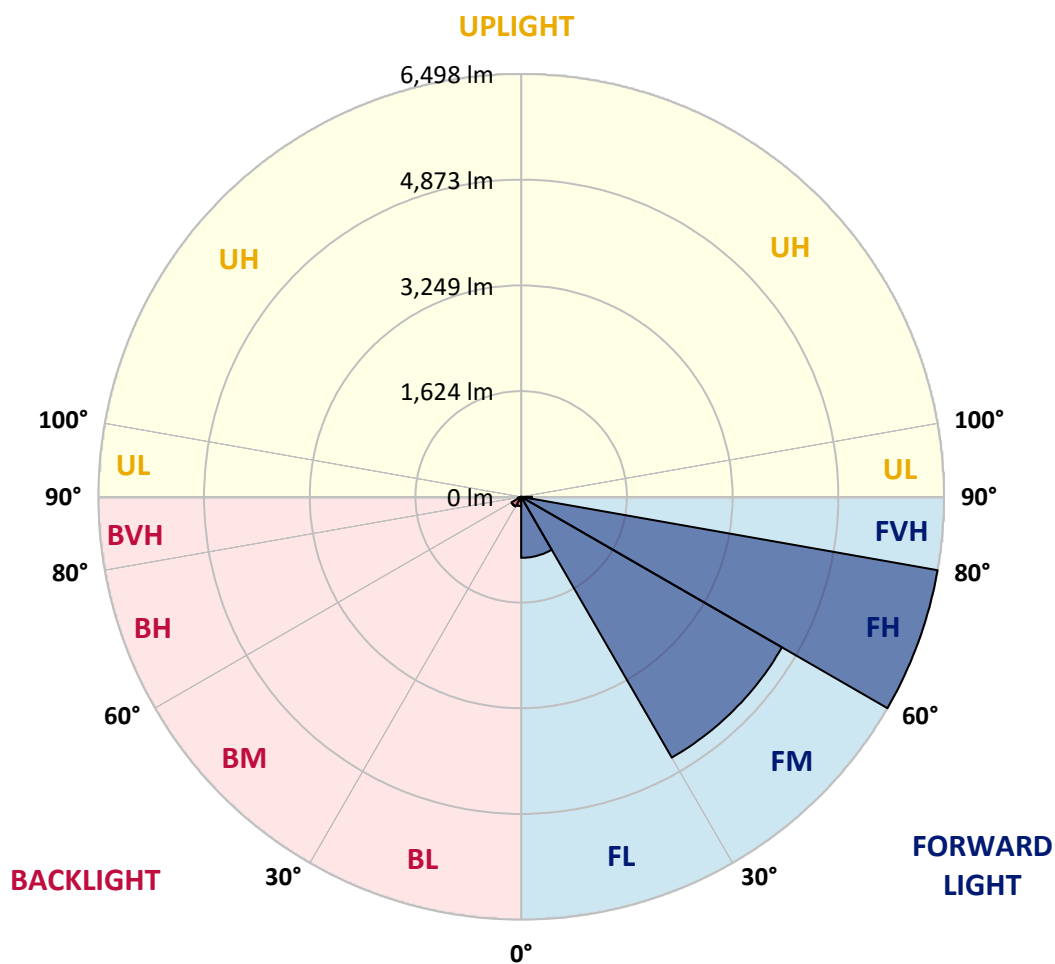
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	938.2	7.4			
FM	(30°-60°)	4628.2	36.7			
FH	(60°-80°)	6497.7	51.5			G3/7500
FVH	(80°-90°)	167.4	1.3			G2/225
BL	(0°-30°)	142.8	1.1	B1/500		
BM	(30°-60°)	171.4	1.4	B0/220		
BH	(60°-80°)	54.8	0.4	B0/110		G0/110
BVH	(80°-90°)	6.5	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-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	952.1	952.1	952.1	952.1	952.1	952.1	952.1	952.1	952.1	952.1	952.1
2.5°	1270.2	1255.6	1239.1	1239.1	1218.5	1218.5	1206.1	1173.1	1169.0	1150.3	1131.7
5°	1621.2	1608.8	1588.2	1569.5	1553.1	1524.1	1503.4	1464.2	1420.9	1379.5	1342.4
7.5°	1964.1	1957.8	1920.7	1914.4	1887.6	1840.2	1798.8	1741.0	1666.6	1608.8	1540.7
10°	2282.1	2267.6	2259.3	2224.2	2185.1	2133.4	2069.3	1999.2	1912.4	1821.5	1724.4
12.5°	2534.1	2525.8	2488.6	2474.1	2432.9	2381.2	2300.7	2209.8	2123.1	2005.3	1891.7
15°	2722.0	2707.5	2682.7	2660.0	2610.5	2565.1	2490.7	2391.5	2286.3	2158.2	2021.9
17.5°	2879.0	2852.1	2845.9	2810.7	2759.2	2705.4	2622.9	2532.0	2408.0	2280.0	2131.3
20°	3089.5	3052.4	3040.0	2988.3	2928.5	2854.1	2759.2	2645.6	2515.4	2375.1	2222.2
22.5°	3337.3	3310.5	3283.7	3238.3	3161.9	3056.6	2918.2	2794.3	2629.0	2474.1	2309.0
25°	3688.5	3665.8	3622.4	3560.5	3465.4	3339.5	3172.2	2990.5	2796.3	2598.0	2403.9
27.5°	4029.2	4008.6	3977.6	3930.2	3822.7	3684.4	3477.8	3246.6	3000.7	2761.2	2546.4
30°	4349.4	4330.7	4299.8	4252.4	4157.3	4021.0	3787.6	3539.8	3234.1	2955.3	2697.2
32.5°	4694.3	4688.0	4652.9	4584.8	4502.2	4318.5	4064.4	3798.0	3488.2	3166.0	2864.4
35°	5084.6	5037.1	5004.1	4935.9	4795.5	4599.2	4301.9	4010.7	3684.4	3353.9	3017.3
37.5°	5415.1	5369.7	5328.3	5241.6	5070.2	4820.2	4483.6	4163.4	3826.8	3490.2	3147.3
40°	5656.6	5633.9	5584.4	5470.7	5278.7	4981.4	4617.8	4268.8	3930.2	3591.4	3252.7
42.5°	5836.3	5801.2	5745.5	5627.8	5400.6	5061.9	4671.5	4312.2	3977.6	3653.4	3320.9
45°	5902.4	5873.6	5821.9	5693.8	5448.0	5084.6	4669.5	4299.8	3979.7	3671.9	3366.3
47.5°	5863.2	5834.3	5788.8	5669.0	5427.5	5057.8	4632.4	4264.6	3959.0	3678.2	3407.6
50°	5733.1	5716.5	5681.4	5580.2	5363.4	5006.1	4599.2	4246.1	3954.9	3709.2	3465.4
52.5°	5720.7	5710.4	5667.0	5565.8	5344.8	4989.5	4595.1	4256.5	3990.0	3748.5	3506.8
55°	6990.7	6844.1	6515.8	6237.0	5778.5	5233.3	4803.7	4423.7	4138.7	3903.3	3733.9
57.5°	9935.8	9717.0	9285.3	8754.5	7701.2	6666.5	5838.4	5239.5	4944.1	4836.8	4900.7
60°	11315.3	11276.2	11208.0	10956.0	10417.0	9527.0	8535.6	7463.8	7034.1	6997.0	7127.1
62.5°	11970.1	11945.3	11966.0	11935.0	11767.7	11507.5	11222.4	10759.9	10334.4	10059.7	9477.3
65°	12271.6	12288.2	12405.8	12498.7	12519.4	12587.5	12796.2	13372.3	13793.6	13085.3	11468.2
67.5°	11505.3	11602.4	11873.0	12211.7	12608.2	12992.3	13611.9	14826.3	15691.6	14859.4	12562.8
69°	9524.8	9572.4	10233.2	10871.4	11839.9	12517.4	13415.7	15008.0	15980.8	15041.1	12476.0
70°	7498.8	7542.2	8250.6	9118.0	10755.7	11627.2	12802.3	14700.3	15710.2	14799.4	12029.9
72.5°	3382.9	3320.9	3570.7	4035.4	5815.6	7199.4	9254.3	11910.2	12961.4	11856.5	9000.2
75°	2362.6	2335.8	2362.6	2364.7	2641.4	3407.6	4299.8	6455.9	7984.1	6889.7	4299.8
77.5°	1829.8	1811.2	1792.6	1772.0	1805.1	2021.9	2108.6	2290.3	2973.9	2812.9	1639.8
80°	1447.8	1431.2	1476.6	1462.2	1462.2	1487.0	1470.5	1402.2	1274.2	1181.3	1057.4
82.5°	673.2	677.4	677.4	735.2	886.0	1034.7	1082.2	1014.1	900.5	766.1	617.5
85°	64.0	72.2	121.9	188.0	373.9	421.3	423.4	351.0	351.0	276.8	223.0
87.5°	0.0	2.0	2.0	2.0	18.6	51.7	43.4	12.4	6.1	6.1	10.3
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	952.1	952.1	952.1	952.1	952.1	952.1	952.1	952.1	952.1	952.1	952.1
2.5°	1098.7	1092.5	1067.8	1042.9	1020.2	995.4	972.7	950.0	925.2	906.6	883.9
5°	1284.6	1239.1	1187.5	1138.0	1088.3	1036.8	983.1	935.6	886.0	840.5	797.1
7.5°	1472.5	1383.7	1313.4	1224.7	1144.1	1063.6	989.3	912.9	842.6	776.6	714.6
10°	1631.5	1524.1	1414.7	1301.2	1185.4	1078.0	974.8	883.9	791.0	710.5	634.1
12.5°	1761.7	1625.3	1491.2	1348.6	1218.5	1082.2	954.1	844.7	735.2	644.4	565.9
15°	1879.3	1722.4	1561.3	1396.1	1230.9	1076.0	933.4	797.1	685.6	582.4	493.6
17.5°	1974.4	1794.7	1612.9	1427.1	1249.5	1067.8	906.6	764.1	634.1	526.6	439.9
20°	2057.0	1869.0	1672.9	1464.2	1261.9	1065.6	883.9	722.9	588.6	475.1	390.3
22.5°	2133.4	1945.4	1734.8	1511.7	1280.5	1063.6	863.2	691.9	549.3	435.8	351.0
25°	2220.2	2021.9	1800.9	1561.3	1313.4	1071.9	850.9	667.1	514.2	398.6	320.1
27.5°	2317.2	2108.6	1879.3	1623.2	1356.8	1088.3	846.8	640.2	483.2	363.4	295.3
30°	2453.4	2211.9	1957.8	1685.2	1396.1	1107.0	842.6	623.7	452.2	336.6	270.5
32.5°	2573.3	2313.1	2044.6	1749.3	1439.5	1125.6	840.5	601.0	423.4	309.8	252.0
35°	2699.3	2406.0	2119.0	1811.2	1476.6	1146.1	838.5	584.4	396.6	282.9	233.4
37.5°	2808.7	2484.4	2176.8	1864.9	1518.0	1164.8	840.5	570.0	371.7	260.2	216.8
40°	2901.7	2565.1	2240.7	1914.4	1561.3	1193.7	842.6	555.6	347.0	239.5	202.4
42.5°	2984.3	2641.4	2309.0	1970.2	1610.9	1226.8	855.1	543.2	326.3	221.0	188.0
45°	3048.3	2711.7	2383.2	2048.7	1691.4	1280.5	877.8	534.9	305.6	204.4	175.6
47.5°	3114.4	2814.9	2509.3	2172.6	1809.2	1365.1	917.0	532.9	289.1	192.0	165.2
50°	3205.3	2918.2	2620.7	2298.6	1916.6	1451.9	964.4	534.9	268.5	179.7	154.9
52.5°	3271.4	3023.4	2765.3	2517.5	2172.6	1716.1	1148.3	572.0	258.1	169.3	142.5
55°	3661.7	3618.3	3624.4	3665.8	3399.4	2920.2	1920.7	826.1	303.6	192.0	140.5
57.5°	5163.1	5315.9	5404.6	5402.6	4962.7	4116.0	2579.5	1061.5	338.7	223.0	167.3
60°	7137.5	7021.8	6858.7	6455.9	5871.4	4698.5	2885.1	1142.1	293.2	177.6	152.9
62.5°	8882.6	8205.1	7604.1	6951.6	6185.3	4900.7	2947.1	1135.9	256.1	134.2	107.4
65°	9970.9	8752.4	7781.8	6963.9	6061.4	4731.4	2788.0	1042.9	216.8	109.5	88.8
67.5°	10231.1	8457.1	7083.8	6040.7	5063.9	3682.4	2046.6	784.8	169.3	90.9	78.5
69°	9663.2	7517.5	5869.4	4686.0	3684.4	2443.2	1266.0	495.6	130.1	82.6	72.2
70°	8888.7	6538.5	4781.0	3760.7	2728.2	1716.1	886.0	349.0	105.3	76.4	66.1
72.5°	5718.7	3434.4	2350.2	1635.6	1125.6	683.6	347.0	157.0	80.5	64.0	53.7
75°	2218.0	1270.2	921.2	700.1	547.3	380.0	210.7	101.2	68.1	53.7	41.3
77.5°	1092.5	836.4	683.6	468.8	272.6	169.3	113.6	78.5	55.8	39.3	26.8
80°	863.2	574.1	342.9	212.7	161.0	121.9	86.8	64.0	41.3	24.8	18.6
82.5°	442.0	241.7	177.6	144.6	119.8	95.1	70.2	45.4	26.8	16.6	14.4
85°	138.3	101.2	90.9	88.8	82.6	68.1	49.5	29.0	16.6	10.3	10.3
87.5°	10.3	14.4	18.6	14.4	16.6	14.4	18.6	12.4	8.3	8.3	6.1
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°	952.1	952.1	952.1	952.1	952.1	952.1	952.1	952.1	952.1	952.1	952.1
2.5°	867.4	842.6	819.9	805.4	778.6	768.3	758.0	753.9	735.2	739.3	722.9
5°	758.0	714.6	681.5	648.5	617.5	594.8	576.1	553.4	534.9	526.6	510.1
7.5°	658.8	603.1	559.7	524.6	487.4	458.5	433.7	417.1	400.7	384.1	375.9
10°	572.0	512.2	462.6	427.5	392.4	367.6	349.0	336.6	326.3	320.1	318.0
12.5°	491.5	433.7	388.3	357.3	330.5	318.0	309.8	303.6	301.5	299.5	299.5
15°	429.5	371.7	336.6	313.9	301.5	295.3	293.2	289.1	285.1	282.9	282.9
17.5°	371.7	328.3	303.6	291.2	285.1	280.9	276.8	272.6	268.5	266.4	266.4
20°	332.5	297.4	285.1	276.8	270.5	266.4	260.2	256.1	254.1	252.0	249.9
22.5°	301.5	278.8	270.5	264.4	256.1	249.9	245.8	241.7	237.5	235.4	233.4
25°	278.8	264.4	258.1	249.9	241.7	235.4	229.3	223.0	219.0	216.8	212.7
27.5°	262.2	252.0	243.7	233.4	225.1	219.0	212.7	206.6	202.4	198.3	196.1
30°	247.8	237.5	227.1	219.0	208.6	202.4	194.1	188.0	185.9	181.7	177.6
32.5°	233.4	223.0	212.7	202.4	192.0	183.9	179.7	171.4	167.3	165.2	161.0
35°	216.8	206.6	194.1	185.9	175.6	167.3	161.0	154.9	150.7	146.6	144.6
37.5°	202.4	190.0	177.6	167.3	159.0	150.7	144.6	138.3	134.2	130.1	128.0
40°	185.9	173.4	161.0	150.7	142.5	136.3	130.1	123.9	119.8	117.8	117.8
42.5°	171.4	157.0	144.6	136.3	130.1	121.9	115.6	109.5	107.4	105.3	107.4
45°	157.0	142.5	132.2	123.9	117.8	109.5	103.2	99.1	97.1	99.1	101.2
47.5°	144.6	130.1	119.8	113.6	107.4	101.2	95.1	90.9	90.9	95.1	99.1
50°	132.2	117.8	109.5	105.3	99.1	92.9	84.7	82.6	84.7	88.8	92.9
52.5°	119.8	103.2	97.1	95.1	88.8	82.6	76.4	74.4	76.4	80.5	78.5
55°	107.4	90.9	88.8	86.8	80.5	72.2	66.1	66.1	66.1	64.0	59.9
57.5°	103.2	80.5	78.5	76.4	70.2	62.0	57.8	53.7	51.7	45.4	43.4
60°	107.4	72.2	72.2	68.1	62.0	53.7	47.5	41.3	37.1	33.0	33.0
62.5°	86.8	66.1	64.0	59.9	51.7	43.4	37.1	31.0	29.0	26.8	26.8
65°	70.2	59.9	55.8	49.5	43.4	35.1	29.0	24.8	22.7	22.7	24.8
67.5°	64.0	53.7	47.5	41.3	35.1	26.8	22.7	20.7	20.7	22.7	22.7
69°	59.9	49.5	43.4	37.1	31.0	24.8	20.7	20.7	20.7	20.7	22.7
70°	55.8	47.5	41.3	35.1	26.8	20.7	18.6	18.6	20.7	20.7	22.7
72.5°	43.4	37.1	35.1	29.0	20.7	18.6	16.6	18.6	18.6	20.7	20.7
75°	33.0	26.8	26.8	22.7	16.6	14.4	14.4	16.6	16.6	18.6	18.6
77.5°	22.7	18.6	18.6	16.6	14.4	12.4	12.4	14.4	16.6	16.6	18.6
80°	16.6	14.4	12.4	14.4	12.4	10.3	12.4	14.4	14.4	16.6	16.6
82.5°	12.4	12.4	12.4	12.4	10.3	10.3	12.4	12.4	14.4	16.6	16.6
85°	10.3	10.3	10.3	10.3	10.3	10.3	10.3	12.4	12.4	14.4	14.4
87.5°	6.1	6.1	6.1	8.3	8.3	10.3	10.3	10.3	10.3	12.4	12.4
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):

	165°	170°	175°	180°
0°	952.1	952.1	952.1	952.1
2.5°	718.7	716.6	708.3	710.5
5°	503.9	491.5	499.8	497.8
7.5°	369.7	367.6	365.6	369.7
10°	316.0	316.0	313.9	316.0
12.5°	297.4	297.4	297.4	297.4
15°	282.9	282.9	280.9	280.9
17.5°	266.4	266.4	266.4	264.4
20°	249.9	247.8	247.8	247.8
22.5°	231.3	229.3	229.3	229.3
25°	212.7	210.7	210.7	210.7
27.5°	194.1	192.0	190.0	190.0
30°	175.6	173.4	171.4	171.4
32.5°	157.0	154.9	152.9	152.9
35°	140.5	140.5	138.3	136.3
37.5°	126.0	126.0	126.0	126.0
40°	115.6	117.8	117.8	117.8
42.5°	109.5	111.5	113.6	115.6
45°	105.3	109.5	111.5	111.5
47.5°	103.2	105.3	107.4	107.4
50°	95.1	92.9	92.9	92.9
52.5°	76.4	72.2	70.2	68.1
55°	55.8	53.7	49.5	49.5
57.5°	39.3	39.3	37.1	37.1
60°	31.0	31.0	29.0	31.0
62.5°	26.8	26.8	26.8	26.8
65°	24.8	24.8	24.8	24.8
67.5°	24.8	24.8	24.8	24.8
69°	22.7	22.7	22.7	22.7
70°	22.7	22.7	22.7	22.7
72.5°	20.7	20.7	20.7	20.7
75°	18.6	20.7	20.7	20.7
77.5°	18.6	18.6	18.6	18.6
80°	16.6	16.6	18.6	18.6
82.5°	16.6	16.6	16.6	16.6
85°	14.4	14.4	16.6	16.6
87.5°	12.4	12.4	14.4	14.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)