

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: P158729

Luminaire Tested: **VST-E11-LED-E-U-SL4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158729
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33714)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E11-LED-E-U-SL4-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (231) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29145.3 lumens
Efficiency: N/A
Efficacy: 108.1 lumens/watt
Luminous Opening: Rectangular (W 1.83' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 269.7
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

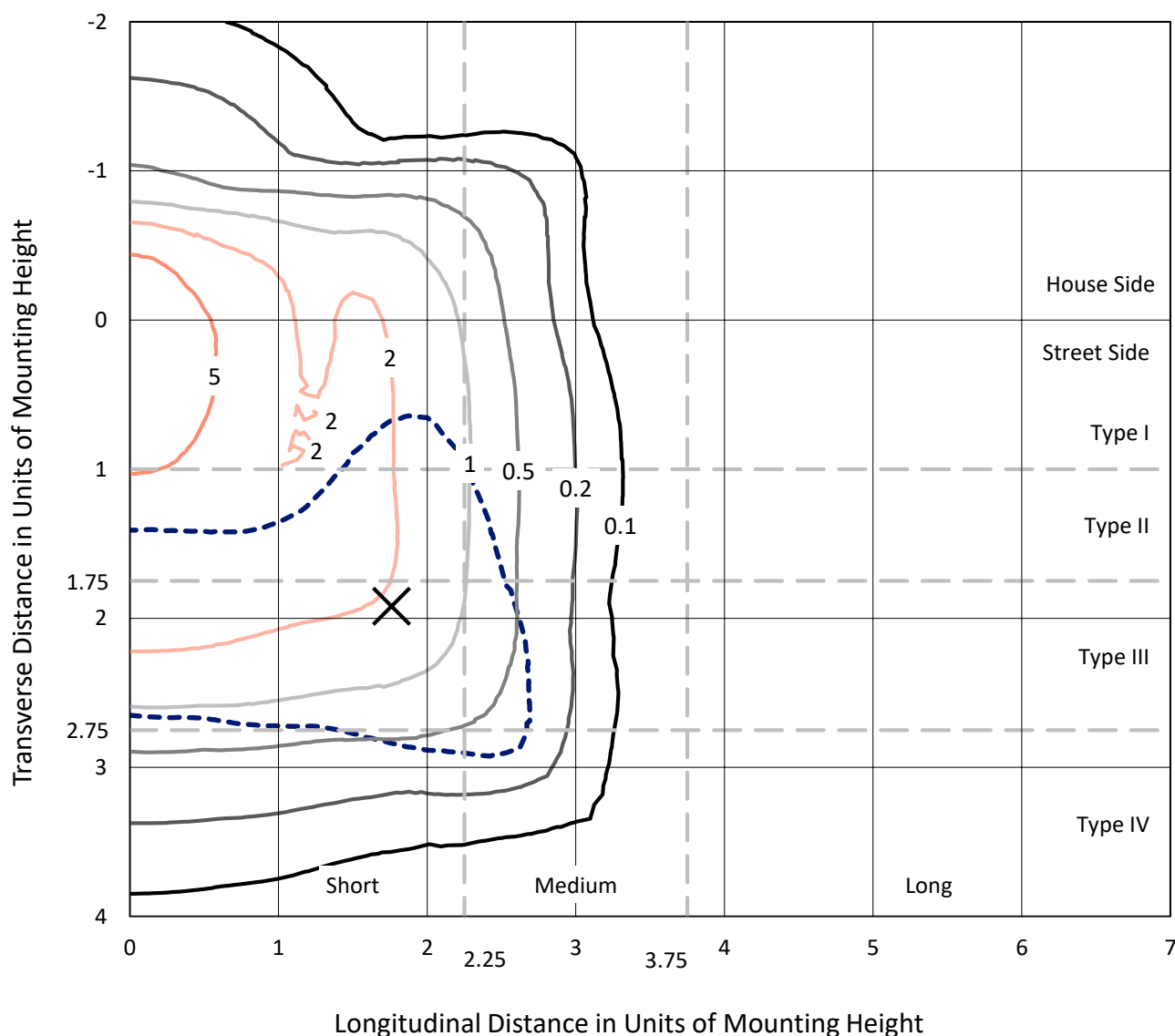


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

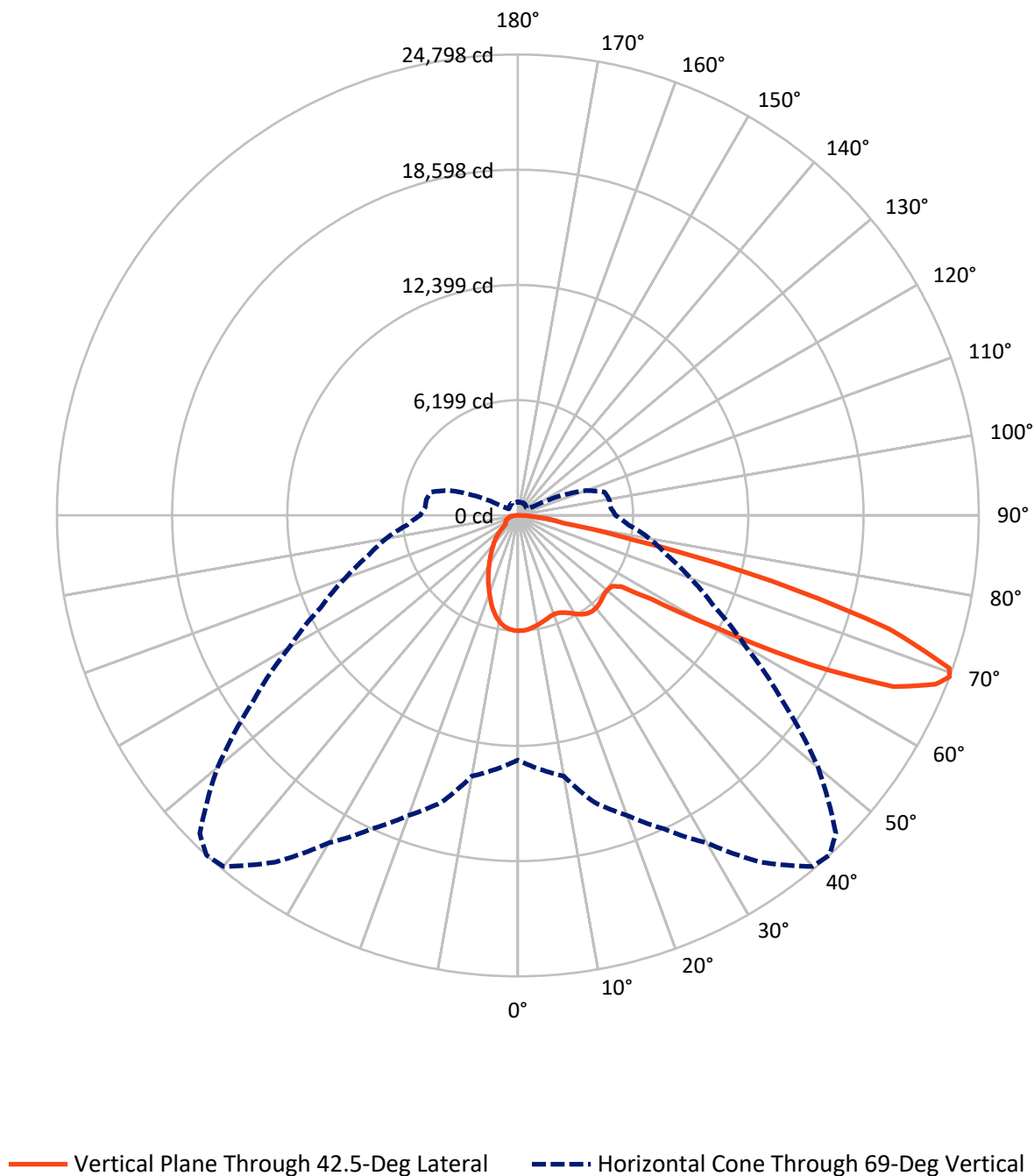


Based on 25 foot mounting height. Maximum calculated value = 9.9 fc
Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6479.4	0.0	6479.4
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	22665.8	0.0	22665.8
	% Fixture	77.8	0.0	77.8
Total	Lumens	29145.3	0.0	29145.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	577.8	2.0
10°-20°	1557.2	5.3
20°-30°	2270.8	7.8
30°-40°	2894.8	9.9
40°-50°	3368.1	11.6
50°-60°	5124.6	17.6
60°-70°	9052.4	31.1
70°-80°	3735.6	12.8
80°-90°	564.0	1.9
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°	29145.3	100.0
0°-180°	29145.3	100.0

Coefficient of Utilization



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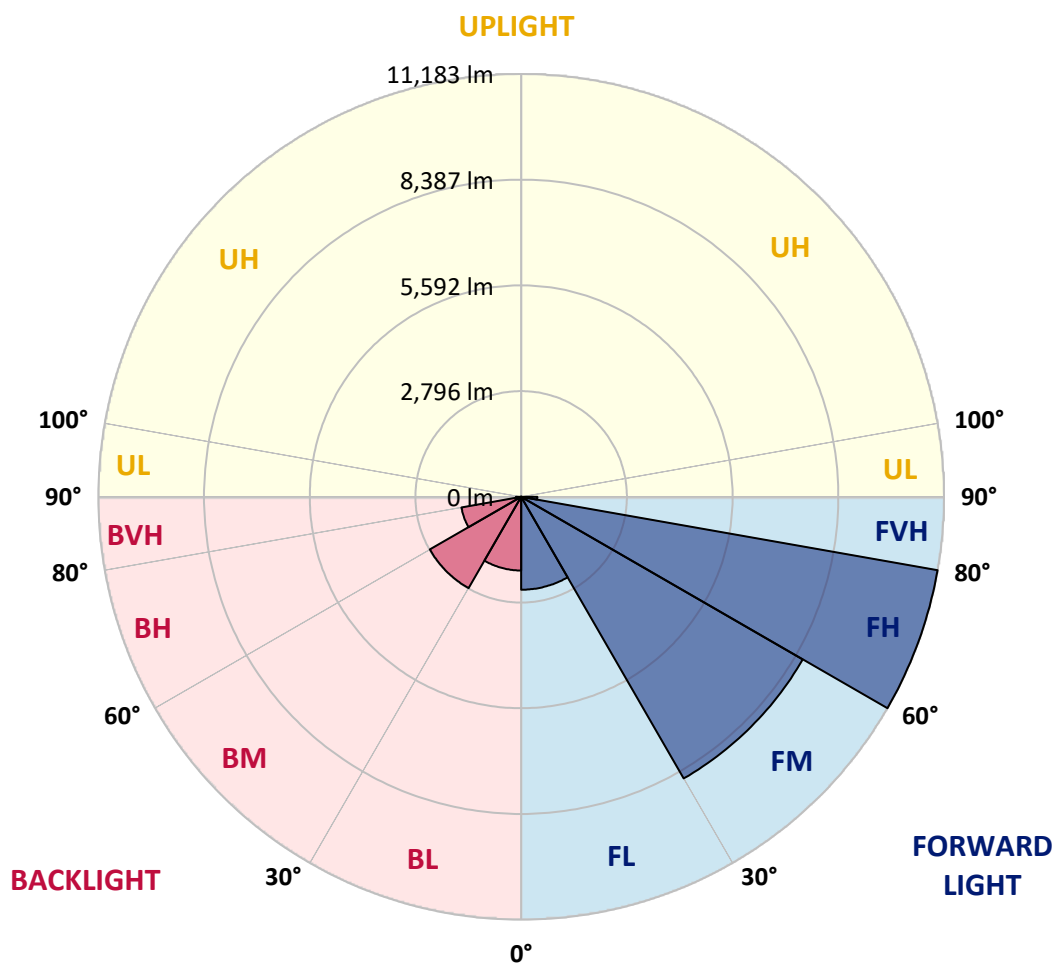
CATALOG NUMBER: VST-E11-LED-E-U-SL4-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2457.7	8.4			
FM	(30°-60°)	8598.6	29.5			
FH	(60°-80°)	11183.0	38.4			G4/12000
FVH	(80°-90°)	426.5	1.5			G3/500
BL	(0°-30°)	1948.1	6.7	B3/2500		
BM	(30°-60°)	2788.9	9.6	B3/5000		
BH	(60°-80°)	1605.0	5.5	B3/2500		G3/2500
BVH	(80°-90°)	137.5	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	42.5°	45°
0°	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9
2.5°	6186.9	6209.0	6200.9	6200.9	6206.9	6196.9	6196.9	6200.9	6190.9	6196.9	6194.9
5°	6164.7	6176.8	6172.8	6172.8	6172.8	6164.7	6160.7	6158.7	6144.7	6144.7	6138.6
7.5°	6116.5	6120.5	6126.6	6118.5	6116.5	6114.5	6100.4	6092.4	6076.3	6062.3	6066.3
10°	6052.2	6050.2	6060.3	6054.2	6046.2	6040.2	6028.1	6014.0	5996.0	5977.9	5975.9
12.5°	5979.9	5977.9	5985.9	5981.9	5975.9	5963.8	5953.8	5929.7	5901.5	5879.4	5877.4
15°	5933.7	5927.6	5935.7	5927.6	5917.6	5905.5	5887.5	5857.3	5807.1	5785.0	5766.9
17.5°	5977.9	5967.8	5971.8	5961.8	5947.7	5915.6	5873.4	5809.1	5736.8	5698.6	5670.4
20°	6132.6	6114.5	6118.5	6108.5	6076.3	6034.1	5953.8	5841.2	5718.7	5656.4	5612.2
22.5°	6353.6	6339.6	6345.6	6335.5	6303.4	6239.1	6118.5	5957.8	5783.0	5692.5	5622.2
25°	6689.2	6701.3	6705.3	6659.1	6641.0	6522.4	6355.6	6132.6	5899.5	5793.0	5696.6
27.5°	7067.0	7067.0	7085.0	7067.0	7030.8	6892.1	6657.0	6387.8	6088.4	5943.7	5827.2
30°	7434.7	7430.7	7464.8	7460.8	7402.5	7245.8	6978.5	6651.0	6309.4	6146.7	5998.0
32.5°	7824.5	7836.5	7858.6	7850.6	7774.3	7557.2	7235.7	6880.1	6520.4	6341.6	6174.8
35°	8246.5	8252.5	8260.5	8256.5	8101.8	7828.5	7424.6	7026.8	6653.0	6476.2	6303.4
37.5°	8668.4	8662.4	8652.4	8565.9	8389.1	8009.4	7539.2	7111.2	6719.3	6528.4	6349.6
40°	9046.2	9012.0	8979.9	8845.3	8574.0	8111.8	7583.4	7131.3	6713.3	6516.4	6341.6
42.5°	9253.2	9215.0	9148.7	8979.9	8650.3	8121.9	7553.2	7071.0	6651.0	6456.1	6283.3
45°	9291.3	9263.2	9198.9	9010.0	8632.3	8057.6	7460.8	6972.5	6558.6	6363.7	6200.9
47.5°	9200.9	9178.8	9116.5	8929.6	8553.9	7961.1	7354.3	6868.0	6468.2	6285.3	6128.6
50°	9062.3	9042.2	8993.9	8823.1	8465.5	7894.8	7300.0	6813.8	6438.0	6271.2	6126.6
52.5°	9287.3	9303.4	9162.7	8975.9	8559.9	7953.1	7360.3	6870.0	6492.3	6327.5	6176.8
55°	12785.6	12763.5	11917.6	11208.3	9940.4	8791.0	7933.0	7316.1	6912.2	6747.5	6606.8
57.5°	16613.5	16537.1	16189.5	15526.4	14164.1	12345.6	10691.9	9285.3	8730.7	8493.6	8509.7
60°	17863.3	17891.4	17817.1	17582.0	17093.7	16147.3	14889.4	13832.5	12791.7	12283.3	12341.6
62.5°	18556.5	18606.8	18671.1	18618.8	18460.1	18241.1	18082.3	18178.8	18034.1	17668.4	17377.0
65°	18653.0	18755.5	18968.5	19137.2	19219.6	19426.6	19912.9	21078.3	22143.3	22213.6	21701.2
67.5°	16744.1	17027.4	17489.6	18271.2	18940.3	19675.8	20849.2	22621.5	24192.8	24245.1	23766.8
69°	13165.4	13709.9	14250.5	15996.6	17172.1	18612.8	20348.9	22770.2	24653.0	24797.6	24194.8
70°	10549.2	10872.7	11338.9	13093.1	14849.2	16685.8	19201.5	22279.9	24337.5	24628.9	23963.8
72.5°	6333.5	6458.1	6618.9	7247.8	8152.0	9787.6	13123.2	18164.7	20529.7	20919.6	20073.6
75°	4095.1	4087.1	4101.1	4275.9	4328.2	4641.6	5692.5	9345.6	13392.5	14099.8	13087.0
77.5°	3084.4	3112.5	3068.3	3084.4	3070.3	3154.7	3186.9	3345.6	5286.7	6512.4	5823.2
80°	2722.7	2736.8	2738.8	2730.7	2632.3	2624.2	2676.5	2586.1	2403.2	2439.4	2336.9
82.5°	1553.2	1551.2	1569.3	1706.0	1762.2	1947.1	2023.4	2065.6	1906.9	1788.3	1617.5
85°	1006.7	1014.7	1034.8	1077.0	1034.8	1050.9	1032.8	1069.0	980.6	910.2	813.8
87.5°	411.9	411.9	438.0	476.2	444.1	436.0	373.7	369.7	313.5	283.3	221.0
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°	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9
2.5°	6182.8	6194.9	6188.9	6196.9	6190.9	6190.9	6182.8	6180.8	6186.9	6178.8	6180.8
5°	6128.6	6130.6	6120.5	6124.6	6112.5	6108.5	6102.5	6086.4	6096.4	6086.4	6090.4
7.5°	6050.2	6044.2	6030.1	6010.0	5996.0	5989.9	5977.9	5955.8	5959.8	5941.7	5951.8
10°	5949.7	5929.7	5905.5	5875.4	5855.3	5837.2	5811.1	5785.0	5770.9	5754.8	5752.8
12.5°	5837.2	5813.1	5781.0	5734.7	5690.5	5660.4	5620.2	5574.0	5559.9	5533.8	5519.7
15°	5714.7	5676.5	5638.3	5586.1	5537.8	5491.6	5437.4	5379.1	5340.9	5300.7	5270.6
17.5°	5604.1	5559.9	5509.7	5459.5	5407.2	5351.0	5282.6	5210.3	5154.0	5079.7	5019.4
20°	5517.7	5461.5	5411.2	5359.0	5300.7	5232.4	5150.0	5057.6	4963.1	4880.8	4810.4
22.5°	5483.6	5395.2	5334.9	5282.6	5224.4	5144.0	5043.5	4935.0	4820.5	4705.9	4613.5
25°	5511.7	5381.1	5286.7	5224.4	5174.1	5091.7	4979.2	4846.6	4714.0	4577.3	4452.8
27.5°	5594.1	5427.3	5290.7	5192.2	5133.9	5051.6	4933.0	4792.3	4635.6	4482.9	4330.2
30°	5722.7	5505.7	5332.9	5194.2	5103.8	5009.4	4884.8	4722.0	4563.3	4388.5	4221.7
32.5°	5847.3	5588.1	5381.1	5202.3	5063.6	4941.0	4802.4	4641.6	4470.8	4288.0	4115.2
35°	5935.7	5642.3	5399.2	5184.2	5001.3	4848.6	4699.9	4539.2	4372.4	4185.5	4008.7
37.5°	5977.9	5672.5	5401.2	5136.0	4918.9	4750.2	4591.4	4432.7	4275.9	4099.1	3932.3
40°	5975.9	5670.4	5373.1	5073.7	4820.5	4641.6	4484.9	4330.2	4183.5	4028.8	3878.1
42.5°	5931.7	5638.3	5332.9	5013.4	4750.2	4551.2	4388.5	4239.8	4115.2	3978.6	3852.0
45°	5863.3	5584.0	5290.7	4985.2	4730.1	4531.1	4358.3	4213.7	4103.1	3978.6	3870.0
47.5°	5811.1	5553.9	5296.7	5035.5	4792.3	4585.4	4402.5	4243.8	4149.4	4048.9	3972.5
50°	5819.1	5568.0	5316.8	5065.6	4836.6	4627.6	4450.8	4306.1	4237.8	4211.6	4193.6
52.5°	5861.3	5590.1	5377.1	5226.4	5148.0	4991.3	4886.8	4796.4	4846.6	4748.1	4631.6
55°	6399.8	6311.4	6518.4	6713.3	6960.5	7052.9	6964.5	6948.4	7028.8	6695.2	5929.7
57.5°	8624.2	8853.3	9172.8	9341.6	9546.5	9492.3	9287.3	9116.5	8915.6	8525.8	7571.3
60°	12407.9	12235.1	12090.4	11682.5	11348.9	10959.1	10525.1	10153.4	9797.7	9237.1	8204.3
62.5°	16306.0	15106.4	14103.8	13135.3	12355.6	11708.6	11079.7	10521.1	9982.6	9200.9	8089.7
65°	19677.8	17152.0	15269.2	13848.6	12709.3	11726.7	10918.9	10147.3	9462.1	8545.9	7446.7
67.5°	21192.8	18028.1	15289.3	13253.8	11676.5	10342.2	9297.4	8131.9	7364.3	6777.6	6158.7
69°	21080.3	17359.0	14198.2	11692.5	9880.1	8324.8	7203.6	5987.9	5252.5	5003.3	4989.3
70°	20545.8	16225.7	12924.3	10424.6	8350.9	6805.7	5730.7	4639.6	3954.4	3783.6	4087.1
72.5°	16774.2	11465.5	8099.8	6184.8	4756.2	3759.5	3066.3	2433.3	1943.1	1683.9	1740.1
75°	9474.2	5308.8	3432.0	2594.1	2192.2	1812.5	1555.3	1326.2	1199.6	974.5	771.6
77.5°	3444.1	2278.6	1812.5	1567.3	1111.2	765.6	641.0	560.6	508.4	508.4	484.3
80°	2178.2	1716.0	1197.6	819.8	606.8	528.5	462.2	405.9	373.7	365.7	373.7
82.5°	1360.3	1050.9	671.1	514.4	432.0	387.8	337.6	295.4	269.3	263.2	275.3
85°	671.1	520.4	407.9	363.7	341.6	317.5	279.3	239.1	231.1	247.2	289.3
87.5°	200.9	178.8	146.7	152.7	160.7	156.7	124.6	108.5	102.5	134.6	211.0
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°	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9
2.5°	6184.8	6182.8	6186.9	6180.8	6184.8	6186.9	6182.8	6200.9	6188.9	6190.9	6198.9
5°	6094.4	6090.4	6106.5	6102.5	6110.5	6118.5	6114.5	6140.6	6130.6	6138.6	6154.7
7.5°	5943.7	5951.8	5953.8	5953.8	5969.8	5996.0	6002.0	6018.1	6018.1	6040.2	6056.2
10°	5742.8	5744.8	5756.8	5754.8	5774.9	5803.1	5807.1	5835.2	5845.3	5881.4	5903.5
12.5°	5509.7	5499.6	5497.6	5495.6	5521.8	5551.9	5555.9	5604.1	5624.2	5656.4	5692.5
15°	5248.5	5222.4	5214.3	5230.4	5224.4	5242.4	5260.5	5286.7	5314.8	5379.1	5411.2
17.5°	4993.3	4941.0	4927.0	4908.9	4890.8	4890.8	4898.8	4931.0	4989.3	5023.4	5095.8
20°	4732.1	4669.8	4619.5	4571.3	4529.1	4513.0	4515.1	4555.2	4597.4	4653.7	4722.0
22.5°	4513.0	4418.6	4332.2	4267.9	4181.5	4179.5	4167.4	4179.5	4225.7	4239.8	4278.0
25°	4324.2	4197.6	4081.0	3976.5	3892.2	3847.9	3835.9	3831.9	3809.8	3803.7	3775.6
27.5°	4177.5	4024.8	3874.1	3747.5	3643.0	3582.7	3506.4	3452.1	3373.7	3353.6	3303.4
30°	4056.9	3892.2	3727.4	3562.6	3444.1	3335.6	3207.0	3112.5	2992.0	2913.6	2845.3
32.5°	3940.4	3773.6	3606.8	3444.1	3261.2	3092.4	2923.6	2777.0	2642.3	2521.8	2421.3
35°	3843.9	3685.2	3516.4	3319.5	3086.4	2843.3	2640.3	2473.5	2288.7	2162.1	2035.5
37.5°	3781.6	3637.0	3468.2	3196.9	2897.5	2636.3	2405.2	2202.3	2013.4	1822.5	1679.8
40°	3753.5	3626.9	3415.9	3084.4	2732.7	2443.4	2188.2	1963.2	1722.0	1507.0	1354.3
42.5°	3751.5	3622.9	3343.6	2959.8	2596.1	2280.6	1997.3	1728.1	1460.8	1239.8	1089.1
45°	3787.7	3616.9	3267.2	2855.3	2475.5	2146.0	1808.4	1480.9	1181.5	1016.7	936.4
47.5°	3884.1	3626.9	3204.9	2758.9	2361.0	1983.2	1591.4	1209.6	962.5	886.1	886.1
50°	4056.9	3685.2	3188.9	2690.5	2246.5	1794.4	1326.2	976.6	852.0	852.0	876.1
52.5°	4322.2	3807.8	3217.0	2642.3	2103.8	1545.2	1044.9	841.9	817.8	839.9	872.1
55°	4933.0	4024.8	3255.2	2559.9	1886.8	1225.7	862.0	795.7	805.8	831.9	862.0
57.5°	6054.2	4488.9	3295.4	2379.1	1537.2	944.4	781.6	777.6	795.7	819.8	845.9
60°	6791.7	5079.7	3397.8	2105.8	1163.4	779.6	741.5	765.6	787.7	807.8	827.9
62.5°	6791.7	5246.5	3474.2	1800.4	874.1	709.3	715.3	753.5	779.6	789.7	801.7
65°	6357.6	4941.0	3215.0	1466.8	711.3	669.1	691.2	729.4	753.5	761.6	771.6
67.5°	5555.9	4364.4	2708.6	1105.2	635.0	635.0	663.1	691.2	711.3	727.4	743.5
69°	4830.5	3916.3	2385.1	936.4	604.8	608.8	637.0	661.1	685.2	705.3	725.4
70°	4308.1	3580.7	2160.1	850.0	586.7	588.7	616.9	643.0	665.1	687.2	711.3
72.5°	2306.8	2473.5	1641.7	697.3	540.5	546.5	572.7	596.8	616.9	639.0	661.1
75°	785.7	1063.0	1044.9	570.7	488.3	504.4	520.4	542.5	568.7	582.7	594.8
77.5°	460.1	476.2	556.6	464.2	440.1	448.1	466.2	484.3	506.4	520.4	530.5
80°	385.8	383.8	385.8	377.8	383.8	401.9	413.9	438.0	458.1	462.2	460.1
82.5°	313.5	329.5	331.5	327.5	345.6	359.7	369.7	383.8	381.8	385.8	393.8
85°	279.3	277.3	291.4	293.4	293.4	283.3	285.3	285.3	285.3	291.4	293.4
87.5°	279.3	233.1	180.8	162.8	170.8	160.7	152.7	150.7	166.8	182.9	178.8
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):

	160°	165°	170°	175°	180°
0°	6206.9	6206.9	6206.9	6206.9	6206.9
2.5°	6202.9	6209.0	6204.9	6204.9	6209.0
5°	6160.7	6170.8	6166.8	6170.8	6170.8
7.5°	6064.3	6078.3	6088.4	6098.4	6092.4
10°	5925.6	5949.7	5965.8	5977.9	5971.8
12.5°	5718.7	5740.8	5774.9	5795.0	5779.0
15°	5435.3	5497.6	5517.7	5545.9	5529.8
17.5°	5140.0	5178.1	5202.3	5228.4	5244.5
20°	4746.1	4776.3	4808.4	4820.5	4802.4
22.5°	4271.9	4288.0	4282.0	4300.1	4263.9
25°	3751.5	3761.5	3755.5	3771.6	3741.4
27.5°	3259.2	3257.2	3259.2	3239.1	3219.0
30°	2785.0	2766.9	2758.9	2728.7	2722.7
32.5°	2361.0	2298.7	2266.6	2222.4	2212.3
35°	1937.0	1848.6	1790.3	1740.1	1718.0
37.5°	1557.3	1450.8	1382.4	1338.2	1332.2
40°	1231.7	1133.3	1085.1	1060.9	1056.9
42.5°	1004.7	962.5	950.4	950.4	950.4
45°	916.3	914.3	924.3	932.3	934.4
47.5°	898.2	910.2	924.3	936.4	940.4
50°	898.2	910.2	920.3	932.3	936.4
52.5°	894.2	904.2	908.2	916.3	920.3
55°	882.1	888.1	888.1	892.2	896.2
57.5°	862.0	866.0	860.0	864.0	874.1
60°	841.9	845.9	835.9	845.9	852.0
62.5°	819.8	821.8	817.8	825.9	825.9
65°	783.7	779.6	785.7	791.7	793.7
67.5°	747.5	737.4	743.5	745.5	749.5
69°	719.4	713.3	715.3	719.4	723.4
70°	699.3	695.2	699.3	705.3	711.3
72.5°	649.0	651.0	665.1	677.2	689.2
75°	602.8	616.9	635.0	661.1	675.1
77.5°	546.5	556.6	570.7	598.8	624.9
80°	472.2	478.2	480.2	490.3	488.3
82.5°	383.8	377.8	373.7	369.7	367.7
85°	275.3	273.3	257.2	245.1	245.1
87.5°	164.8	156.7	148.7	138.6	132.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)