

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: P159839

Luminaire Tested: **VST-E12-LED-E-U-T4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159839
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-E12-LED-E-U-T4-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (252) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32621.5 lumens
Efficiency: N/A
Efficacy: 111.8 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G5

Input Watts (W): 291.7
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



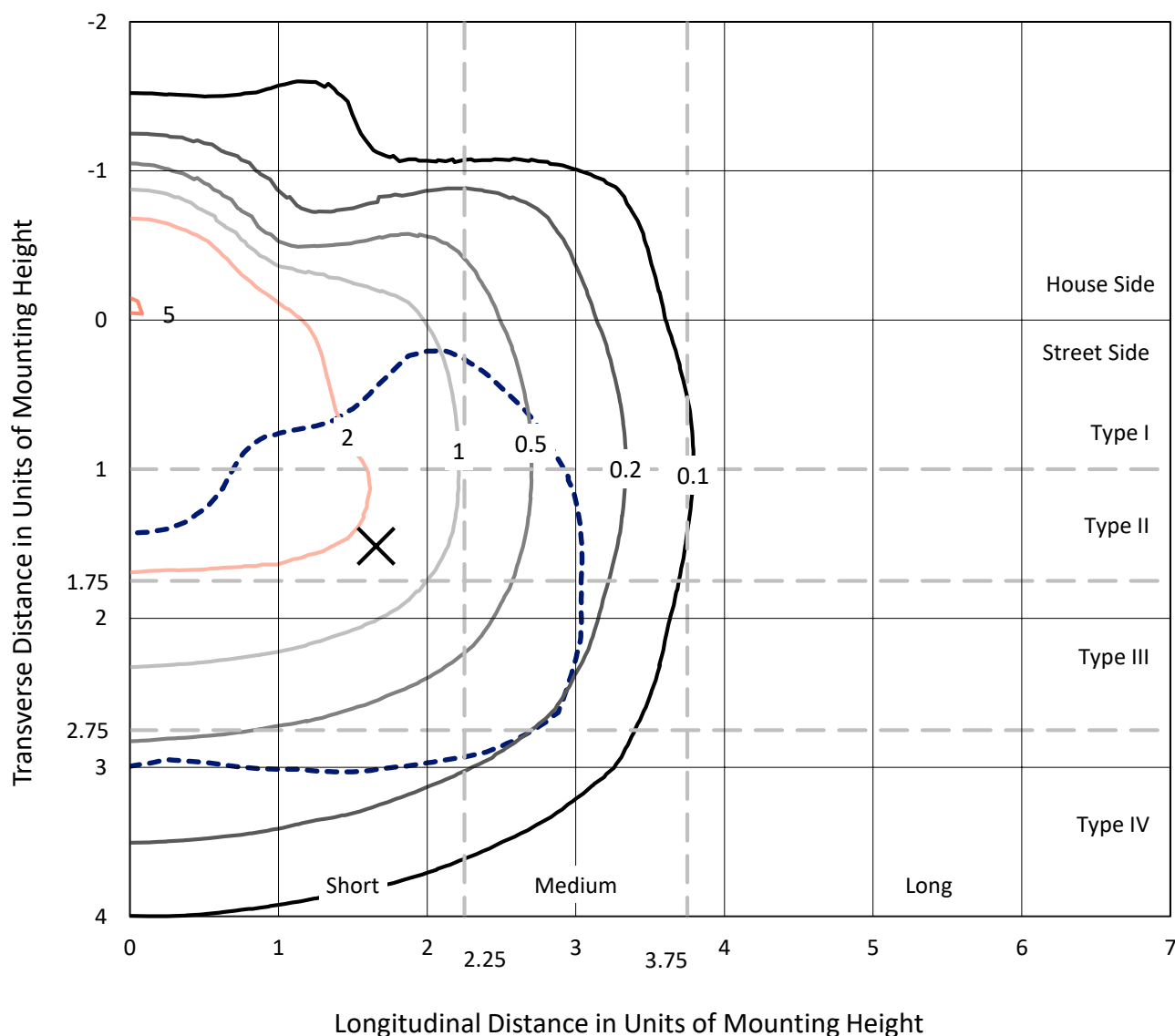
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

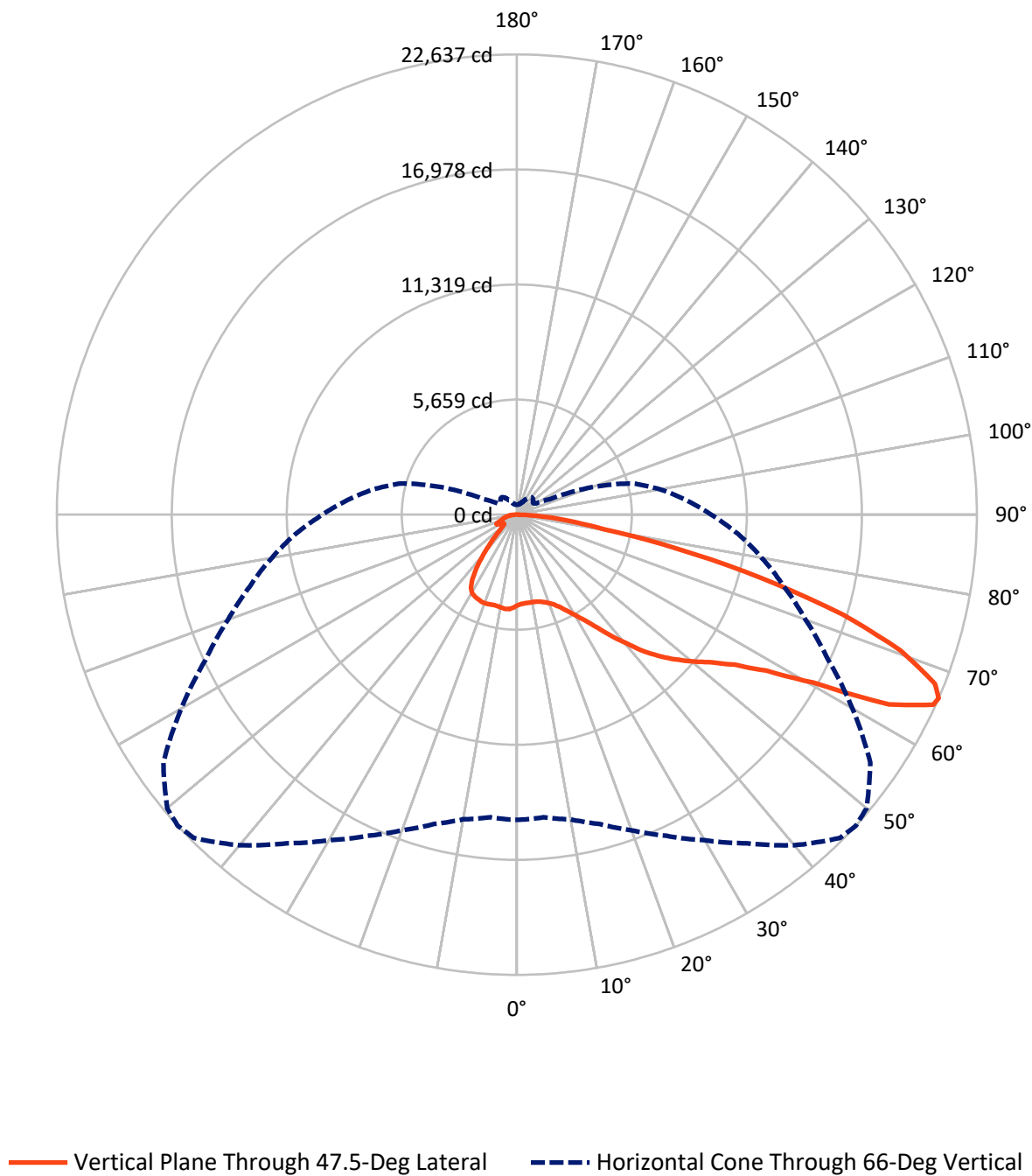


Based on 30 foot mounting height. Maximum calculated value = 5.1 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6754.1	0.0	6754.1
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	25867.4	0.0	25867.4
	% Fixture	79.3	0.0	79.3
Total	Lumens	32621.5	0.0	32621.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	430.2	1.3
10°-20°	1289.9	4.0
20°-30°	2201.0	6.7
30°-40°	3322.0	10.2
40°-50°	4317.9	13.2
50°-60°	5923.7	18.2
60°-70°	9112.5	27.9
70°-80°	5267.6	16.1
80°-90°	756.7	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°	32621.5	100.0
0°-180°	32621.5	100.0

Coefficient of Utilization



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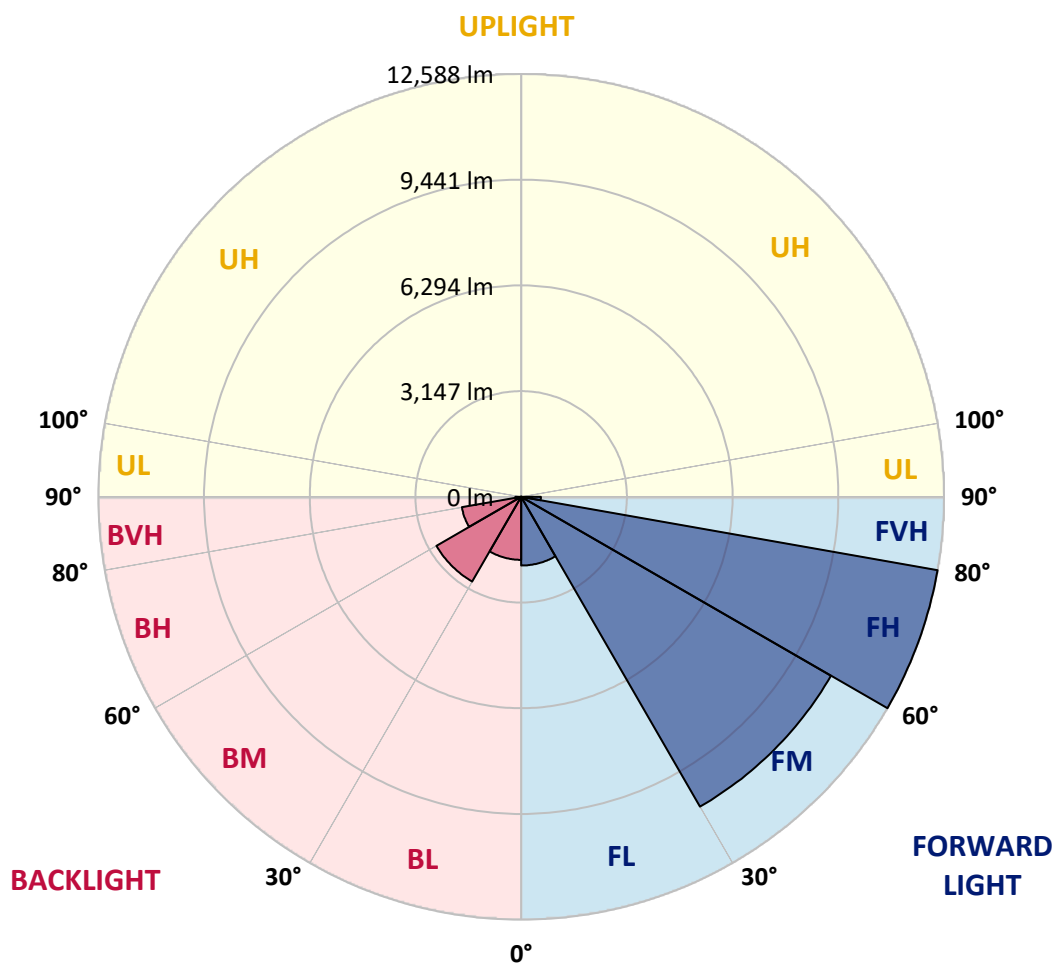
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2044.7	6.3			
FM	(30°-60°)	10649.5	32.6			
FH	(60°-80°)	12587.5	38.6			G5
FVH	(80°-90°)	585.6	1.8			G4/750
BL	(0°-30°)	1876.4	5.8	B3/2500		
BM	(30°-60°)	2914.0	8.9	B3/5000		
BH	(60°-80°)	1792.6	5.5	B3/2500		G3/2500
BVH	(80°-90°)	171.1	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-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	4463.0	4463.0	4463.0	4463.0	4463.0	4463.0	4463.0	4463.0	4463.0	4463.0	4463.0
2.5°	4349.0	4351.2	4353.4	4353.4	4360.0	4360.0	4370.9	4377.5	4379.7	4392.8	4401.6
5°	4267.9	4265.7	4267.9	4272.3	4283.2	4292.0	4313.9	4329.3	4342.4	4364.4	4375.3
7.5°	4232.8	4237.2	4241.6	4243.8	4252.6	4274.5	4294.2	4309.6	4335.9	4362.2	4373.1
10°	4278.9	4285.4	4278.9	4283.2	4283.2	4303.0	4311.7	4322.7	4342.4	4366.5	4373.1
12.5°	4386.3	4399.4	4386.3	4375.3	4366.5	4384.1	4379.7	4370.9	4381.9	4388.5	4388.5
15°	4563.8	4563.8	4555.1	4539.7	4517.8	4520.0	4500.3	4480.5	4471.8	4456.4	4445.5
17.5°	4737.0	4732.6	4712.9	4693.2	4677.8	4671.2	4642.7	4616.4	4585.7	4561.6	4535.3
20°	4905.8	4923.3	4899.2	4870.7	4846.6	4831.3	4809.3	4756.7	4719.5	4680.0	4653.7
22.5°	5197.3	5182.0	5155.7	5114.0	5089.9	5063.6	5017.6	4960.6	4903.6	4855.4	4822.5
25°	5497.6	5482.3	5445.0	5414.3	5379.3	5357.3	5306.9	5236.8	5182.0	5107.5	5063.6
27.5°	5819.9	5806.7	5762.9	5738.8	5714.7	5688.3	5644.5	5572.2	5521.8	5436.3	5390.2
30°	6183.7	6181.6	6122.4	6118.0	6082.9	6054.4	6023.7	5962.4	5911.9	5826.4	5771.6
32.5°	6571.7	6563.0	6521.3	6508.2	6532.3	6512.6	6468.7	6405.1	6339.4	6289.0	6227.6
35°	7124.1	7108.8	7084.7	7095.6	7111.0	7165.8	7097.8	7043.0	6964.1	6898.4	6812.9
37.5°	7527.5	7505.5	7534.0	7595.4	7683.1	7724.8	7783.9	7786.1	7748.9	7661.2	7586.7
40°	7897.9	7889.2	7954.9	8040.4	8202.6	8321.0	8432.8	8487.6	8500.7	8443.7	8331.9
42.5°	8211.4	8237.7	8325.4	8456.9	8684.9	8864.6	9072.9	9202.2	9283.3	9252.6	9202.2
45°	8584.0	8597.2	8704.6	8871.2	9088.2	9386.3	9660.3	9879.5	10022.0	10019.8	9962.8
47.5°	9050.9	9053.1	9145.2	9340.3	9572.6	9875.1	10221.5	10513.0	10701.5	10710.3	10666.5
50°	9605.5	9601.1	9702.0	9886.1	10133.8	10425.3	10793.6	11157.5	11420.5	11420.5	11357.0
52.5°	10320.1	10311.4	10366.2	10528.4	10767.3	11074.2	11440.3	11861.1	12146.1	12207.5	12069.4
55°	11273.7	11286.8	11300.0	11442.5	11646.3	11889.6	12310.5	12698.5	13079.9	13115.0	13033.9
57.5°	12376.3	12332.4	12426.7	12659.0	12891.4	13196.1	13494.2	13952.3	14403.9	14480.6	14469.7
60°	14099.2	14042.2	14138.7	14434.6	14691.1	15171.1	15681.9	16273.7	16808.6	16966.4	16775.7
62.5°	15684.1	15754.2	15885.7	16229.9	16602.5	17242.6	18009.8	19024.7	20039.6	20592.0	20552.6
65°	15541.6	15475.8	15727.9	16197.0	16872.1	17687.6	18641.1	19864.3	21326.4	22435.5	22534.2
66°	15013.3	14945.3	15217.1	15754.2	16525.8	17433.3	18492.1	19737.1	21232.1	22486.0	22637.2
67.5°	14140.9	14072.9	14379.8	14868.6	15664.3	16806.4	17950.6	19311.9	20866.0	22067.3	22190.0
70°	12457.4	12365.3	12604.2	13156.6	13801.1	14905.9	15995.3	17437.7	19033.5	19993.6	20039.6
72.5°	10552.5	10337.7	10591.9	11017.2	11477.5	12391.6	13340.8	14327.2	15598.6	16486.3	16740.6
75°	7656.8	7768.6	7843.1	8123.7	8428.4	9184.7	9741.4	10567.8	11552.1	12194.3	12398.2
77.5°	4061.9	4230.6	4335.9	4616.4	5120.6	5697.1	6299.9	6810.7	7457.3	7816.8	8066.7
80°	2279.7	2398.1	2569.1	2790.5	3036.0	3478.8	3836.1	4099.1	4191.2	4254.8	4311.7
82.5°	1253.8	1554.2	1808.4	1961.9	2106.6	2284.1	2496.7	2715.9	2786.1	2680.9	2626.1
85°	195.1	287.2	874.6	1067.5	1161.8	1297.7	1451.1	1613.3	1615.5	1389.8	1516.9
87.5°	54.8	61.4	124.9	188.5	184.1	149.1	184.1	335.4	197.3	98.6	114.0
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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CATALOG NUMBER: VST-E12-LED-E-U-T4-7030

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	4463.0	4463.0	4463.0	4463.0	4463.0	4463.0	4463.0	4463.0	4463.0	4463.0	4463.0
2.5°	4406.0	4410.4	4421.3	4432.3	4443.3	4454.2	4460.8	4471.8	4480.5	4493.7	4509.0
5°	4388.5	4399.4	4419.2	4443.3	4465.2	4484.9	4500.3	4522.2	4541.9	4559.4	4585.7
7.5°	4388.5	4410.4	4443.3	4469.6	4489.3	4513.4	4537.5	4559.4	4581.4	4598.9	4616.4
10°	4390.7	4412.6	4445.5	4476.1	4498.1	4524.4	4544.1	4563.8	4587.9	4598.9	4620.8
12.5°	4399.4	4408.2	4432.3	4463.0	4489.3	4515.6	4535.3	4555.1	4581.4	4585.7	4601.1
15°	4443.3	4430.1	4436.7	4458.6	4487.1	4509.0	4530.9	4546.3	4563.8	4559.4	4572.6
17.5°	4524.4	4491.5	4478.3	4480.5	4493.7	4509.0	4517.8	4520.0	4522.2	4502.5	4504.6
20°	4634.0	4587.9	4557.3	4541.9	4524.4	4509.0	4484.9	4456.4	4430.1	4390.7	4386.3
22.5°	4798.4	4730.4	4697.5	4655.9	4603.3	4537.5	4478.3	4408.2	4351.2	4292.0	4270.1
25°	5037.3	4967.2	4932.1	4866.3	4772.1	4677.8	4592.3	4498.1	4414.8	4344.6	4311.7
27.5°	5357.3	5287.2	5249.9	5182.0	5065.8	4971.5	4853.2	4752.3	4651.5	4548.5	4506.8
30°	5745.3	5684.0	5642.3	5587.5	5486.7	5383.7	5245.6	5089.9	4929.9	4765.5	4684.4
32.5°	6203.5	6135.5	6104.8	6041.3	5936.0	5828.6	5675.2	5475.7	5208.3	4949.6	4787.4
35°	6775.6	6698.9	6663.8	6580.5	6457.8	6299.9	6135.5	5868.1	5506.4	5146.9	4881.7
37.5°	7540.6	7369.6	7253.5	7062.8	6865.5	6644.1	6409.5	6135.5	5708.1	5263.1	4894.8
40°	8218.0	8044.8	7821.2	7547.2	7240.3	6935.6	6668.2	6356.9	5892.2	5346.4	4853.2
42.5°	9059.7	8752.8	8395.5	8025.1	7617.3	7242.5	6924.7	6558.6	6017.2	5368.3	4737.0
45°	9829.1	9463.0	8985.2	8492.0	7985.6	7514.3	7157.0	6749.3	6124.6	5368.3	4596.7
47.5°	10530.6	10092.2	9520.0	8906.3	8316.6	7801.5	7395.9	6944.4	6275.8	5436.3	4555.1
50°	11179.4	10675.2	10024.2	9311.8	8649.8	8099.6	7663.4	7194.3	6506.0	5611.6	4655.9
52.5°	11863.3	11328.5	10534.9	9778.7	9048.7	8459.1	7994.4	7503.4	6804.1	5887.8	4833.4
55°	12759.9	12132.9	11232.0	10399.0	9596.8	8945.7	8417.4	7873.8	7130.7	6199.1	5050.5
57.5°	14173.7	13264.0	12363.1	11280.2	10524.0	9666.9	9088.2	8463.5	7661.2	6604.6	5377.1
60°	16648.6	15530.6	14447.7	13202.7	12268.9	11372.3	10497.7	9682.2	8715.6	7520.9	6093.9
62.5°	20182.1	19046.6	17345.6	15822.2	14412.7	13224.6	12084.7	11047.9	9807.2	8500.7	6977.3
65°	22293.1	20993.2	18965.5	16918.2	15206.2	13733.1	12428.9	11159.7	9820.3	8546.8	7244.7
66°	22461.8	21232.1	19066.4	16902.8	15125.1	13597.2	12240.4	10927.3	9555.1	8336.3	7157.0
67.5°	22148.4	21089.6	18860.3	16604.7	14787.5	13136.9	11742.8	10366.2	8987.4	7858.5	6865.5
70°	19936.6	19171.6	17260.1	15147.0	13334.2	11878.7	10407.8	9083.8	7777.4	6828.2	6091.7
72.5°	16343.9	15375.0	14037.8	12617.4	11190.4	9899.3	8562.1	7435.4	6339.4	5648.9	5127.2
75°	12005.8	11133.4	9660.3	8774.7	7832.2	7021.1	6120.2	5052.7	4274.5	3928.1	3801.0
77.5°	7610.8	6663.8	5420.9	4443.3	3820.7	3283.7	2588.8	2058.3	1648.4	1716.4	1900.5
80°	3844.8	3312.2	2479.2	1957.5	1692.3	1407.3	1113.6	843.9	616.0	703.6	795.7
82.5°	2468.2	2060.5	1641.8	1293.3	1091.6	962.3	769.4	559.0	416.5	469.1	574.3
85°	1486.2	1256.0	1001.8	819.8	712.4	594.0	436.2	309.1	306.9	328.8	405.5
87.5°	225.8	322.2	186.3	199.5	210.4	225.8	199.5	168.8	146.9	190.7	241.1
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	4463.0	4463.0	4463.0	4463.0	4463.0	4463.0	4463.0	4463.0	4463.0	4463.0	4463.0
2.5°	4524.4	4528.8	4537.5	4548.5	4546.3	4561.6	4570.4	4561.6	4581.4	4581.4	4592.3
5°	4607.7	4614.2	4629.6	4640.6	4644.9	4658.1	4662.5	4660.3	4664.7	4666.9	4671.2
7.5°	4631.8	4649.3	4655.9	4662.5	4664.7	4669.0	4669.0	4664.7	4664.7	4662.5	4666.9
10°	4625.2	4631.8	4636.2	4634.0	4634.0	4629.6	4627.4	4625.2	4625.2	4620.8	4627.4
12.5°	4603.3	4603.3	4603.3	4598.9	4598.9	4596.7	4596.7	4596.7	4601.1	4603.3	4614.2
15°	4559.4	4559.4	4563.8	4561.6	4568.2	4579.2	4592.3	4601.1	4612.1	4614.2	4620.8
17.5°	4491.5	4493.7	4506.8	4535.3	4563.8	4596.7	4620.8	4627.4	4618.6	4596.7	4581.4
20°	4373.1	4401.6	4454.2	4522.2	4585.7	4627.4	4638.4	4612.1	4570.4	4513.4	4482.7
22.5°	4267.9	4324.9	4419.2	4530.9	4609.9	4638.4	4605.5	4544.1	4469.6	4403.8	4357.8
25°	4309.6	4375.3	4474.0	4570.4	4620.8	4605.5	4539.7	4452.0	4373.1	4296.4	4221.9
27.5°	4484.9	4550.7	4620.8	4649.3	4631.8	4574.8	4482.7	4388.5	4283.2	4173.6	4081.6
30°	4651.5	4688.8	4693.2	4664.7	4601.1	4509.0	4401.6	4292.0	4158.3	4026.8	3910.6
32.5°	4704.1	4660.3	4581.4	4500.3	4412.6	4318.3	4193.4	4048.7	3906.2	3757.2	3627.8
35°	4688.8	4511.2	4316.1	4143.0	4037.7	3930.3	3816.3	3623.4	3463.4	3336.3	3253.0
37.5°	4550.7	4226.3	3925.9	3673.9	3509.5	3382.3	3213.5	3053.5	2915.4	2858.4	2790.5
40°	4357.8	3862.4	3445.9	3093.0	2922.0	2759.8	2571.3	2448.5	2409.1	2356.4	2358.6
42.5°	4081.6	3437.1	2900.1	2494.5	2308.2	2130.7	1996.9	1924.6	1926.8	1883.0	1891.7
45°	3790.0	3009.7	2334.5	1931.2	1747.1	1595.8	1521.3	1499.4	1501.5	1503.7	1490.6
47.5°	3612.5	2676.5	1872.0	1464.3	1302.1	1216.6	1177.1	1166.2	1168.4	1170.5	1155.2
50°	3586.2	2503.3	1562.9	1120.1	1014.9	966.7	947.0	936.0	936.0	927.2	914.1
52.5°	3660.7	2459.5	1411.7	971.1	870.2	826.4	811.1	802.3	789.1	771.6	747.5
55°	3779.1	2498.9	1365.6	920.7	822.0	778.2	758.4	754.1	732.1	699.3	659.8
57.5°	3998.3	2641.4	1396.3	933.8	830.8	791.3	778.2	773.8	743.1	692.7	642.3
60°	4627.4	3055.7	1549.8	1008.3	894.4	861.5	861.5	854.9	813.2	740.9	668.6
62.5°	5495.4	3662.9	1758.0	1111.4	982.0	977.7	1014.9	1017.1	942.6	826.4	712.4
65°	5914.1	3947.9	1830.4	1133.3	1006.1	1056.6	1131.1	1131.1	1025.9	865.9	719.0
66°	5916.3	3941.3	1808.4	1107.0	979.8	1045.6	1122.3	1122.3	1012.7	854.9	708.0
67.5°	5765.1	3818.5	1736.1	1058.8	920.7	982.0	1050.0	1047.8	949.2	811.1	677.3
70°	5171.0	3377.9	1530.0	979.8	850.5	852.7	876.8	861.5	795.7	701.5	616.0
72.5°	4458.6	2825.5	1326.2	929.4	795.7	754.1	734.3	721.2	679.5	622.5	569.9
75°	3419.6	2194.2	1155.2	883.4	747.5	675.1	648.8	637.9	609.4	576.5	534.9
77.5°	2095.6	1503.7	979.8	808.9	692.7	626.9	598.4	576.5	548.0	517.3	488.8
80°	903.1	907.5	784.8	686.1	602.8	526.1	488.8	462.5	447.2	436.2	420.9
82.5°	631.3	651.0	598.4	532.7	460.3	405.5	372.6	366.1	368.3	368.3	363.9
85°	473.5	464.7	418.7	381.4	348.5	313.5	287.2	285.0	293.7	293.7	287.2
87.5°	274.0	276.2	236.7	221.4	230.2	197.3	179.7	181.9	203.9	201.7	197.3
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):

	160°	165°	170°	175°	180°
0°	4463.0	4463.0	4463.0	4463.0	4463.0
2.5°	4592.3	4598.9	4596.7	4603.3	4596.7
5°	4677.8	4675.6	4673.4	4682.2	4671.2
7.5°	4664.7	4666.9	4666.9	4666.9	4664.7
10°	4631.8	4640.6	4644.9	4653.7	4651.5
12.5°	4620.8	4634.0	4647.1	4660.3	4662.5
15°	4623.0	4631.8	4638.4	4644.9	4647.1
17.5°	4566.0	4563.8	4557.3	4552.9	4548.5
20°	4449.8	4438.9	4427.9	4410.4	4419.2
22.5°	4305.2	4274.5	4239.4	4210.9	4208.7
25°	4136.4	4079.4	4022.4	3985.1	3972.0
27.5°	3987.3	3919.4	3860.2	3827.3	3818.5
30°	3809.8	3748.4	3695.8	3667.3	3649.7
32.5°	3546.7	3498.5	3432.7	3410.8	3408.6
35°	3180.7	3143.4	3097.4	3088.6	3077.6
37.5°	2766.4	2753.2	2731.3	2705.0	2700.6
40°	2323.6	2332.3	2325.8	2310.4	2286.3
42.5°	1896.1	1911.5	1913.7	1924.6	1935.6
45°	1510.3	1523.5	1523.5	1534.4	1547.6
47.5°	1159.6	1150.8	1157.4	1168.4	1174.9
50°	876.8	870.2	859.3	850.5	841.7
52.5°	705.8	692.7	662.0	653.2	644.5
55°	622.5	598.4	576.5	567.7	567.7
57.5°	598.4	567.7	543.6	532.7	528.3
60°	602.8	559.0	528.3	510.7	504.2
62.5°	622.5	561.2	519.5	499.8	493.2
65°	620.3	556.8	517.3	495.4	488.8
66°	609.4	550.2	512.9	493.2	488.8
67.5°	591.9	541.4	508.6	491.0	484.4
70°	556.8	523.9	499.8	484.4	477.9
72.5°	528.3	506.4	484.4	466.9	462.5
75°	502.0	480.1	460.3	451.6	445.0
77.5°	462.5	442.8	431.8	423.1	418.7
80°	409.9	396.8	383.6	374.8	368.3
82.5°	357.3	339.8	326.6	320.0	315.7
85°	291.5	280.6	260.9	247.7	245.5
87.5°	195.1	184.1	177.6	166.6	155.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)