

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: P159819

Luminaire Tested: **VST-E10-LED-E-U-T4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159819
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-E10-LED-E-U-T4-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(10) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (210) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27184.6 lumens
Efficiency: N/A
Efficacy: 109.7 lumens/watt
Luminous Opening: Rectangular (W 1.67' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 247.7
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



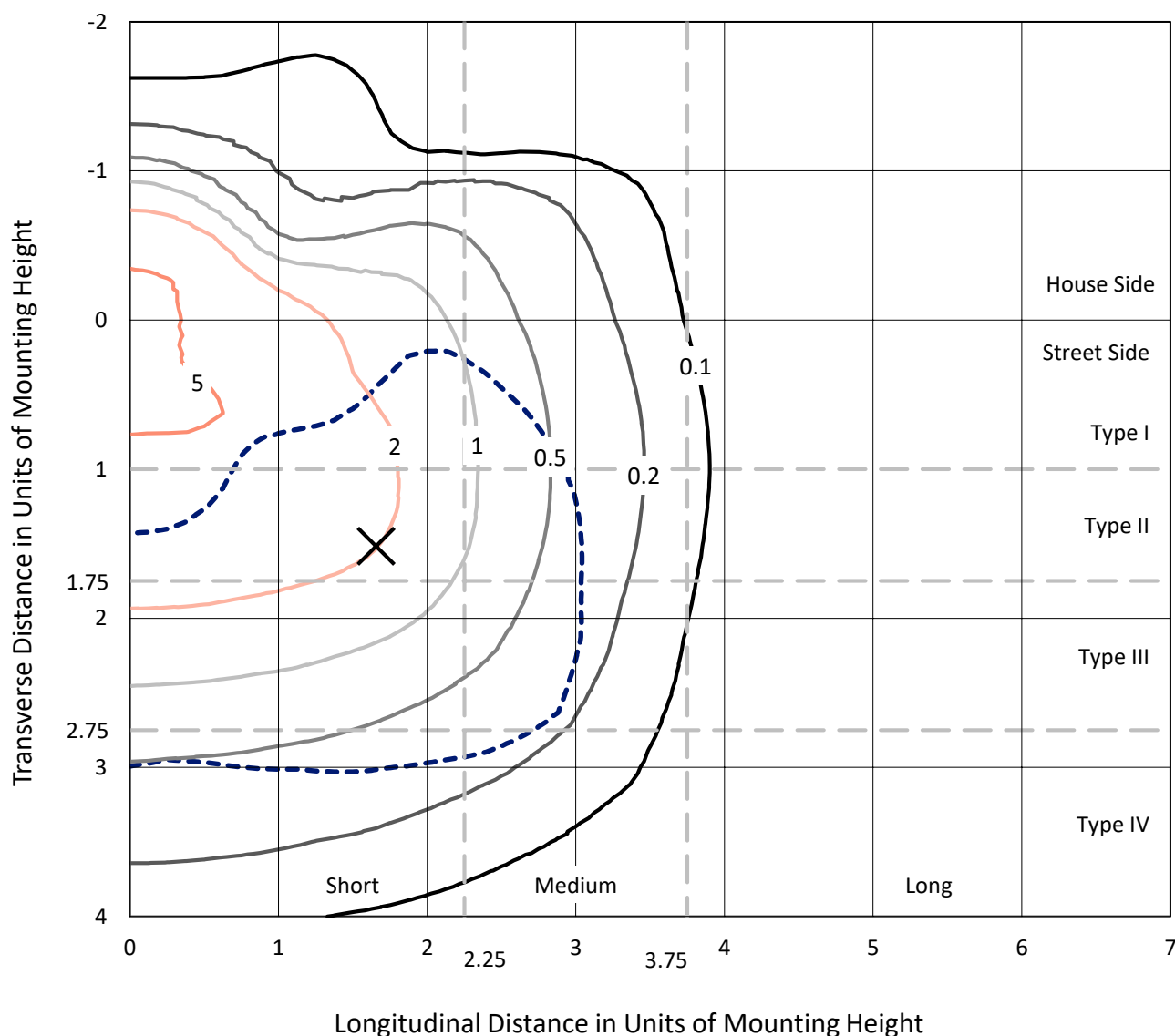
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

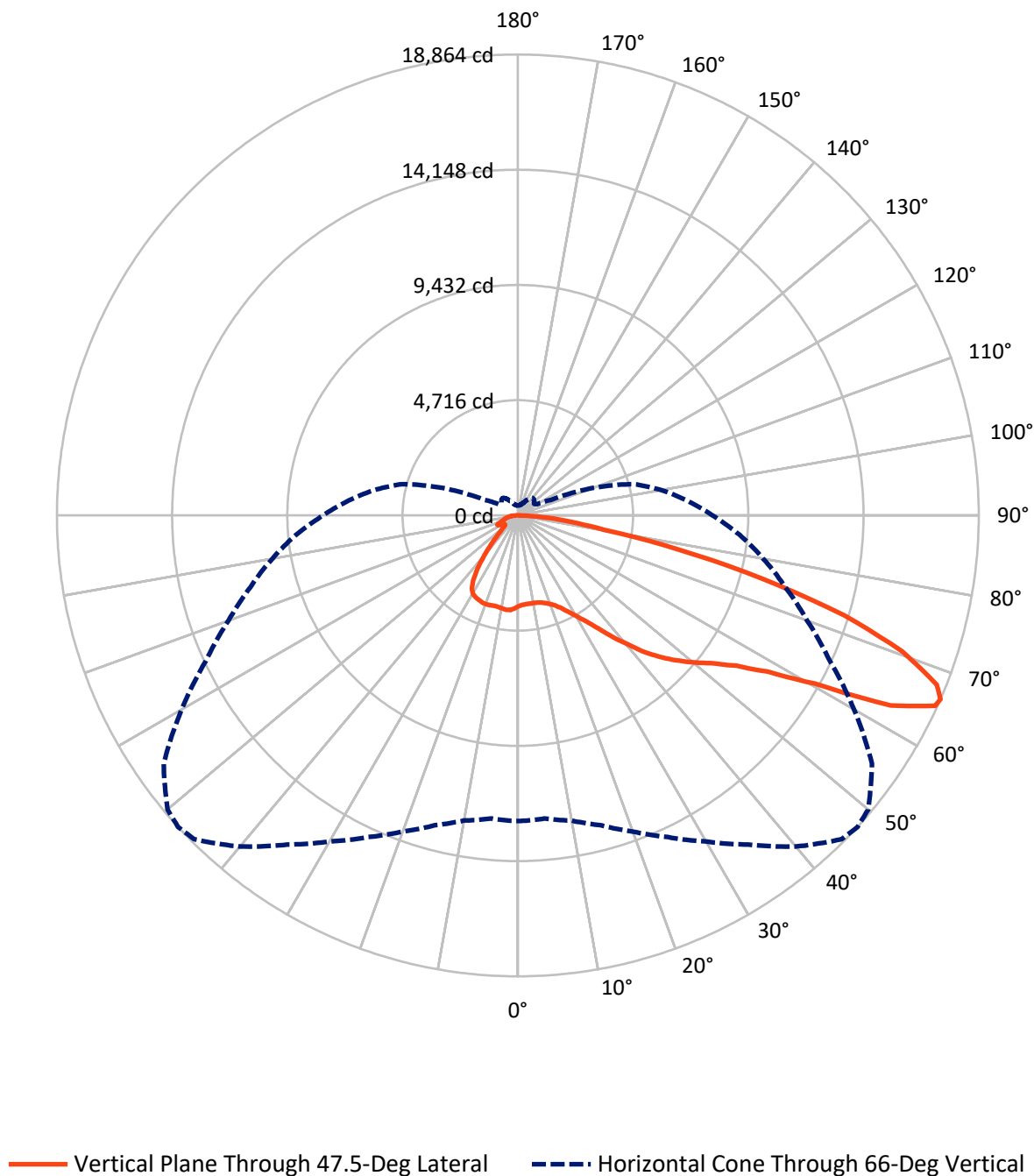


Based on 25 foot mounting height. Maximum calculated value = 6.1 fc
Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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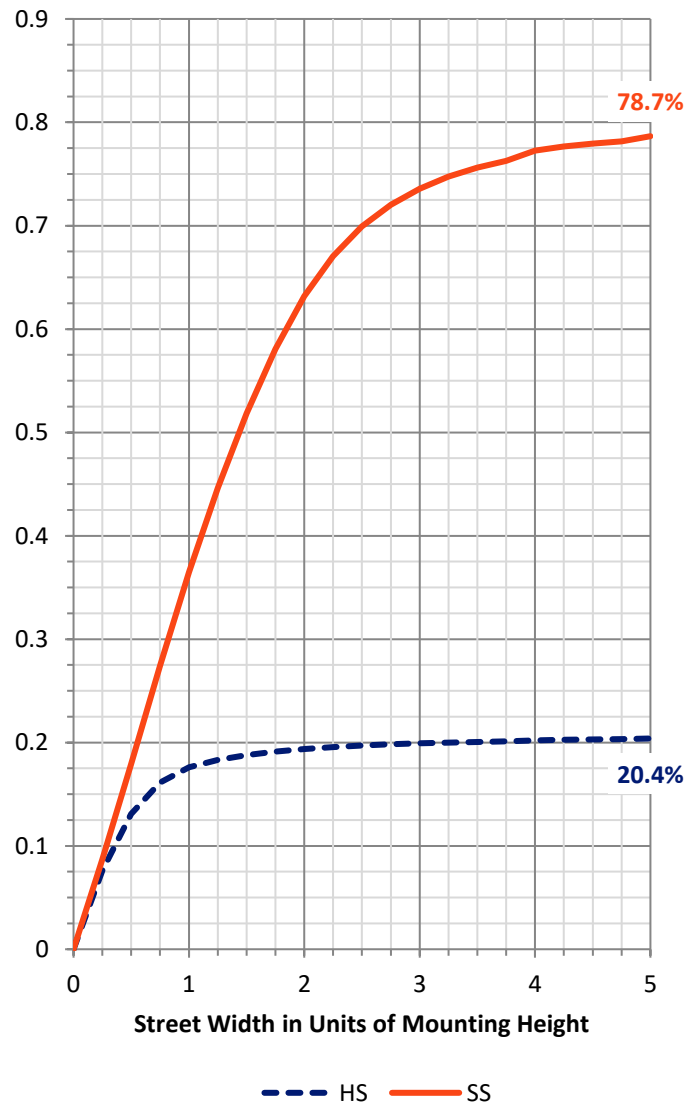
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5628.4	0.0	5628.4
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	21556.2	0.0	21556.2
	% Fixture	79.3	0.0	79.3
Total	Lumens	27184.6	0.0	27184.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	358.5	1.3
10°-20°	1075.0	4.0
20°-30°	1834.1	6.7
30°-40°	2768.3	10.2
40°-50°	3598.2	13.2
50°-60°	4936.4	18.2
60°-70°	7593.8	27.9
70°-80°	4389.7	16.1
80°-90°	630.6	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°	27184.6	100.0
0°-180°	27184.6	100.0

Coefficient of Utilization



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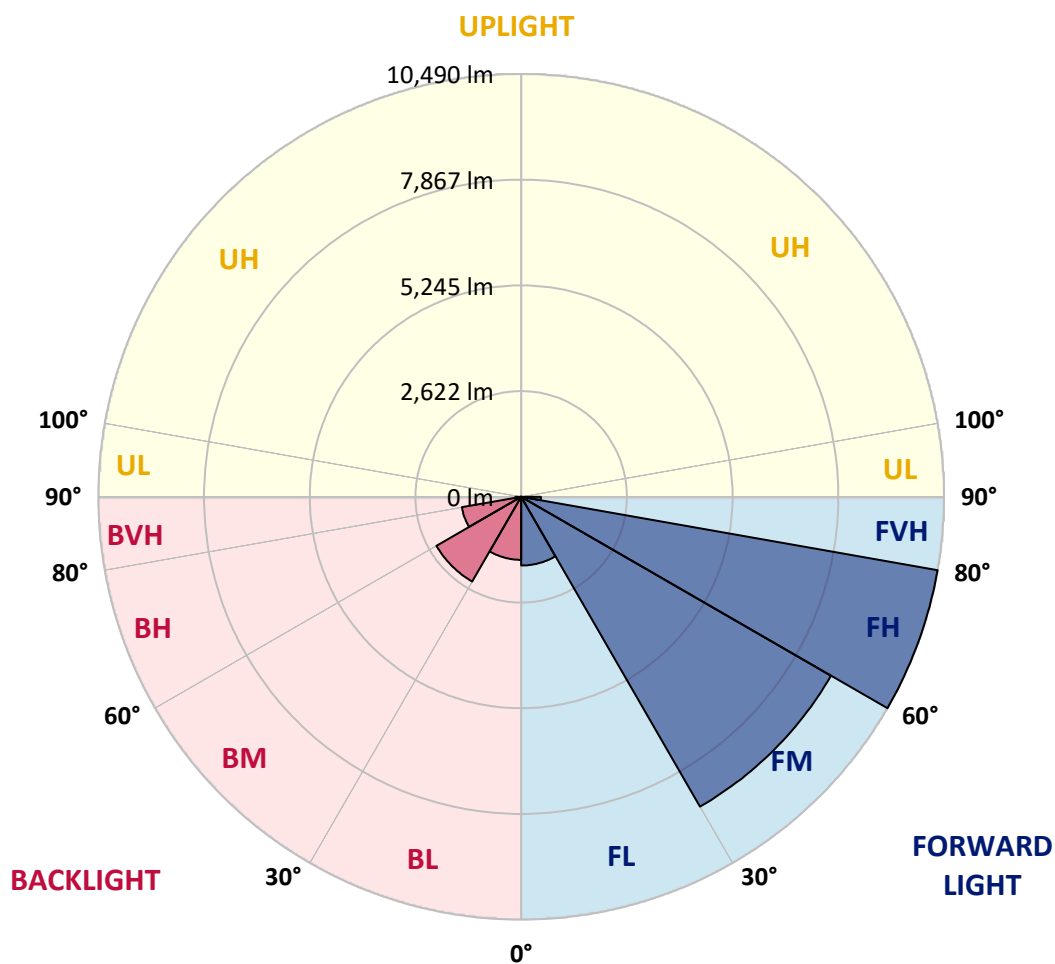
CATALOG NUMBER: VST-E10-LED-E-U-T4-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1703.9	6.3			
FM	(30°-60°)	8874.6	32.6			
FH	(60°-80°)	10489.6	38.6			G4/12000
FVH	(80°-90°)	488.0	1.8			G3/500
BL	(0°-30°)	1563.6	5.8	B3/2500		
BM	(30°-60°)	2428.4	8.9	B2/2500		
BH	(60°-80°)	1493.8	5.5	B3/2500		G3/2500
BVH	(80°-90°)	142.6	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°	45°	47.5°
0°	3719.2	3719.2	3719.2	3719.2	3719.2	3719.2	3719.2	3719.2	3719.2	3719.2	3719.2
2.5°	3624.2	3626.0	3627.8	3627.8	3633.3	3633.3	3642.4	3647.9	3649.7	3660.7	3668.0
5°	3556.6	3554.8	3556.6	3560.2	3569.4	3576.7	3594.9	3607.7	3618.7	3637.0	3646.1
7.5°	3527.4	3531.0	3534.7	3536.5	3543.8	3562.1	3578.5	3591.3	3613.2	3635.1	3644.3
10°	3565.7	3571.2	3565.7	3569.4	3569.4	3585.8	3593.1	3602.3	3618.7	3638.8	3644.3
12.5°	3655.2	3666.2	3655.2	3646.1	3638.8	3653.4	3649.7	3642.4	3651.6	3657.1	3657.1
15°	3803.2	3803.2	3795.9	3783.1	3764.8	3766.7	3750.2	3733.8	3726.5	3713.7	3704.5
17.5°	3947.5	3943.8	3927.4	3911.0	3898.2	3892.7	3869.0	3847.0	3821.5	3801.4	3779.4
20°	4088.2	4102.8	4082.7	4058.9	4038.8	4026.0	4007.8	3963.9	3932.9	3900.0	3878.1
22.5°	4331.1	4318.3	4296.4	4261.7	4241.6	4219.7	4181.3	4133.8	4086.3	4046.1	4018.7
25°	4581.4	4568.6	4537.5	4512.0	4482.7	4464.5	4422.4	4364.0	4318.3	4256.2	4219.7
27.5°	4849.9	4838.9	4802.4	4782.3	4762.2	4740.3	4703.8	4643.5	4601.5	4530.2	4491.9
30°	5153.1	5151.3	5102.0	5098.3	5069.1	5045.3	5019.8	4968.6	4926.6	4855.4	4809.7
32.5°	5476.4	5469.1	5434.4	5423.5	5443.6	5427.1	5390.6	5337.6	5282.8	5240.8	5189.7
35°	5936.8	5924.0	5903.9	5913.0	5925.8	5971.5	5914.9	5869.2	5803.4	5748.6	5677.4
37.5°	6272.9	6254.6	6278.4	6329.5	6402.6	6437.3	6486.6	6488.4	6457.4	6384.3	6322.2
40°	6581.6	6574.3	6629.1	6700.3	6835.5	6934.2	7027.3	7073.0	7083.9	7036.5	6943.3
42.5°	6842.8	6864.7	6937.8	7047.4	7237.4	7387.2	7560.7	7668.5	7736.1	7710.5	7668.5
45°	7153.4	7164.3	7253.8	7392.7	7573.5	7821.9	8050.3	8232.9	8351.7	8349.8	8302.4
47.5°	7542.4	7544.3	7621.0	7783.6	7977.2	8229.3	8517.9	8760.9	8918.0	8925.3	8888.7
50°	8004.6	8000.9	8085.0	8238.4	8444.8	8687.8	8994.7	9297.9	9517.1	9517.1	9464.1
52.5°	8600.1	8592.8	8638.5	8773.6	8972.8	9228.5	9533.6	9884.3	10121.7	10172.9	10057.8
55°	9394.7	9405.7	9416.6	9535.4	9705.3	9908.0	10258.8	10582.1	10899.9	10929.2	10861.6
57.5°	10313.6	10277.0	10355.6	10549.2	10742.8	10996.7	11245.2	11626.9	12003.3	12067.2	12058.1
60°	11749.3	11701.8	11782.2	12028.8	12242.5	12642.6	13068.2	13561.4	14007.1	14138.7	13979.7
62.5°	13070.0	13128.5	13238.1	13524.9	13835.4	14368.8	15008.2	15853.9	16699.7	17160.0	17127.1
65°	12951.3	12896.5	13106.6	13497.5	14060.1	14739.6	15534.3	16553.6	17772.0	18696.3	18778.5
66°	12511.1	12454.4	12681.0	13128.5	13771.5	14527.8	15410.0	16447.6	17693.4	18738.3	18864.3
67.5°	11784.0	11727.4	11983.2	12390.5	13053.6	14005.3	14958.9	16093.2	17388.4	18389.4	18491.7
70°	10381.1	10304.4	10503.5	10963.9	11500.9	12421.6	13329.4	14531.4	15861.2	16661.3	16699.7
72.5°	8793.7	8614.7	8826.6	9181.0	9564.6	10326.3	11117.3	11939.3	12998.8	13738.6	13950.5
75°	6380.7	6473.8	6535.9	6769.8	7023.7	7653.9	8117.9	8806.5	9626.7	10161.9	10331.8
77.5°	3384.9	3525.5	3613.2	3847.0	4267.2	4747.6	5249.9	5675.6	6214.4	6514.0	6722.3
80°	1899.8	1998.4	2140.9	2325.4	2530.0	2899.0	3196.7	3415.9	3492.7	3545.6	3593.1
82.5°	1044.9	1295.1	1507.0	1634.9	1755.5	1903.4	2080.6	2263.3	2321.7	2234.1	2188.4
85°	162.6	239.3	728.9	889.6	968.2	1081.4	1209.3	1344.5	1346.3	1158.1	1264.1
87.5°	45.7	51.1	104.1	157.1	153.4	124.2	153.4	279.5	164.4	82.2	95.0
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°	3719.2	3719.2	3719.2	3719.2	3719.2	3719.2	3719.2	3719.2	3719.2	3719.2	3719.2
2.5°	3671.7	3675.3	3684.5	3693.6	3702.7	3711.9	3717.3	3726.5	3733.8	3744.7	3757.5
5°	3657.1	3666.2	3682.6	3702.7	3721.0	3737.4	3750.2	3768.5	3784.9	3799.5	3821.5
7.5°	3657.1	3675.3	3702.7	3724.6	3741.1	3761.2	3781.3	3799.5	3817.8	3832.4	3847.0
10°	3658.9	3677.1	3704.5	3730.1	3748.4	3770.3	3786.8	3803.2	3823.3	3832.4	3850.7
12.5°	3666.2	3673.5	3693.6	3719.2	3741.1	3763.0	3779.4	3795.9	3817.8	3821.5	3834.2
15°	3702.7	3691.8	3697.2	3715.5	3739.3	3757.5	3775.8	3788.6	3803.2	3799.5	3810.5
17.5°	3770.3	3742.9	3731.9	3733.8	3744.7	3757.5	3764.8	3766.7	3768.5	3752.0	3753.9
20°	3861.6	3823.3	3797.7	3784.9	3770.3	3757.5	3737.4	3713.7	3691.8	3658.9	3655.2
22.5°	3998.6	3942.0	3914.6	3879.9	3836.1	3781.3	3731.9	3673.5	3626.0	3576.7	3558.4
25°	4197.8	4139.3	4110.1	4055.3	3976.7	3898.2	3826.9	3748.4	3679.0	3620.5	3593.1
27.5°	4464.5	4406.0	4374.9	4318.3	4221.5	4143.0	4044.3	3960.3	3876.3	3790.4	3755.7
30°	4787.8	4736.6	4701.9	4656.3	4572.2	4486.4	4371.3	4241.6	4108.2	3971.2	3903.7
32.5°	5169.6	5112.9	5087.4	5034.4	4946.7	4857.2	4729.3	4563.1	4340.2	4124.7	3989.5
35°	5646.3	5582.4	5553.2	5483.8	5381.5	5249.9	5112.9	4890.1	4588.7	4289.1	4068.1
37.5°	6283.9	6141.4	6044.6	5885.6	5721.2	5536.7	5341.3	5112.9	4756.7	4385.9	4079.0
40°	6848.3	6704.0	6517.7	6289.3	6033.6	5779.7	5556.8	5297.4	4910.2	4455.3	4044.3
42.5°	7549.8	7294.0	6996.3	6687.6	6347.8	6035.4	5770.5	5465.5	5014.3	4473.6	3947.5
45°	8190.9	7885.9	7487.6	7076.6	6654.7	6261.9	5964.2	5624.4	5103.8	4473.6	3830.6
47.5°	8775.5	8410.1	7933.4	7421.9	6930.5	6501.2	6163.3	5787.0	5229.8	4530.2	3795.9
50°	9316.2	8896.0	8353.5	7759.8	7208.2	6749.7	6386.1	5995.2	5421.6	4676.4	3879.9
52.5°	9886.1	9440.4	8779.1	8148.9	7540.6	7049.2	6662.0	6252.8	5670.1	4906.5	4027.9
55°	10633.2	10110.8	9360.0	8665.9	7997.3	7454.8	7014.5	6561.5	5942.3	5165.9	4208.7
57.5°	11811.4	11053.4	10302.6	9400.2	8770.0	8055.8	7573.5	7052.9	6384.3	5503.8	4480.9
60°	13873.8	12942.2	12039.8	11002.2	10224.0	9476.9	8748.1	8068.5	7263.0	6267.4	5078.2
62.5°	16818.4	15872.2	14454.7	13185.1	12010.6	11020.5	10070.6	9206.6	8172.7	7083.9	5814.4
65°	18577.5	17494.3	15804.6	14098.5	12671.8	11444.3	10357.4	9299.7	8183.6	7122.3	6037.2
66°	18718.2	17693.4	15888.6	14085.7	12604.2	11331.0	10200.3	9106.1	7962.6	6946.9	5964.2
67.5°	18457.0	17574.7	15716.9	13837.3	12322.9	10947.4	9785.6	8638.5	7489.5	6548.7	5721.2
70°	16613.8	15976.3	14383.4	12622.5	11111.8	9898.9	8673.2	7569.8	6481.1	5690.2	5076.4
72.5°	13619.9	12812.5	11698.2	10514.5	9325.3	8249.4	7135.1	6196.2	5282.8	4707.4	4272.7
75°	10004.8	9277.8	8050.3	7312.3	6526.8	5850.9	5100.1	4210.5	3562.1	3273.4	3167.5
77.5°	6342.3	5553.2	4517.4	3702.7	3183.9	2736.4	2157.3	1715.3	1373.7	1430.3	1583.7
80°	3204.0	2760.1	2066.0	1631.2	1410.2	1172.7	928.0	703.3	513.3	586.4	663.1
82.5°	2056.9	1717.1	1368.2	1077.8	909.7	801.9	641.2	465.8	347.1	390.9	478.6
85°	1238.5	1046.7	834.8	683.2	593.7	495.0	363.5	257.6	255.7	274.0	337.9
87.5°	188.2	268.5	155.3	166.2	175.4	188.2	166.2	140.7	122.4	158.9	200.9
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°	3719.2	3719.2	3719.2	3719.2	3719.2	3719.2	3719.2	3719.2	3719.2	3719.2	3719.2
2.5°	3770.3	3774.0	3781.3	3790.4	3788.6	3801.4	3808.7	3801.4	3817.8	3817.8	3826.9
5°	3839.7	3845.2	3858.0	3867.1	3870.8	3881.7	3885.4	3883.6	3887.2	3889.0	3892.7
7.5°	3859.8	3874.4	3879.9	3885.4	3887.2	3890.9	3890.9	3887.2	3887.2	3885.4	3889.0
10°	3854.3	3859.8	3863.5	3861.6	3861.6	3858.0	3856.2	3854.3	3854.3	3850.7	3856.2
12.5°	3836.1	3836.1	3836.1	3832.4	3832.4	3830.6	3830.6	3830.6	3834.2	3836.1	3845.2
15°	3799.5	3799.5	3803.2	3801.4	3806.8	3816.0	3826.9	3834.2	3843.4	3845.2	3850.7
17.5°	3742.9	3744.7	3755.7	3779.4	3803.2	3830.6	3850.7	3856.2	3848.9	3830.6	3817.8
20°	3644.3	3668.0	3711.9	3768.5	3821.5	3856.2	3865.3	3843.4	3808.7	3761.2	3735.6
22.5°	3556.6	3604.1	3682.6	3775.8	3841.6	3865.3	3837.9	3786.8	3724.6	3669.8	3631.5
25°	3591.3	3646.1	3728.3	3808.7	3850.7	3837.9	3783.1	3710.0	3644.3	3580.3	3518.2
27.5°	3737.4	3792.2	3850.7	3874.4	3859.8	3812.3	3735.6	3657.1	3569.4	3478.0	3401.3
30°	3876.3	3907.3	3911.0	3887.2	3834.2	3757.5	3668.0	3576.7	3465.3	3355.6	3258.8
32.5°	3920.1	3883.6	3817.8	3750.2	3677.1	3598.6	3494.5	3373.9	3255.2	3131.0	3023.2
35°	3907.3	3759.4	3596.8	3452.5	3364.8	3275.3	3180.3	3019.5	2886.2	2780.2	2710.8
37.5°	3792.2	3521.9	3271.6	3061.6	2924.5	2818.6	2677.9	2544.6	2429.5	2382.0	2325.4
40°	3631.5	3218.6	2871.6	2577.5	2435.0	2299.8	2142.7	2040.4	2007.5	1963.7	1965.5
42.5°	3401.3	2864.3	2416.7	2078.8	1923.5	1775.6	1664.1	1603.8	1605.7	1569.1	1576.4
45°	3158.4	2508.1	1945.4	1609.3	1455.9	1329.8	1267.7	1249.5	1251.3	1253.1	1242.2
47.5°	3010.4	2230.4	1560.0	1220.2	1085.1	1013.8	980.9	971.8	973.6	975.5	962.7
50°	2988.5	2086.1	1302.4	933.4	845.8	805.6	789.1	780.0	780.0	772.7	761.7
52.5°	3050.6	2049.6	1176.4	809.2	725.2	688.7	675.9	668.6	657.6	643.0	622.9
55°	3149.2	2082.4	1138.0	767.2	685.0	648.5	632.0	628.4	610.1	582.7	549.8
57.5°	3331.9	2201.2	1163.6	778.2	692.3	659.4	648.5	644.8	619.3	577.2	535.2
60°	3856.2	2546.4	1291.5	840.3	745.3	717.9	717.9	712.4	677.7	617.4	557.1
62.5°	4579.5	3052.4	1465.0	926.1	818.4	814.7	845.8	847.6	785.5	688.7	593.7
65°	4928.4	3289.9	1525.3	944.4	838.5	880.5	942.6	942.6	854.9	721.5	599.2
66°	4930.3	3284.4	1507.0	922.5	816.5	871.3	935.3	935.3	843.9	712.4	590.0
67.5°	4804.2	3182.1	1446.7	882.3	767.2	818.4	875.0	873.2	791.0	675.9	564.5
70°	4309.2	2814.9	1275.0	816.5	708.8	710.6	730.7	717.9	663.1	584.5	513.3
72.5°	3715.5	2354.6	1105.2	774.5	663.1	628.4	611.9	601.0	566.3	518.8	474.9
75°	2849.7	1828.5	962.7	736.2	622.9	562.6	540.7	531.6	507.8	480.4	445.7
77.5°	1746.3	1253.1	816.5	674.1	577.2	522.4	498.7	480.4	456.7	431.1	407.4
80°	752.6	756.3	654.0	571.8	502.3	438.4	407.4	385.4	372.6	363.5	350.7
82.5°	526.1	542.5	498.7	443.9	383.6	337.9	310.5	305.1	306.9	306.9	303.2
85°	394.6	387.3	348.9	317.8	290.4	261.2	239.3	237.5	244.8	244.8	239.3
87.5°	228.3	230.2	197.3	184.5	191.8	164.4	149.8	151.6	169.9	168.1	164.4
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):

	160°	165°	170°	175°	180°
0°	3719.2	3719.2	3719.2	3719.2	3719.2
2.5°	3826.9	3832.4	3830.6	3836.1	3830.6
5°	3898.2	3896.4	3894.5	3901.8	3892.7
7.5°	3887.2	3889.0	3889.0	3889.0	3887.2
10°	3859.8	3867.1	3870.8	3878.1	3876.3
12.5°	3850.7	3861.6	3872.6	3883.6	3885.4
15°	3852.5	3859.8	3865.3	3870.8	3872.6
17.5°	3805.0	3803.2	3797.7	3794.1	3790.4
20°	3708.2	3699.1	3689.9	3675.3	3682.6
22.5°	3587.6	3562.1	3532.8	3509.1	3507.3
25°	3447.0	3399.5	3352.0	3320.9	3310.0
27.5°	3322.8	3266.1	3216.8	3189.4	3182.1
30°	3174.8	3123.7	3079.8	3056.1	3041.5
32.5°	2955.6	2915.4	2860.6	2842.3	2840.5
35°	2650.5	2619.5	2581.1	2573.8	2564.7
37.5°	2305.3	2294.3	2276.1	2254.1	2250.5
40°	1936.3	1943.6	1938.1	1925.3	1905.2
42.5°	1580.1	1592.9	1594.7	1603.8	1613.0
45°	1258.6	1269.6	1269.6	1278.7	1289.7
47.5°	966.3	959.0	964.5	973.6	979.1
50°	730.7	725.2	716.1	708.8	701.5
52.5°	588.2	577.2	551.7	544.4	537.0
55°	518.8	498.7	480.4	473.1	473.1
57.5°	498.7	473.1	453.0	443.9	440.2
60°	502.3	465.8	440.2	425.6	420.1
62.5°	518.8	467.6	432.9	416.5	411.0
65°	517.0	464.0	431.1	412.8	407.4
66°	507.8	458.5	427.4	411.0	407.4
67.5°	493.2	451.2	423.8	409.2	403.7
70°	464.0	436.6	416.5	403.7	398.2
72.5°	440.2	422.0	403.7	389.1	385.4
75°	418.3	400.0	383.6	376.3	370.8
77.5°	385.4	369.0	359.9	352.6	348.9
80°	341.6	330.6	319.7	312.4	306.9
82.5°	297.8	283.1	272.2	266.7	263.0
85°	243.0	233.8	217.4	206.4	204.6
87.5°	162.6	153.4	148.0	138.8	129.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)