

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: P159844

Luminaire Tested: **VST-F12-LED-E-U-T4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159844
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-F12-LED-E-U-T4-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (84) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26929.9 lumens
Efficiency: N/A
Efficacy: 87.8 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 306.6
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



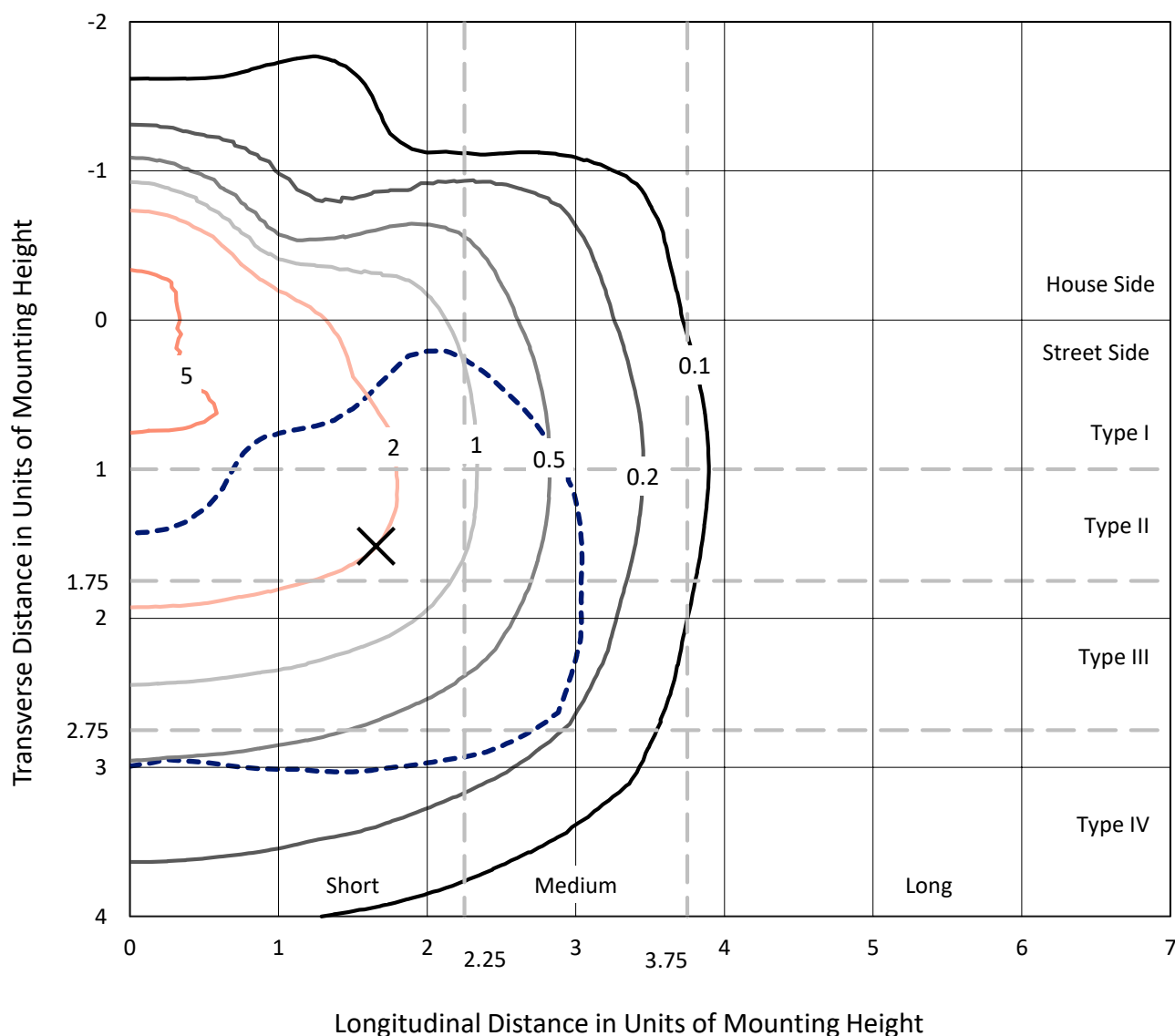
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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

--- 1/2 Max cd

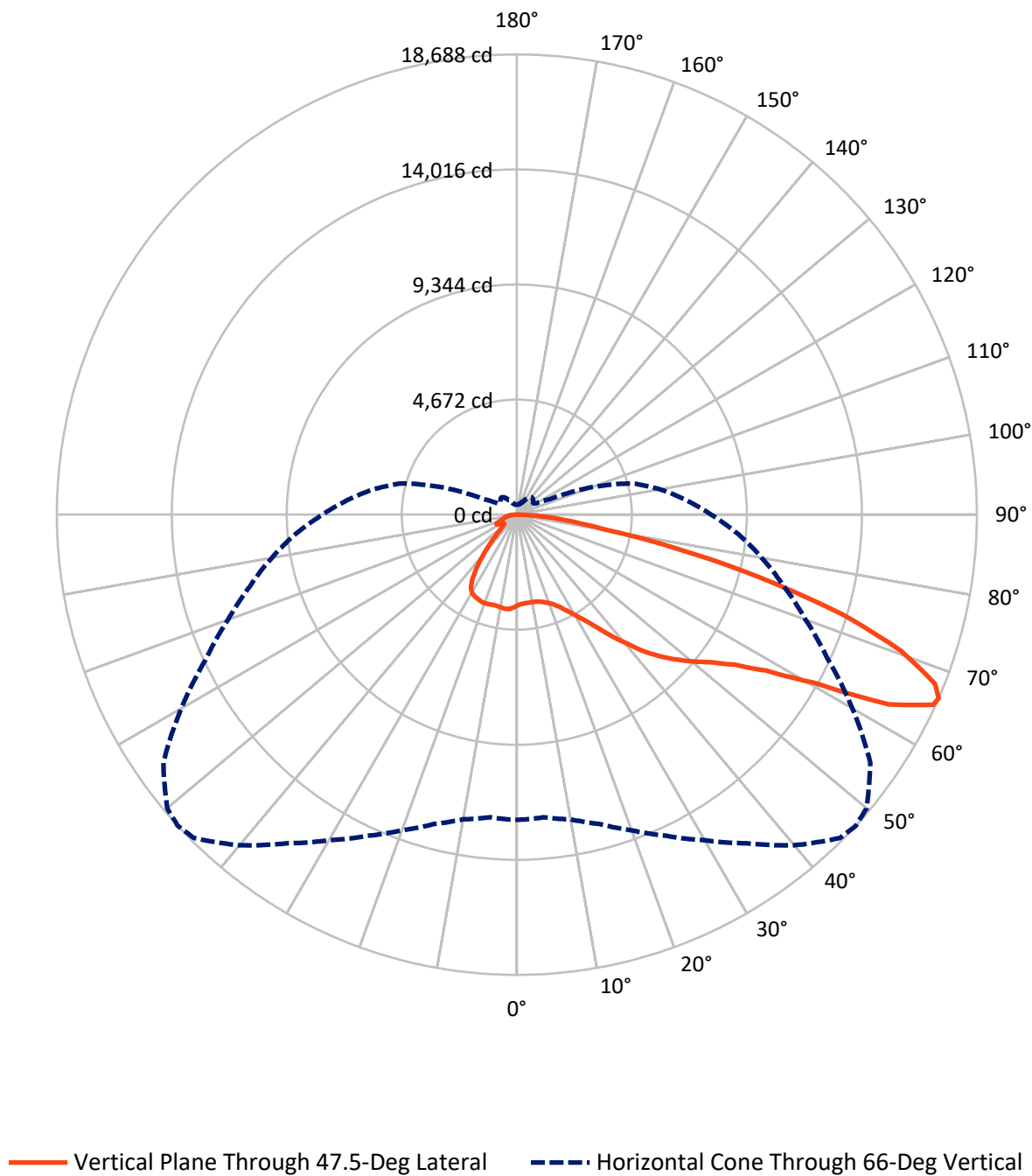


Based on 25 foot mounting height. Maximum calculated value = 6 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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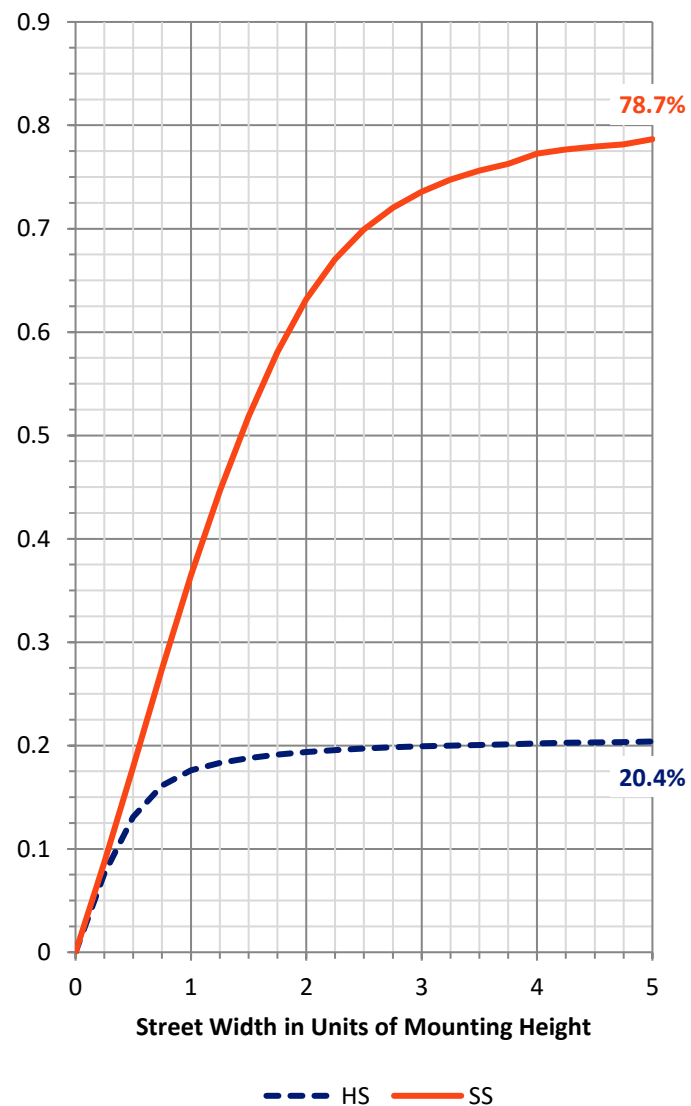
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5575.7	0.0	5575.7
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	21354.2	0.0	21354.2
	% Fixture	79.3	0.0	79.3
Total	Lumens	26929.9	0.0	26929.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	355.1	1.3
10°-20°	1064.9	4.0
20°-30°	1816.9	6.7
30°-40°	2742.4	10.2
40°-50°	3564.5	13.2
50°-60°	4890.2	18.2
60°-70°	7522.6	27.9
70°-80°	4348.5	16.1
80°-90°	624.7	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°	26929.9	100.0
0°-180°	26929.9	100.0

Coefficient of Utilization



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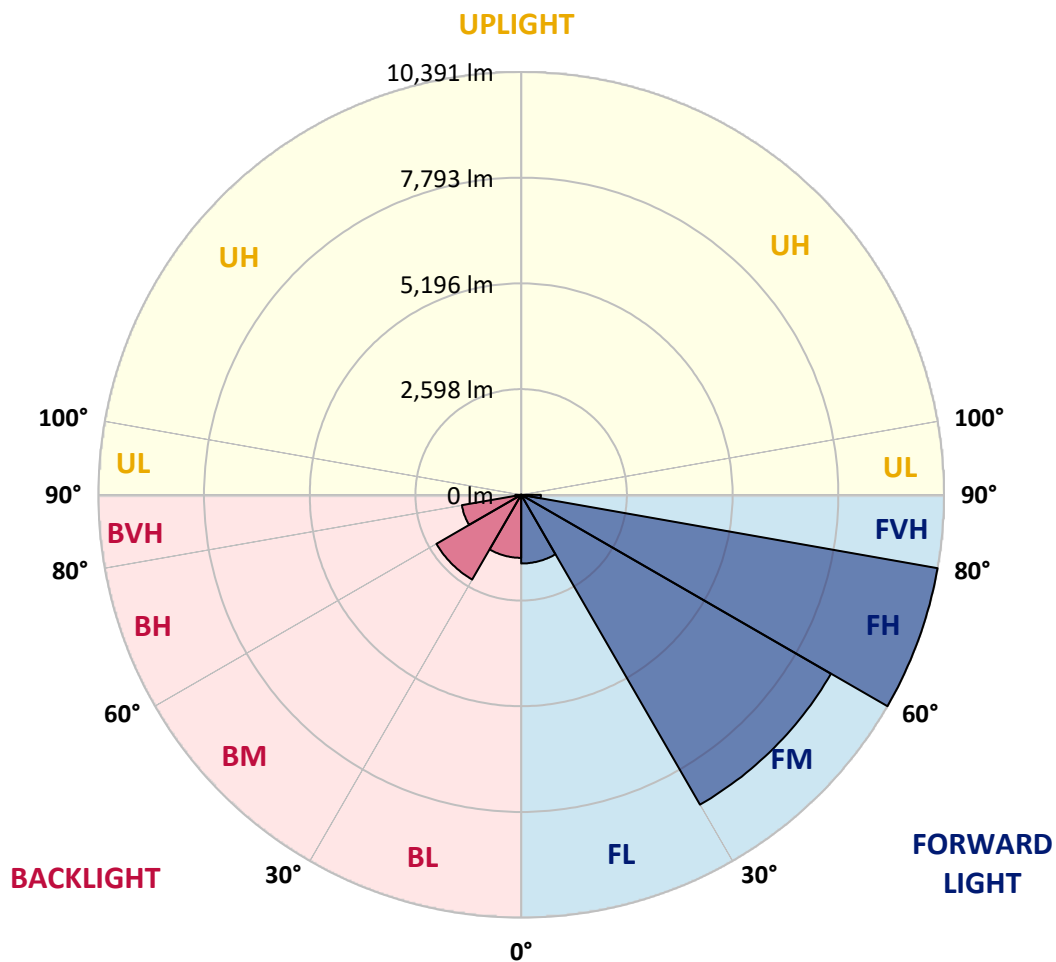
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1688.0	6.3			
FM	(30°-60°)	8791.4	32.6			
FH	(60°-80°)	10391.3	38.6			G4/12000
FVH	(80°-90°)	483.4	1.8			G3/500
BL	(0°-30°)	1549.0	5.8	B3/2500		
BM	(30°-60°)	2405.6	8.9	B2/2500		
BH	(60°-80°)	1479.8	5.5	B3/2500		G3/2500
BVH	(80°-90°)	141.3	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°	3684.3	3684.3	3684.3	3684.3	3684.3	3684.3	3684.3	3684.3	3684.3	3684.3	3684.3
2.5°	3590.2	3592.0	3593.8	3593.8	3599.3	3599.3	3608.3	3613.7	3615.5	3626.4	3633.6
5°	3523.3	3521.5	3523.3	3526.9	3535.9	3543.2	3561.3	3573.9	3584.8	3602.9	3611.9
7.5°	3494.3	3497.9	3501.5	3503.4	3510.6	3528.7	3545.0	3557.6	3579.4	3601.1	3610.1
10°	3532.3	3537.7	3532.3	3535.9	3535.9	3552.2	3559.5	3568.5	3584.8	3604.7	3610.1
12.5°	3621.0	3631.8	3621.0	3611.9	3604.7	3619.2	3615.5	3608.3	3617.4	3622.8	3622.8
15°	3767.6	3767.6	3760.3	3747.6	3729.6	3731.4	3715.1	3698.8	3691.6	3678.9	3669.8
17.5°	3910.5	3906.9	3890.6	3874.3	3861.7	3856.2	3832.7	3811.0	3785.7	3765.7	3744.0
20°	4049.8	4064.3	4044.4	4020.9	4001.0	3988.3	3970.2	3926.8	3896.0	3863.5	3841.7
22.5°	4290.5	4277.9	4256.1	4221.8	4201.9	4180.1	4142.1	4095.1	4048.0	4008.2	3981.1
25°	4538.4	4525.8	4495.0	4469.7	4440.7	4422.6	4381.0	4323.1	4277.9	4216.3	4180.1
27.5°	4804.4	4793.6	4757.4	4737.5	4717.6	4695.9	4659.7	4600.0	4558.3	4487.8	4449.8
30°	5104.8	5103.0	5054.2	5050.5	5021.6	4998.1	4972.7	4922.1	4880.4	4809.9	4764.6
32.5°	5425.1	5417.9	5383.5	5372.7	5392.6	5376.3	5340.1	5287.6	5233.3	5191.7	5141.0
35°	5881.1	5868.5	5848.6	5857.6	5870.3	5915.5	5859.4	5814.2	5749.0	5694.8	5624.2
37.5°	6214.1	6196.0	6219.5	6270.2	6342.6	6377.0	6425.8	6427.6	6396.9	6324.5	6263.0
40°	6519.9	6512.7	6567.0	6637.6	6771.5	6869.2	6961.5	7006.7	7017.6	6970.5	6878.2
42.5°	6778.7	6800.4	6872.8	6981.4	7169.6	7318.0	7489.9	7596.6	7663.6	7638.3	7596.6
45°	7086.3	7097.2	7185.9	7323.4	7502.5	7748.6	7974.8	8155.8	8273.4	8271.6	8224.6
47.5°	7471.8	7473.6	7549.6	7710.6	7902.5	8152.2	8438.1	8678.8	8834.4	8841.6	8805.4
50°	7929.6	7926.0	8009.2	8161.2	8365.7	8606.4	8910.4	9210.8	9427.9	9427.9	9375.5
52.5°	8519.5	8512.3	8557.5	8691.4	8888.7	9142.0	9444.2	9791.7	10026.9	10077.6	9963.6
55°	9306.7	9317.5	9328.4	9446.0	9614.3	9815.2	10162.6	10482.9	10797.8	10826.7	10759.8
57.5°	10216.9	10180.7	10258.5	10450.3	10642.2	10893.7	11139.8	11518.0	11890.8	11954.1	11945.1
60°	11639.2	11592.2	11671.8	11916.1	12127.8	12524.1	12945.8	13434.4	13875.9	14006.2	13848.7
62.5°	12947.6	13005.5	13114.1	13398.2	13705.8	14234.2	14867.5	15705.4	16543.2	16999.2	16966.7
65°	12830.0	12775.7	12983.8	13371.0	13928.4	14601.5	15388.7	16398.5	17605.4	18521.1	18602.5
66°	12393.8	12337.7	12562.1	13005.5	13642.5	14391.6	15265.7	16293.5	17527.6	18562.7	18687.6
67.5°	11673.6	11617.5	11870.9	12274.4	12931.3	13874.1	14818.7	15942.4	17225.4	18217.1	18318.4
70°	10283.9	10207.9	10405.1	10861.1	11393.1	12305.2	13204.5	14395.2	15712.6	16505.2	16543.2
72.5°	8711.3	8534.0	8743.9	9095.0	9475.0	10229.6	11013.1	11827.4	12877.0	13609.9	13819.8
75°	6320.9	6413.2	6474.7	6706.3	6957.9	7582.2	8041.8	8724.0	9536.5	10066.7	10235.0
77.5°	3353.2	3492.5	3579.4	3811.0	4227.2	4703.1	5200.7	5622.4	6156.2	6453.0	6659.3
80°	1882.0	1979.7	2120.8	2303.6	2506.3	2871.8	3166.8	3383.9	3459.9	3512.4	3559.5
82.5°	1035.1	1283.0	1492.9	1619.6	1739.0	1885.6	2061.1	2242.1	2300.0	2213.1	2167.9
85°	161.1	237.1	722.0	881.3	959.1	1071.3	1197.9	1331.9	1333.7	1147.3	1252.2
87.5°	45.2	50.7	103.1	155.6	152.0	123.1	152.0	276.9	162.9	81.4	94.1
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	3684.3	3684.3	3684.3	3684.3	3684.3	3684.3	3684.3	3684.3	3684.3	3684.3	3684.3
2.5°	3637.3	3640.9	3649.9	3659.0	3668.0	3677.1	3682.5	3691.6	3698.8	3709.6	3722.3
5°	3622.8	3631.8	3648.1	3668.0	3686.1	3702.4	3715.1	3733.2	3749.5	3763.9	3785.7
7.5°	3622.8	3640.9	3668.0	3689.7	3706.0	3725.9	3745.8	3763.9	3782.0	3796.5	3811.0
10°	3624.6	3642.7	3669.8	3695.2	3713.3	3735.0	3751.3	3767.6	3787.5	3796.5	3814.6
12.5°	3631.8	3639.1	3659.0	3684.3	3706.0	3727.7	3744.0	3760.3	3782.0	3785.7	3798.3
15°	3668.0	3657.2	3662.6	3680.7	3704.2	3722.3	3740.4	3753.1	3767.6	3763.9	3774.8
17.5°	3735.0	3707.8	3697.0	3698.8	3709.6	3722.3	3729.6	3731.4	3733.2	3716.9	3718.7
20°	3825.5	3787.5	3762.1	3749.5	3735.0	3722.3	3702.4	3678.9	3657.2	3624.6	3621.0
22.5°	3961.2	3905.1	3877.9	3843.6	3800.1	3745.8	3697.0	3639.1	3592.0	3543.2	3525.1
25°	4158.4	4100.5	4071.6	4017.3	3939.5	3861.7	3791.1	3713.3	3644.5	3586.6	3559.5
27.5°	4422.6	4364.7	4334.0	4277.9	4181.9	4104.1	4006.4	3923.2	3839.9	3754.9	3720.5
30°	4742.9	4692.3	4657.9	4612.6	4529.4	4444.3	4330.3	4201.9	4069.8	3934.0	3867.1
32.5°	5121.1	5065.0	5039.7	4987.2	4900.4	4811.7	4685.0	4520.3	4299.6	4086.0	3952.1
35°	5593.4	5530.1	5501.1	5432.4	5331.0	5200.7	5065.0	4844.3	4545.7	4248.9	4029.9
37.5°	6225.0	6083.8	5987.9	5830.5	5667.6	5484.9	5291.2	5065.0	4712.2	4344.8	4040.8
40°	6784.1	6641.2	6456.6	6230.4	5977.1	5725.5	5504.8	5247.8	4864.2	4413.6	4006.4
42.5°	7479.0	7225.7	6930.7	6624.9	6288.3	5978.9	5716.5	5414.3	4967.3	4431.7	3910.5
45°	8114.2	7812.0	7417.5	7010.3	6592.3	6203.3	5908.3	5571.7	5056.0	4431.7	3794.7
47.5°	8693.2	8331.3	7859.0	7352.3	6865.6	6440.3	6105.5	5732.8	5180.8	4487.8	3760.3
50°	9228.9	8812.7	8275.2	7687.1	7140.6	6686.4	6326.3	5939.1	5370.8	4632.5	3843.6
52.5°	9793.5	9351.9	8696.9	8072.6	7470.0	6983.2	6599.6	6194.2	5616.9	4860.5	3990.1
55°	10533.6	10016.0	9272.3	8584.7	7922.4	7384.9	6948.8	6500.0	5886.6	5117.5	4169.3
57.5°	11700.8	10949.8	10206.1	9312.1	8687.8	7980.3	7502.5	6986.8	6324.5	5452.3	4438.9
60°	13743.8	12820.9	11927.0	10899.1	10128.2	9388.1	8666.1	7992.9	7194.9	6208.7	5030.6
62.5°	16660.8	15723.5	14319.2	13061.6	11898.0	10917.2	9976.2	9120.3	8096.1	7017.6	5759.9
65°	18403.5	17330.4	15656.5	13966.4	12553.1	11337.0	10260.3	9212.6	8106.9	7055.6	5980.7
66°	18542.8	17527.6	15739.8	13953.7	12486.1	11224.9	10104.7	9020.8	7888.0	6881.8	5908.3
67.5°	18284.0	17410.0	15569.7	13707.6	12207.5	10844.8	9693.9	8557.5	7419.3	6487.4	5667.6
70°	16458.2	15826.6	14248.7	12504.2	11007.7	9806.1	8591.9	7498.9	6420.4	5636.9	5028.8
72.5°	13492.3	12692.4	11588.6	10416.0	9237.9	8172.1	7068.2	6138.1	5233.3	4663.3	4232.6
75°	9911.1	9190.9	7974.8	7243.8	6465.6	5796.1	5052.4	4171.1	3528.7	3242.8	3137.8
77.5°	6282.9	5501.1	4475.1	3668.0	3154.1	2710.8	2137.1	1699.2	1360.8	1416.9	1568.9
80°	3174.0	2734.3	2046.6	1616.0	1397.0	1161.8	919.3	696.7	508.5	580.9	656.9
82.5°	2037.6	1701.0	1355.4	1067.7	901.2	794.4	635.2	461.4	343.8	387.3	474.1
85°	1226.9	1036.9	827.0	676.8	588.1	490.4	360.1	255.2	253.3	271.4	334.8
87.5°	186.4	266.0	153.8	164.7	173.7	186.4	164.7	139.3	121.2	157.4	199.1
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°	3684.3	3684.3	3684.3	3684.3	3684.3	3684.3	3684.3	3684.3	3684.3	3684.3	3684.3
2.5°	3735.0	3738.6	3745.8	3754.9	3753.1	3765.7	3773.0	3765.7	3782.0	3782.0	3791.1
5°	3803.7	3809.2	3821.8	3830.9	3834.5	3845.4	3849.0	3847.2	3850.8	3852.6	3856.2
7.5°	3823.7	3838.1	3843.6	3849.0	3850.8	3854.4	3854.4	3850.8	3850.8	3849.0	3852.6
10°	3818.2	3823.7	3827.3	3825.5	3825.5	3821.8	3820.0	3818.2	3818.2	3814.6	3820.0
12.5°	3800.1	3800.1	3800.1	3796.5	3796.5	3794.7	3794.7	3794.7	3798.3	3800.1	3809.2
15°	3763.9	3763.9	3767.6	3765.7	3771.2	3780.2	3791.1	3798.3	3807.4	3809.2	3814.6
17.5°	3707.8	3709.6	3720.5	3744.0	3767.6	3794.7	3814.6	3820.0	3812.8	3794.7	3782.0
20°	3610.1	3633.6	3677.1	3733.2	3785.7	3820.0	3829.1	3807.4	3773.0	3725.9	3700.6
22.5°	3523.3	3570.3	3648.1	3740.4	3805.6	3829.1	3801.9	3751.3	3689.7	3635.5	3597.5
25°	3557.6	3611.9	3693.4	3773.0	3814.6	3801.9	3747.6	3675.3	3610.1	3546.8	3485.3
27.5°	3702.4	3756.7	3814.6	3838.1	3823.7	3776.6	3700.6	3622.8	3535.9	3445.4	3369.4
30°	3839.9	3870.7	3874.3	3850.8	3798.3	3722.3	3633.6	3543.2	3432.8	3324.2	3228.3
32.5°	3883.4	3847.2	3782.0	3715.1	3642.7	3564.9	3461.7	3342.3	3224.7	3101.6	2994.9
35°	3870.7	3724.1	3563.1	3420.1	3333.3	3244.6	3150.5	2991.2	2859.1	2754.2	2685.4
37.5°	3756.7	3488.9	3241.0	3032.9	2897.1	2792.2	2652.9	2520.8	2406.7	2359.7	2303.6
40°	3597.5	3188.5	2844.7	2553.3	2412.2	2278.3	2122.6	2021.3	1988.7	1945.3	1947.1
42.5°	3369.4	2837.4	2394.1	2059.3	1905.5	1758.9	1648.5	1588.8	1590.6	1554.4	1561.7
45°	3128.8	2484.6	1927.2	1594.2	1442.2	1317.4	1255.9	1237.8	1239.6	1241.4	1230.5
47.5°	2982.2	2209.5	1545.4	1208.8	1074.9	1004.3	971.7	962.7	964.5	966.3	953.7
50°	2960.5	2066.5	1290.2	924.7	837.8	798.0	781.7	772.7	772.7	765.5	754.6
52.5°	3022.0	2030.4	1165.4	801.6	718.4	682.2	669.5	662.3	651.5	637.0	617.1
55°	3119.7	2062.9	1127.4	760.0	678.6	642.4	626.1	622.5	604.4	577.3	544.7
57.5°	3300.7	2180.5	1152.7	770.9	685.8	653.3	642.4	638.8	613.4	571.8	530.2
60°	3820.0	2522.6	1279.4	832.4	738.3	711.2	711.2	705.7	671.4	611.6	551.9
62.5°	4536.6	3023.8	1451.3	917.5	810.7	807.1	837.8	839.6	778.1	682.2	588.1
65°	4882.3	3259.1	1511.0	935.6	830.6	872.2	933.7	933.7	846.9	714.8	593.5
66°	4884.1	3253.6	1492.9	913.8	808.9	863.2	926.5	926.5	836.0	705.7	584.5
67.5°	4759.2	3152.3	1433.2	874.0	760.0	810.7	866.8	865.0	783.6	669.5	559.2
70°	4268.8	2788.6	1263.1	808.9	702.1	703.9	723.8	711.2	656.9	579.1	508.5
72.5°	3680.7	2332.6	1094.8	767.3	656.9	622.5	606.2	595.4	561.0	513.9	470.5
75°	2823.0	1811.4	953.7	729.3	617.1	557.4	535.6	526.6	503.1	475.9	441.5
77.5°	1730.0	1241.4	808.9	667.7	571.8	517.5	494.0	475.9	452.4	427.1	403.5
80°	745.5	749.2	647.8	566.4	497.6	434.3	403.5	381.8	369.2	360.1	347.4
82.5°	521.2	537.4	494.0	439.7	380.0	334.8	307.6	302.2	304.0	304.0	300.4
85°	390.9	383.6	345.6	314.9	287.7	258.8	237.1	235.2	242.5	242.5	237.1
87.5°	226.2	228.0	195.4	182.8	190.0	162.9	148.4	150.2	168.3	166.5	162.9
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):

	160°	165°	170°	175°	180°
0°	3684.3	3684.3	3684.3	3684.3	3684.3
2.5°	3791.1	3796.5	3794.7	3800.1	3794.7
5°	3861.7	3859.8	3858.0	3865.3	3856.2
7.5°	3850.8	3852.6	3852.6	3852.6	3850.8
10°	3823.7	3830.9	3834.5	3841.7	3839.9
12.5°	3814.6	3825.5	3836.3	3847.2	3849.0
15°	3816.4	3823.7	3829.1	3834.5	3836.3
17.5°	3769.4	3767.6	3762.1	3758.5	3754.9
20°	3673.5	3664.4	3655.4	3640.9	3648.1
22.5°	3554.0	3528.7	3499.7	3476.2	3474.4
25°	3414.7	3367.6	3320.6	3289.8	3279.0
27.5°	3291.6	3235.5	3186.7	3159.5	3152.3
30°	3145.1	3094.4	3051.0	3027.4	3013.0
32.5°	2927.9	2888.1	2833.8	2815.7	2813.9
35°	2625.7	2594.9	2556.9	2549.7	2540.7
37.5°	2283.7	2272.8	2254.7	2233.0	2229.4
40°	1918.2	1925.4	1920.0	1907.3	1887.4
42.5°	1565.3	1578.0	1579.8	1588.8	1597.9
45°	1246.8	1257.7	1257.7	1266.7	1277.6
47.5°	957.3	950.0	955.5	964.5	969.9
50°	723.8	718.4	709.4	702.1	694.9
52.5°	582.7	571.8	546.5	539.3	532.0
55°	513.9	494.0	475.9	468.7	468.7
57.5°	494.0	468.7	448.8	439.7	436.1
60°	497.6	461.4	436.1	421.6	416.2
62.5°	513.9	463.3	428.9	412.6	407.2
65°	512.1	459.6	427.1	409.0	403.5
66°	503.1	454.2	423.4	407.2	403.5
67.5°	488.6	447.0	419.8	405.3	399.9
70°	459.6	432.5	412.6	399.9	394.5
72.5°	436.1	418.0	399.9	385.4	381.8
75°	414.4	396.3	380.0	372.8	367.3
77.5°	381.8	365.5	356.5	349.2	345.6
80°	338.4	327.5	316.7	309.4	304.0
82.5°	295.0	280.5	269.6	264.2	260.6
85°	240.7	231.6	215.3	204.5	202.7
87.5°	161.1	152.0	146.6	137.5	128.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)