

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: P159802

Luminaire Tested: **VST-E08-LED-E-U-T4-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159802
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-E08-LED-E-U-T4-7060
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(8) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (168) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24432.5 lumens
Efficiency: N/A
Efficacy: 125.6 lumens/watt
Luminous Opening: Rectangular (W 1.33' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 194.5
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



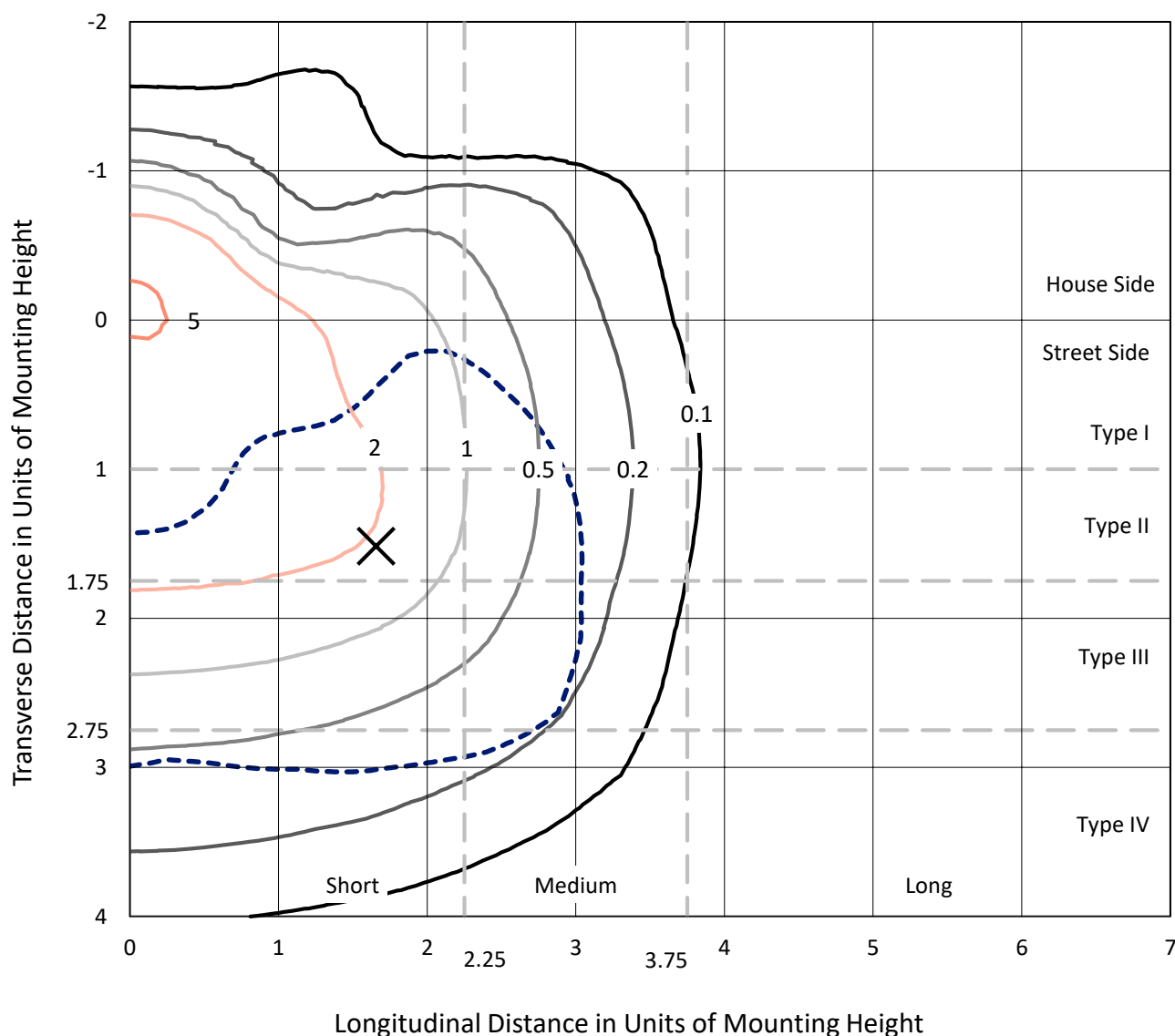
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

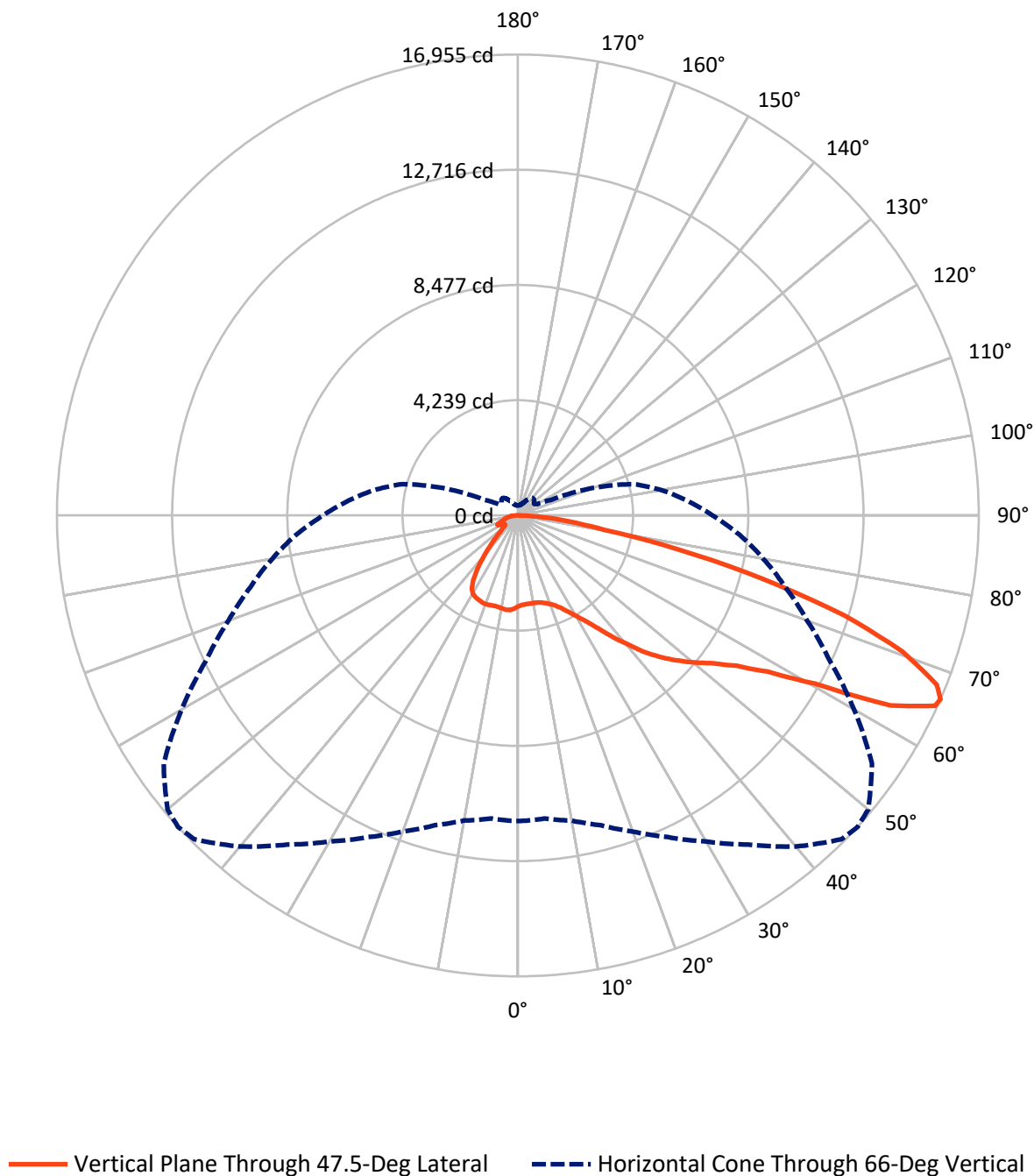


Based on 25 foot mounting height. Maximum calculated value = 5.5 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5058.6	0.0	5058.6
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	19373.9	0.0	19373.9
	% Fixture	79.3	0.0	79.3
Total	Lumens	24432.5	0.0	24432.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	322.2	1.3
10°-20°	966.1	4.0
20°-30°	1648.4	6.7
30°-40°	2488.1	10.2
40°-50°	3233.9	13.2
50°-60°	4436.7	18.2
60°-70°	6825.0	27.9
70°-80°	3945.3	16.1
80°-90°	566.8	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°	24432.5	100.0
0°-180°	24432.5	100.0

Coefficient of Utilization



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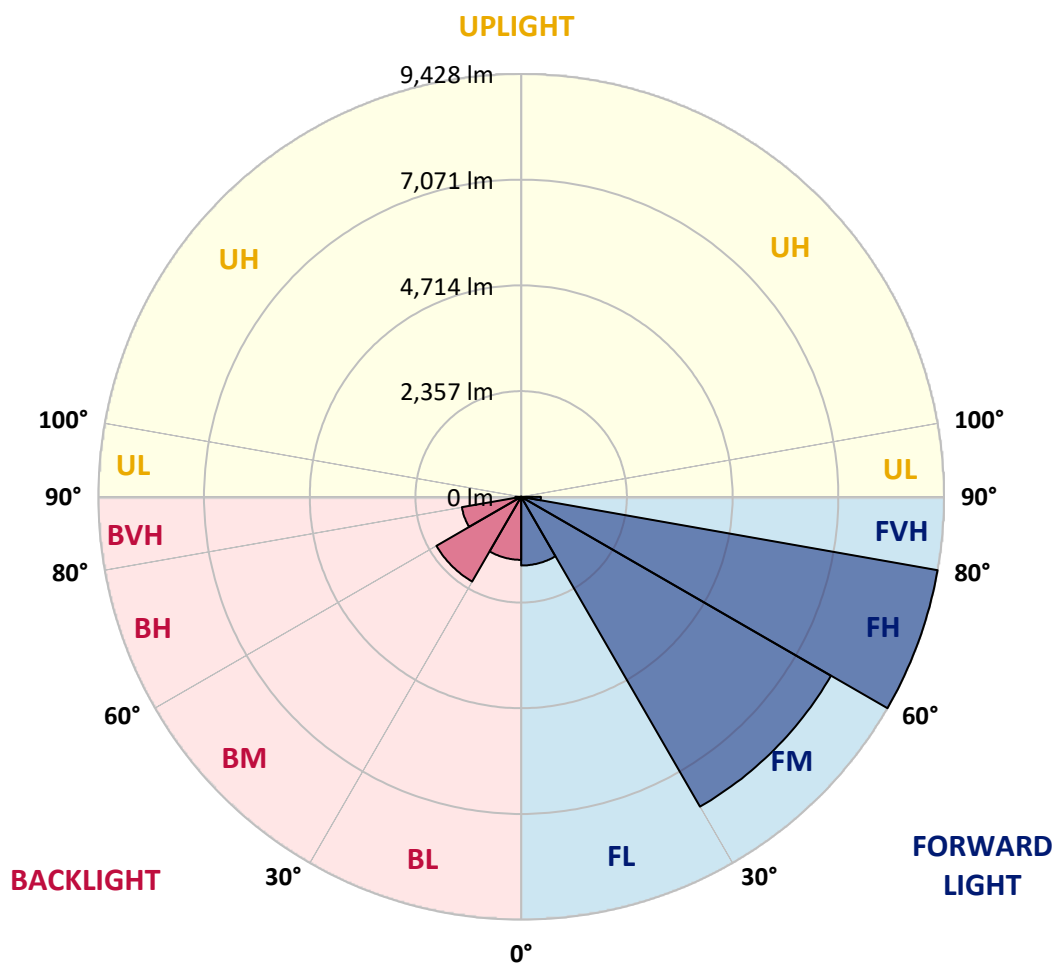
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1531.4	6.3			
FM	(30°-60°)	7976.1	32.6			
FH	(60°-80°)	9427.7	38.6			G4/12000
FVH	(80°-90°)	438.6	1.8			G3/500
BL	(0°-30°)	1405.3	5.8	B3/2500		
BM	(30°-60°)	2182.5	8.9	B2/2500		
BH	(60°-80°)	1342.6	5.5	B3/2500		G3/2500
BVH	(80°-90°)	128.2	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°	3342.6	3342.6	3342.6	3342.6	3342.6	3342.6	3342.6	3342.6	3342.6	3342.6	3342.6
2.5°	3257.3	3258.9	3260.6	3260.6	3265.5	3265.5	3273.7	3278.6	3280.3	3290.1	3296.7
5°	3196.5	3194.9	3196.5	3199.8	3208.0	3214.6	3231.0	3242.5	3252.3	3268.8	3277.0
7.5°	3170.3	3173.5	3176.8	3178.5	3185.0	3201.4	3216.2	3227.7	3247.4	3267.1	3275.3
10°	3204.7	3209.7	3204.7	3208.0	3208.0	3222.8	3229.4	3237.6	3252.3	3270.4	3275.3
12.5°	3285.2	3295.0	3285.2	3277.0	3270.4	3283.5	3280.3	3273.7	3281.9	3286.8	3286.8
15°	3418.2	3418.2	3411.6	3400.1	3383.7	3385.3	3370.6	3355.8	3349.2	3337.7	3329.5
17.5°	3547.9	3544.6	3529.8	3515.0	3503.5	3498.6	3477.3	3457.6	3434.6	3416.5	3396.8
20°	3674.3	3687.4	3669.4	3648.0	3630.0	3618.5	3602.0	3562.6	3534.7	3505.2	3485.5
22.5°	3892.6	3881.1	3861.4	3830.2	3812.2	3792.5	3758.0	3715.3	3672.6	3636.5	3611.9
25°	4117.6	4106.1	4078.2	4055.2	4028.9	4012.5	3974.7	3922.2	3881.1	3825.3	3792.5
27.5°	4358.9	4349.0	4316.2	4298.2	4280.1	4260.4	4227.6	4173.4	4135.6	4071.6	4037.1
30°	4631.4	4629.8	4585.5	4582.2	4555.9	4534.6	4511.6	4465.6	4427.9	4363.8	4322.8
32.5°	4922.0	4915.5	4884.3	4874.4	4892.5	4877.7	4844.9	4797.2	4748.0	4710.2	4664.3
35°	5335.7	5324.3	5306.2	5314.4	5325.9	5366.9	5316.0	5275.0	5215.9	5166.6	5102.6
37.5°	5637.8	5621.4	5642.8	5688.7	5754.4	5785.6	5829.9	5831.6	5803.7	5738.0	5682.2
40°	5915.3	5908.7	5958.0	6022.0	6143.5	6232.2	6315.9	6356.9	6366.8	6324.1	6240.4
42.5°	6150.1	6169.8	6235.4	6333.9	6504.7	6639.3	6795.3	6892.1	6952.9	6929.9	6892.1
45°	6429.2	6439.0	6519.5	6644.2	6806.8	7030.1	7235.3	7399.5	7506.2	7504.5	7461.8
47.5°	6778.9	6780.5	6849.5	6995.6	7169.6	7396.2	7655.6	7873.9	8015.1	8021.7	7988.8
50°	7194.2	7190.9	7266.5	7404.4	7589.9	7808.3	8084.1	8356.6	8553.6	8553.6	8506.0
52.5°	7729.4	7722.9	7763.9	7885.4	8064.4	8294.2	8568.4	8883.6	9097.0	9143.0	9039.6
55°	8443.6	8453.5	8463.3	8570.0	8722.7	8905.0	9220.2	9510.8	9796.4	9822.7	9762.0
57.5°	9269.4	9236.6	9307.2	9481.2	9655.2	9883.4	10106.7	10449.9	10788.1	10845.5	10837.3
60°	10559.9	10517.2	10589.4	10811.0	11003.1	11362.7	11745.2	12188.5	12589.1	12707.3	12564.5
62.5°	11746.9	11799.4	11897.9	12155.7	12434.8	12914.2	13488.8	14248.9	15009.0	15422.8	15393.2
65°	11640.1	11590.9	11779.7	12131.0	12636.7	13247.4	13961.6	14877.7	15972.8	16803.5	16877.4
66°	11244.5	11193.6	11397.2	11799.4	12377.3	13057.0	13850.0	14782.5	15902.2	16841.3	16954.5
67.5°	10591.0	10540.2	10770.0	11136.1	11732.1	12587.4	13444.4	14464.0	15628.0	16527.7	16619.6
70°	9330.2	9261.2	9440.2	9853.9	10336.6	11164.0	11980.0	13060.3	14255.5	14974.6	15009.0
72.5°	7903.5	7742.6	7933.0	8251.5	8596.3	9280.9	9991.8	10730.6	11682.8	12347.7	12538.2
75°	5734.7	5818.4	5874.2	6084.4	6312.6	6879.0	7296.0	7915.0	8652.1	9133.2	9285.8
77.5°	3042.2	3168.6	3247.4	3457.6	3835.2	4267.0	4718.4	5101.0	5585.3	5854.5	6041.7
80°	1707.4	1796.1	1924.2	2090.0	2273.8	2605.5	2873.1	3070.1	3139.1	3186.7	3229.4
82.5°	939.1	1164.0	1354.5	1469.4	1577.7	1710.7	1870.0	2034.2	2086.7	2007.9	1966.8
85°	146.1	215.1	655.1	799.5	870.1	971.9	1086.9	1208.3	1210.0	1040.9	1136.1
87.5°	41.0	46.0	93.6	141.2	137.9	111.6	137.9	251.2	147.8	73.9	85.4
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	3342.6	3342.6	3342.6	3342.6	3342.6	3342.6	3342.6	3342.6	3342.6	3342.6	3342.6
2.5°	3300.0	3303.2	3311.4	3319.7	3327.9	3336.1	3341.0	3349.2	3355.8	3365.6	3377.1
5°	3286.8	3295.0	3309.8	3327.9	3344.3	3359.1	3370.6	3387.0	3401.7	3414.9	3434.6
7.5°	3286.8	3303.2	3327.9	3347.6	3362.3	3380.4	3398.5	3414.9	3431.3	3444.4	3457.6
10°	3288.5	3304.9	3329.5	3352.5	3368.9	3388.6	3403.4	3418.2	3436.2	3444.4	3460.8
12.5°	3295.0	3301.6	3319.7	3342.6	3362.3	3382.0	3396.8	3411.6	3431.3	3434.6	3446.1
15°	3327.9	3318.0	3322.9	3339.4	3360.7	3377.1	3393.5	3405.0	3418.2	3414.9	3424.7
17.5°	3388.6	3364.0	3354.1	3355.8	3365.6	3377.1	3383.7	3385.3	3387.0	3372.2	3373.8
20°	3470.7	3436.2	3413.2	3401.7	3388.6	3377.1	3359.1	3337.7	3318.0	3288.5	3285.2
22.5°	3593.8	3542.9	3518.3	3487.1	3447.7	3398.5	3354.1	3301.6	3258.9	3214.6	3198.2
25°	3772.8	3720.2	3694.0	3644.7	3574.1	3503.5	3439.5	3368.9	3306.5	3254.0	3229.4
27.5°	4012.5	3959.9	3932.0	3881.1	3794.1	3723.5	3634.9	3559.4	3483.8	3406.7	3375.5
30°	4303.1	4257.1	4225.9	4184.9	4109.3	4032.2	3928.8	3812.2	3692.3	3569.2	3508.5
32.5°	4646.2	4595.3	4572.3	4524.7	4445.9	4365.5	4250.5	4101.1	3900.8	3707.1	3585.6
35°	5074.7	5017.2	4991.0	4928.6	4836.7	4718.4	4595.3	4395.0	4124.1	3854.9	3656.2
37.5°	5647.7	5519.6	5432.6	5289.8	5142.0	4976.2	4800.5	4595.3	4275.2	3941.9	3666.1
40°	6155.0	6025.3	5857.8	5652.6	5422.8	5194.6	4994.3	4761.1	4413.1	4004.3	3634.9
42.5°	6785.4	6555.6	6288.0	6010.5	5705.1	5424.4	5186.3	4912.2	4506.7	4020.7	3547.9
45°	7361.7	7087.5	6729.6	6360.2	5981.0	5628.0	5360.4	5055.0	4587.1	4020.7	3442.8
47.5°	7887.1	7558.7	7130.2	6670.5	6228.9	5843.1	5539.3	5201.1	4700.4	4071.6	3411.6
50°	8373.0	7995.4	7507.8	6974.2	6478.4	6066.3	5739.6	5388.3	4872.8	4202.9	3487.1
52.5°	8885.3	8484.7	7890.3	7323.9	6777.2	6335.6	5987.5	5619.8	5096.1	4409.8	3620.1
55°	9556.7	9087.2	8412.4	7788.6	7187.7	6700.1	6304.4	5897.2	5340.7	4642.9	3782.6
57.5°	10615.7	9934.3	9259.6	8448.5	7882.1	7240.2	6806.8	6338.9	5738.0	4946.6	4027.3
60°	12469.2	11631.9	10820.9	9888.4	9189.0	8517.5	7862.4	7251.7	6527.7	5632.9	4564.1
62.5°	15115.8	14265.3	12991.3	11850.3	10794.6	9904.8	9051.1	8274.5	7345.3	6366.8	5225.7
65°	16696.8	15723.2	14204.6	12671.2	11388.9	10285.7	9308.8	8358.2	7355.1	6401.3	5426.0
66°	16823.2	15902.2	14280.1	12659.7	11328.2	10183.9	9167.6	8184.2	7156.5	6243.6	5360.4
67.5°	16588.4	15795.5	14125.8	12436.4	11075.4	9839.1	8795.0	7763.9	6731.3	5885.7	5142.0
70°	14931.9	14358.9	12927.3	11344.6	9986.9	8896.7	7795.1	6803.5	5825.0	5114.1	4562.5
72.5°	12241.0	11515.4	10513.9	9450.0	8381.2	7414.2	6412.7	5568.9	4748.0	4230.8	3840.1
75°	8992.0	8338.5	7235.3	6572.0	5866.0	5258.6	4583.8	3784.3	3201.4	2942.0	2846.8
77.5°	5700.2	4991.0	4060.1	3327.9	2861.6	2459.4	1938.9	1541.6	1234.6	1285.5	1423.4
80°	2879.7	2480.7	1856.8	1466.1	1267.4	1054.0	834.0	632.1	461.3	527.0	596.0
82.5°	1848.6	1543.3	1229.7	968.6	817.6	720.7	576.3	418.7	311.9	351.3	430.1
85°	1113.1	940.7	750.3	614.0	533.6	444.9	326.7	231.5	229.8	246.3	303.7
87.5°	169.1	241.3	139.6	149.4	157.6	169.1	149.4	126.4	110.0	142.8	180.6
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°	3342.6	3342.6	3342.6	3342.6	3342.6	3342.6	3342.6	3342.6	3342.6	3342.6	3342.6
2.5°	3388.6	3391.9	3398.5	3406.7	3405.0	3416.5	3423.1	3416.5	3431.3	3431.3	3439.5
5°	3451.0	3455.9	3467.4	3475.6	3478.9	3488.8	3492.0	3490.4	3493.7	3495.3	3498.6
7.5°	3469.1	3482.2	3487.1	3492.0	3493.7	3497.0	3497.0	3493.7	3493.7	3492.0	3495.3
10°	3464.1	3469.1	3472.3	3470.7	3470.7	3467.4	3465.8	3464.1	3464.1	3460.8	3465.8
12.5°	3447.7	3447.7	3447.7	3444.4	3444.4	3442.8	3442.8	3442.8	3446.1	3447.7	3455.9
15°	3414.9	3414.9	3418.2	3416.5	3421.4	3429.7	3439.5	3446.1	3454.3	3455.9	3460.8
17.5°	3364.0	3365.6	3375.5	3396.8	3418.2	3442.8	3460.8	3465.8	3459.2	3442.8	3431.3
20°	3275.3	3296.7	3336.1	3387.0	3434.6	3465.8	3474.0	3454.3	3423.1	3380.4	3357.4
22.5°	3196.5	3239.2	3309.8	3393.5	3452.6	3474.0	3449.4	3403.4	3347.6	3298.3	3263.8
25°	3227.7	3277.0	3350.8	3423.1	3460.8	3449.4	3400.1	3334.4	3275.3	3217.9	3162.0
27.5°	3359.1	3408.3	3460.8	3482.2	3469.1	3426.4	3357.4	3286.8	3208.0	3125.9	3057.0
30°	3483.8	3511.7	3515.0	3493.7	3446.1	3377.1	3296.7	3214.6	3114.4	3015.9	2928.9
32.5°	3523.2	3490.4	3431.3	3370.6	3304.9	3234.3	3140.7	3032.3	2925.6	2814.0	2717.1
35°	3511.7	3378.8	3232.6	3102.9	3024.1	2943.7	2858.3	2713.8	2594.0	2498.8	2436.4
37.5°	3408.3	3165.3	2940.4	2751.6	2628.5	2533.2	2406.8	2287.0	2183.6	2140.9	2090.0
40°	3263.8	2892.8	2580.9	2316.5	2188.5	2067.0	1925.8	1833.9	1804.3	1764.9	1766.5
42.5°	3057.0	2574.3	2172.1	1868.3	1728.8	1595.8	1495.7	1441.5	1443.1	1410.3	1416.8
45°	2838.6	2254.1	1748.5	1446.4	1308.5	1195.2	1139.4	1123.0	1124.6	1126.3	1116.4
47.5°	2705.6	2004.6	1402.1	1096.7	975.2	911.2	881.6	873.4	875.1	876.7	865.2
50°	2685.9	1874.9	1170.6	838.9	760.1	724.0	709.2	701.0	701.0	694.5	684.6
52.5°	2741.8	1842.1	1057.3	727.3	651.8	618.9	607.5	600.9	591.0	577.9	559.8
55°	2830.4	1871.6	1022.8	689.5	615.7	582.8	568.1	564.8	548.4	523.7	494.2
57.5°	2994.6	1978.3	1045.8	699.4	622.2	592.7	582.8	579.5	556.6	518.8	481.0
60°	3465.8	2288.6	1160.7	755.2	669.8	645.2	645.2	640.3	609.1	554.9	500.7
62.5°	4115.9	2743.4	1316.7	832.4	735.5	732.2	760.1	761.8	706.0	618.9	533.6
65°	4429.5	2956.8	1370.9	848.8	753.6	791.3	847.2	847.2	768.3	648.5	538.5
66°	4431.1	2951.9	1354.5	829.1	733.9	783.1	840.6	840.6	758.5	640.3	530.3
67.5°	4317.9	2860.0	1300.3	793.0	689.5	735.5	786.4	784.8	710.9	607.5	507.3
70°	3872.9	2530.0	1146.0	733.9	637.0	638.6	656.7	645.2	596.0	525.4	461.3
72.5°	3339.4	2116.2	993.3	696.1	596.0	564.8	550.0	540.1	508.9	466.3	426.9
75°	2561.2	1643.4	865.2	661.6	559.8	505.7	486.0	477.8	456.4	431.8	400.6
77.5°	1569.5	1126.3	733.9	605.8	518.8	469.5	448.2	431.8	410.4	387.5	366.1
80°	676.4	679.7	587.8	513.9	451.5	394.0	366.1	346.4	334.9	326.7	315.2
82.5°	472.8	487.6	448.2	398.9	344.8	303.7	279.1	274.2	275.8	275.8	272.5
85°	354.6	348.1	313.6	285.7	261.0	234.8	215.1	213.4	220.0	220.0	215.1
87.5°	205.2	206.9	177.3	165.8	172.4	147.8	134.6	136.3	152.7	151.0	147.8
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°	3342.6	3342.6	3342.6	3342.6	3342.6
2.5°	3439.5	3444.4	3442.8	3447.7	3442.8
5°	3503.5	3501.9	3500.3	3506.8	3498.6
7.5°	3493.7	3495.3	3495.3	3495.3	3493.7
10°	3469.1	3475.6	3478.9	3485.5	3483.8
12.5°	3460.8	3470.7	3480.5	3490.4	3492.0
15°	3462.5	3469.1	3474.0	3478.9	3480.5
17.5°	3419.8	3418.2	3413.2	3410.0	3406.7
20°	3332.8	3324.6	3316.4	3303.2	3309.8
22.5°	3224.4	3201.4	3175.2	3153.8	3152.2
25°	3098.0	3055.3	3012.6	2984.7	2974.9
27.5°	2986.4	2935.5	2891.2	2866.5	2860.0
30°	2853.4	2807.4	2768.0	2746.7	2733.5
32.5°	2656.4	2620.3	2571.0	2554.6	2553.0
35°	2382.2	2354.3	2319.8	2313.3	2305.0
37.5°	2071.9	2062.1	2045.6	2025.9	2022.7
40°	1740.3	1746.8	1741.9	1730.4	1712.4
42.5°	1420.1	1431.6	1433.3	1441.5	1449.7
45°	1131.2	1141.0	1141.0	1149.2	1159.1
47.5°	868.5	861.9	866.9	875.1	880.0
50°	656.7	651.8	643.6	637.0	630.4
52.5°	528.6	518.8	495.8	489.2	482.7
55°	466.3	448.2	431.8	425.2	425.2
57.5°	448.2	425.2	407.2	398.9	395.7
60°	451.5	418.7	395.7	382.5	377.6
62.5°	466.3	420.3	389.1	374.3	369.4
65°	464.6	417.0	387.5	371.0	366.1
66°	456.4	412.1	384.2	369.4	366.1
67.5°	443.3	405.5	380.9	367.8	362.8
70°	417.0	392.4	374.3	362.8	357.9
72.5°	395.7	379.2	362.8	349.7	346.4
75°	376.0	359.5	344.8	338.2	333.3
77.5°	346.4	331.6	323.4	316.9	313.6
80°	307.0	297.2	287.3	280.7	275.8
82.5°	267.6	254.5	244.6	239.7	236.4
85°	218.4	210.1	195.4	185.5	183.9
87.5°	146.1	137.9	133.0	124.8	116.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)