

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: P189865

Luminaire Tested: **VERD-M-A0485-E-U-T4-AP**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P189865
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26232)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VERD-M-A0485-E-U-T4-AP
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 4000K LEDS AT 85% STANDARD LUMENS AND TYPE IV OPTICS, GREY
PAINTED FINISH
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26157 lumens
Efficiency: N/A
Efficacy: 124.6 lumens/watt
Luminous Opening: Rectangular (W 1.35' x L: 1.58' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

Input Watts (W): 210
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

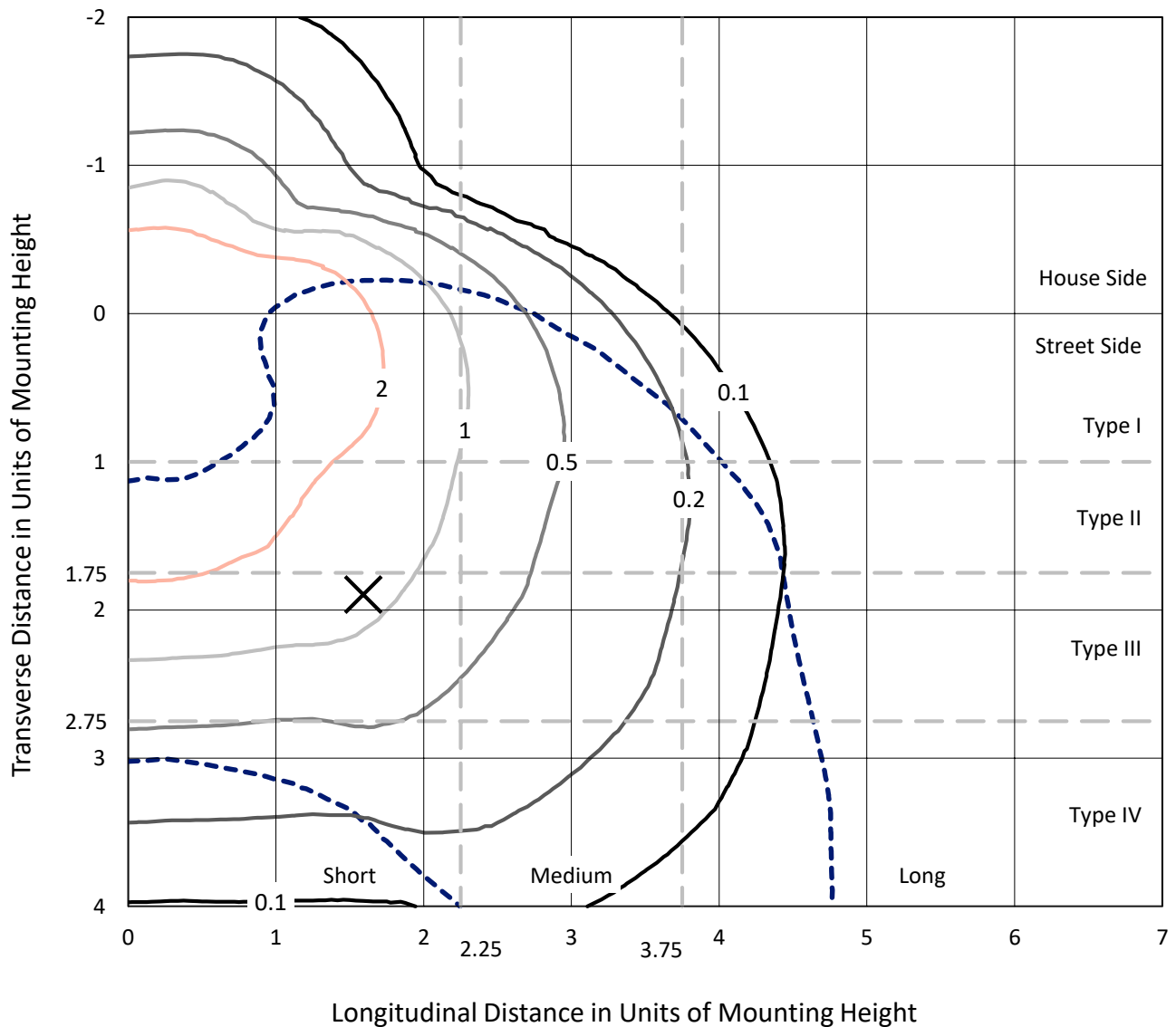


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Iso-Footcandle Lines of Horizontal Illumination

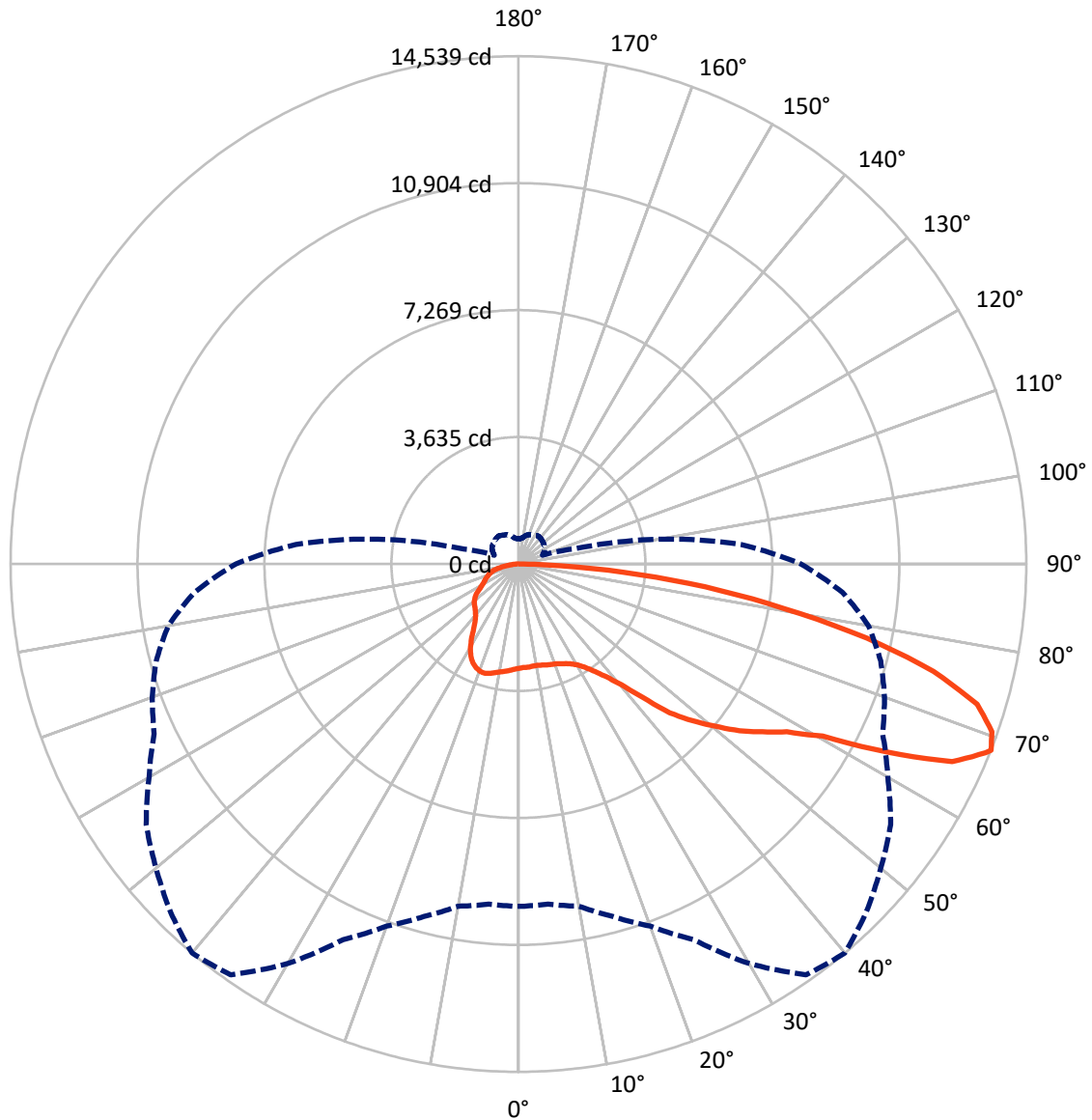
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical



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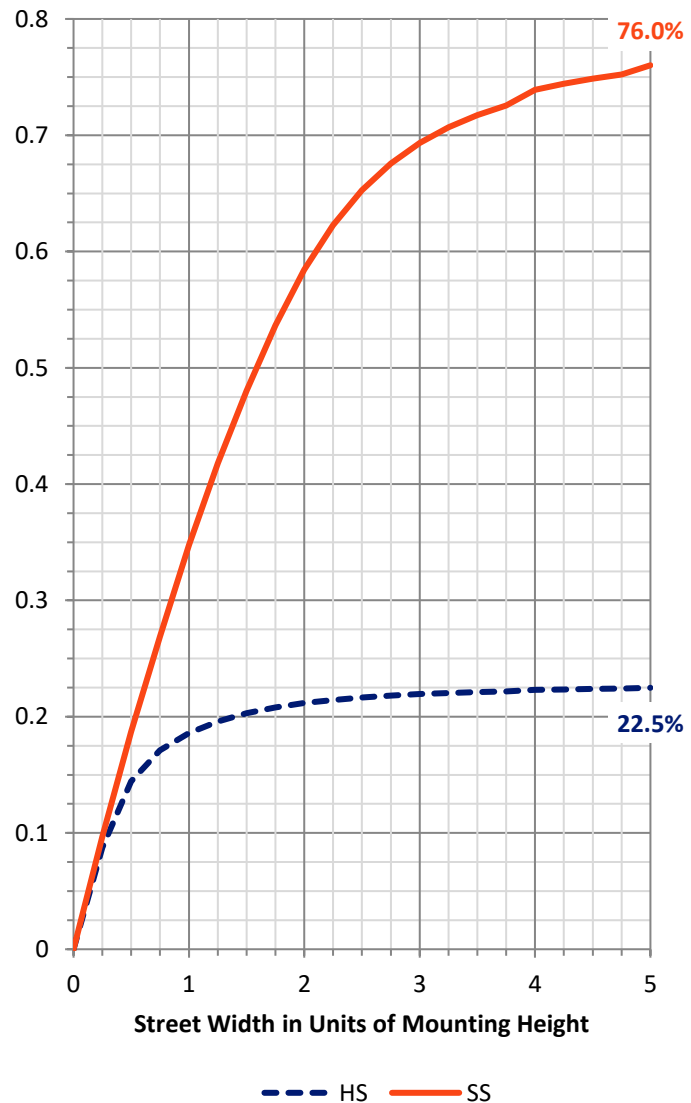
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5952.8	0.0	5952.8
	% Fixture	22.8	0.0	22.8
Street Side	Lumens	20204.2	0.0	20204.2
	% Fixture	77.2	0.0	77.2
Total	Lumens	26157.0	0.0	26157.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	288.5	1.1
10°-20°	885.5	3.4
20°-30°	1490.6	5.7
30°-40°	2234.6	8.5
40°-50°	3660.5	14.0
50°-60°	5220.1	20.0
60°-70°	6577.6	25.1
70°-80°	4832.8	18.5
80°-90°	966.8	3.7
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°	26157.0	100.0
0°-180°	26157.0	100.0



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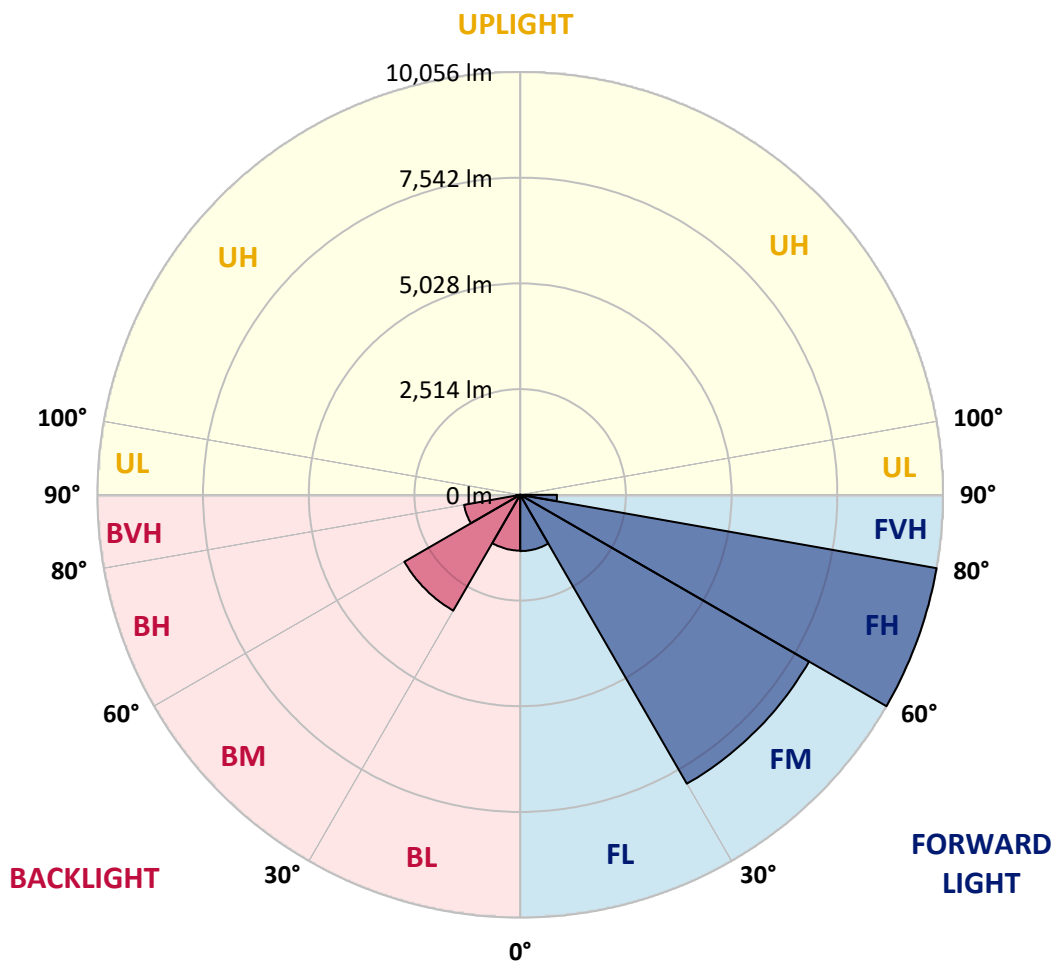
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1338.2	5.1			
FM	(30°-60°)	7932.9	30.3			
FH	(60°-80°)	10056.4	38.4			G4/12000
FVH	(80°-90°)	876.7	3.4			G5
BL	(0°-30°)	1326.4	5.1	B3/2500		
BM	(30°-60°)	3182.4	12.2	B3/5000		
BH	(60°-80°)	1353.9	5.2	B3/2500		G3/2500
BVH	(80°-90°)	90.1	0.3			G1/100
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°	50°
0°	2984.5	2984.5	2984.5	2984.5	2984.5	2984.5	2984.5	2984.5	2984.5	2984.5	2984.5
2.5°	2998.3	2996.6	2982.8	2979.4	2967.3	2969.0	2965.6	2960.4	2962.1	2951.8	2951.8
5°	2994.9	2994.9	2981.1	2977.7	2970.8	2977.7	2975.9	2965.6	2969.0	2967.3	2965.6
7.5°	2967.3	2963.9	2948.4	2946.6	2941.5	2951.8	2955.2	2946.6	2950.1	2962.1	2965.6
10°	2943.2	2944.9	2931.1	2931.1	2927.7	2944.9	2953.5	2948.4	2951.8	2969.0	2970.8
12.5°	2905.3	2910.4	2901.8	2905.3	2907.0	2931.1	2953.5	2960.4	2969.0	2984.5	2993.2
15°	2888.0	2889.8	2884.6	2891.5	2900.1	2927.7	2955.2	2975.9	2998.3	3020.7	3034.5
17.5°	2915.6	2913.9	2905.3	2907.0	2912.2	2936.3	2970.8	3001.8	3022.5	3044.9	3070.7
20°	2924.2	2929.4	2924.2	2929.4	2938.0	2963.9	3008.7	3036.2	3051.7	3072.4	3106.9
22.5°	2977.7	2970.8	2969.0	2974.2	2972.5	2996.6	3036.2	3077.6	3103.4	3115.5	3151.7
25°	3031.1	3025.9	3025.9	3036.2	3036.2	3055.2	3093.1	3127.6	3156.9	3194.8	3243.0
27.5°	3087.9	3084.5	3084.5	3105.2	3115.5	3132.7	3170.6	3208.6	3239.6	3277.5	3346.4
30°	3203.4	3196.5	3182.7	3206.8	3212.0	3227.5	3275.8	3315.4	3355.0	3405.0	3470.5
32.5°	3403.3	3391.2	3368.8	3370.5	3361.9	3374.0	3446.4	3472.2	3527.3	3579.0	3635.9
35°	3844.4	3801.3	3751.4	3720.3	3679.0	3641.1	3687.6	3723.8	3780.7	3832.3	3906.4
37.5°	4494.0	4413.1	4339.0	4304.5	4228.7	4128.7	4096.0	4044.3	4094.3	4180.4	4270.0
40°	5217.8	5217.8	5135.1	5040.3	4917.9	4750.8	4661.2	4573.3	4542.3	4571.6	4704.3
42.5°	5907.1	5929.5	5850.2	5752.0	5648.6	5474.5	5355.6	5281.5	5219.5	5188.5	5233.3
45°	6548.1	6630.8	6580.8	6472.3	6405.1	6332.7	6294.8	6160.4	6077.6	5953.6	5910.5
47.5°	7025.4	7106.4	7053.0	6894.4	6854.8	6842.7	6841.0	6753.1	6701.4	6586.0	6515.3
50°	7521.7	7640.6	7545.8	7266.6	7290.8	7299.4	7316.6	7292.5	7297.7	7271.8	7232.2
52.5°	8300.5	8312.6	7978.3	7752.6	7707.8	7718.1	7793.9	7831.8	7930.1	7845.6	7862.9
55°	9432.7	9065.6	8641.7	8467.7	8281.6	8202.3	8214.4	8326.4	8481.5	8405.7	8416.0
57.5°	9808.3	9870.4	9891.0	9532.6	9425.8	9198.3	9150.1	8917.4	9063.9	8958.8	8993.3
60°	10597.5	10771.6	10732.0	10819.8	10597.5	10588.9	10664.7	10154.7	10008.2	9718.7	9648.1
62.5°	11479.8	11478.1	11717.6	11784.8	11876.1	11736.6	12039.8	11983.0	11865.8	11021.4	10511.4
65°	11124.8	11117.9	11274.8	11803.8	11986.4	12387.9	12834.2	13451.1	13640.7	13239.2	12415.5
67.5°	9916.9	9961.7	10154.7	10783.6	11304.0	12020.9	13113.4	14262.7	14421.3	14018.1	13463.2
68°	9801.4	9773.9	9946.2	10447.6	11030.1	11862.4	13206.4	14357.5	14538.5	14087.0	13542.5
70°	8493.5	8466.0	8786.5	9355.1	9985.8	11193.8	13325.3	14333.4	14379.9	13968.1	13475.3
72.5°	6617.0	6584.3	6885.8	7345.9	8050.7	9360.3	12306.9	13704.4	13732.0	13342.6	12944.5
75°	4807.7	4768.0	5050.6	5457.3	6041.5	7194.3	10184.0	11950.2	12281.1	12325.9	12205.3
77.5°	3317.1	3399.8	3679.0	3973.6	4494.0	5367.7	7697.4	9551.6	10194.3	10599.3	10873.3
80°	2229.8	2365.9	2581.3	2860.5	3275.8	3961.6	5726.1	7137.4	7697.4	8102.4	8300.5
82.5°	1463.0	1483.7	1659.4	1900.7	2259.1	2810.5	4044.3	5064.4	5386.7	5438.3	5240.2
85°	768.5	828.8	937.4	1089.0	1313.1	1645.6	2240.1	2898.4	3017.3	2994.9	2705.4
87.5°	280.9	305.0	358.4	430.8	537.6	696.2	901.2	1008.1	763.4	561.8	401.5
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2984.5	2984.5	2984.5	2984.5	2984.5	2984.5	2984.5	2984.5	2984.5	2984.5	2984.5
2.5°	2957.0	2943.2	2941.5	2967.3	2960.4	2960.4	2957.0	2969.0	2957.0	2957.0	2974.2
5°	2963.9	2955.2	2955.2	2982.8	2989.7	2982.8	2989.7	2989.7	2986.3	2993.2	3005.2
7.5°	2962.1	2965.6	2967.3	2984.5	3005.2	2996.6	3017.3	3005.2	3020.7	3034.5	3038.0
10°	2962.1	2982.8	2991.4	2996.6	3015.6	3017.3	3032.8	3020.7	3044.9	3063.8	3067.3
12.5°	2993.2	3019.0	3050.0	3056.9	3072.4	3094.8	3096.6	3094.8	3125.8	3139.6	3155.1
15°	3044.9	3075.9	3113.8	3131.0	3151.7	3194.8	3189.6	3208.6	3243.0	3258.5	3286.1
17.5°	3100.0	3134.5	3179.3	3212.0	3243.0	3294.7	3291.3	3327.5	3361.9	3386.0	3417.1
20°	3150.0	3196.5	3248.2	3294.7	3346.4	3396.4	3406.7	3449.8	3498.1	3536.0	3561.8
22.5°	3208.6	3260.3	3317.1	3384.3	3449.8	3498.1	3542.9	3606.6	3660.0	3697.9	3713.4
25°	3301.6	3355.0	3418.8	3513.6	3585.9	3646.2	3729.0	3808.2	3858.2	3872.0	3866.8
27.5°	3418.8	3479.1	3556.6	3680.7	3760.0	3849.6	3968.5	4037.4	4065.0	4039.1	3971.9
30°	3554.9	3637.6	3734.1	3865.1	3968.5	4113.2	4258.0	4316.6	4285.5	4185.6	4039.1
32.5°	3742.7	3858.2	3971.9	4113.2	4283.8	4487.2	4637.1	4657.7	4538.9	4335.5	4102.9
35°	4039.1	4178.7	4323.5	4513.0	4824.9	5098.9	5221.2	5148.9	4895.5	4569.9	4220.1
37.5°	4437.2	4607.8	4823.2	5102.3	5565.9	5879.5	5931.2	5765.8	5390.1	4907.6	4388.9
40°	4904.2	5135.1	5421.1	5898.4	6394.7	6679.0	6661.8	6418.8	5936.3	5298.8	4614.7
42.5°	5490.0	5745.1	6105.2	6660.1	7220.1	7420.0	7337.3	7039.2	6468.8	5715.8	4861.1
45°	6062.1	6322.3	6729.0	7351.1	7888.7	8043.8	7912.8	7575.1	6946.1	6112.1	5140.2
47.5°	6634.2	6813.4	7330.4	8009.3	8514.2	8598.7	8407.4	7980.0	7342.5	6453.3	5341.9
50°	7308.0	7445.9	7985.2	8698.6	9074.3	9091.5	8888.2	8333.3	7621.6	6660.1	5493.5
52.5°	7940.4	8171.3	8729.6	9336.2	9567.1	9487.8	9258.6	8648.6	7825.0	6873.8	5536.6
55°	8552.1	8891.6	9499.9	9896.2	9989.3	9860.0	9506.8	8874.4	7993.8	6875.5	5500.4
57.5°	9141.5	9611.9	10180.5	10439.0	10397.7	10135.7	9606.7	8926.1	8011.1	6779.0	5355.6
60°	9785.9	10273.6	10771.6	10828.4	10649.2	10289.1	9692.9	8943.3	7911.1	6579.1	5109.2
62.5°	10492.4	10869.8	11155.9	11040.4	10790.5	10413.2	9729.1	8776.1	7744.0	6237.9	4537.1
65°	11457.4	11467.7	11441.9	11202.4	10821.6	10302.9	9577.4	8672.8	7325.2	5590.0	3530.8
67.5°	12884.2	12100.2	11529.8	11171.4	10750.9	10187.4	9398.2	8173.0	6610.1	4401.0	2024.7
68°	13008.3	12210.4	11503.9	11152.4	10737.1	10175.4	9308.6	8083.4	6391.3	4082.2	1705.9
70°	13037.6	12210.4	11347.1	11042.1	10682.0	9944.5	8834.7	7225.3	5221.2	2619.2	709.9
72.5°	12648.1	11760.7	11159.3	10945.6	10321.8	9160.4	7525.1	5507.3	3168.9	822.0	541.1
75°	12126.0	11224.8	10492.4	9863.5	8950.2	7314.9	5402.2	3168.9	925.3	401.5	470.4
77.5°	10576.9	9596.4	8755.5	7943.8	6553.2	4733.6	2676.1	808.2	291.2	322.2	396.3
80°	7532.0	6444.7	5223.0	4090.8	2357.3	899.5	324.0	206.8	210.2	244.7	318.8
82.5°	4140.8	2748.5	1640.5	635.9	220.6	189.5	170.6	141.3	148.2	198.2	232.6
85°	1804.2	870.2	263.6	160.3	139.6	127.5	108.6	98.2	125.8	131.0	125.8
87.5°	170.6	86.2	68.9	65.5	53.4	46.5	34.5	32.7	31.0	31.0	36.2
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2984.5	2984.5	2984.5	2984.5	2984.5	2984.5	2984.5	2984.5	2984.5	2984.5	2984.5
2.5°	2970.8	2974.2	2988.0	2984.5	2994.9	3010.4	3012.1	3020.7	3031.1	3041.4	3055.2
5°	3019.0	3019.0	3025.9	3020.7	3029.3	3038.0	3051.7	3055.2	3069.0	3089.7	3108.6
7.5°	3055.2	3053.5	3055.2	3069.0	3079.3	3079.3	3093.1	3094.8	3108.6	3125.8	3141.4
10°	3091.4	3113.8	3106.9	3117.2	3120.7	3122.4	3129.3	3132.7	3151.7	3158.6	3170.6
12.5°	3170.6	3191.3	3179.3	3194.8	3196.5	3187.9	3177.5	3175.8	3175.8	3168.9	3163.8
15°	3286.1	3296.4	3289.5	3277.5	3268.9	3267.1	3234.4	3208.6	3186.2	3155.1	3131.0
17.5°	3415.3	3410.2	3391.2	3375.7	3341.2	3317.1	3274.0	3217.2	3165.5	3098.3	3051.7
20°	3553.2	3517.0	3506.7	3453.2	3391.2	3330.9	3262.0	3182.7	3089.7	2991.4	2912.2
22.5°	3675.5	3622.1	3573.9	3503.2	3406.7	3315.4	3208.6	3106.9	2989.7	2855.3	2741.6
25°	3791.0	3689.3	3606.6	3503.2	3377.4	3258.5	3124.1	2994.9	2841.5	2674.4	2526.2
27.5°	3854.7	3716.9	3582.5	3442.9	3299.9	3137.9	2989.7	2827.7	2646.8	2457.3	2279.8
30°	3861.6	3694.5	3518.7	3325.7	3153.4	2965.6	2791.5	2589.9	2391.8	2195.3	2060.9
32.5°	3865.1	3630.7	3396.4	3165.5	2953.5	2736.4	2536.5	2314.2	2147.1	2026.5	1923.1
35°	3868.5	3553.2	3253.4	2950.1	2708.8	2474.5	2264.3	2090.2	1971.3	1892.0	1809.3
37.5°	3906.4	3480.8	3098.3	2738.1	2471.0	2236.7	2060.9	1928.2	1847.2	1788.7	1726.6
40°	3949.5	3394.7	2934.6	2538.2	2262.5	2055.8	1924.8	1842.1	1781.8	1737.0	1687.0
42.5°	3980.5	3244.7	2710.6	2338.4	2073.0	1911.0	1836.9	1792.1	1757.6	1724.9	1669.8
45°	4035.7	3079.3	2459.0	2085.0	1897.2	1799.0	1768.0	1752.5	1726.6	1693.9	1633.6
47.5°	4101.2	2903.6	2203.9	1873.1	1738.7	1723.2	1721.5	1707.7	1671.5	1637.0	1575.0
50°	4135.6	2729.5	1935.1	1695.6	1640.5	1652.5	1662.9	1649.1	1595.7	1545.7	1490.5
52.5°	4242.5	2652.0	1692.2	1554.3	1557.8	1569.8	1576.7	1557.8	1506.1	1454.4	1397.5
55°	4413.1	2540.0	1511.2	1414.7	1445.7	1463.0	1480.2	1450.9	1416.5	1378.5	1335.5
57.5°	4173.5	2128.1	1323.4	1283.8	1302.7	1318.2	1330.3	1330.3	1330.3	1333.7	1302.7
60°	3379.2	1514.7	1144.2	1118.3	1142.5	1173.5	1213.1	1235.5	1244.1	1247.6	1233.8
62.5°	2379.7	1075.3	985.7	1001.2	1032.2	1083.9	1121.8	1145.9	1142.5	1121.8	1090.8
65°	1332.0	894.3	909.8	956.4	982.2	1023.6	1058.0	1071.8	1046.0	1015.0	987.4
67.5°	751.3	820.2	882.3	921.9	944.3	968.4	989.1	1004.6	973.6	937.4	916.7
68°	732.4	809.9	875.4	909.8	932.2	956.4	971.9	982.2	949.5	916.7	899.5
70°	682.4	790.9	846.1	873.7	875.4	915.0	918.5	925.3	897.8	859.9	837.5
72.5°	625.5	749.6	777.2	799.6	818.5	832.3	865.0	851.2	816.8	784.0	732.4
75°	577.3	642.7	668.6	720.3	734.1	756.5	773.7	741.0	689.3	658.3	627.2
77.5°	501.4	534.2	561.8	572.1	613.5	630.7	649.6	649.6	618.6	622.1	575.5
80°	386.0	389.4	379.1	410.1	465.3	487.7	494.6	480.8	503.2	499.7	480.8
82.5°	222.3	206.8	224.0	232.6	260.2	280.9	315.3	344.6	348.1	337.7	358.4
85°	93.1	82.7	94.8	108.6	137.9	170.6	210.2	225.7	222.3	215.4	198.2
87.5°	37.9	37.9	44.8	53.4	70.7	89.6	101.7	118.9	129.2	132.7	124.1
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):

	165°	170°	175°	180°
0°	2984.5	2984.5	2984.5	2984.5
2.5°	3060.4	3058.6	3056.9	3053.5
5°	3113.8	3115.5	3115.5	3113.8
7.5°	3153.4	3162.0	3163.8	3163.8
10°	3184.4	3191.3	3193.0	3191.3
12.5°	3174.1	3175.8	3182.7	3184.4
15°	3125.8	3113.8	3110.3	3108.6
17.5°	3012.1	2981.1	2955.2	2943.2
20°	2832.9	2772.6	2722.6	2710.6
22.5°	2633.0	2540.0	2474.5	2452.1
25°	2391.8	2276.3	2205.7	2183.3
27.5°	2155.7	2042.0	1992.0	1964.4
30°	1961.0	1876.5	1821.4	1793.8
32.5°	1831.7	1749.0	1692.2	1666.3
35°	1724.9	1638.7	1562.9	1528.5
37.5°	1654.3	1552.6	1464.7	1430.2
40°	1612.9	1521.6	1426.8	1388.9
42.5°	1592.2	1514.7	1430.2	1388.9
45°	1559.5	1476.8	1404.4	1359.6
47.5°	1509.5	1432.0	1359.6	1318.2
50°	1418.2	1338.9	1280.3	1247.6
52.5°	1321.7	1233.8	1171.8	1135.6
55°	1256.2	1168.3	1120.1	1095.9
57.5°	1244.1	1161.4	1113.2	1085.6
60°	1173.5	1094.2	1032.2	1002.9
62.5°	1021.8	944.3	896.1	877.1
65°	927.1	853.0	806.4	792.7
67.5°	865.0	787.5	739.2	728.9
68°	849.5	772.0	730.6	716.8
70°	778.9	704.8	668.6	654.8
72.5°	629.0	556.6	508.3	491.1
75°	548.0	468.7	429.1	420.5
77.5°	480.8	387.7	348.1	339.5
80°	389.4	306.7	210.2	196.4
82.5°	291.2	187.8	156.8	143.0
85°	168.9	129.2	101.7	94.8
87.5°	106.8	89.6	77.5	72.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)