

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: P158699

Luminaire Tested: **VST-E08-LED-E-U-SL4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158699
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33714)
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-SL4-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(8) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (168) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21196.5 lumens
Efficiency: N/A
Efficacy: 109.0 lumens/watt
Luminous Opening: Rectangular (W 1.33' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full 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

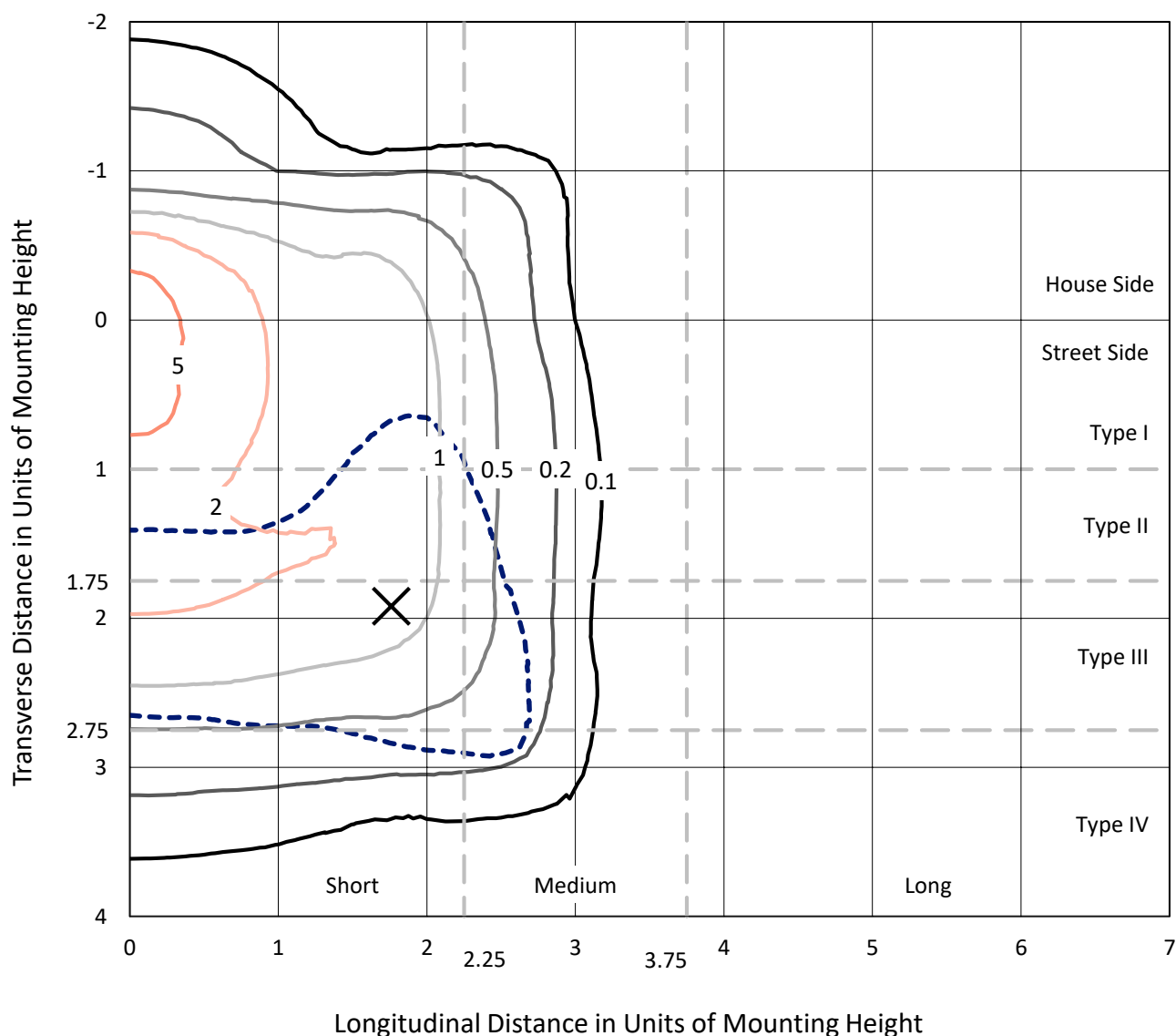


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

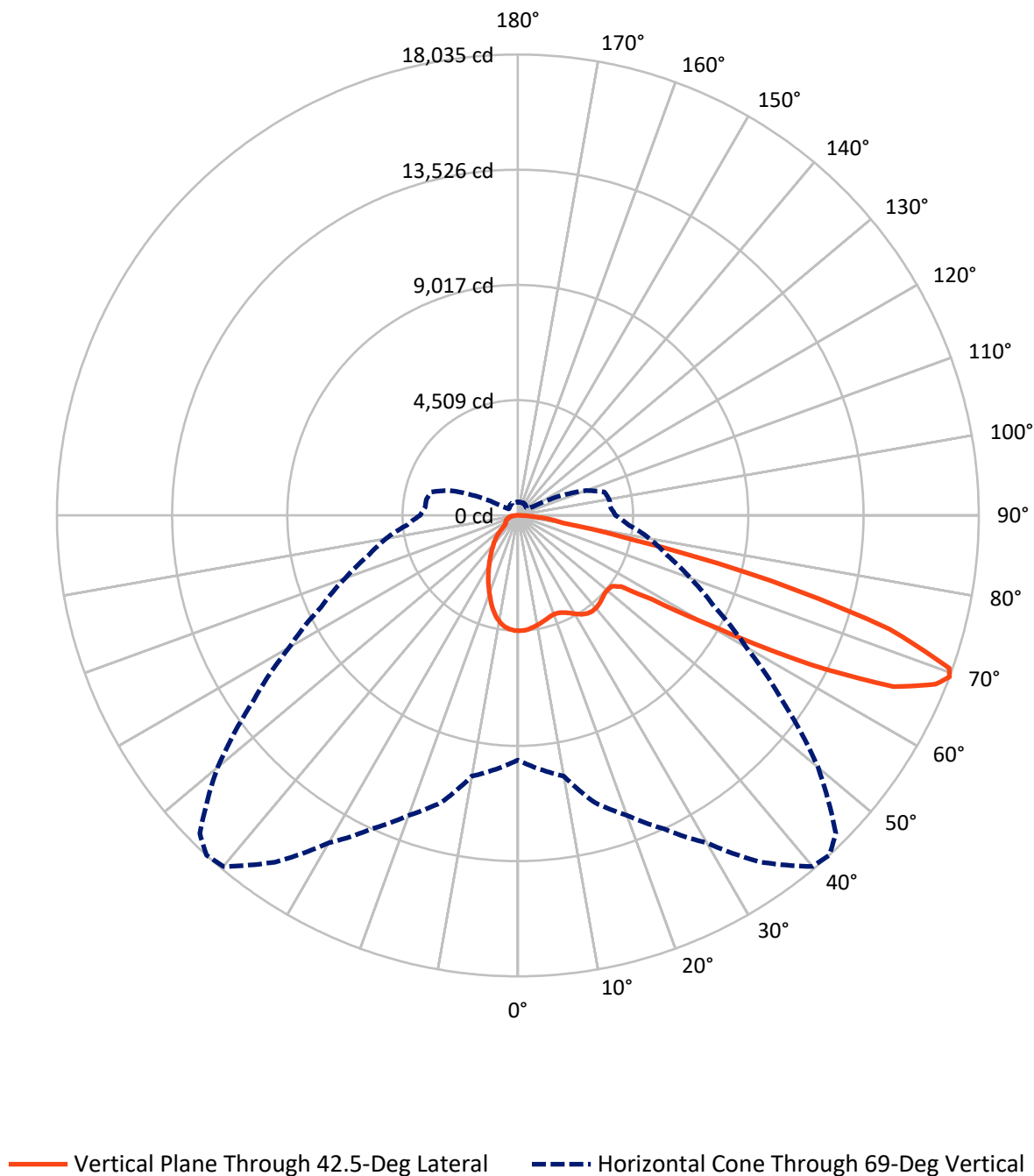


Based on 25 foot mounting height. Maximum calculated value = 7.2 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4712.3	0.0	4712.3
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	16484.2	0.0	16484.2
	% Fixture	77.8	0.0	77.8
Total	Lumens	21196.5	0.0	21196.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	420.2	2.0
10°-20°	1132.5	5.3
20°-30°	1651.5	7.8
30°-40°	2105.3	9.9
40°-50°	2449.5	11.6
50°-60°	3727.0	17.6
60°-70°	6583.6	31.1
70°-80°	2716.8	12.8
80°-90°	410.2	1.9
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°	21196.5	100.0
0°-180°	21196.5	100.0

Coefficient of Utilization



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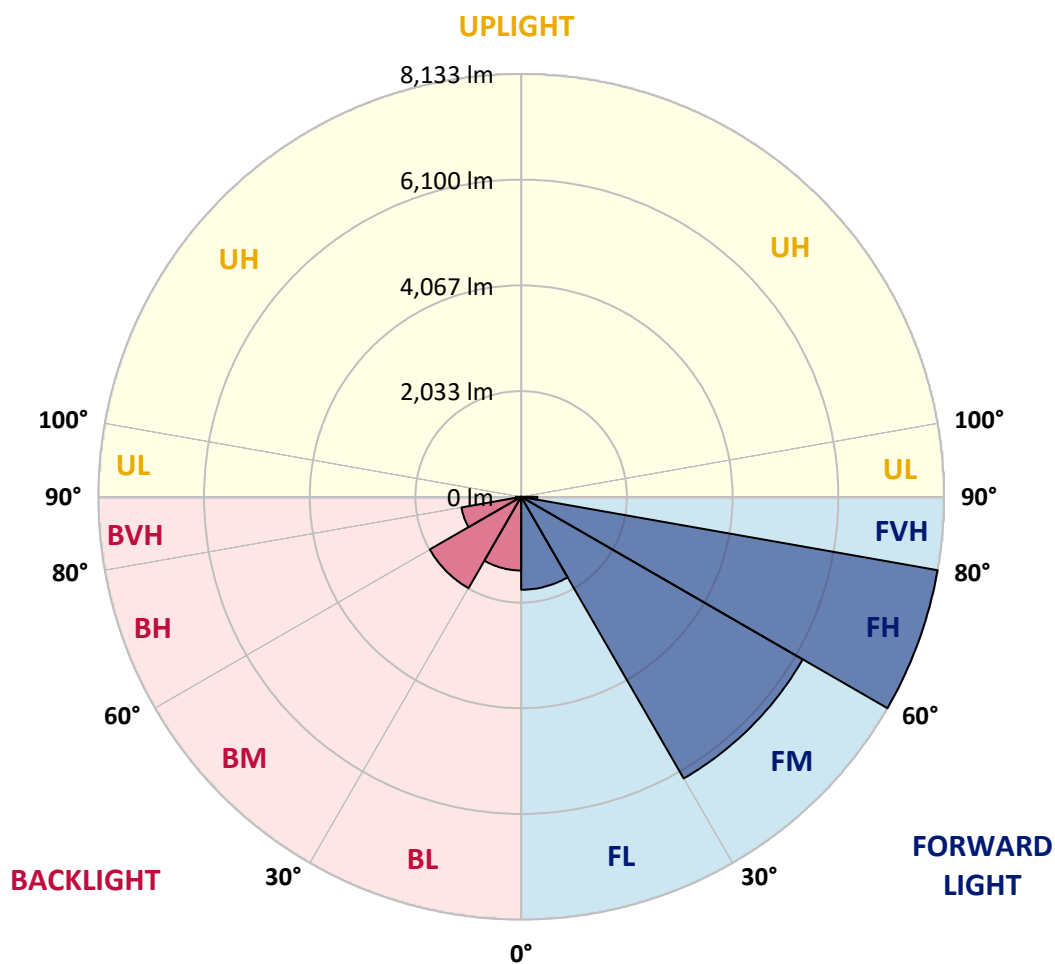
CATALOG NUMBER: VST-E08-LED-E-U-SL4-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1787.4	8.4			
FM	(30°-60°)	6253.5	29.5			
FH	(60°-80°)	8133.1	38.4			G4/12000
FVH	(80°-90°)	310.2	1.5			G3/500
BL	(0°-30°)	1416.8	6.7	B3/2500		
BM	(30°-60°)	2028.3	9.6	B2/2500		
BH	(60°-80°)	1167.2	5.5	B3/2500		G3/2500
BVH	(80°-90°)	100.0	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°	42.5°	45°
0°	4514.1	4514.1	4514.1	4514.1	4514.1	4514.1	4514.1	4514.1	4514.1	4514.1	4514.1
2.5°	4499.5	4515.6	4509.8	4509.8	4514.1	4506.8	4506.8	4509.8	4502.5	4506.8	4505.4
5°	4483.5	4492.2	4489.3	4489.3	4489.3	4483.5	4480.5	4479.1	4468.8	4468.8	4464.5
7.5°	4448.4	4451.3	4455.7	4449.8	4448.4	4446.9	4436.7	4430.8	4419.2	4408.9	4411.8
10°	4401.6	4400.2	4407.5	4403.1	4397.2	4392.8	4384.1	4373.9	4360.7	4347.5	4346.1
12.5°	4349.0	4347.5	4353.4	4350.5	4346.1	4337.3	4330.0	4312.5	4292.0	4275.9	4274.5
15°	4315.4	4311.0	4316.9	4311.0	4303.7	4294.9	4281.8	4259.9	4223.3	4207.3	4194.1
17.5°	4347.5	4340.2	4343.2	4335.9	4325.6	4302.2	4271.6	4224.8	4172.2	4144.4	4124.0
20°	4460.1	4446.9	4449.8	4442.5	4419.2	4388.5	4330.0	4248.2	4159.0	4113.7	4081.6
22.5°	4620.8	4610.6	4615.0	4607.7	4584.3	4537.5	4449.8	4332.9	4205.8	4140.0	4088.9
25°	4864.9	4873.6	4876.6	4842.9	4829.8	4743.6	4622.3	4460.1	4290.6	4213.1	4143.0
27.5°	5139.6	5139.6	5152.8	5139.6	5113.3	5012.5	4841.5	4645.7	4427.9	4322.7	4237.9
30°	5407.0	5404.1	5429.0	5426.0	5383.7	5269.7	5075.3	4837.1	4588.7	4470.3	4362.2
32.5°	5690.5	5699.3	5715.4	5709.5	5654.0	5496.2	5262.4	5003.7	4742.1	4612.1	4490.8
35°	5997.4	6001.8	6007.7	6004.7	5892.2	5693.5	5399.7	5110.4	4838.6	4710.0	4584.3
37.5°	6304.3	6299.9	6292.6	6229.8	6101.2	5825.0	5483.0	5171.8	4886.8	4748.0	4617.9
40°	6579.0	6554.2	6530.8	6432.9	6235.6	5899.5	5515.2	5186.4	4882.4	4739.2	4612.1
42.5°	6729.6	6701.8	6653.6	6530.8	6291.2	5906.8	5493.3	5142.5	4837.1	4695.4	4569.7
45°	6757.3	6736.9	6690.1	6552.7	6278.0	5860.1	5426.0	5070.9	4769.9	4628.1	4509.8
47.5°	6691.6	6675.5	6630.2	6494.3	6221.0	5789.9	5348.6	4994.9	4704.1	4571.1	4457.1
50°	6590.7	6576.1	6541.0	6416.8	6156.7	5741.7	5309.1	4955.5	4682.2	4560.9	4455.7
52.5°	6754.4	6766.1	6663.8	6527.9	6225.4	5784.1	5353.0	4996.4	4721.7	4601.8	4492.2
55°	9298.6	9282.6	8667.3	8151.5	7229.4	6393.5	5769.5	5320.8	5027.1	4907.2	4805.0
57.5°	12082.5	12027.0	11774.2	11291.9	10301.1	8978.6	7775.9	6752.9	6349.6	6177.2	6188.9
60°	12991.5	13012.0	12957.9	12786.9	12431.8	11743.5	10828.7	10060.0	9303.0	8933.3	8975.7
62.5°	13495.7	13532.2	13579.0	13541.0	13425.5	13266.2	13150.8	13220.9	13115.7	12849.7	12637.8
65°	13565.8	13640.3	13795.2	13918.0	13977.9	14128.4	14482.1	15329.7	16104.2	16155.3	15782.7
67.5°	12177.5	12383.6	12719.7	13288.2	13774.8	14309.6	15163.1	16452.0	17594.8	17632.8	17285.0
69°	9574.8	9970.9	10364.0	11633.9	12488.8	13536.6	14799.2	16560.1	17929.4	18034.7	17596.2
70°	7672.1	7907.4	8246.5	9522.2	10799.5	12135.1	13964.8	16203.6	17700.0	17911.9	17428.2
72.5°	4606.2	4696.8	4813.7	5271.1	5928.7	7118.3	9544.1	13210.7	14930.7	15214.2	14599.0
75°	2978.3	2972.4	2982.6	3109.8	3147.8	3375.7	4140.0	6796.8	9740.0	10254.4	9517.8
77.5°	2243.2	2263.6	2231.5	2243.2	2233.0	2294.3	2317.7	2433.2	3844.8	4736.3	4235.0
80°	1980.1	1990.4	1991.8	1986.0	1914.4	1908.5	1946.5	1880.8	1747.8	1774.1	1699.6
82.5°	1129.6	1128.2	1141.3	1240.7	1281.6	1416.1	1471.6	1502.3	1386.8	1300.6	1176.4
85°	732.1	738.0	752.6	783.3	752.6	764.3	751.1	777.4	713.1	662.0	591.9
87.5°	299.6	299.6	318.6	346.3	323.0	317.1	271.8	268.9	228.0	206.1	160.7
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°	4514.1	4514.1	4514.1	4514.1	4514.1	4514.1	4514.1	4514.1	4514.1	4514.1	4514.1
2.5°	4496.6	4505.4	4501.0	4506.8	4502.5	4502.5	4496.6	4495.1	4499.5	4493.7	4495.1
5°	4457.1	4458.6	4451.3	4454.2	4445.5	4442.5	4438.2	4426.5	4433.8	4426.5	4429.4
7.5°	4400.2	4395.8	4385.5	4370.9	4360.7	4356.3	4347.5	4331.5	4334.4	4321.2	4328.5
10°	4327.1	4312.5	4294.9	4273.0	4258.4	4245.3	4226.3	4207.3	4197.0	4185.3	4183.9
12.5°	4245.3	4227.7	4204.3	4170.7	4138.6	4116.7	4087.4	4053.8	4043.6	4024.6	4014.4
15°	4156.1	4128.3	4100.6	4062.6	4027.5	3993.9	3954.4	3912.1	3884.3	3855.1	3833.1
17.5°	4075.7	4043.6	4007.1	3970.5	3932.5	3891.6	3841.9	3789.3	3748.4	3694.3	3650.5
20°	4012.9	3972.0	3935.4	3897.4	3855.1	3805.4	3745.5	3678.2	3609.6	3549.6	3498.5
22.5°	3988.1	3923.8	3879.9	3841.9	3799.5	3741.1	3668.0	3589.1	3505.8	3422.5	3355.3
25°	4008.5	3913.5	3844.8	3799.5	3763.0	3703.1	3621.3	3524.8	3428.4	3329.0	3238.4
27.5°	4068.4	3947.1	3847.8	3776.2	3733.8	3673.9	3587.6	3485.3	3371.4	3260.3	3149.2
30°	4162.0	4004.1	3878.5	3777.6	3711.9	3643.2	3552.6	3434.2	3318.7	3191.6	3070.3
32.5°	4252.6	4064.0	3913.5	3783.5	3682.6	3593.5	3492.7	3375.7	3251.5	3118.5	2992.9
35°	4316.9	4103.5	3926.7	3770.3	3637.3	3526.3	3418.1	3301.2	3179.9	3044.0	2915.4
37.5°	4347.5	4125.4	3928.1	3735.2	3577.4	3454.7	3339.2	3223.8	3109.8	2981.2	2859.9
40°	4346.1	4124.0	3907.7	3689.9	3505.8	3375.7	3261.8	3149.2	3042.6	2930.0	2820.4
42.5°	4313.9	4100.6	3878.5	3646.1	3454.7	3310.0	3191.6	3083.5	2992.9	2893.5	2801.4
45°	4264.3	4061.1	3847.8	3625.6	3440.0	3295.4	3169.7	3064.5	2984.1	2893.5	2814.6
47.5°	4226.3	4039.2	3852.1	3662.2	3485.3	3334.8	3201.8	3086.4	3017.7	2944.6	2889.1
50°	4232.1	4049.4	3866.8	3684.1	3517.5	3365.5	3236.9	3131.7	3082.0	3063.0	3049.9
52.5°	4262.8	4065.5	3910.6	3801.0	3744.0	3630.0	3554.0	3488.3	3524.8	3453.2	3368.4
55°	4654.4	4590.1	4740.7	4882.4	5062.2	5129.4	5065.1	5053.4	5111.8	4869.3	4312.5
57.5°	6272.2	6438.8	6671.1	6793.9	6942.9	6903.5	6754.4	6630.2	6484.1	6200.6	5506.4
60°	9023.9	8898.2	8793.0	8496.4	8253.8	7970.3	7654.6	7384.3	7125.6	6717.9	5966.7
62.5°	11858.9	10986.5	10257.3	9552.9	8985.9	8515.3	8057.9	7651.7	7260.0	6691.6	5883.4
65°	14311.1	12474.2	11104.9	10071.7	9243.1	8528.5	7941.0	7379.9	6881.5	6215.2	5415.8
67.5°	15413.0	13111.3	11119.5	9639.1	8492.0	7521.6	6761.7	5914.1	5355.9	4929.2	4479.1
69°	15331.1	12624.7	10326.0	8503.7	7185.5	6054.4	5239.0	4354.9	3820.0	3638.8	3628.6
70°	14942.4	11800.5	9399.5	7581.5	6073.4	4949.6	4167.8	3374.3	2876.0	2751.7	2972.4
72.5°	12199.4	8338.5	5890.7	4498.1	3459.0	2734.2	2230.0	1769.7	1413.1	1224.6	1265.5
75°	6890.3	3860.9	2496.0	1886.6	1594.3	1318.1	1131.1	964.5	872.4	708.8	561.2
77.5°	2504.8	1657.2	1318.1	1139.9	808.1	556.8	466.2	407.7	369.7	369.7	352.2
80°	1584.1	1248.0	871.0	596.2	441.3	384.3	336.1	295.2	271.8	266.0	271.8
82.5°	989.3	764.3	488.1	374.1	314.2	282.0	245.5	214.8	195.8	191.4	200.2
85°	488.1	378.5	296.7	264.5	248.4	230.9	203.1	173.9	168.1	179.7	210.4
87.5°	146.1	130.1	106.7	111.1	116.9	114.0	90.6	78.9	74.5	97.9	153.4
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	4514.1	4514.1	4514.1	4514.1	4514.1	4514.1	4514.1	4514.1	4514.1	4514.1	4514.1
2.5°	4498.1	4496.6	4499.5	4495.1	4498.1	4499.5	4496.6	4509.8	4501.0	4502.5	4508.3
5°	4432.3	4429.4	4441.1	4438.2	4444.0	4449.8	4446.9	4465.9	4458.6	4464.5	4476.1
7.5°	4322.7	4328.5	4330.0	4330.0	4341.7	4360.7	4365.1	4376.8	4376.8	4392.8	4404.5
10°	4176.6	4178.0	4186.8	4185.3	4200.0	4220.4	4223.3	4243.8	4251.1	4277.4	4293.5
12.5°	4007.1	3999.7	3998.3	3996.8	4015.8	4037.7	4040.7	4075.7	4090.3	4113.7	4140.0
15°	3817.1	3798.1	3792.2	3803.9	3799.5	3812.7	3825.8	3844.8	3865.3	3912.1	3935.4
17.5°	3631.5	3593.5	3583.3	3570.1	3557.0	3557.0	3562.8	3586.2	3628.6	3653.4	3706.0
20°	3441.5	3396.2	3359.7	3324.6	3293.9	3282.2	3283.7	3312.9	3343.6	3384.5	3434.2
22.5°	3282.2	3213.5	3150.7	3103.9	3041.1	3039.6	3030.9	3039.6	3073.2	3083.5	3111.2
25°	3144.8	3052.8	2968.0	2892.0	2830.7	2798.5	2789.7	2786.8	2770.7	2766.4	2745.9
27.5°	3038.2	2927.1	2817.5	2725.4	2649.4	2605.6	2550.1	2510.6	2453.6	2439.0	2402.5
30°	2950.5	2830.7	2710.8	2591.0	2504.8	2425.9	2332.3	2263.6	2176.0	2119.0	2069.3
32.5°	2865.7	2744.4	2623.1	2504.8	2371.8	2249.0	2126.3	2019.6	1921.7	1834.0	1760.9
35°	2795.6	2680.1	2557.4	2414.2	2244.6	2067.8	1920.2	1798.9	1664.5	1572.4	1480.4
37.5°	2750.3	2645.1	2522.3	2325.0	2107.3	1917.3	1749.2	1601.7	1464.3	1325.5	1221.7
40°	2729.8	2637.8	2484.3	2243.2	1987.5	1777.0	1591.4	1427.7	1252.4	1096.0	985.0
42.5°	2728.4	2634.8	2431.7	2152.6	1888.1	1658.6	1452.6	1256.8	1062.4	901.7	792.1
45°	2754.7	2630.4	2376.2	2076.6	1800.4	1560.7	1315.2	1077.0	859.3	739.4	681.0
47.5°	2824.8	2637.8	2330.9	2006.4	1717.1	1442.4	1157.4	879.7	700.0	644.5	644.5
50°	2950.5	2680.1	2319.2	1956.8	1633.8	1305.0	964.5	710.2	619.6	619.6	637.2
52.5°	3143.4	2769.3	2339.6	1921.7	1530.0	1123.8	759.9	612.3	594.8	610.8	634.2
55°	3587.6	2927.1	2367.4	1861.8	1372.2	891.4	626.9	578.7	586.0	605.0	626.9
57.5°	4403.1	3264.7	2396.6	1730.3	1117.9	686.8	568.5	565.5	578.7	596.2	615.2
60°	4939.4	3694.3	2471.2	1531.5	846.1	567.0	539.2	556.8	572.9	587.5	602.1
62.5°	4939.4	3815.6	2526.7	1309.4	635.7	515.9	520.2	548.0	567.0	574.3	583.1
65°	4623.7	3593.5	2338.2	1066.8	517.3	486.6	502.7	530.5	548.0	553.9	561.2
67.5°	4040.7	3174.1	1969.9	803.7	461.8	461.8	482.2	502.7	517.3	529.0	540.7
69°	3513.1	2848.2	1734.6	681.0	439.9	442.8	463.3	480.8	498.3	512.9	527.6
70°	3133.2	2604.1	1571.0	618.2	426.7	428.2	448.6	467.6	483.7	499.8	517.3
72.5°	1677.6	1798.9	1193.9	507.1	393.1	397.5	416.5	434.0	448.6	464.7	480.8
75°	571.4	773.1	759.9	415.0	355.1	366.8	378.5	394.6	413.6	423.8	432.6
77.5°	334.7	346.3	404.8	337.6	320.0	325.9	339.0	352.2	368.3	378.5	385.8
80°	280.6	279.1	280.6	274.7	279.1	292.3	301.0	318.6	333.2	336.1	334.7
82.5°	228.0	239.7	241.1	238.2	251.4	261.6	268.9	279.1	277.7	280.6	286.4
85°	203.1	201.7	211.9	213.4	213.4	206.1	207.5	207.5	207.5	211.9	213.4
87.5°	203.1	169.5	131.5	118.4	124.2	116.9	111.1	109.6	121.3	133.0	130.1
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):

	160°	165°	170°	175°	180°
0°	4514.1	4514.1	4514.1	4514.1	4514.1
2.5°	4511.2	4515.6	4512.7	4512.7	4515.6
5°	4480.5	4487.8	4484.9	4487.8	4487.8
7.5°	4410.4	4420.6	4427.9	4435.2	4430.8
10°	4309.6	4327.1	4338.8	4347.5	4343.2
12.5°	4159.0	4175.1	4200.0	4214.6	4202.9
15°	3953.0	3998.3	4012.9	4033.4	4021.7
17.5°	3738.2	3765.9	3783.5	3802.5	3814.2
20°	3451.7	3473.7	3497.0	3505.8	3492.7
22.5°	3106.9	3118.5	3114.2	3127.3	3101.0
25°	2728.4	2735.7	2731.3	2743.0	2721.1
27.5°	2370.3	2368.9	2370.3	2355.7	2341.1
30°	2025.4	2012.3	2006.4	1984.5	1980.1
32.5°	1717.1	1671.8	1648.4	1616.3	1609.0
35°	1408.8	1344.5	1302.1	1265.5	1249.5
37.5°	1132.6	1055.1	1005.4	973.3	968.9
40°	895.8	824.2	789.1	771.6	768.7
42.5°	730.7	700.0	691.2	691.2	691.2
45°	666.4	664.9	672.2	678.1	679.5
47.5°	653.2	662.0	672.2	681.0	683.9
50°	653.2	662.0	669.3	678.1	681.0
52.5°	650.3	657.6	660.5	666.4	669.3
55°	641.5	645.9	645.9	648.8	651.8
57.5°	626.9	629.8	625.5	628.4	635.7
60°	612.3	615.2	607.9	615.2	619.6
62.5°	596.2	597.7	594.8	600.6	600.6
65°	569.9	567.0	571.4	575.8	577.2
67.5°	543.6	536.3	540.7	542.2	545.1
69°	523.2	518.8	520.2	523.2	526.1
70°	508.6	505.6	508.6	512.9	517.3
72.5°	472.0	473.5	483.7	492.5	501.2
75°	438.4	448.6	461.8	480.8	491.0
77.5°	397.5	404.8	415.0	435.5	454.5
80°	343.4	347.8	349.3	356.6	355.1
82.5°	279.1	274.7	271.8	268.9	267.4
85°	200.2	198.7	187.1	178.3	178.3
87.5°	119.8	114.0	108.1	100.8	96.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)