

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: P158719

Luminaire Tested: **VST-E10-LED-E-U-SL4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158719
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-E10-LED-E-U-SL4-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(10) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (210) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26495.7 lumens
Efficiency: N/A
Efficacy: 107.0 lumens/watt
Luminous Opening: Rectangular (W 1.67' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full 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

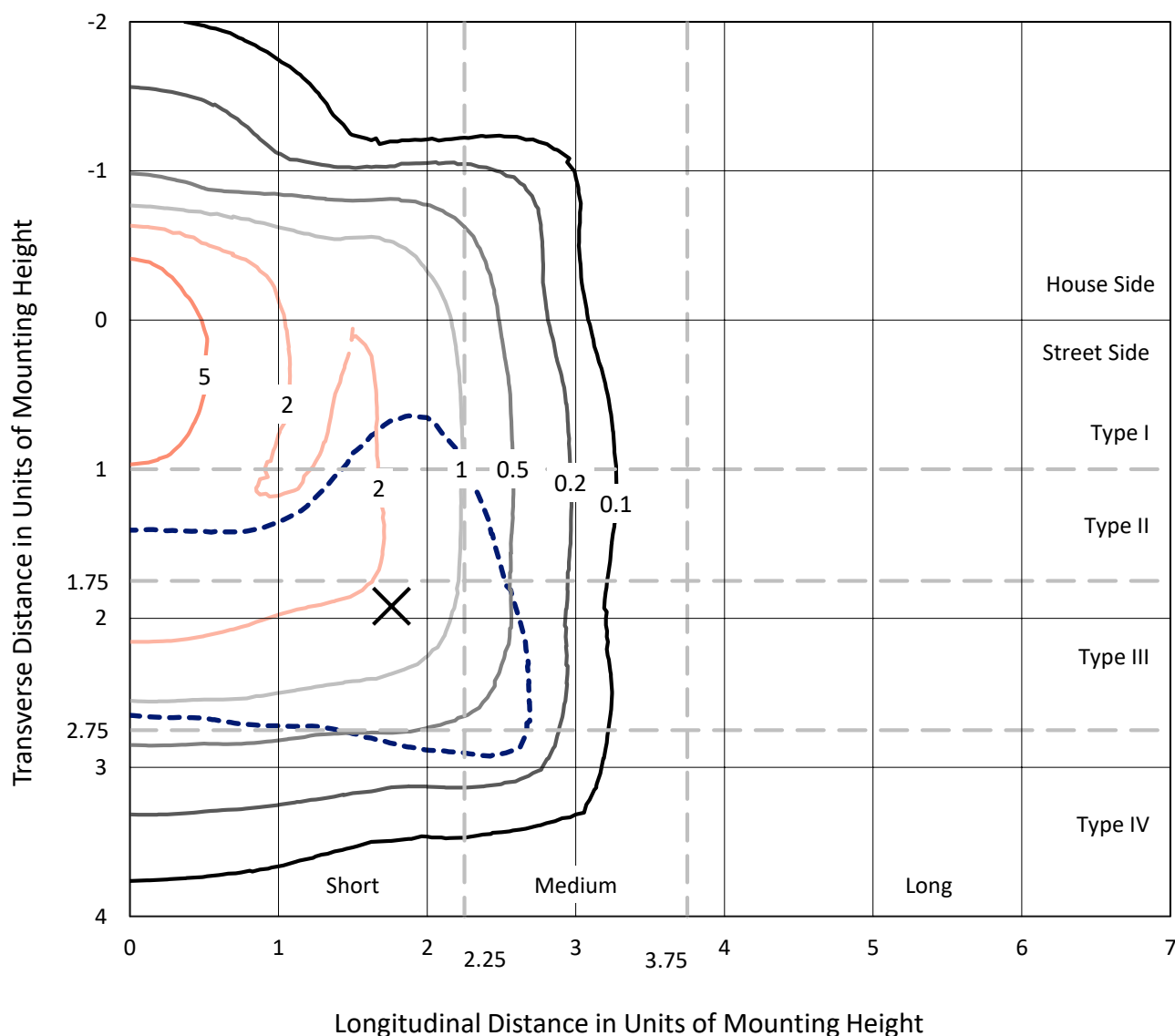


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

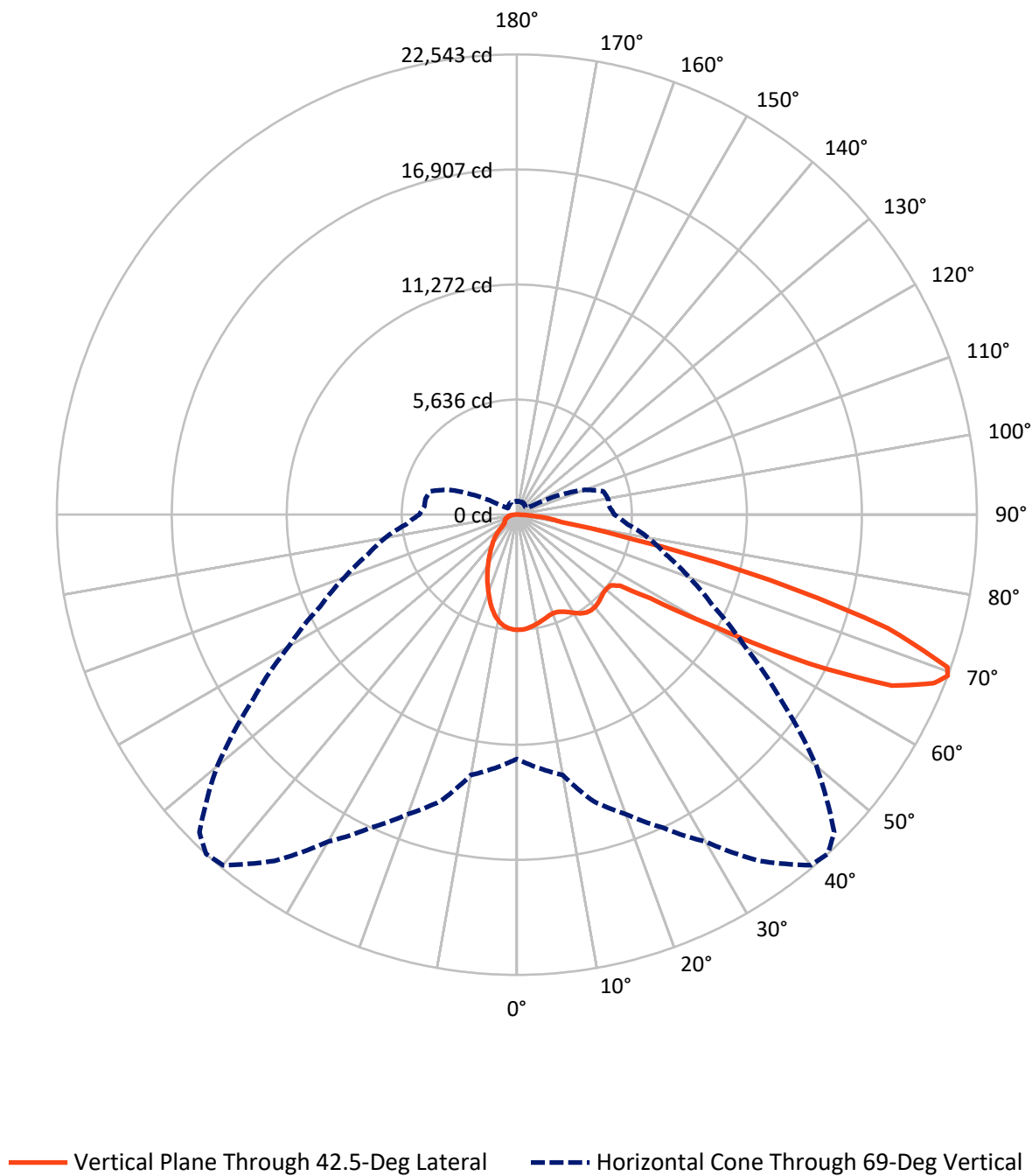


Based on 25 foot mounting height. Maximum calculated value = 9 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5890.4	0.0	5890.4
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	20605.3	0.0	20605.3
	% Fixture	77.8	0.0	77.8
Total	Lumens	26495.7	0.0	26495.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	525.3	2.0
10°-20°	1415.7	5.3
20°-30°	2064.3	7.8
30°-40°	2631.6	9.9
40°-50°	3061.9	11.6
50°-60°	4658.7	17.6
60°-70°	8229.5	31.1
70°-80°	3396.0	12.8
80°-90°	512.8	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°	26495.7	100.0
0°-180°	26495.7	100.0

Coefficient of Utilization



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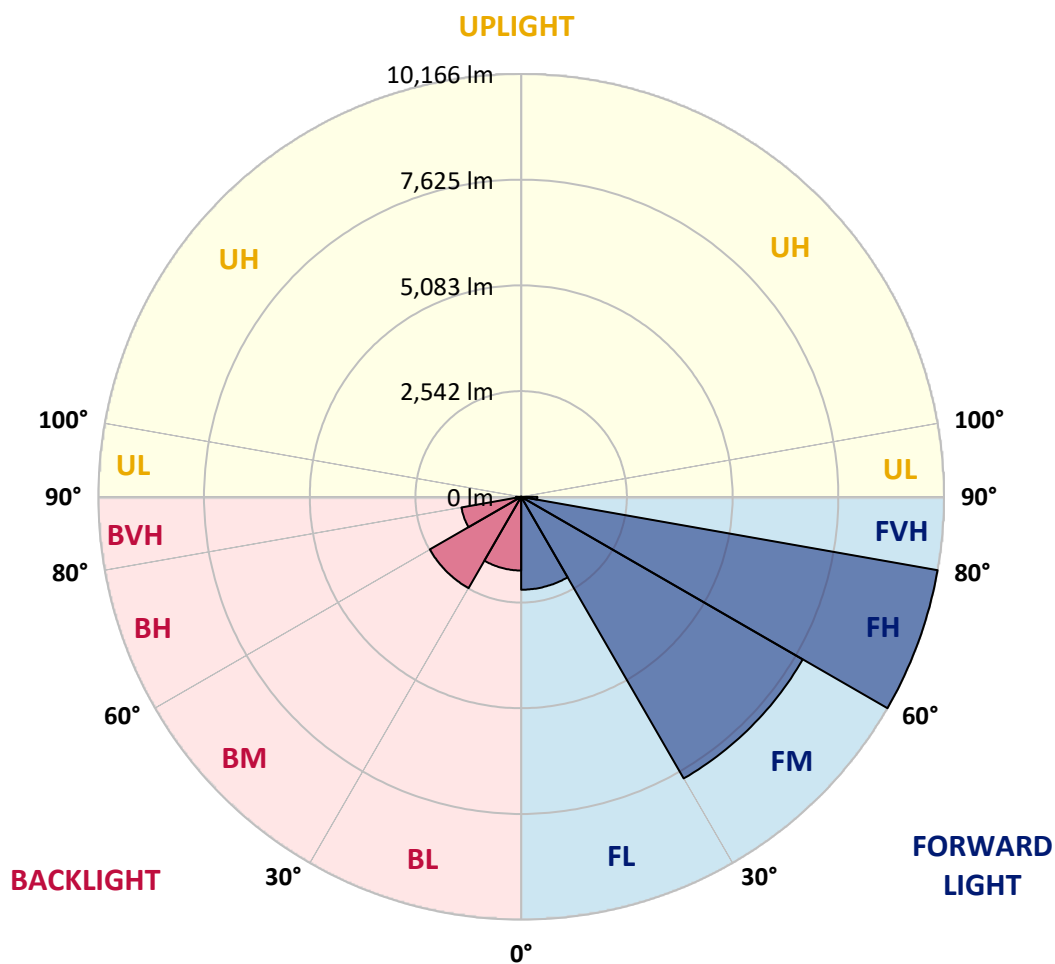
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2234.2	8.4			
FM	(30°-60°)	7816.9	29.5			
FH	(60°-80°)	10166.4	38.4			G4/12000
FVH	(80°-90°)	387.8	1.5			G3/500
BL	(0°-30°)	1771.0	6.7	B3/2500		
BM	(30°-60°)	2535.3	9.6	B3/5000		
BH	(60°-80°)	1459.0	5.5	B3/2500		G3/2500
BVH	(80°-90°)	125.0	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°	5642.7	5642.7	5642.7	5642.7	5642.7	5642.7	5642.7	5642.7	5642.7	5642.7	5642.7
2.5°	5624.4	5644.5	5637.2	5637.2	5642.7	5633.5	5633.5	5637.2	5628.1	5633.5	5631.7
5°	5604.3	5615.3	5611.6	5611.6	5611.6	5604.3	5600.7	5598.8	5586.1	5586.1	5580.6
7.5°	5560.5	5564.1	5569.6	5562.3	5560.5	5558.7	5545.9	5538.6	5523.9	5511.2	5514.8
10°	5502.0	5500.2	5509.3	5503.8	5496.5	5491.1	5480.1	5467.3	5450.9	5434.4	5432.6
12.5°	5436.3	5434.4	5441.7	5438.1	5432.6	5421.6	5412.5	5390.6	5365.0	5344.9	5343.1
15°	5394.2	5388.8	5396.1	5388.8	5379.6	5368.7	5352.2	5324.8	5279.2	5259.1	5242.6
17.5°	5434.4	5425.3	5429.0	5419.8	5407.0	5377.8	5339.4	5281.0	5215.2	5180.5	5154.9
20°	5575.1	5558.7	5562.3	5553.2	5523.9	5485.6	5412.5	5310.2	5198.8	5142.2	5102.0
22.5°	5776.0	5763.2	5768.7	5759.6	5730.4	5671.9	5562.3	5416.2	5257.2	5175.0	5111.1
25°	6081.1	6092.0	6095.7	6053.7	6037.2	5929.5	5777.9	5575.1	5363.2	5266.4	5178.7
27.5°	6424.5	6424.5	6440.9	6424.5	6391.6	6265.6	6051.9	5807.1	5534.9	5403.4	5297.4
30°	6758.8	6755.1	6786.2	6782.5	6729.6	6587.1	6344.1	6046.4	5735.8	5587.9	5452.7
32.5°	7113.2	7124.1	7144.2	7136.9	7067.5	6870.2	6577.9	6254.6	5927.6	5765.1	5613.5
35°	7496.8	7502.3	7509.6	7505.9	7365.3	7116.8	6749.7	6388.0	6048.2	5887.5	5730.4
37.5°	7880.4	7874.9	7865.8	7787.2	7626.5	7281.2	6853.8	6464.7	6108.5	5935.0	5772.4
40°	8223.8	8192.8	8163.5	8041.1	7794.5	7374.4	6894.0	6483.0	6103.0	5924.0	5765.1
42.5°	8412.0	8377.2	8317.0	8163.5	7863.9	7383.5	6866.6	6428.2	6046.4	5869.2	5712.1
45°	8446.7	8421.1	8362.6	8190.9	7847.5	7325.1	6782.5	6338.7	5962.4	5785.2	5637.2
47.5°	8364.5	8344.4	8287.7	8117.9	7776.3	7237.4	6685.7	6243.7	5880.1	5713.9	5571.4
50°	8238.4	8220.2	8176.3	8021.0	7695.9	7177.1	6636.4	6194.3	5852.7	5701.1	5569.6
52.5°	8443.0	8457.6	8329.8	8159.9	7781.7	7230.1	6691.2	6245.5	5902.1	5752.3	5615.3
55°	11623.3	11603.2	10834.2	10189.3	9036.7	7991.8	7211.8	6651.0	6283.9	6134.1	6006.2
57.5°	15103.2	15033.7	14717.7	14114.9	12876.4	11223.2	9719.9	8441.2	7937.0	7721.5	7736.1
60°	16239.4	16264.9	16197.4	15983.6	15539.7	14679.4	13535.9	12575.0	11628.8	11166.6	11219.6
62.5°	16869.6	16915.2	16973.7	16926.2	16781.9	16582.8	16438.5	16526.2	16394.6	16062.2	15797.3
65°	16957.3	17050.4	17244.1	17397.5	17472.4	17660.5	18102.6	19162.1	20130.2	20194.2	19728.4
67.5°	15221.9	15479.5	15899.6	16610.2	17218.5	17887.1	18953.8	20565.0	21993.5	22041.0	21606.2
69°	11968.5	12463.6	12955.0	14542.4	15611.0	16920.7	18499.0	20700.2	22411.8	22543.3	21995.3
70°	9590.2	9884.3	10308.1	11902.8	13499.3	15168.9	17456.0	20254.5	22125.0	22389.9	21785.2
72.5°	5757.8	5871.0	6017.2	6588.9	7410.9	8897.9	11930.2	16513.4	18663.4	19017.8	18248.7
75°	3722.8	3715.5	3728.3	3887.2	3934.7	4219.7	5175.0	8496.0	12175.0	12818.0	11897.3
77.5°	2804.0	2829.6	2789.4	2804.0	2791.2	2867.9	2897.1	3041.5	4806.0	5920.3	5293.8
80°	2475.2	2488.0	2489.8	2482.5	2393.0	2385.7	2433.2	2351.0	2184.7	2217.6	2124.5
82.5°	1412.0	1410.2	1426.7	1550.9	1602.0	1770.1	1839.5	1877.8	1733.5	1625.8	1470.5
85°	915.2	922.5	940.8	979.1	940.8	955.4	938.9	971.8	891.4	827.5	739.8
87.5°	374.5	374.5	398.2	432.9	403.7	396.4	339.8	336.1	285.0	257.6	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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	5642.7	5642.7	5642.7	5642.7	5642.7	5642.7	5642.7	5642.7	5642.7	5642.7	5642.7
2.5°	5620.8	5631.7	5626.2	5633.5	5628.1	5628.1	5620.8	5618.9	5624.4	5617.1	5618.9
5°	5571.4	5573.3	5564.1	5567.8	5556.8	5553.2	5547.7	5533.1	5542.2	5533.1	5536.7
7.5°	5500.2	5494.7	5481.9	5463.7	5450.9	5445.4	5434.4	5414.3	5418.0	5401.6	5410.7
10°	5408.9	5390.6	5368.7	5341.3	5323.0	5306.6	5282.8	5259.1	5246.3	5231.7	5229.8
12.5°	5306.6	5284.6	5255.4	5213.4	5173.2	5145.8	5109.3	5067.3	5054.5	5030.7	5017.9
15°	5195.1	5160.4	5125.7	5078.2	5034.4	4992.4	4943.1	4890.1	4855.4	4818.8	4791.4
17.5°	5094.7	5054.5	5008.8	4963.1	4915.7	4864.5	4802.4	4736.6	4685.5	4617.9	4563.1
20°	5016.1	4965.0	4919.3	4871.8	4818.8	4756.7	4681.8	4597.8	4512.0	4437.1	4373.1
22.5°	4985.1	4904.7	4849.9	4802.4	4749.4	4676.4	4585.0	4486.4	4382.3	4278.1	4194.1
25°	5010.6	4891.9	4806.0	4749.4	4703.8	4628.9	4526.6	4406.0	4285.4	4161.2	4048.0
27.5°	5085.5	4933.9	4809.7	4720.2	4667.2	4592.3	4484.6	4356.7	4214.2	4075.4	3936.5
30°	5202.4	5005.2	4848.1	4722.0	4639.8	4554.0	4440.7	4292.7	4148.4	3989.5	3837.9
32.5°	5315.7	5080.1	4891.9	4729.3	4603.3	4491.9	4365.8	4219.7	4064.4	3898.2	3741.1
35°	5396.1	5129.4	4908.3	4712.9	4546.7	4407.8	4272.7	4126.5	3974.9	3805.0	3644.3
37.5°	5434.4	5156.8	4910.2	4669.0	4471.8	4318.3	4174.0	4029.7	3887.2	3726.5	3574.9
40°	5432.6	5154.9	4884.6	4612.4	4382.3	4219.7	4077.2	3936.5	3803.2	3662.5	3525.5
42.5°	5392.4	5125.7	4848.1	4557.6	4318.3	4137.5	3989.5	3854.3	3741.1	3616.9	3501.8
45°	5330.3	5076.4	4809.7	4532.0	4300.1	4119.2	3962.1	3830.6	3730.1	3616.9	3518.2
47.5°	5282.8	5049.0	4815.2	4577.7	4356.7	4168.5	4002.3	3858.0	3772.1	3680.8	3611.4
50°	5290.1	5061.8	4833.4	4605.1	4396.9	4206.9	4046.1	3914.6	3852.5	3828.8	3812.3
52.5°	5328.5	5081.9	4888.3	4751.2	4680.0	4537.5	4442.5	4360.3	4406.0	4316.5	4210.5
55°	5818.0	5737.7	5925.8	6103.0	6327.7	6411.7	6331.3	6316.7	6389.8	6086.6	5390.6
57.5°	7840.2	8048.4	8338.9	8492.3	8678.7	8629.3	8443.0	8287.7	8105.1	7750.7	6883.0
60°	11279.9	11122.8	10991.3	10620.4	10317.2	9962.8	9568.3	9230.3	8907.0	8397.3	7458.4
62.5°	14823.7	13733.1	12821.6	11941.1	11232.4	10644.2	10072.4	9564.6	9075.0	8364.5	7354.3
65°	17888.9	15592.7	13881.1	12589.6	11553.9	10660.6	9926.3	9224.8	8601.9	7769.0	6769.8
67.5°	19266.2	16389.2	13899.4	12048.9	10615.0	9402.0	8452.1	7392.7	6694.9	6161.5	5598.8
69°	19163.9	15780.9	12907.5	10629.6	8981.9	7568.0	6548.7	5443.6	4775.0	4548.5	4535.7
70°	18678.0	14750.6	11749.3	9476.9	7591.8	6187.0	5209.8	4217.9	3594.9	3439.7	3715.5
72.5°	15249.3	10423.2	7363.4	5622.6	4323.8	3417.8	2787.5	2212.1	1766.4	1530.8	1581.9
75°	8612.9	4826.1	3120.0	2358.3	1992.9	1647.7	1413.9	1205.6	1090.5	885.9	701.5
77.5°	3131.0	2071.5	1647.7	1424.8	1010.2	696.0	582.7	509.6	462.2	462.2	440.2
80°	1980.1	1560.0	1088.7	745.3	551.7	480.4	420.1	369.0	339.8	332.5	339.8
82.5°	1236.7	955.4	610.1	467.6	392.7	352.6	306.9	268.5	244.8	239.3	250.3
85°	610.1	473.1	370.8	330.6	310.5	288.6	253.9	217.4	210.1	224.7	263.0
87.5°	182.7	162.6	133.3	138.8	146.1	142.5	113.3	98.6	93.2	122.4	191.8
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	5642.7	5642.7	5642.7	5642.7	5642.7	5642.7	5642.7	5642.7	5642.7	5642.7	5642.7
2.5°	5622.6	5620.8	5624.4	5618.9	5622.6	5624.4	5620.8	5637.2	5626.2	5628.1	5635.4
5°	5540.4	5536.7	5551.3	5547.7	5555.0	5562.3	5558.7	5582.4	5573.3	5580.6	5595.2
7.5°	5403.4	5410.7	5412.5	5412.5	5427.1	5450.9	5456.4	5471.0	5471.0	5491.1	5505.7
10°	5220.7	5222.5	5233.5	5231.7	5249.9	5275.5	5279.2	5304.7	5313.9	5346.8	5366.8
12.5°	5008.8	4999.7	4997.9	4996.0	5019.8	5047.2	5050.8	5094.7	5112.9	5142.2	5175.0
15°	4771.3	4747.6	4740.3	4754.9	4749.4	4765.9	4782.3	4806.0	4831.6	4890.1	4919.3
17.5°	4539.4	4491.9	4479.1	4462.6	4446.2	4446.2	4453.5	4482.7	4535.7	4566.8	4632.5
20°	4301.9	4245.3	4199.6	4155.7	4117.4	4102.8	4104.6	4141.1	4179.5	4230.6	4292.7
22.5°	4102.8	4016.9	3938.4	3879.9	3801.4	3799.5	3788.6	3799.5	3841.6	3854.3	3889.0
25°	3931.1	3816.0	3710.0	3615.0	3538.3	3498.1	3487.2	3483.5	3463.4	3457.9	3432.4
27.5°	3797.7	3658.9	3521.9	3406.8	3311.8	3257.0	3187.6	3138.3	3067.0	3048.8	3003.1
30°	3688.1	3538.3	3388.5	3238.7	3131.0	3032.3	2915.4	2829.6	2720.0	2648.7	2586.6
32.5°	3582.2	3430.5	3278.9	3131.0	2964.7	2811.3	2657.8	2524.5	2402.1	2292.5	2201.2
35°	3494.5	3350.2	3196.7	3017.7	2805.8	2584.8	2400.3	2248.7	2080.6	1965.5	1850.4
37.5°	3437.9	3306.3	3152.9	2906.3	2634.1	2396.6	2186.6	2002.1	1830.4	1656.8	1527.1
40°	3412.3	3297.2	3105.4	2804.0	2484.3	2221.3	1989.3	1784.7	1565.5	1370.0	1231.2
42.5°	3410.5	3293.5	3039.6	2690.7	2360.1	2073.3	1815.7	1571.0	1328.0	1127.1	990.1
45°	3443.3	3288.1	2970.2	2595.7	2250.5	1950.9	1644.0	1346.3	1074.1	924.3	851.2
47.5°	3531.0	3297.2	2913.6	2508.1	2146.4	1803.0	1446.7	1099.7	875.0	805.6	805.6
50°	3688.1	3350.2	2899.0	2446.0	2042.3	1631.2	1205.6	887.8	774.5	774.5	796.4
52.5°	3929.2	3461.6	2924.5	2402.1	1912.6	1404.7	949.9	765.4	743.5	763.6	792.8
55°	4484.6	3658.9	2959.3	2327.2	1715.3	1114.3	783.7	723.4	732.5	756.3	783.7
57.5°	5503.8	4080.8	2995.8	2162.8	1397.4	858.5	710.6	706.9	723.4	745.3	769.0
60°	6174.2	4617.9	3089.0	1914.4	1057.7	708.8	674.1	696.0	716.1	734.3	752.6
62.5°	6174.2	4769.5	3158.4	1636.7	794.6	644.8	650.3	685.0	708.8	717.9	728.9
65°	5779.7	4491.9	2922.7	1333.5	646.7	608.3	628.4	663.1	685.0	692.3	701.5
67.5°	5050.8	3967.6	2462.4	1004.7	577.2	577.2	602.8	628.4	646.7	661.3	675.9
69°	4391.4	3560.2	2168.3	851.2	549.8	553.5	579.1	601.0	622.9	641.2	659.4
70°	3916.4	3255.2	1963.7	772.7	533.4	535.2	560.8	584.5	604.6	624.7	646.7
72.5°	2097.1	2248.7	1492.4	633.9	491.4	496.9	520.6	542.5	560.8	580.9	601.0
75°	714.2	966.3	949.9	518.8	443.9	458.5	473.1	493.2	517.0	529.7	540.7
77.5°	418.3	432.9	506.0	422.0	400.0	407.4	423.8	440.2	460.3	473.1	482.2
80°	350.7	348.9	350.7	343.4	348.9	365.3	376.3	398.2	416.5	420.1	418.3
82.5°	285.0	299.6	301.4	297.8	314.2	327.0	336.1	348.9	347.1	350.7	358.0
85°	253.9	252.1	264.9	266.7	266.7	257.6	259.4	259.4	259.4	264.9	266.7
87.5°	253.9	211.9	164.4	148.0	155.3	146.1	138.8	137.0	151.6	166.2	162.6
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):

	160°	165°	170°	175°	180°
0°	5642.7	5642.7	5642.7	5642.7	5642.7
2.5°	5639.0	5644.5	5640.9	5640.9	5644.5
5°	5600.7	5609.8	5606.1	5609.8	5609.8
7.5°	5513.0	5525.8	5534.9	5544.0	5538.6
10°	5386.9	5408.9	5423.5	5434.4	5429.0
12.5°	5198.8	5218.9	5249.9	5268.2	5253.6
15°	4941.2	4997.9	5016.1	5041.7	5027.1
17.5°	4672.7	4707.4	4729.3	4753.1	4767.7
20°	4314.7	4342.1	4371.3	4382.3	4365.8
22.5°	3883.6	3898.2	3892.7	3909.1	3876.3
25°	3410.5	3419.6	3414.1	3428.7	3401.3
27.5°	2962.9	2961.1	2962.9	2944.6	2926.4
30°	2531.8	2515.4	2508.1	2480.7	2475.2
32.5°	2146.4	2089.7	2060.5	2020.3	2011.2
35°	1760.9	1680.6	1627.6	1581.9	1561.8
37.5°	1415.7	1318.9	1256.8	1216.6	1211.1
40°	1119.8	1030.3	986.4	964.5	960.8
42.5°	913.4	875.0	864.0	864.0	864.0
45°	833.0	831.1	840.3	847.6	849.4
47.5°	816.5	827.5	840.3	851.2	854.9
50°	816.5	827.5	836.6	847.6	851.2
52.5°	812.9	822.0	825.7	833.0	836.6
55°	801.9	807.4	807.4	811.1	814.7
57.5°	783.7	787.3	781.8	785.5	794.6
60°	765.4	769.0	759.9	769.0	774.5
62.5°	745.3	747.1	743.5	750.8	750.8
65°	712.4	708.8	714.2	719.7	721.5
67.5°	679.5	670.4	675.9	677.7	681.4
69°	654.0	648.5	650.3	654.0	657.6
70°	635.7	632.0	635.7	641.2	646.7
72.5°	590.0	591.9	604.6	615.6	626.6
75°	548.0	560.8	577.2	601.0	613.8
77.5°	496.9	506.0	518.8	544.4	568.1
80°	429.3	434.8	436.6	445.7	443.9
82.5°	348.9	343.4	339.8	336.1	334.3
85°	250.3	248.4	233.8	222.9	222.9
87.5°	149.8	142.5	135.2	126.0	120.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)