

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: P157851

Luminaire Tested: **VST-E11-LED-E-U-5XQ-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157851
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33710)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E11-LED-E-U-5XQ-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (231) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35696.7 lumens
Efficiency: N/A
Efficacy: 132.4 lumens/watt
Luminous Opening: Rectangular (W 1.83' x L: 1' x H: 0')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B5 - U2 - G5

Input Watts (W): 269.7
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

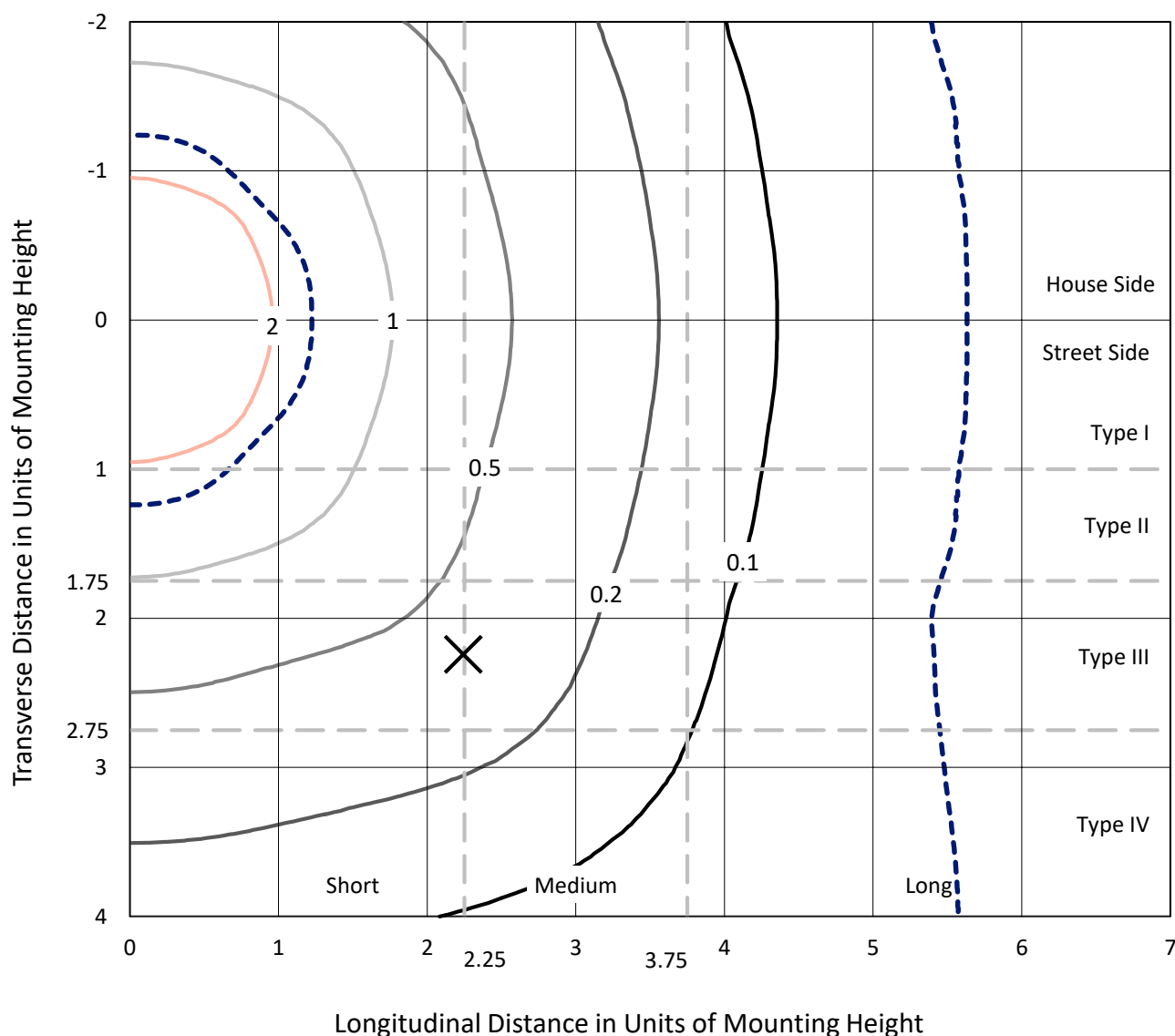


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

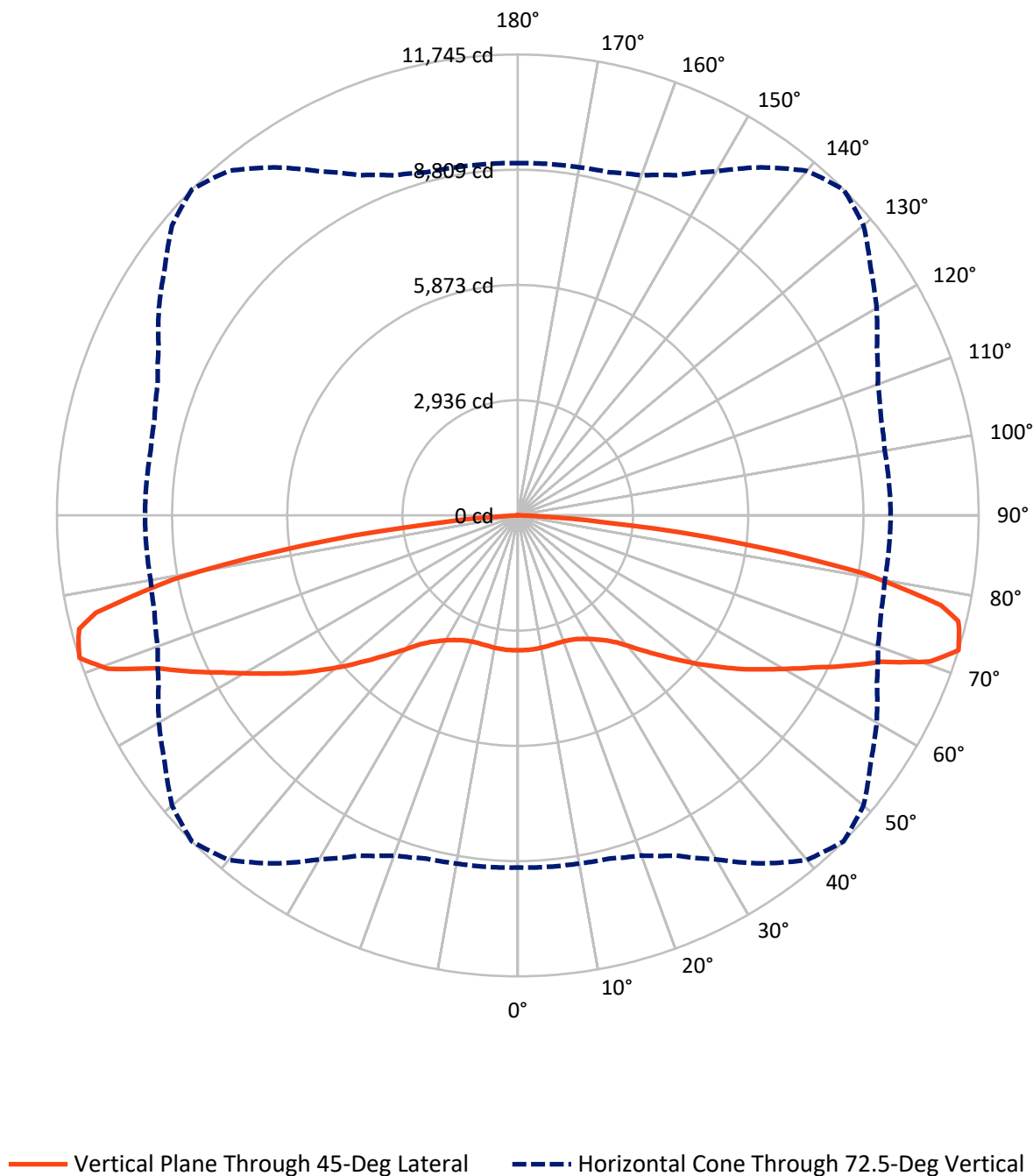


Based on 30 foot mounting height. Maximum calculated value = 3.8 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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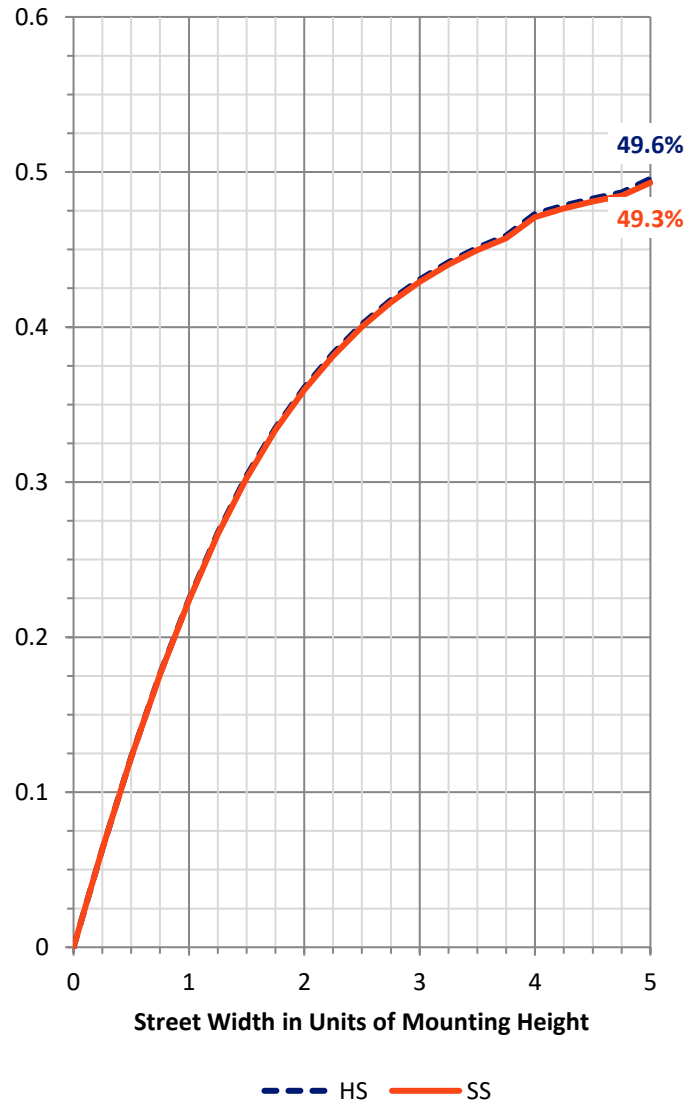
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	17839.6	8.8	17848.3
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	17839.6	8.8	17848.3
	% Fixture	50.0	0.0	50.0
Total	Lumens	35679.2	17.5	35696.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	327.8	0.9
10°-20°	968.2	2.7
20°-30°	1619.0	4.5
30°-40°	2460.8	6.9
40°-50°	3897.5	10.9
50°-60°	5961.8	16.7
60°-70°	8532.4	23.9
70°-80°	9762.9	27.3
80°-90°	2148.7	6.0
90°-100°	1.8	0.0
100°-110°	3.7	0.0
110°-120°	2.6	0.0
120°-130°	2.8	0.0
130°-140°	2.6	0.0
140°-150°	2.0	0.0
150°-160°	1.4	0.0
160°-170°	0.6	0.0
170°-180°	0.0	0.0
0°-90°	35679.2	100.0
0°-180°	35696.7	100.0

Coefficient of Utilization



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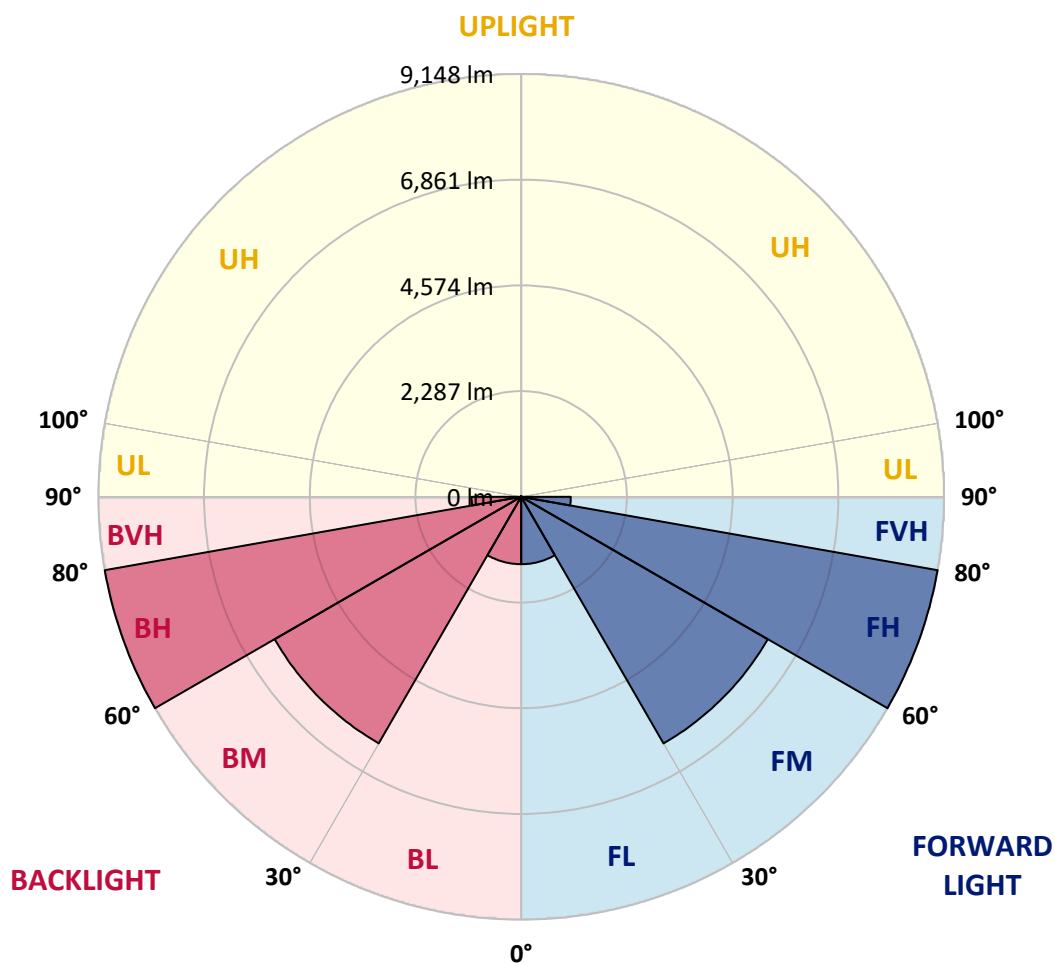
CATALOG NUMBER: VST-E11-LED-E-U-5XQ-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1457.5	4.1			
FM	(30°-60°)	6160.1	17.3			
FH	(60°-80°)	9147.6	25.6			G4/12000
FVH	(80°-90°)	1074.4	3.0			G5
BL	(0°-30°)	1457.5	4.1	B3/2500		
BM	(30°-60°)	6160.1	17.3	B4/8500		
BH	(60°-80°)	9147.6	25.6	B5		G4/12000
BVH	(80°-90°)	1074.4	3.0			G5
UL	(90°-100°)	1.8	0.0		U1/10	
UH	(100°-180°)	8.8	0.0		U1/10	

BUG Rating: B5-U2-G5

Type V Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3435.8	3435.8	3435.8	3435.8	3435.8	3435.8	3435.8	3435.8	3435.8	3435.8	3435.8
2.5°	3438.1	3433.6	3435.8	3440.3	3438.1	3438.1	3435.8	3435.8	3440.3	3435.8	3438.1
5°	3440.3	3435.8	3438.1	3440.3	3438.1	3440.3	3438.1	3438.1	3438.1	3435.8	3440.3
7.5°	3431.3	3431.3	3433.6	3433.6	3431.3	3433.6	3433.6	3433.6	3431.3	3431.3	3435.8
10°	3426.8	3424.5	3424.5	3426.8	3424.5	3424.5	3426.8	3426.8	3422.3	3422.3	3426.8
12.5°	3420.0	3417.8	3417.8	3417.8	3415.5	3415.5	3417.8	3417.8	3415.5	3413.2	3420.0
15°	3415.5	3413.2	3413.2	3413.2	3408.7	3411.0	3411.0	3411.0	3408.7	3406.5	3413.2
17.5°	3413.2	3411.0	3411.0	3411.0	3408.7	3408.7	3408.7	3408.7	3406.5	3406.5	3411.0
20°	3417.8	3417.8	3417.8	3417.8	3415.5	3415.5	3415.5	3417.8	3417.8	3417.8	3422.3
22.5°	3429.0	3429.0	3431.3	3433.6	3433.6	3438.1	3440.3	3442.6	3442.6	3444.8	3449.4
25°	3458.4	3458.4	3460.6	3462.9	3469.7	3474.2	3483.2	3487.7	3490.0	3490.0	3492.2
27.5°	3512.6	3514.8	3519.3	3523.9	3532.9	3539.7	3548.7	3557.7	3560.0	3562.2	3564.5
30°	3580.3	3582.5	3591.6	3596.1	3607.4	3620.9	3632.2	3641.2	3648.0	3652.5	3650.3
32.5°	3677.4	3681.9	3693.2	3699.9	3715.7	3729.3	3745.1	3758.6	3765.4	3772.2	3769.9
35°	3812.8	3824.1	3835.4	3842.1	3858.0	3869.2	3889.6	3903.1	3916.6	3912.1	3914.4
37.5°	4013.7	4022.7	4025.0	4029.5	4045.3	4054.3	4076.9	4095.0	4101.8	4106.3	4108.5
40°	4284.6	4284.6	4295.9	4286.9	4307.2	4309.4	4336.5	4361.4	4368.1	4386.2	4372.6
42.5°	4600.6	4598.4	4605.2	4598.4	4598.4	4621.0	4643.5	4688.7	4693.2	4715.8	4702.2
45°	4943.8	4943.8	4937.0	4939.3	4943.8	4968.6	4995.7	5045.4	5067.9	5081.5	5072.4
47.5°	5316.3	5307.2	5305.0	5302.7	5316.3	5343.3	5384.0	5431.4	5487.8	5492.3	5487.8
50°	5693.2	5691.0	5675.2	5688.7	5697.8	5711.3	5788.1	5851.3	5910.0	5946.1	5934.8
52.5°	6090.6	6070.2	6070.2	6070.2	6092.8	6135.7	6203.4	6289.2	6368.2	6406.6	6399.8
55°	6492.4	6485.6	6465.3	6456.3	6485.6	6546.6	6643.6	6747.5	6851.3	6910.0	6887.4
57.5°	6860.3	6849.0	6851.3	6853.6	6887.4	6968.7	7081.6	7219.3	7332.1	7395.3	7379.5
60°	7149.3	7135.7	7160.6	7167.3	7228.3	7363.7	7544.3	7718.2	7867.2	7930.4	7905.5
62.5°	7476.6	7467.6	7483.4	7481.1	7546.6	7697.8	7939.4	8217.1	8442.8	8524.1	8487.9
65°	8004.9	7977.8	7971.0	7946.2	7989.1	8106.4	8348.0	8670.8	9032.0	9239.7	9190.0
67.5°	8636.9	8630.2	8607.6	8594.0	8609.8	8756.6	8989.1	9300.6	9668.6	9955.3	10018.5
70°	9054.6	9063.6	9086.2	9120.0	9251.0	9535.4	9959.8	10431.6	10937.3	11151.7	11113.3
72.5°	8975.5	8989.1	9007.2	9050.0	9221.6	9562.5	10122.3	10826.6	11461.0	11745.4	11501.6
75°	8589.5	8600.8	8641.4	8706.9	8916.9	9330.0	9932.7	10679.9	11334.6	11619.0	11363.9
76°	8232.9	8269.0	8343.5	8420.2	8673.1	9122.3	9765.7	10562.5	11255.6	11544.5	11298.4
77.5°	7424.7	7456.3	7517.2	7650.4	7937.1	8512.8	9264.5	10047.8	10770.2	11029.8	10822.1
80°	5587.1	5614.2	5670.7	5830.9	6079.3	6435.9	7018.4	7783.6	8576.0	8916.9	8781.4
82.5°	2359.0	2390.6	2614.1	2846.6	3119.8	3505.8	3885.0	4562.3	5144.7	5533.0	5325.3
85°	259.6	320.6	395.1	537.3	659.2	878.1	1092.6	1503.4	1900.8	2142.3	1894.0
87.5°	45.1	51.9	74.5	94.8	106.1	121.9	146.7	205.4	279.9	241.5	246.1
90°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	4.5	4.5	4.5	4.5
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3
95°	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3	2.3	2.3	2.3
97.5°	0.0	0.0	0.0	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
100°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	4.5	4.5	4.5
102.5°	2.3	2.3	2.3	2.3	2.3	4.5	4.5	4.5	4.5	4.5	4.5
105°	2.3	2.3	2.3	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
107.5°	2.3	2.3	2.3	2.3	4.5	4.5	2.3	2.3	2.3	4.5	2.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
110°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
112.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
115°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
117.5°	4.5	4.5	4.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
120°	4.5	4.5	4.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
122.5°	4.5	4.5	4.5	4.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3
125°	4.5	4.5	4.5	4.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3
127.5°	4.5	4.5	4.5	4.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3
130°	4.5	4.5	4.5	4.5	4.5	2.3	2.3	2.3	2.3	2.3	2.3
132.5°	4.5	4.5	4.5	4.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3
135°	4.5	4.5	4.5	4.5	4.5	2.3	2.3	2.3	2.3	2.3	2.3
137.5°	4.5	4.5	4.5	4.5	4.5	2.3	2.3	2.3	2.3	2.3	2.3
140°	4.5	4.5	4.5	4.5	4.5	2.3	2.3	2.3	2.3	2.3	2.3
142.5°	4.5	4.5	4.5	4.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3
145°	4.5	4.5	4.5	4.5	4.5	2.3	2.3	2.3	2.3	0.0	2.3
147.5°	4.5	4.5	4.5	4.5	4.5	2.3	2.3	2.3	2.3	2.3	2.3
150°	4.5	4.5	4.5	4.5	4.5	2.3	2.3	2.3	0.0	0.0	0.0
152.5°	4.5	4.5	4.5	4.5	4.5	2.3	2.3	2.3	2.3	0.0	0.0
155°	4.5	4.5	4.5	4.5	4.5	2.3	2.3	2.3	2.3	0.0	2.3
157.5°	4.5	4.5	4.5	4.5	2.3	2.3	2.3	2.3	0.0	0.0	0.0
160°	4.5	4.5	4.5	4.5	2.3	2.3	2.3	2.3	0.0	0.0	0.0
162.5°	4.5	4.5	4.5	4.5	2.3	2.3	2.3	2.3	0.0	0.0	0.0
165°	4.5	4.5	4.5	4.5	2.3	2.3	2.3	2.3	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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°
0°	3435.8	3435.8	3435.8	3435.8	3435.8	3435.8	3435.8	3435.8
2.5°	3435.8	3435.8	3440.3	3438.1	3438.1	3440.3	3444.8	3442.6
5°	3438.1	3440.3	3435.8	3438.1	3440.3	3440.3	3442.6	3440.3
7.5°	3433.6	3433.6	3433.6	3435.8	3438.1	3435.8	3438.1	3438.1
10°	3424.5	3426.8	3424.5	3429.0	3431.3	3431.3	3433.6	3433.6
12.5°	3417.8	3417.8	3417.8	3422.3	3424.5	3424.5	3426.8	3424.5
15°	3411.0	3411.0	3408.7	3413.2	3417.8	3417.8	3420.0	3420.0
17.5°	3408.7	3408.7	3406.5	3411.0	3415.5	3415.5	3417.8	3417.8
20°	3415.5	3417.8	3413.2	3417.8	3422.3	3424.5	3424.5	3424.5
22.5°	3442.6	3440.3	3433.6	3435.8	3438.1	3438.1	3438.1	3438.1
25°	3483.2	3478.7	3471.9	3469.7	3467.4	3465.2	3465.2	3465.2
27.5°	3553.2	3546.4	3535.1	3532.9	3530.6	3526.1	3526.1	3526.1
30°	3636.7	3627.7	3614.1	3609.6	3602.9	3598.3	3596.1	3593.8
32.5°	3756.4	3738.3	3722.5	3711.2	3704.4	3690.9	3688.6	3684.1
35°	3894.1	3880.5	3858.0	3851.2	3839.9	3833.1	3830.9	3819.6
37.5°	4083.7	4067.9	4047.6	4043.1	4040.8	4034.0	4034.0	4031.8
40°	4347.8	4332.0	4314.0	4295.9	4300.4	4302.7	4302.7	4293.6
42.5°	4670.6	4645.8	4609.7	4621.0	4614.2	4605.2	4623.2	4611.9
45°	5038.6	5004.7	4977.6	4966.4	4966.4	4955.1	4973.1	4973.1
47.5°	5447.2	5393.0	5343.3	5345.6	5327.5	5332.1	5343.3	5359.1
50°	5878.4	5806.1	5758.7	5736.1	5718.1	5724.8	5745.2	5749.7
52.5°	6325.3	6237.3	6174.1	6140.2	6117.6	6126.7	6142.5	6156.0
55°	6790.4	6693.3	6598.5	6562.4	6535.3	6553.3	6555.6	6573.6
57.5°	7275.7	7142.5	7031.9	6977.7	6950.6	6968.7	6982.2	7000.3
60°	7765.6	7612.1	7481.1	7417.9	7379.5	7404.4	7436.0	7445.0
62.5°	8334.4	8122.2	7975.5	7885.2	7867.2	7892.0	7901.0	7928.1
65°	9007.2	8752.1	8548.9	8438.3	8433.8	8447.3	8467.6	8474.4
67.5°	9774.7	9490.2	9217.1	9106.5	9063.6	9104.2	9124.5	9151.6
70°	10858.2	10467.7	10072.7	9826.6	9722.8	9691.2	9700.2	9729.5
72.5°	10980.1	10560.3	10099.8	9765.7	9582.8	9499.3	9497.0	9501.5
75°	10713.8	10043.3	9718.2	9334.5	9074.9	8939.4	8921.4	8919.1
76°	10580.6	9788.2	9318.7	9013.9	8702.4	8564.7	8544.4	8533.1
77.5°	10018.5	9167.4	8460.9	8275.7	7977.8	7803.9	7840.1	7810.7
80°	8031.9	7187.7	6521.7	6000.3	6016.1	5889.6	5837.7	5821.9
82.5°	4733.8	4040.8	3304.9	2873.7	2462.9	2354.5	2027.2	1952.7
85°	1512.5	1072.3	650.1	471.8	320.6	268.6	209.9	191.9
87.5°	200.9	158.0	128.7	124.2	112.9	97.1	63.2	45.1
90°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	2.3	2.3	2.3	2.3	0.0	0.0	0.0	0.0
97.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
100°	4.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3
102.5°	4.5	4.5	4.5	4.5	2.3	2.3	2.3	2.3
105°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
107.5°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
110°	2.3	2.3	2.3	2.3	2.3	4.5	4.5	4.5
112.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	4.5
115°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	4.5
117.5°	2.3	2.3	2.3	2.3	2.3	4.5	4.5	4.5
120°	2.3	2.3	2.3	2.3	2.3	4.5	4.5	4.5
122.5°	2.3	2.3	2.3	2.3	4.5	4.5	4.5	4.5
125°	2.3	2.3	2.3	2.3	4.5	4.5	4.5	4.5
127.5°	2.3	2.3	2.3	2.3	4.5	4.5	4.5	4.5
130°	2.3	2.3	2.3	4.5	4.5	4.5	4.5	4.5
132.5°	2.3	2.3	2.3	4.5	4.5	4.5	4.5	4.5
135°	2.3	2.3	2.3	4.5	4.5	4.5	4.5	4.5
137.5°	2.3	2.3	2.3	4.5	4.5	4.5	4.5	4.5
140°	2.3	2.3	2.3	4.5	4.5	4.5	4.5	4.5
142.5°	2.3	2.3	2.3	4.5	4.5	4.5	4.5	4.5
145°	2.3	2.3	2.3	2.3	4.5	4.5	4.5	4.5
147.5°	2.3	2.3	2.3	4.5	4.5	4.5	4.5	4.5
150°	2.3	2.3	2.3	2.3	4.5	4.5	4.5	4.5
152.5°	2.3	2.3	2.3	2.3	4.5	4.5	4.5	4.5
155°	2.3	2.3	2.3	4.5	4.5	4.5	4.5	4.5
157.5°	2.3	2.3	2.3	2.3	4.5	4.5	4.5	4.5
160°	2.3	2.3	2.3	2.3	4.5	4.5	4.5	4.5
162.5°	2.3	2.3	2.3	4.5	4.5	4.5	4.5	4.5
165°	2.3	2.3	2.3	4.5	4.5	4.5	4.5	4.5
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)