

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: P158516

Luminaire Tested: **VST-F11-LED-E-U-SL3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158516
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33713)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-F11-LED-E-U-SL3-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL
Light Source: (77) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28110.7 lumens
Efficiency: N/A
Efficacy: 99.4 lumens/watt
Luminous Opening: Rectangular (W 1.83' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 282.7
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



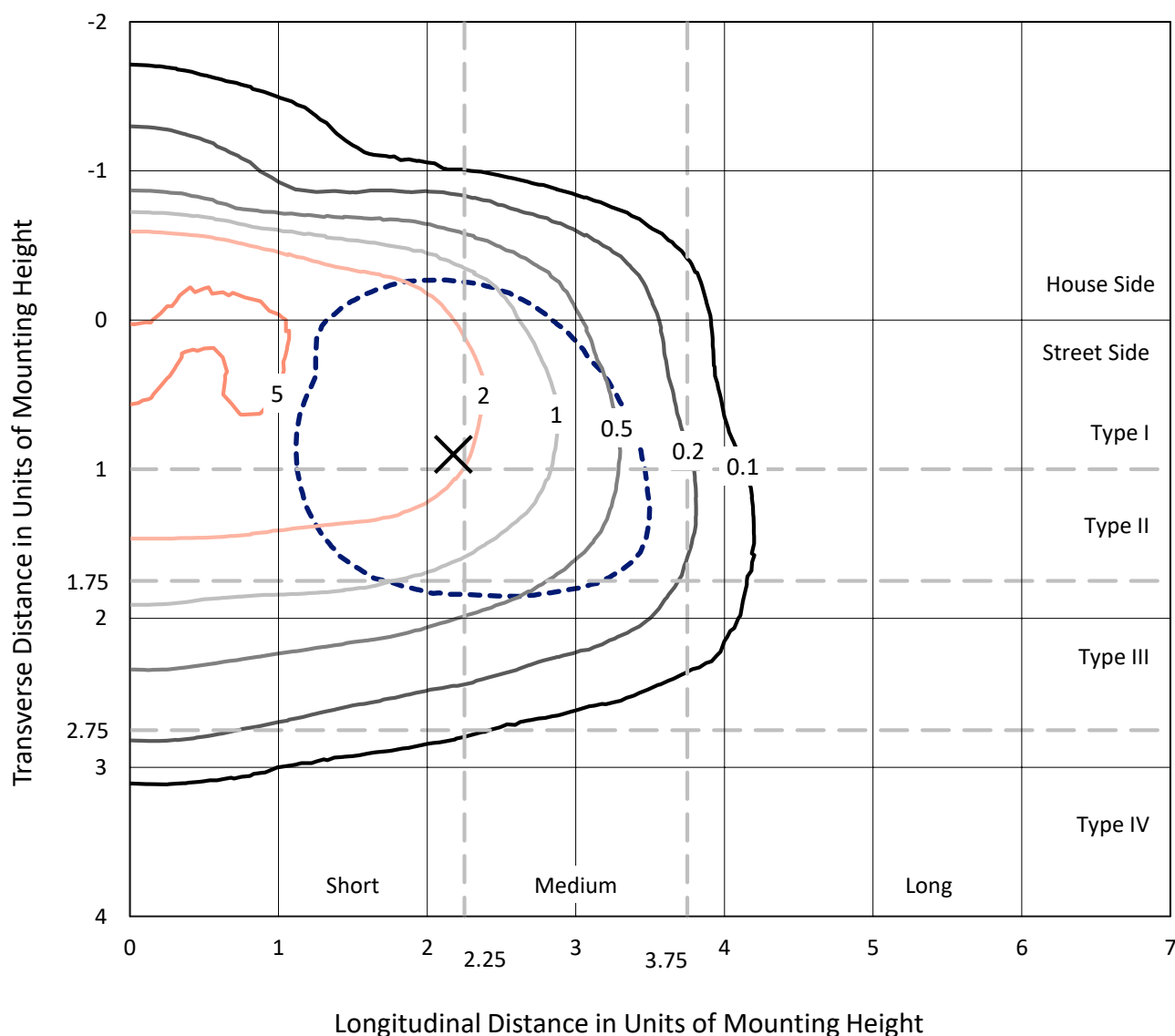
REPORT NUMBER: P158516

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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

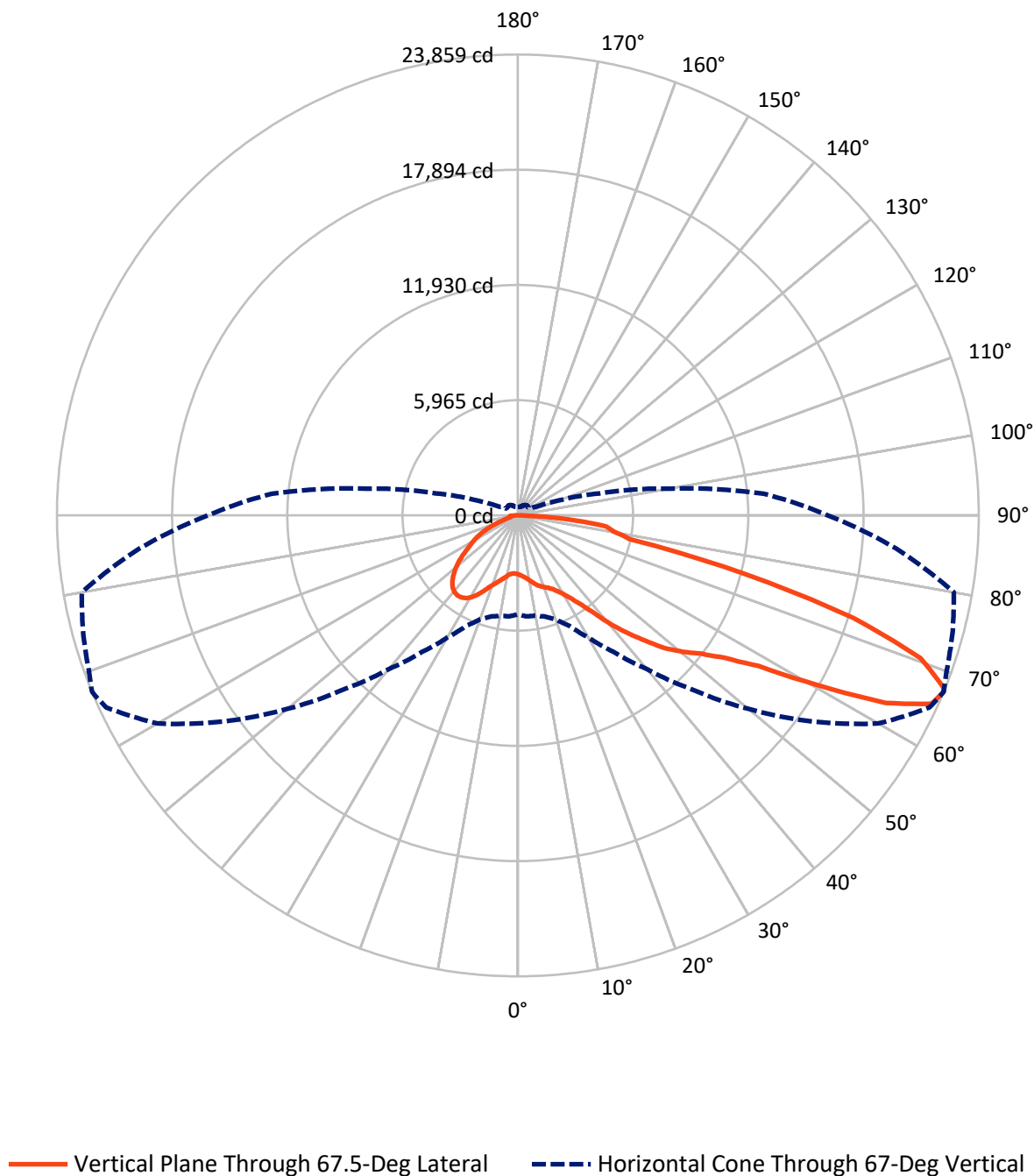


Based on 25 foot mounting height. Maximum calculated value = 6.1 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6743.8	0.0	6743.8
	% Fixture	24.0	0.0	24.0
Street Side	Lumens	21366.9	0.0	21366.9
	% Fixture	76.0	0.0	76.0
Total	Lumens	28110.7	0.0	28110.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	302.8	1.1
10°-20°	1031.7	3.7
20°-30°	1842.0	6.6
30°-40°	2699.5	9.6
40°-50°	4171.1	14.8
50°-60°	6073.9	21.6
60°-70°	7912.3	28.1
70°-80°	3541.8	12.6
80°-90°	535.5	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°	28110.7	100.0
0°-180°	28110.7	100.0

Coefficient of Utilization



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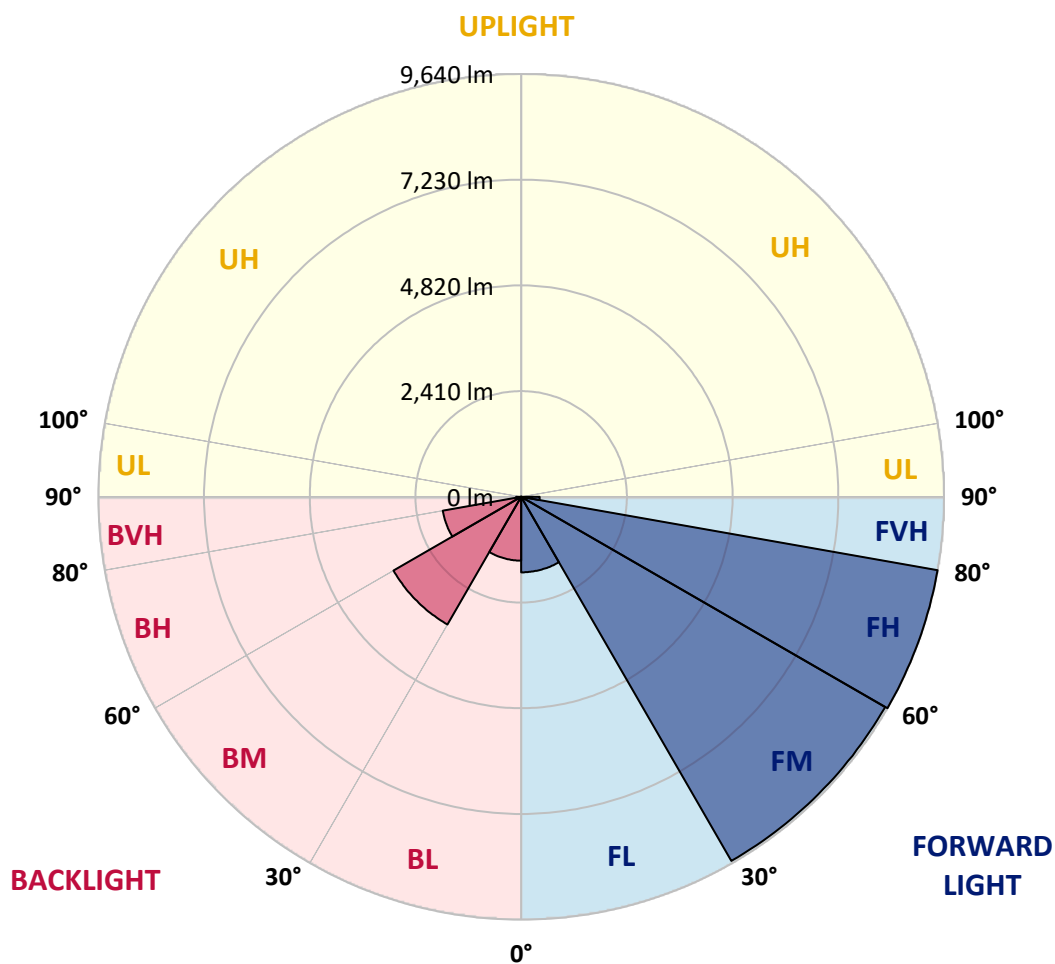
CATALOG NUMBER: VST-F11-LED-E-U-SL3-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1722.3	6.1			
FM	(30°-60°)	9584.3	34.1			
FH	(60°-80°)	9639.7	34.3			G4/12000
FVH	(80°-90°)	420.5	1.5			G3/500
BL	(0°-30°)	1454.2	5.2	B3/2500		
BM	(30°-60°)	3360.3	12.0	B3/5000		
BH	(60°-80°)	1814.3	6.5	B3/2500		G3/2500
BVH	(80°-90°)	115.0	0.4			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3046.9	3046.9	3046.9	3046.9	3046.9	3046.9	3046.9	3046.9	3046.9	3046.9	3046.9
2.5°	3166.2	3173.7	3175.5	3173.7	3175.5	3168.1	3166.2	3155.0	3160.6	3145.7	3142.0
5°	3337.6	3343.2	3347.0	3332.1	3335.8	3328.3	3319.0	3307.8	3292.9	3272.4	3259.4
7.5°	3505.4	3514.7	3512.8	3507.2	3494.2	3486.7	3468.1	3451.3	3425.2	3401.0	3384.2
10°	3730.9	3729.0	3729.0	3697.3	3678.7	3661.9	3628.4	3602.3	3576.2	3540.8	3522.1
12.5°	3991.8	3978.7	3973.1	3950.8	3911.6	3881.8	3833.4	3783.0	3736.5	3699.2	3669.4
15°	4243.3	4243.3	4228.4	4193.0	4155.8	4116.6	4047.7	3975.0	3898.6	3838.9	3809.1
17.5°	4472.6	4452.1	4439.0	4392.4	4353.3	4289.9	4213.5	4135.3	4040.2	3956.4	3898.6
20°	4640.3	4623.5	4595.6	4537.8	4470.7	4396.2	4306.7	4215.4	4112.9	4021.6	3956.4
22.5°	4737.2	4716.7	4673.8	4597.4	4506.1	4401.7	4297.4	4211.7	4118.5	4049.5	3995.5
25°	4787.5	4767.0	4709.2	4608.6	4485.6	4347.7	4228.4	4144.6	4090.5	4073.8	4066.3
27.5°	4785.6	4768.9	4707.4	4591.8	4433.4	4275.0	4146.4	4075.6	4070.0	4135.3	4183.7
30°	4737.2	4726.0	4670.1	4554.6	4388.7	4222.8	4103.6	4066.3	4124.1	4262.0	4381.2
32.5°	4688.7	4683.1	4644.0	4539.6	4398.0	4258.2	4176.3	4180.0	4299.2	4511.7	4703.6
35°	4694.3	4701.8	4696.2	4640.3	4550.8	4478.1	4439.0	4521.0	4707.4	4964.5	5221.7
37.5°	4742.8	4770.7	4806.1	4811.7	4813.6	4802.4	4884.4	5057.7	5329.8	5665.2	6067.8
40°	4849.0	4880.7	4983.2	5072.6	5188.2	5326.1	5491.9	5732.3	6069.6	6483.3	6977.2
42.5°	5178.9	5223.6	5350.3	5516.2	5728.6	5944.8	6192.6	6520.6	6934.3	7370.4	7888.5
45°	5609.3	5702.5	5842.3	6026.8	6345.4	6649.2	6969.7	7336.9	7776.7	8322.7	8844.5
47.5°	6146.0	6239.2	6442.3	6639.9	7016.3	7394.6	7745.0	8128.9	8605.9	9165.0	9742.7
50°	6615.7	6721.9	6902.6	7169.1	7605.2	8069.2	8456.9	8872.4	9273.1	9862.0	10445.3
52.5°	6984.6	7061.1	7234.4	7478.5	7964.9	8473.6	8963.8	9425.9	9901.1	10490.0	11030.4
55°	7031.2	7102.1	7271.6	7551.2	8045.0	8609.7	9174.3	9722.2	10395.0	11037.9	11753.5
57.5°	6830.0	6887.7	7059.2	7308.9	7789.7	8432.6	9146.4	9848.9	10709.9	11578.3	12452.4
60°	6544.8	6602.6	6736.8	6936.2	7370.4	8063.7	8896.7	9858.3	11002.5	12256.7	13542.5
62.5°	6231.8	6282.1	6390.2	6531.8	6913.8	7553.0	8507.2	9796.8	11241.0	12931.3	14914.1
65°	5704.4	5825.5	5872.1	6017.5	6399.5	7003.3	7974.2	9381.2	11144.1	13231.3	15775.1
67°	5121.1	5244.1	5268.3	5415.5	5721.1	6300.7	7288.4	8611.5	10376.3	12713.2	15585.0
67.5°	4934.7	5039.1	5076.4	5223.6	5512.4	6058.5	6995.8	8333.9	10141.5	12430.0	15355.8
70°	3628.4	3743.9	3784.9	3846.4	4053.3	4508.0	5128.5	6289.5	8086.0	10143.4	12953.6
72.5°	1941.8	2035.0	2074.1	2165.5	2271.7	2519.5	2994.8	3827.8	4962.7	6787.1	9215.3
75°	1313.8	1351.1	1379.0	1442.4	1552.4	1749.9	1958.6	2251.2	2937.0	3829.6	5244.1
77.5°	749.2	765.9	769.7	780.8	868.4	1056.6	1399.5	1895.2	2430.1	2774.9	3354.4
80°	324.3	357.8	383.9	367.1	361.5	400.7	501.3	747.3	1464.8	2325.7	2759.9
82.5°	175.2	190.1	212.4	214.3	225.5	238.5	259.0	307.5	432.3	872.1	1902.7
85°	91.3	95.0	126.7	145.4	154.7	162.1	165.9	184.5	212.4	270.2	473.3
87.5°	13.0	18.6	22.4	29.8	33.5	35.4	41.0	52.2	61.5	74.5	126.7
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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CATALOG NUMBER: VST-F11-LED-E-U-SL3-7050

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	3046.9	3046.9	3046.9	3046.9	3046.9	3046.9	3046.9	3046.9	3046.9	3046.9	3046.9
2.5°	3125.2	3121.5	3110.3	3102.8	3095.4	3087.9	3078.6	3071.2	3058.1	3048.8	3037.6
5°	3240.7	3218.4	3203.5	3183.0	3179.2	3155.0	3130.8	3119.6	3097.2	3078.6	3056.2
7.5°	3358.1	3332.1	3307.8	3291.1	3281.7	3248.2	3224.0	3196.0	3169.9	3145.7	3119.6
10°	3496.1	3470.0	3443.9	3432.7	3415.9	3384.2	3363.7	3328.3	3302.2	3272.4	3237.0
12.5°	3639.5	3620.9	3602.3	3587.4	3579.9	3565.0	3535.2	3505.4	3470.0	3440.1	3399.1
15°	3766.3	3753.2	3745.8	3742.0	3742.0	3732.7	3704.8	3676.8	3639.5	3606.0	3561.3
17.5°	3855.7	3850.1	3855.7	3861.3	3868.8	3861.3	3855.7	3824.0	3799.8	3758.8	3714.1
20°	3907.9	3919.1	3947.0	3965.7	3982.4	3995.5	4001.1	3975.0	3943.3	3913.5	3883.7
22.5°	3963.8	3995.5	4043.9	4071.9	4099.8	4146.4	4157.6	4139.0	4114.8	4096.1	4064.4
25°	4057.0	4103.6	4187.4	4232.2	4271.3	4340.2	4349.6	4353.3	4347.7	4332.8	4293.7
27.5°	4202.3	4293.7	4405.5	4463.2	4506.1	4595.6	4631.0	4631.0	4616.1	4632.8	4632.8
30°	4455.8	4576.9	4722.3	4755.8	4822.9	4901.2	4959.0	4966.4	4968.3	5003.7	5055.9
32.5°	4845.3	4960.8	5122.9	5160.2	5218.0	5292.5	5357.8	5350.3	5367.1	5443.5	5512.4
35°	5411.8	5529.2	5635.4	5685.7	5711.8	5778.9	5803.1	5844.1	5894.5	5989.5	5980.2
37.5°	6250.4	6354.8	6369.7	6401.4	6369.7	6382.7	6401.4	6449.8	6584.0	6669.7	6531.8
40°	7260.5	7433.8	7417.0	7379.7	7308.9	7213.9	7247.4	7322.0	7467.3	7392.8	7021.9
42.5°	8212.7	8391.6	8358.1	8315.2	8158.7	8123.3	8119.6	8181.1	8259.3	8046.9	7405.8
45°	9150.1	9332.7	9275.0	9250.7	9146.4	9070.0	9133.3	9137.1	9116.6	8661.9	7741.3
47.5°	10117.3	10285.0	10247.8	10268.3	10160.2	10109.8	10115.4	10089.3	9897.4	9183.7	8002.2
50°	10898.1	11123.6	11146.0	11099.4	11041.6	10965.2	11160.9	11090.1	10663.3	9690.5	8253.7
52.5°	11505.7	11809.4	11925.0	11895.1	11848.6	11857.9	12225.0	12305.1	11598.8	10329.7	8531.4
55°	12225.0	12703.9	12892.2	13004.0	12955.5	13141.9	13982.3	14023.3	12899.6	11164.6	8892.9
57.5°	13263.0	13948.8	14543.3	14701.7	14854.5	15460.1	16824.3	16408.7	14588.0	12428.1	9351.4
60°	14841.4	16343.5	17308.8	17815.7	18173.5	19019.6	20316.6	19263.7	16692.0	13932.0	9927.2
62.5°	17051.6	19246.9	20860.8	21369.5	21516.7	22003.1	22942.4	20927.9	17838.1	14606.6	9977.5
65°	18697.2	21330.4	23262.9	23523.8	23348.6	23357.9	23603.9	20840.3	17411.3	14017.7	9112.8
67°	18589.1	21537.2	23516.3	23859.2	23617.0	23298.3	22914.4	19653.2	16039.7	12784.1	7979.8
67.5°	18423.2	21337.8	23406.4	23767.9	23546.2	23182.8	22621.8	19192.9	15613.0	12400.2	7748.7
70°	15926.0	18820.2	21606.2	22114.9	22208.1	21876.4	20301.7	16183.2	12676.0	10087.5	6017.5
72.5°	12396.4	14973.8	17730.0	18171.6	18529.4	17573.4	14776.2	11177.7	9239.6	7269.8	4357.0
75°	8184.8	10806.8	12197.0	12262.3	11805.7	10035.3	7219.5	5598.2	5152.8	4273.2	2696.6
77.5°	4379.4	6354.8	6393.9	5920.6	5704.4	4252.7	1725.7	952.3	1060.4	1203.9	1073.4
80°	3266.8	4047.7	4690.6	5042.8	5147.2	3647.0	892.6	505.0	441.7	402.5	396.9
82.5°	2946.3	3909.8	4383.1	4575.1	4526.6	3000.3	501.3	339.2	281.4	305.6	348.5
85°	1155.4	2087.2	2745.0	2657.4	2232.6	1118.1	273.9	182.6	182.6	264.6	342.9
87.5°	236.7	428.6	581.4	555.3	499.4	216.2	134.2	110.0	111.8	214.3	324.3
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°	3046.9	3046.9	3046.9	3046.9	3046.9	3046.9	3046.9	3046.9	3046.9	3046.9	3046.9
2.5°	3026.4	3015.3	3007.8	3000.3	2992.9	2989.2	2983.6	2983.6	2972.4	2968.7	2964.9
5°	3039.5	3020.8	3007.8	2991.0	2978.0	2966.8	2951.9	2948.2	2935.1	2925.8	2922.1
7.5°	3095.4	3067.4	3039.5	3019.0	3000.3	2976.1	2959.3	2944.4	2931.4	2922.1	2910.9
10°	3201.6	3171.8	3132.7	3095.4	3071.2	3033.9	3007.8	2981.7	2966.8	2955.6	2940.7
12.5°	3358.1	3315.3	3268.7	3224.0	3183.0	3134.5	3108.4	3076.7	3058.1	3048.8	3037.6
15°	3518.4	3471.8	3414.1	3371.2	3324.6	3287.3	3263.1	3235.2	3220.2	3209.1	3201.6
17.5°	3682.4	3628.4	3587.4	3544.5	3522.1	3494.2	3462.5	3427.1	3384.2	3358.1	3322.7
20°	3850.1	3809.1	3784.9	3760.7	3734.6	3695.5	3632.1	3559.4	3479.3	3402.9	3330.2
22.5°	4045.8	4021.6	4017.8	3995.5	3941.4	3848.3	3730.9	3594.8	3458.8	3332.1	3233.3
25°	4321.6	4321.6	4303.0	4211.7	4084.9	3917.2	3719.7	3524.0	3343.2	3169.9	3039.5
27.5°	4668.2	4655.2	4563.9	4375.7	4148.3	3887.4	3622.8	3374.9	3143.8	2953.8	2786.0
30°	5050.3	4959.0	4763.3	4467.0	4125.9	3790.5	3466.2	3179.2	2907.2	2674.2	2476.7
32.5°	5447.2	5225.4	4873.2	4467.0	4047.7	3645.1	3270.6	2918.3	2607.1	2346.2	2111.4
35°	5806.9	5402.5	4899.3	4394.3	3894.9	3430.8	2996.6	2597.8	2225.1	1943.7	1686.5
37.5°	6133.0	5519.9	4871.4	4252.7	3673.1	3128.9	2620.2	2180.4	1759.2	1487.1	1267.2
40°	6345.4	5544.1	4755.8	4030.9	3356.3	2720.8	2158.0	1666.0	1332.4	1084.6	937.4
42.5°	6477.8	5497.5	4569.5	3727.1	2929.5	2208.3	1619.4	1194.5	946.7	808.8	752.9
45°	6552.3	5376.4	4293.7	3311.6	2413.3	1679.1	1149.8	862.8	728.7	680.2	661.6
47.5°	6548.6	5180.7	3948.9	2830.8	1843.1	1170.3	814.4	672.7	635.5	620.6	616.8
50°	6509.4	4940.3	3544.5	2309.0	1330.6	816.2	644.8	603.8	594.5	585.2	581.4
52.5°	6455.4	4642.1	3097.2	1800.2	944.8	652.2	585.2	574.0	566.5	557.2	553.5
55°	6354.8	4275.0	2612.7	1354.8	739.8	588.9	564.7	560.9	551.6	538.6	531.1
57.5°	6231.8	3902.3	2148.7	1058.5	654.1	574.0	560.9	555.3	542.3	527.4	512.5
60°	6187.0	3594.8	1785.3	892.6	633.6	579.6	570.3	562.8	544.2	521.8	505.0
62.5°	5907.5	3248.2	1524.4	827.4	644.8	603.8	600.1	588.9	560.9	534.8	508.8
65°	5184.4	2746.9	1291.5	782.7	667.2	644.8	648.5	631.7	603.8	568.4	521.8
67°	4385.0	2240.0	1075.3	739.8	683.9	687.7	700.7	687.7	652.2	601.9	538.6
67.5°	4172.5	2111.4	1021.2	726.8	687.7	698.8	713.7	704.4	669.0	611.2	546.0
70°	3101.0	1487.1	762.2	657.8	687.7	732.4	765.9	775.2	736.1	656.0	560.9
72.5°	2184.1	959.7	585.2	570.3	624.3	683.9	747.3	779.0	734.2	646.7	540.4
75°	1312.0	600.1	475.2	484.5	525.5	587.0	637.3	650.4	594.5	538.6	467.8
77.5°	607.5	398.8	372.7	385.8	424.9	452.8	452.8	426.8	383.9	350.4	335.4
80°	357.8	326.1	324.3	348.5	374.6	354.1	322.4	287.0	264.6	253.4	247.9
82.5°	335.4	348.5	370.8	376.4	355.9	305.6	266.5	231.1	219.9	214.3	208.7
85°	395.1	423.0	385.8	355.9	314.9	257.2	208.7	178.9	173.3	167.7	160.3
87.5°	365.3	348.5	303.8	260.9	216.2	156.5	113.7	102.5	110.0	108.1	104.4
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):

	160°	165°	170°	175°	180°
0°	3046.9	3046.9	3046.9	3046.9	3046.9
2.5°	2966.8	2966.8	2959.3	2955.6	2964.9
5°	2914.6	2916.5	2910.9	2909.0	2910.9
7.5°	2903.4	2901.6	2897.8	2894.1	2897.8
10°	2937.0	2935.1	2929.5	2933.3	2927.7
12.5°	3037.6	3048.8	3046.9	3050.7	3058.1
15°	3201.6	3199.7	3194.2	3197.9	3203.5
17.5°	3294.8	3279.9	3266.8	3261.2	3261.2
20°	3272.4	3229.6	3207.2	3194.2	3190.4
22.5°	3140.1	3078.6	3032.0	3020.8	3011.5
25°	2923.9	2847.5	2787.9	2774.9	2750.6
27.5°	2672.4	2569.9	2499.0	2484.1	2471.1
30°	2342.5	2225.1	2143.1	2090.9	2107.7
32.5°	1940.0	1828.2	1733.1	1649.3	1636.2
35°	1498.3	1375.3	1291.5	1254.2	1230.0
37.5°	1118.1	1015.6	959.7	924.3	926.2
40°	855.4	801.3	771.5	747.3	749.2
42.5°	713.7	689.5	682.1	670.9	665.3
45°	646.7	639.2	641.1	629.9	626.2
47.5°	609.4	603.8	605.7	598.2	596.3
50°	579.6	575.8	577.7	572.1	570.3
52.5°	549.8	551.6	549.8	546.0	546.0
55°	523.7	521.8	525.5	519.9	519.9
57.5°	503.2	501.3	501.3	499.4	499.4
60°	492.0	484.5	482.7	482.7	484.5
62.5°	486.4	473.3	471.5	471.5	473.3
65°	488.3	467.8	460.3	458.4	456.6
67°	490.1	460.3	445.4	437.9	436.1
67.5°	492.0	456.6	439.8	432.3	428.6
70°	480.8	430.5	406.3	393.2	389.5
72.5°	452.8	398.8	369.0	352.2	348.5
75°	402.5	361.5	335.4	316.8	309.4
77.5°	311.2	292.6	283.3	272.1	268.4
80°	242.3	232.9	229.2	221.8	219.9
82.5°	201.3	191.9	186.4	177.0	171.4
85°	156.5	145.4	141.6	134.2	130.4
87.5°	102.5	96.9	95.0	85.7	82.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)