

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: P158956

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158956
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33715)
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-SLL-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR LEFT
Light Source: (77) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25039.6 lumens
Efficiency: N/A
Efficacy: 88.6 lumens/watt
Luminous Opening: Rectangular (W 1.83' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

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



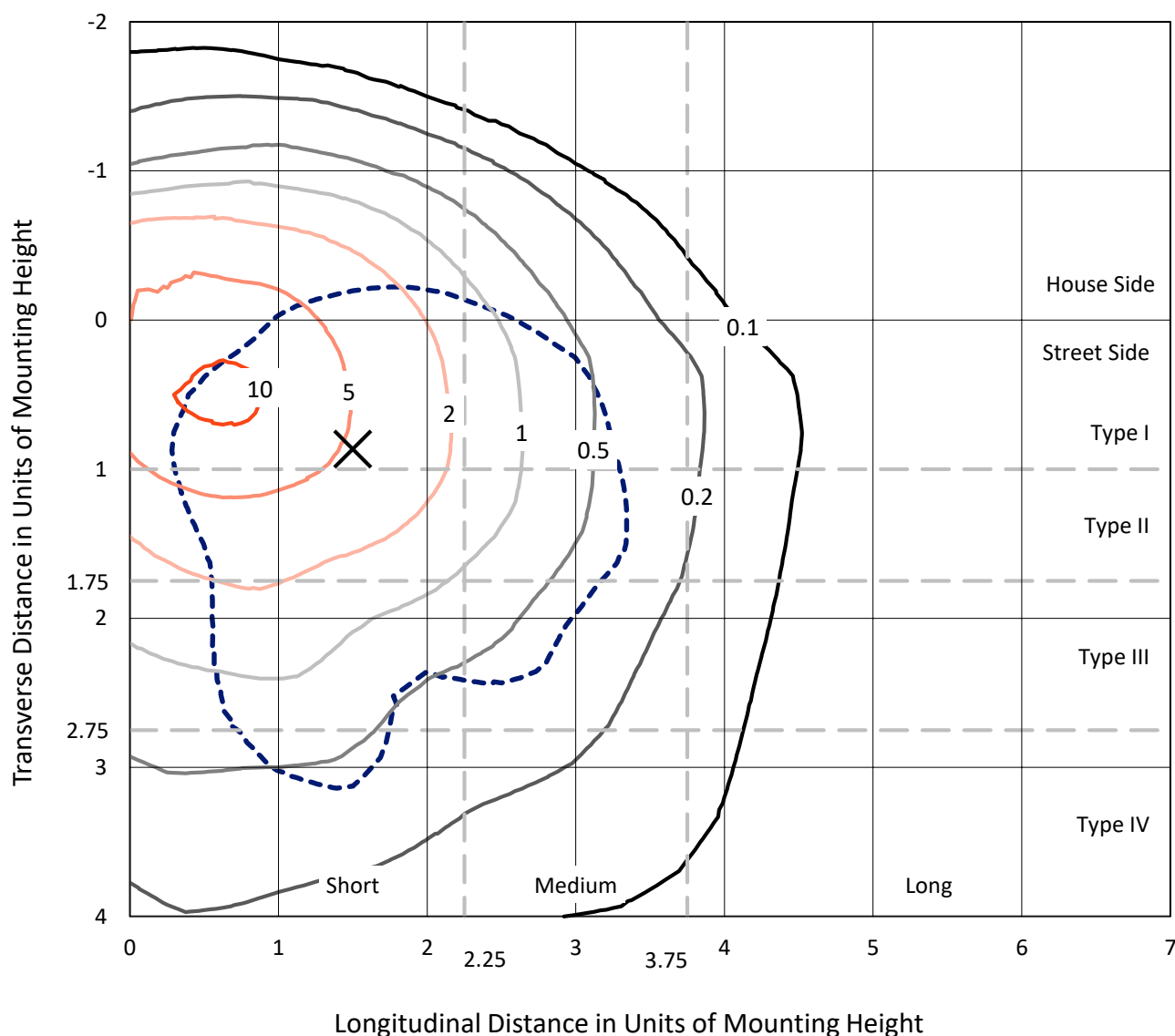
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

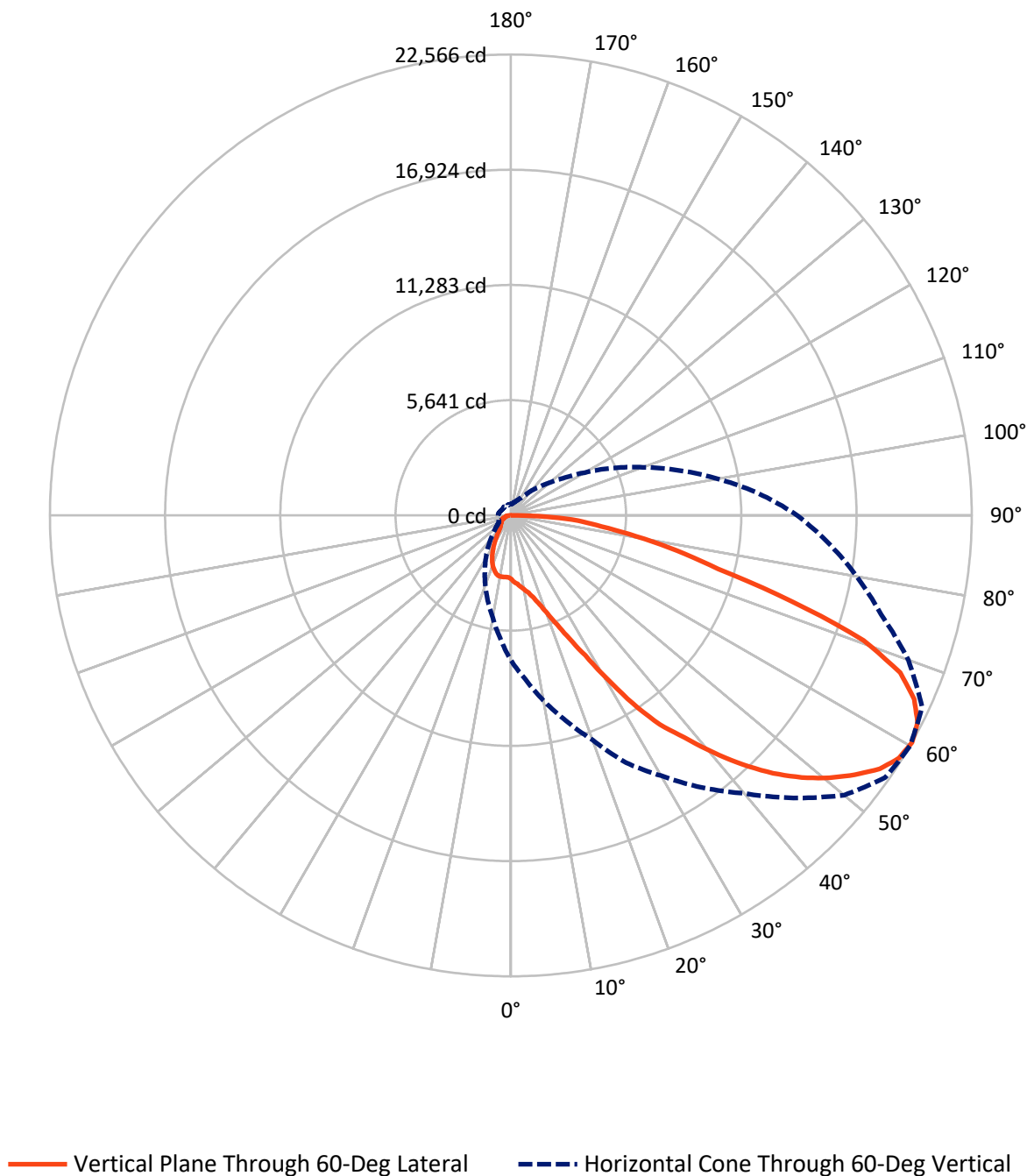


Based on 25 foot mounting height. Maximum calculated value = 11.5 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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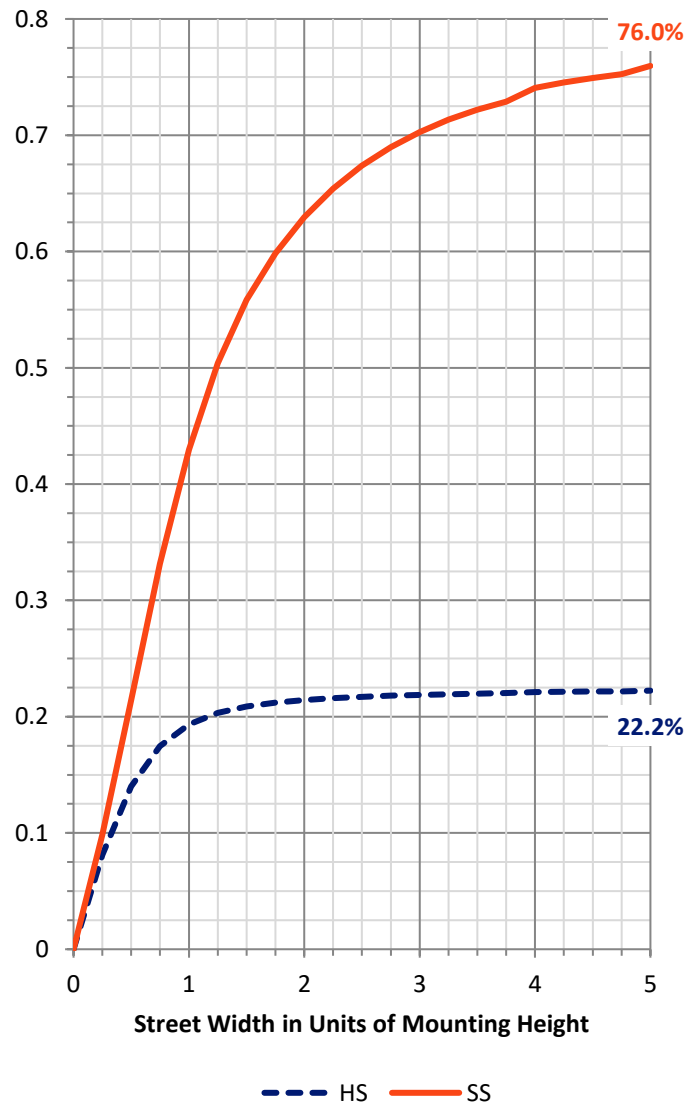
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5638.1	0.0	5638.1
	% Fixture	22.5	0.0	22.5
Street Side	Lumens	19401.5	0.0	19401.5
	% Fixture	77.5	0.0	77.5
Total	Lumens	25039.6	0.0	25039.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	307.2	1.2
10°-20°	992.0	4.0
20°-30°	1882.3	7.5
30°-40°	2964.3	11.8
40°-50°	4137.5	16.5
50°-60°	5117.1	20.4
60°-70°	5304.1	21.2
70°-80°	3337.5	13.3
80°-90°	997.7	4.0
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°	25039.6	100.0
0°-180°	25039.6	100.0

Coefficient of Utilization



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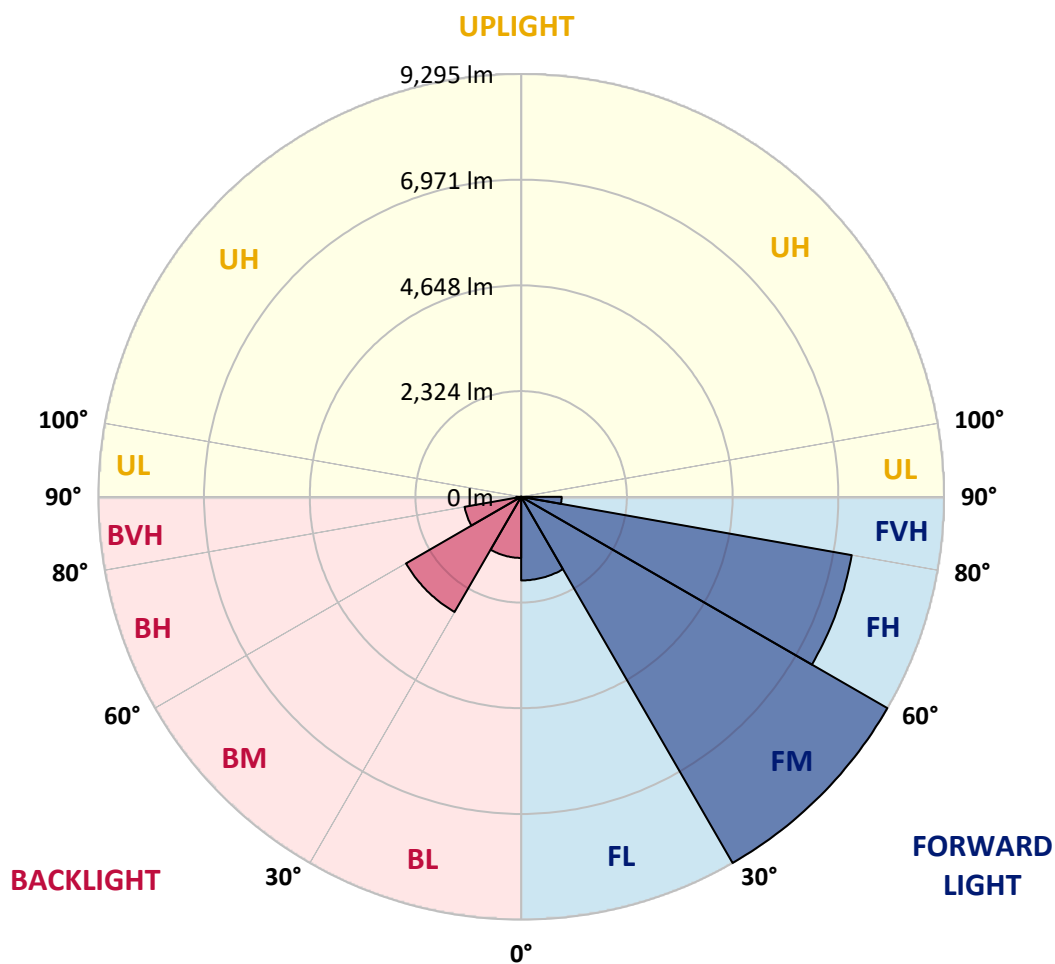
CATALOG NUMBER: VST-F11-LED-E-U-SLL-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1838.3	7.3			
FM	(30°-60°)	9295.1	37.1			
FH	(60°-80°)	7379.0	29.5			G3/7500
FVH	(80°-90°)	889.1	3.6			G5
BL	(0°-30°)	1343.2	5.4	B3/2500		
BM	(30°-60°)	2923.7	11.7	B3/5000		
BH	(60°-80°)	1262.7	5.0	B3/2500		G3/2500
BVH	(80°-90°)	108.5	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-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0
2.5°	3298.5	3294.8	3294.8	3294.8	3292.9	3289.2	3294.8	3292.9	3283.6	3278.0	3283.6
5°	3341.4	3343.2	3348.8	3350.7	3350.7	3356.3	3371.2	3373.1	3371.2	3374.9	3384.2
7.5°	3382.4	3391.7	3397.3	3406.6	3417.8	3427.1	3453.2	3479.3	3496.1	3509.1	3512.8
10°	3449.5	3464.4	3481.1	3505.4	3531.5	3578.0	3600.4	3626.5	3643.3	3669.4	3675.0
12.5°	3620.9	3639.5	3650.7	3688.0	3721.5	3766.3	3797.9	3805.4	3844.5	3866.9	3893.0
15°	3909.8	3937.7	3976.9	3999.2	4036.5	4075.6	4103.6	4140.8	4146.4	4176.3	4196.8
17.5°	4263.8	4303.0	4383.1	4437.2	4485.6	4524.7	4580.6	4623.5	4632.8	4666.4	4623.5
20°	4759.5	4854.6	4867.6	4975.7	5018.6	5096.9	5208.7	5229.2	5283.2	5229.2	5197.5
22.5°	5430.4	5579.5	5620.5	5724.9	5777.1	5896.3	5929.9	6039.8	6077.1	6036.1	5950.4
25°	6201.9	6433.0	6552.3	6712.6	6738.7	6982.8	7008.9	7137.5	7068.5	6969.7	6971.6
27.5°	6770.3	7163.5	7471.0	7745.0	7936.9	8212.7	8427.0	8486.7	8421.5	8292.9	8248.1
30°	7094.6	7540.0	7981.7	8360.0	8807.2	9228.4	9666.3	9884.4	9921.6	9988.7	9718.5
32.5°	7303.3	7875.4	8401.0	8868.7	9327.1	9869.4	10456.5	11017.4	11488.9	11844.8	11677.1
35°	7478.5	8184.8	8857.5	9424.1	9966.4	10557.1	11149.7	11811.3	12592.1	13048.7	13143.7
37.5°	7549.3	8412.1	9235.8	9962.6	10724.8	11390.1	11979.0	12567.9	13387.9	14202.2	14453.8
40°	7536.3	8524.0	9461.3	10374.5	11308.1	12139.3	12828.8	13525.8	14485.5	15437.8	15847.8
42.5°	7448.7	8540.7	9604.8	10648.4	11712.5	12817.6	13699.1	14502.3	15422.9	16643.5	17223.1
45°	7338.7	8483.0	9634.6	10788.2	12012.5	13291.0	14405.4	15398.6	16477.7	17683.4	18384.1
47.5°	7189.6	8391.6	9597.4	10836.6	12146.7	13594.7	14904.8	16099.3	17286.4	18674.8	19563.7
50°	7027.5	8261.2	9521.0	10801.2	12180.3	13760.6	15189.9	16550.3	17936.8	19435.1	20558.9
52.5°	6913.8	8121.4	9452.0	10728.6	12146.7	13810.9	15294.3	16792.6	18335.6	19884.3	21226.0
55°	6774.1	7935.1	9267.5	10559.0	12023.7	13782.9	15283.1	16876.5	18445.6	20057.6	21589.4
57.5°	6783.4	7849.3	9111.0	10355.8	11772.1	13523.9	15072.5	16792.6	18272.3	19945.8	21602.5
60°	7077.8	8033.8	9193.0	10396.8	11697.6	13359.9	14714.7	16252.2	17763.5	19560.0	21300.6
62.5°	7685.3	8561.2	9614.1	10806.8	12116.9	13687.9	14552.6	15353.9	16695.7	18850.0	20786.2
65°	8410.3	9200.4	10113.6	11248.5	12717.0	14220.9	14461.3	14623.4	15301.7	17469.1	19820.9
67.5°	9135.2	9841.5	10559.0	11500.1	13058.0	14373.7	14088.6	13702.8	14068.1	15864.5	17923.8
70°	9396.1	10333.5	10805.0	11451.6	12799.0	14017.7	13486.6	12515.7	12642.4	14274.9	15780.7
72.5°	9004.8	10340.9	10497.5	10737.9	11645.4	12791.5	12230.6	10982.0	10955.9	12202.6	13419.5
75°	7553.0	9433.4	9431.5	9342.1	9547.1	10199.3	9908.6	9155.7	9474.4	10456.5	10857.1
77.5°	5383.8	7361.1	7454.3	6852.3	6837.4	7131.9	7307.0	8182.9	9338.3	9889.9	9763.2
80°	3382.4	4966.4	5367.1	4623.5	4465.1	4882.5	5965.3	7240.0	8661.9	9157.6	8730.8
82.5°	2036.9	3199.7	4053.3	3632.1	3594.8	4355.2	5551.6	6047.3	6474.0	7001.4	6287.7
85°	1382.8	2131.9	2773.0	2856.8	3183.0	3969.4	4489.3	4269.4	4280.6	4142.7	3773.7
87.5°	264.6	581.4	950.4	1159.1	1285.9	1727.5	1878.5	1701.4	1796.5	1313.8	1436.8
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0
2.5°	3274.3	3274.3	3274.3	3265.0	3266.8	3253.8	3248.2	3248.2	3242.6	3242.6	3240.7
5°	3376.8	3365.6	3371.2	3369.3	3369.3	3350.7	3341.4	3341.4	3317.1	3319.0	3311.6
7.5°	3529.6	3527.7	3533.3	3522.1	3507.2	3492.3	3477.4	3470.0	3436.4	3415.9	3402.9
10°	3702.9	3701.0	3706.6	3704.8	3678.7	3650.7	3609.7	3579.9	3538.9	3507.2	3475.6
12.5°	3893.0	3891.1	3887.4	3870.6	3842.7	3797.9	3745.8	3695.5	3634.0	3593.0	3546.4
15°	4189.3	4183.7	4161.3	4137.1	4107.3	4038.3	3947.0	3874.4	3792.4	3721.5	3645.1
17.5°	4627.2	4580.6	4576.9	4522.9	4442.7	4351.4	4265.7	4144.6	4027.2	3920.9	3816.6
20°	5231.0	5122.9	5093.1	5031.6	4925.4	4830.4	4644.0	4481.9	4321.6	4176.3	4043.9
22.5°	5888.9	5810.6	5737.9	5637.3	5491.9	5354.0	5117.4	4914.2	4709.2	4522.9	4375.7
25°	6807.6	6671.6	6541.1	6380.9	6179.6	6015.6	5745.4	5540.4	5272.0	5102.4	4890.0
27.5°	7994.7	7761.8	7541.9	7403.9	7049.9	6811.3	6466.6	6201.9	5877.7	5648.5	5396.9
30°	9539.6	9269.4	8943.3	8466.2	8045.0	7571.7	7144.9	6805.7	6461.0	6140.5	5849.7
32.5°	11455.3	10978.3	10462.1	9705.5	9014.1	8339.5	7771.1	7353.6	7001.4	6602.6	6192.6
35°	13074.8	12582.8	11850.4	10888.8	10035.3	9263.8	8583.6	8013.3	7553.0	7048.0	6505.7
37.5°	14353.2	13792.3	13104.6	12083.4	11181.4	10303.7	9589.9	8863.1	8259.3	7564.2	6878.4
40°	15818.0	15255.2	14498.5	13440.0	12372.2	11419.9	10583.2	9832.2	9090.5	8242.6	7361.1
42.5°	17094.5	16688.2	15922.3	14828.4	13645.0	12584.7	11669.7	10810.5	9841.5	8892.9	7849.3
45°	18425.1	18011.4	17284.6	16140.3	14882.4	13700.9	12607.0	11682.7	10538.5	9409.1	8214.6
47.5°	19601.0	19176.1	18441.9	17305.1	15968.9	14724.0	13520.2	12402.0	11073.3	9776.3	8453.1
50°	20722.9	20202.9	19530.2	18397.1	16969.6	15639.0	14332.7	12897.7	11488.9	10033.4	8615.3
52.5°	21753.4	21091.8	20454.5	19287.9	17744.9	16354.7	14897.3	13318.9	11744.2	10236.6	8725.2
55°	22338.6	21911.8	21149.6	20003.5	18296.5	16846.6	15255.2	13615.2	11997.6	10380.1	8771.8
57.5°	22519.3	22415.0	21775.8	20417.2	18620.8	17116.9	15497.4	13850.0	12167.2	10421.1	8706.6
60°	22375.8	22565.9	22215.6	20707.9	18768.0	17197.0	15616.7	14017.7	12197.0	10290.6	8509.0
62.5°	21915.5	22347.9	22303.2	20804.9	18691.6	17096.4	15603.6	13932.0	11917.5	9884.4	8065.5
65°	21158.9	21703.1	21895.0	20445.2	18261.1	16729.2	15271.9	13393.5	11140.4	9090.5	7322.0
67.5°	19735.2	20558.9	20745.2	19267.4	17135.5	15713.6	14315.9	12275.3	9701.7	7862.4	6161.0
70°	16882.0	18322.6	18574.2	17023.7	15150.8	13902.2	12717.0	10503.1	8078.6	6306.3	4727.9
72.5°	13477.3	14383.0	14897.3	13829.5	12435.6	11529.9	10631.6	8058.1	6095.7	4653.3	3253.8
75°	10536.6	10482.6	10942.9	10232.8	9412.9	8989.8	8315.2	5622.4	4083.1	3082.3	2059.2
77.5°	9008.5	8315.2	7791.6	7292.1	6805.7	6671.6	6024.9	3488.6	2523.3	1846.8	1231.8
80°	7487.8	6222.4	5266.4	4563.9	4390.6	4655.2	3943.3	2057.4	1494.6	1060.4	773.4
82.5°	5350.3	4476.3	3643.3	3197.9	2901.6	3322.7	2325.7	1142.4	810.7	635.5	512.5
85°	3468.1	3315.3	3279.9	3134.5	2774.9	2620.2	1766.7	984.0	607.5	395.1	318.7
87.5°	1334.3	1710.8	1973.5	2115.1	2286.6	2036.9	920.6	339.2	333.6	205.0	154.7
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0
2.5°	3227.7	3220.2	3218.4	3212.8	3209.1	3209.1	3199.7	3030.2	3028.3	3028.3	3026.4
5°	3296.6	3287.3	3278.0	3276.1	3268.7	3268.7	3259.4	3089.8	3089.8	3089.8	3086.1
7.5°	3389.8	3371.2	3360.0	3354.4	3343.2	3348.8	3356.3	3184.8	3186.7	3184.8	3188.6
10°	3456.9	3445.7	3432.7	3429.0	3421.5	3427.1	3438.3	3268.7	3274.3	3276.1	3279.9
12.5°	3522.1	3503.5	3486.7	3481.1	3477.4	3492.3	3505.4	3341.4	3347.0	3352.6	3352.6
15°	3602.3	3570.6	3548.2	3535.2	3527.7	3542.6	3561.3	3399.1	3401.0	3406.6	3404.7
17.5°	3738.3	3691.7	3639.5	3630.2	3606.0	3611.6	3615.3	3434.6	3427.1	3414.1	3391.7
20°	3948.9	3878.1	3807.3	3777.4	3729.0	3708.5	3667.5	3436.4	3389.8	3350.7	3317.1
22.5°	4250.8	4146.4	4070.0	4019.7	3920.9	3852.0	3740.2	3427.1	3339.5	3272.4	3220.2
25°	4739.0	4614.2	4496.8	4370.1	4215.4	4077.5	3913.5	3509.1	3373.1	3257.5	3156.9
27.5°	5214.3	5016.7	4836.0	4645.9	4427.8	4221.0	3989.9	3535.2	3380.5	3231.4	3067.4
30°	5570.2	5283.2	5009.3	4731.6	4446.5	4178.1	3917.2	3445.7	3261.2	3093.5	2920.2
32.5°	5786.4	5413.7	5057.7	4713.0	4377.5	4075.6	3783.0	3291.1	3087.9	2890.4	2705.9
35°	5991.4	5529.2	5087.5	4681.3	4297.4	3961.9	3647.0	3110.3	2868.0	2657.4	2424.5
37.5°	6244.8	5650.3	5106.2	4623.5	4180.0	3796.1	3449.5	2882.9	2640.7	2381.6	2161.7
40°	6548.6	5775.2	5087.5	4508.0	3997.3	3578.0	3210.9	2644.4	2374.2	2122.6	1906.4
42.5°	6837.4	5885.1	5039.1	4353.3	3797.9	3350.7	2992.9	2432.0	2161.7	1904.6	1690.3
45°	7051.7	5978.3	5014.9	4245.2	3645.1	3196.0	2800.9	2260.5	1975.4	1716.3	1498.3
47.5°	7200.8	6034.2	5003.7	4185.6	3538.9	3035.7	2625.8	2089.1	1789.0	1528.1	1315.7
50°	7279.1	6032.4	4975.7	4120.3	3382.4	2843.8	2445.0	1915.7	1617.6	1362.3	1168.5
52.5°	7299.6	5998.8	4916.1	4001.1	3192.3	2651.9	2251.2	1735.0	1466.6	1222.5	1026.8
55°	7253.0	5916.8	4791.2	3801.7	2989.2	2448.7	2074.1	1593.3	1319.4	1088.3	935.5
57.5°	7120.7	5771.5	4556.4	3527.7	2774.9	2260.5	1871.0	1421.9	1159.1	965.3	838.6
60°	6874.7	5464.0	4189.3	3203.5	2502.8	1973.5	1591.5	1198.3	989.6	844.2	741.7
62.5°	6420.0	4981.3	3673.1	2756.2	2111.4	1600.8	1271.0	956.0	799.5	704.4	641.1
65°	5687.6	4254.5	3074.9	2171.1	1604.5	1164.7	944.8	719.3	605.7	547.9	529.3
67.5°	4642.1	3285.5	2236.3	1507.6	1086.5	816.2	657.8	525.5	471.5	449.1	441.7
70°	3374.9	2238.1	1448.0	952.3	717.5	570.3	497.6	423.0	393.2	387.6	387.6
72.5°	2118.9	1360.4	887.1	652.2	544.2	462.2	424.9	372.7	361.5	357.8	352.2
75°	1243.0	825.6	628.0	534.8	465.9	413.7	382.0	339.2	331.7	329.9	324.3
77.5°	792.0	594.5	506.9	456.6	421.2	374.6	346.6	301.9	300.0	298.2	296.3
80°	568.4	493.8	443.5	404.4	369.0	326.1	309.4	273.9	270.2	268.4	272.1
82.5°	430.5	408.1	387.6	357.8	309.4	277.7	264.6	240.4	242.3	232.9	231.1
85°	296.3	292.6	290.7	277.7	242.3	214.3	205.0	191.9	201.3	191.9	180.8
87.5°	145.4	143.5	132.3	156.5	145.4	115.5	104.4	115.5	128.6	124.9	115.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P158956

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

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0
2.5°	3019.0	3011.5	3017.1	3013.4	3013.4	3011.5	3015.3	3009.7	3005.9	3009.7	3011.5
5°	3078.6	3069.3	3071.2	3058.1	3063.7	3050.7	3054.4	3045.1	3035.7	3032.0	3032.0
7.5°	3179.2	3169.9	3158.7	3156.9	3136.4	3128.9	3115.9	3108.4	3102.8	3089.8	3082.3
10°	3270.6	3255.7	3242.6	3240.7	3220.2	3201.6	3184.8	3169.9	3160.6	3142.0	3132.7
12.5°	3345.1	3330.2	3309.7	3298.5	3278.0	3255.7	3244.5	3222.1	3209.1	3188.6	3171.8
15°	3388.0	3361.9	3332.1	3311.6	3281.7	3257.5	3240.7	3224.0	3210.9	3184.8	3160.6
17.5°	3367.5	3324.6	3283.6	3246.3	3205.3	3183.0	3158.7	3138.2	3134.5	3104.7	3067.4
20°	3281.7	3231.4	3177.4	3127.1	3073.0	3041.3	3011.5	2979.8	2970.5	2935.1	2886.7
22.5°	3177.4	3119.6	3058.1	2996.6	2927.7	2882.9	2838.2	2799.1	2767.4	2715.2	2646.3
25°	3071.2	2985.4	2896.0	2817.7	2737.6	2681.7	2635.1	2592.2	2554.9	2471.1	2400.3
27.5°	2931.4	2797.2	2705.9	2616.4	2519.5	2446.9	2394.7	2335.0	2294.1	2197.1	2122.6
30°	2752.5	2618.3	2487.9	2398.4	2301.5	2223.2	2156.1	2070.4	2010.8	1940.0	1871.0
32.5°	2527.0	2392.8	2260.5	2159.9	2079.7	1982.8	1899.0	1817.0	1748.0	1679.1	1625.0
35°	2253.1	2122.6	1997.7	1897.1	1807.7	1731.3	1651.1	1580.3	1502.0	1427.5	1395.8
37.5°	1964.2	1824.4	1686.5	1598.9	1528.1	1474.1	1399.5	1341.8	1271.0	1226.2	1189.0
40°	1712.6	1563.5	1433.1	1358.5	1302.6	1241.1	1179.6	1134.9	1084.6	1039.9	1011.9
42.5°	1500.2	1360.4	1248.6	1185.2	1118.1	1051.1	1004.5	967.2	935.5	902.0	868.4
45°	1304.5	1170.3	1077.1	998.9	943.0	888.9	857.2	840.5	821.8	801.3	779.0
47.5°	1140.5	1025.0	933.6	861.0	803.2	765.9	751.0	745.4	738.0	721.2	710.0
50°	1015.6	920.6	827.4	762.2	713.7	695.1	678.3	672.7	663.4	657.8	650.4
52.5°	911.3	810.7	732.4	672.7	642.9	635.5	628.0	620.6	618.7	615.0	611.2
55°	825.6	738.0	665.3	620.6	605.7	600.1	598.2	590.8	588.9	588.9	583.3
57.5°	749.2	674.6	609.4	581.4	572.1	566.5	562.8	559.1	559.1	562.8	560.9
60°	670.9	607.5	568.4	553.5	547.9	538.6	529.3	525.5	527.4	536.7	536.7
62.5°	594.5	547.9	523.7	518.1	512.5	505.0	493.8	490.1	493.8	505.0	510.6
65°	510.6	490.1	482.7	478.9	475.2	469.6	462.2	458.4	460.3	465.9	473.3
67.5°	434.2	432.3	432.3	434.2	432.3	430.5	426.8	421.2	419.3	419.3	423.0
70°	387.6	387.6	393.2	393.2	391.3	391.3	385.8	380.2	376.4	372.7	374.6
72.5°	352.2	352.2	354.1	355.9	354.1	354.1	346.6	342.9	333.6	331.7	328.0
75°	322.4	318.7	318.7	316.8	314.9	316.8	309.4	300.0	296.3	294.4	290.7
77.5°	292.6	285.1	281.4	277.7	279.5	277.7	272.1	266.5	260.9	259.0	257.2
80°	259.0	247.9	242.3	232.9	238.5	240.4	236.7	231.1	229.2	227.4	225.5
82.5°	214.3	203.1	195.7	190.1	186.4	190.1	195.7	208.7	205.0	203.1	199.4
85°	167.7	149.1	139.8	141.6	132.3	134.2	150.9	158.4	158.4	162.1	158.4
87.5°	95.0	91.3	69.0	63.4	67.1	80.1	89.5	98.8	98.8	93.2	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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CATALOG NUMBER: VST-F11-LED-E-U-SLL-7050

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0
2.5°	3011.5	3015.3	3017.1	3024.6	3028.3	3030.2	3032.0	3035.7	3037.6	3035.7	3045.1
5°	3026.4	3026.4	3022.7	3028.3	3030.2	3030.2	3026.4	3030.2	3030.2	3030.2	3039.5
7.5°	3065.6	3054.4	3048.8	3041.3	3035.7	3028.3	3019.0	3019.0	3017.1	3019.0	3024.6
10°	3106.6	3089.8	3069.3	3050.7	3033.9	3020.8	3004.1	2998.5	2996.6	2994.8	3009.7
12.5°	3138.2	3108.4	3076.7	3045.1	3011.5	2989.2	2961.2	2944.4	2942.6	2942.6	2961.2
15°	3115.9	3067.4	3005.9	2950.0	2920.2	2888.5	2856.8	2836.3	2834.5	2838.2	2849.4
17.5°	3004.1	2925.8	2871.8	2817.7	2778.6	2752.5	2732.0	2728.3	2735.7	2728.3	2743.2
20°	2814.0	2730.1	2692.9	2650.0	2635.1	2616.4	2586.6	2560.5	2560.5	2527.0	2536.3
22.5°	2568.0	2521.4	2473.0	2439.4	2428.2	2396.5	2364.9	2329.5	2325.7	2284.7	2279.1
25°	2310.8	2264.2	2225.1	2217.6	2184.1	2141.2	2111.4	2070.4	2061.1	2020.1	2014.5
27.5°	2048.1	2010.8	1971.7	1949.3	1930.7	1884.1	1858.0	1809.5	1790.9	1746.2	1740.6
30°	1798.3	1772.3	1725.7	1707.0	1671.6	1617.6	1561.7	1531.9	1516.9	1470.4	1455.4
32.5°	1563.5	1522.5	1487.1	1464.8	1420.0	1358.5	1308.2	1265.4	1237.4	1181.5	1166.6
35°	1339.9	1298.9	1282.1	1224.4	1185.2	1144.2	1075.3	1049.2	998.9	956.0	941.1
37.5°	1142.4	1103.2	1080.9	1032.4	993.3	952.3	911.3	877.7	853.5	844.2	844.2
40°	972.8	952.3	924.3	888.9	862.8	833.0	810.7	799.5	797.6	801.3	810.7
42.5°	851.6	829.3	810.7	792.0	773.4	769.7	764.1	771.5	780.8	790.2	799.5
45°	760.3	741.7	730.5	723.1	721.2	726.8	738.0	749.2	765.9	777.1	784.6
47.5°	695.1	680.2	676.5	674.6	683.9	700.7	715.6	732.4	745.4	756.6	764.1
50°	639.2	626.2	624.3	622.4	635.5	650.4	663.4	685.8	695.1	702.6	708.2
52.5°	600.1	588.9	583.3	585.2	598.2	611.2	629.9	646.7	659.7	665.3	670.9
55°	568.4	564.7	551.6	557.2	570.3	587.0	605.7	624.3	637.3	646.7	656.0
57.5°	544.2	534.8	525.5	534.8	547.9	564.7	587.0	603.8	620.6	633.6	642.9
60°	518.1	510.6	503.2	512.5	525.5	542.3	559.1	581.4	601.9	615.0	624.3
62.5°	495.7	490.1	482.7	484.5	490.1	501.3	510.6	531.1	549.8	566.5	577.7
65°	464.0	462.2	451.0	452.8	456.6	467.8	475.2	493.8	512.5	527.4	536.7
67.5°	417.4	413.7	413.7	419.3	421.2	426.8	432.3	451.0	465.9	477.1	488.3
70°	370.8	369.0	369.0	372.7	370.8	376.4	383.9	400.7	419.3	430.5	441.7
72.5°	326.1	326.1	324.3	328.0	328.0	329.9	339.2	354.1	370.8	380.2	387.6
75°	287.0	285.1	285.1	285.1	287.0	287.0	296.3	309.4	326.1	331.7	342.9
77.5°	251.6	251.6	251.6	251.6	253.4	251.6	257.2	266.5	272.1	281.4	281.4
80°	221.8	219.9	221.8	223.6	223.6	221.8	221.8	223.6	225.5	225.5	225.5
82.5°	195.7	190.1	193.8	203.1	203.1	203.1	201.3	188.2	178.9	178.9	182.6
85°	156.5	156.5	158.4	171.4	173.3	165.9	173.3	154.7	136.0	130.4	134.2
87.5°	96.9	76.4	93.2	106.2	106.2	100.6	111.8	104.4	87.6	70.8	67.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P158956
CATALOG NUMBER: VST-F11-LED-E-U-SLL-7050

REPORT N
CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°	
0°	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	0°
2.5°	3052.5	3054.4	3065.6	3071.2	3071.2	3078.6	3082.3	3093.5	3091.7	3091.7	3095.4	2.5°
5°	3048.8	3054.4	3065.6	3073.0	3076.7	3086.1	3093.5	3106.6	3104.7	3108.4	3110.3	5°
7.5°	3035.7	3050.7	3061.8	3076.7	3089.8	3097.2	3106.6	3117.7	3114.0	3115.9	3114.0	7.5°
10°	3024.6	3039.5	3061.8	3082.3	3101.0	3112.2	3117.7	3130.8	3128.9	3132.7	3132.7	10°
12.5°	2979.8	3005.9	3033.9	3065.6	3093.5	3123.3	3142.0	3169.9	3183.0	3199.7	3218.4	12.5°
15°	2866.2	2896.0	2940.7	2976.1	3030.2	3071.2	3125.2	3179.2	3227.7	3274.3	3328.3	15°
17.5°	2754.4	2767.4	2802.8	2851.3	2899.7	2961.2	3026.4	3123.3	3210.9	3306.0	3410.3	17.5°
20°	2547.5	2569.9	2594.1	2651.9	2709.6	2797.2	2877.3	3004.1	3132.7	3281.7	3442.0	20°
22.5°	2292.2	2314.5	2340.6	2405.9	2476.7	2566.1	2663.0	2804.7	2976.1	3169.9	3384.2	22.5°
25°	2016.4	2029.4	2049.9	2115.1	2158.0	2275.4	2392.8	2540.0	2726.4	2976.1	3225.8	25°
27.5°	1712.6	1736.8	1753.6	1783.4	1882.2	1982.8	2105.8	2264.2	2489.7	2745.0	3046.9	27.5°
30°	1421.9	1442.4	1433.1	1496.4	1561.7	1667.9	1800.2	1975.4	2191.6	2495.3	2843.8	30°
32.5°	1136.8	1151.7	1146.1	1190.8	1256.0	1362.3	1487.1	1677.2	1906.4	2230.7	2609.0	32.5°
35°	937.4	941.1	961.6	982.1	1038.0	1123.7	1230.0	1395.8	1630.6	1928.8	2329.5	35°
37.5°	844.2	851.6	864.7	892.6	933.6	995.1	1082.7	1211.3	1412.6	1675.3	2033.2	37.5°
40°	816.2	821.8	829.3	847.9	887.1	941.1	1019.4	1127.5	1274.7	1496.4	1787.2	40°
42.5°	803.2	803.2	803.2	814.4	844.2	902.0	991.4	1097.6	1226.2	1393.9	1628.8	42.5°
45°	784.6	784.6	782.7	788.3	808.8	866.6	963.5	1082.7	1220.6	1380.9	1584.0	45°
47.5°	764.1	762.2	756.6	756.6	769.7	827.4	928.1	1056.6	1207.6	1392.1	1610.1	47.5°
50°	708.2	708.2	708.2	713.7	724.9	777.1	885.2	1021.2	1194.5	1399.5	1651.1	50°
52.5°	676.5	678.3	683.9	683.9	695.1	749.2	862.8	1013.8	1202.0	1427.5	1703.3	52.5°
55°	661.6	667.2	672.7	672.7	682.1	738.0	855.4	1019.4	1230.0	1485.3	1792.8	55°
57.5°	648.5	654.1	657.8	657.8	665.3	713.7	834.9	1010.1	1246.7	1541.2	1902.7	57.5°
60°	624.3	628.0	629.9	629.9	631.7	672.7	788.3	965.3	1209.5	1537.4	1962.3	60°
62.5°	579.6	587.0	588.9	590.8	590.8	629.9	728.7	892.6	1129.3	1481.5	1945.6	62.5°
65°	546.0	549.8	555.3	559.1	566.5	592.6	670.9	805.1	1025.0	1369.7	1852.4	65°
67.5°	493.8	499.4	505.0	512.5	519.9	536.7	598.2	706.3	883.3	1179.6	1643.7	67.5°
70°	447.3	449.1	454.7	464.0	465.9	475.2	519.9	594.5	723.1	946.7	1323.1	70°
72.5°	389.5	393.2	400.7	411.8	411.8	419.3	445.4	484.5	566.5	723.1	976.5	72.5°
75°	339.2	342.9	348.5	348.5	339.2	341.0	359.7	387.6	449.1	544.2	711.9	75°
77.5°	281.4	288.9	294.4	283.3	279.5	285.1	294.4	314.9	359.7	432.3	534.8	77.5°
80°	232.9	236.7	238.5	240.4	236.7	242.3	249.7	262.8	292.6	348.5	423.0	80°
82.5°	186.4	190.1	195.7	203.1	203.1	223.6	225.5	225.5	242.3	277.7	331.7	82.5°
85°	137.9	145.4	152.8	162.1	164.0	175.2	169.6	167.7	173.3	206.9	229.2	85°
87.5°	70.8	76.4	80.1	87.6	78.3	82.0	82.0	76.4	67.1	83.9	93.2	87.5°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90°



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DISTRIBUTION (continued):

330°	335°	340°	345°	350°	355°	360°
3114.0	3114.0	3114.0	3114.0	3114.0	3114.0	3114.0
3099.1	3095.4	3099.1	3099.1	3104.7	3101.0	3298.5
3114.0	3110.3	3114.0	3117.7	3123.3	3123.3	3341.4
3115.9	3115.9	3112.2	3121.5	3128.9	3136.4	3382.4
3138.2	3138.2	3142.0	3143.8	3160.6	3179.2	3449.5
3229.6	3238.9	3255.7	3261.2	3291.1	3311.6	3620.9
3369.3	3421.5	3455.1	3466.2	3492.3	3531.5	3909.8
3511.0	3598.5	3689.9	3745.8	3779.3	3825.9	4263.8
3617.2	3781.2	3937.7	4077.5	4157.6	4248.9	4759.5
3626.5	3887.4	4152.0	4411.1	4625.4	4795.0	5430.4
3537.0	3879.9	4245.2	4642.1	5011.1	5316.8	6201.9
3423.4	3844.5	4310.4	4817.3	5301.8	5752.8	6770.3
3279.9	3784.9	4321.6	4891.9	5460.2	6002.5	7094.6
3061.8	3607.9	4187.4	4817.3	5477.0	6136.7	7303.3
2782.3	3339.5	3934.0	4651.5	5398.8	6190.8	7478.5
2497.2	3046.9	3686.1	4429.7	5273.9	6181.4	7549.3
2195.3	2741.3	3395.4	4193.0	5104.3	6095.7	7536.3
1990.3	2487.9	3128.9	3952.6	4916.1	5982.0	7448.7
1871.0	2307.1	2918.3	3732.7	4744.6	5846.0	7338.7
1869.2	2253.1	2806.5	3576.2	4571.3	5695.1	7189.6
1934.4	2286.6	2793.5	3509.1	4476.3	5585.1	7027.5
2010.8	2379.8	2862.4	3533.3	4474.4	5536.7	6913.8
2131.9	2538.2	3013.4	3637.7	4522.9	5529.2	6774.1
2286.6	2752.5	3285.5	3894.9	4711.1	5676.4	6783.4
2445.0	3004.1	3641.4	4334.7	5081.9	6019.3	7077.8
2502.8	3197.9	4002.9	4850.9	5637.3	6533.7	7685.3
2452.5	3242.6	4222.8	5251.5	6177.7	7135.6	8410.3
2266.1	3061.8	4133.4	5365.2	6488.9	7562.4	9135.2
1865.4	2612.7	3727.1	5109.9	6464.7	7649.9	9396.1
1367.9	2025.7	3030.2	4342.1	5747.2	7102.1	9004.8
987.7	1433.1	2187.8	3270.6	4543.4	5719.3	7553.0
708.2	993.3	1420.0	2148.7	3095.4	3982.4	5383.8
508.8	674.6	885.2	1289.6	1885.9	2445.0	3382.4
374.6	462.2	581.4	801.3	1110.7	1423.8	2036.9
255.3	272.1	350.4	473.3	728.7	1047.3	1382.8
96.9	110.0	128.6	193.8	326.1	374.6	264.6
0.0	0.0	0.0	0.0	0.0	0.0	0.0

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