

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: P158746

Luminaire Tested: **VST-F12-LED-E-U-SL4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158746
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-F12-LED-E-U-SL4-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (84) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29487.7 lumens
Efficiency: N/A
Efficacy: 96.2 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 306.6
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

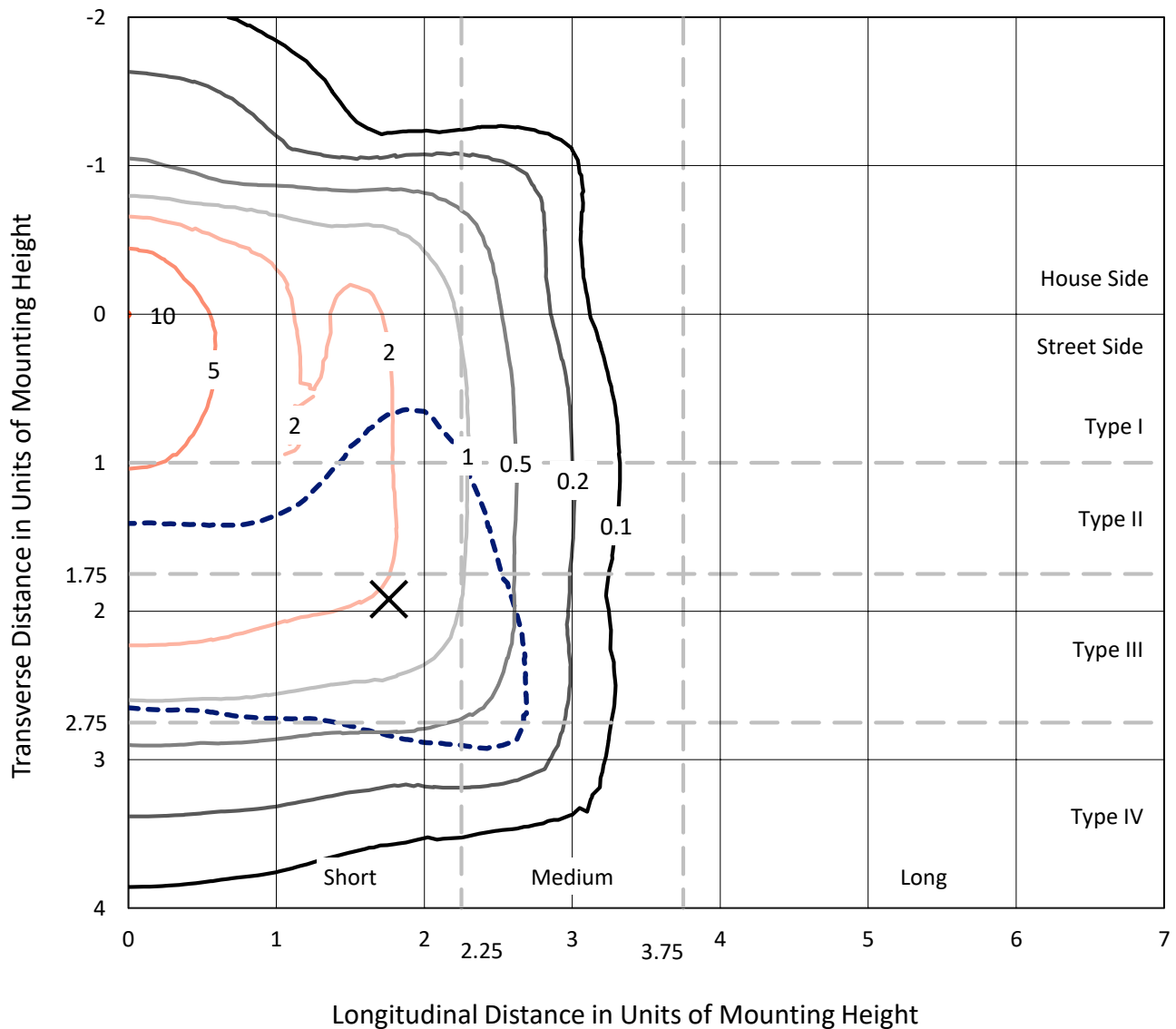


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

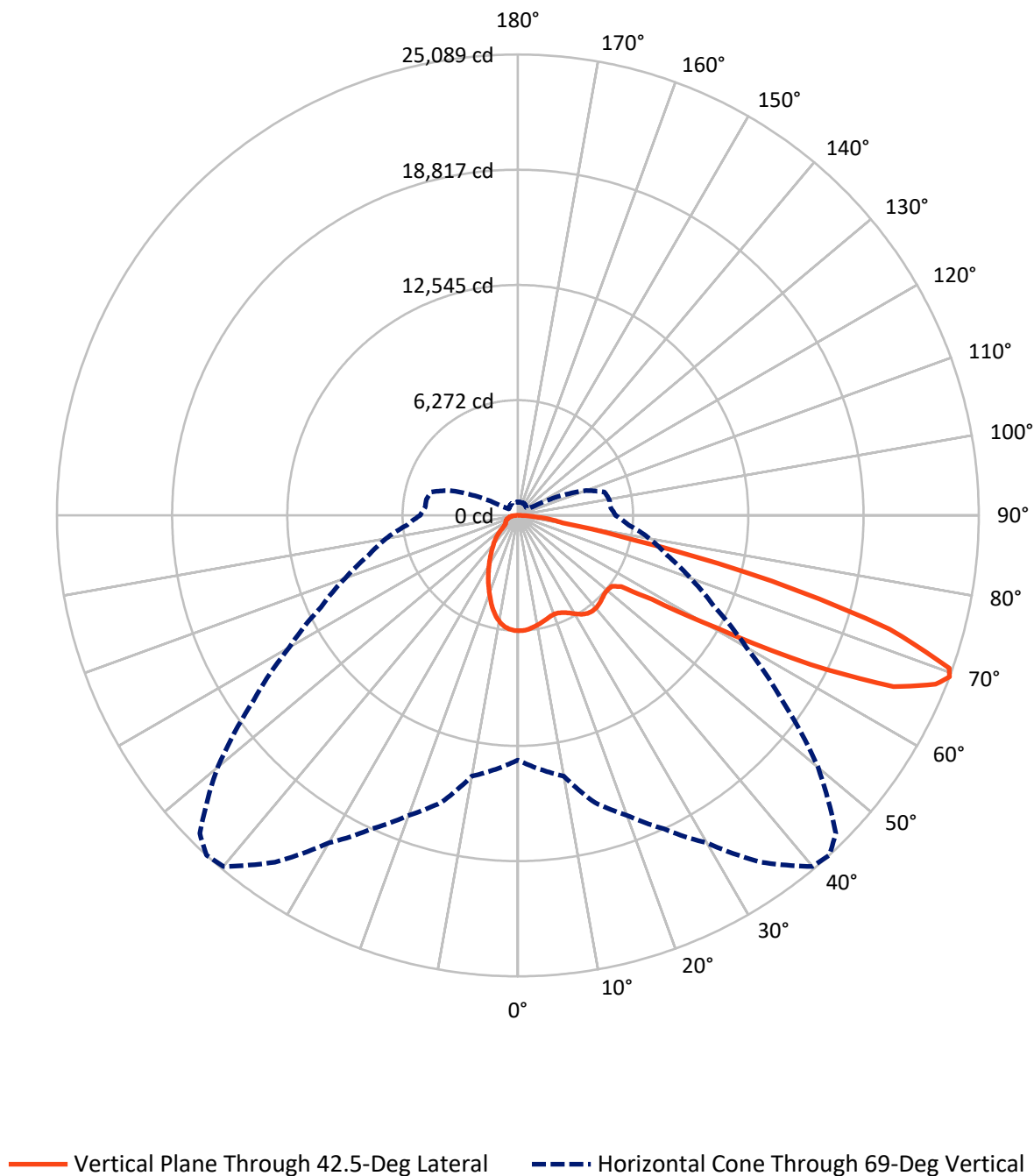


Based on 25 foot mounting height. Maximum calculated value = 10 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6555.6	0.0	6555.6
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	22932.2	0.0	22932.2
	% Fixture	77.8	0.0	77.8
Total	Lumens	29487.7	0.0	29487.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	584.6	2.0
10°-20°	1575.5	5.3
20°-30°	2297.4	7.8
30°-40°	2928.8	9.9
40°-50°	3407.7	11.6
50°-60°	5184.8	17.6
60°-70°	9158.8	31.1
70°-80°	3779.4	12.8
80°-90°	570.7	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°	29487.7	100.0
0°-180°	29487.7	100.0

Coefficient of Utilization



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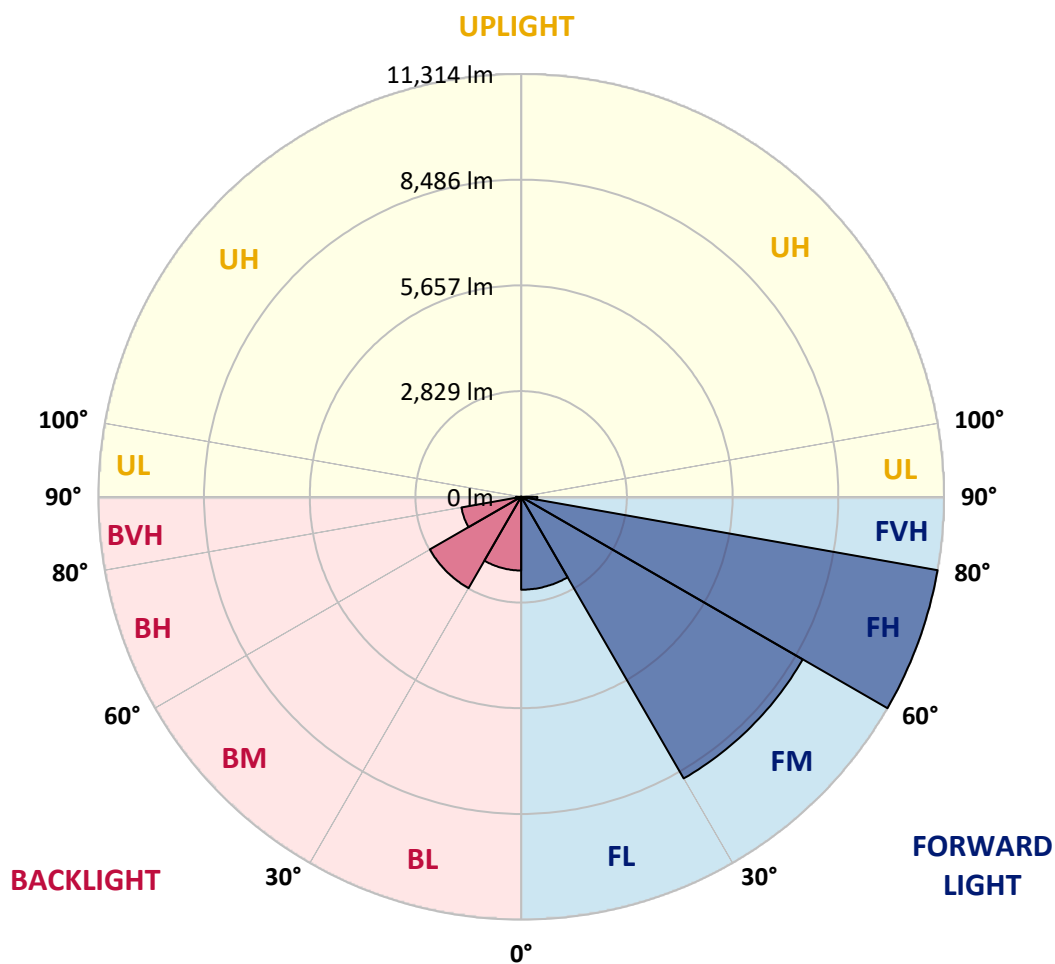
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2486.5	8.4			
FM	(30°-60°)	8699.6	29.5			
FH	(60°-80°)	11314.4	38.4			G4/12000
FVH	(80°-90°)	431.6	1.5			G3/500
BL	(0°-30°)	1971.0	6.7	B3/2500		
BM	(30°-60°)	2821.6	9.6	B3/5000		
BH	(60°-80°)	1623.8	5.5	B3/2500		G3/2500
BVH	(80°-90°)	139.1	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°	6279.9	6279.9	6279.9	6279.9	6279.9	6279.9	6279.9	6279.9	6279.9	6279.9	6279.9
2.5°	6259.5	6281.9	6273.8	6273.8	6279.9	6269.7	6269.7	6273.8	6263.6	6269.7	6267.7
5°	6237.2	6249.4	6245.3	6245.3	6245.3	6237.2	6233.1	6231.1	6216.9	6216.9	6210.8
7.5°	6188.4	6192.5	6198.6	6190.4	6188.4	6186.4	6172.1	6164.0	6147.7	6133.5	6137.6
10°	6123.3	6121.3	6131.5	6125.4	6117.2	6111.1	6098.9	6084.7	6066.4	6048.1	6046.1
12.5°	6050.2	6048.1	6056.3	6052.2	6046.1	6033.9	6023.7	5999.3	5970.9	5948.5	5946.5
15°	6003.4	5997.3	6005.4	5997.3	5987.1	5974.9	5956.6	5926.1	5875.3	5853.0	5834.7
17.5°	6048.1	6038.0	6042.0	6031.9	6017.6	5985.1	5942.4	5877.3	5804.2	5765.5	5737.1
20°	6204.7	6186.4	6190.4	6180.3	6147.7	6105.0	6023.7	5909.9	5785.9	5722.8	5678.1
22.5°	6428.3	6414.1	6420.2	6410.0	6377.5	6312.4	6190.4	6027.8	5850.9	5759.4	5688.3
25°	6767.8	6780.0	6784.1	6737.3	6719.0	6599.1	6430.3	6204.7	5968.8	5861.1	5763.5
27.5°	7150.0	7150.0	7168.3	7150.0	7113.4	6973.1	6735.3	6462.8	6159.9	6013.6	5895.6
30°	7522.0	7518.0	7552.5	7548.5	7489.5	7330.9	7060.5	6729.2	6383.6	6218.9	6068.4
32.5°	7916.4	7928.6	7951.0	7942.9	7865.6	7646.0	7320.8	6960.9	6597.0	6416.1	6247.4
35°	8343.4	8349.5	8357.6	8353.5	8197.0	7920.5	7511.9	7109.3	6731.2	6552.3	6377.5
37.5°	8770.3	8764.2	8754.0	8666.6	8487.7	8103.5	7627.7	7194.7	6798.3	6605.2	6424.2
40°	9152.5	9117.9	9085.4	8949.2	8674.7	8207.1	7672.5	7215.1	6792.2	6593.0	6416.1
42.5°	9361.9	9323.3	9256.2	9085.4	8752.0	8217.3	7642.0	7154.1	6729.2	6532.0	6357.1
45°	9400.5	9372.0	9307.0	9115.9	8733.7	8152.3	7548.5	7054.4	6635.7	6438.5	6273.8
47.5°	9309.0	9286.7	9223.6	9034.6	8654.4	8054.7	7440.7	6948.7	6544.2	6359.2	6200.6
50°	9168.7	9148.4	9099.6	8926.8	8565.0	7987.6	7385.8	6893.8	6513.7	6344.9	6198.6
52.5°	9396.4	9412.7	9270.4	9081.3	8660.5	8046.5	7446.8	6950.8	6568.6	6401.9	6249.4
55°	12935.9	12913.5	12057.6	11340.0	10057.2	8894.3	8026.2	7402.1	6993.5	6826.8	6684.4
57.5°	16808.7	16731.4	16379.7	15708.8	14330.5	12490.6	10817.5	9394.4	8833.3	8593.4	8609.7
60°	18073.2	18101.7	18026.4	17788.6	17294.6	16337.0	15064.4	13995.0	12942.0	12427.6	12486.6
62.5°	18774.6	18825.4	18890.5	18837.6	18677.0	18455.4	18294.8	18392.4	18246.0	17876.0	17581.2
65°	18872.2	18975.8	19191.3	19362.1	19445.5	19654.9	20146.8	21326.0	22403.5	22474.6	21956.2
67.5°	16940.8	17227.5	17695.1	18485.9	19162.9	19907.0	21094.2	22887.3	24477.1	24530.0	24046.1
69°	13320.1	13871.0	14417.9	16184.6	17373.9	18831.5	20588.0	23037.7	24942.6	25089.0	24479.1
70°	10673.2	11000.5	11472.1	13246.9	15023.7	16881.9	19427.2	22541.7	24623.5	24918.3	24245.3
72.5°	6408.0	6534.0	6696.6	7333.0	8247.8	9902.7	13277.4	18378.2	20771.0	21165.4	20309.5
75°	4143.2	4135.1	4149.3	4326.2	4379.0	4696.2	5759.4	9455.4	13549.8	14265.4	13240.8
77.5°	3120.6	3149.1	3104.4	3120.6	3106.4	3191.8	3224.3	3384.9	5348.8	6588.9	5891.6
80°	2754.7	2768.9	2771.0	2762.8	2663.2	2655.1	2707.9	2616.4	2431.4	2468.0	2364.4
82.5°	1571.5	1569.5	1587.8	1726.0	1782.9	1970.0	2047.2	2089.9	1929.3	1809.4	1636.6
85°	1018.5	1026.7	1047.0	1089.7	1047.0	1063.2	1045.0	1081.5	992.1	920.9	823.4
87.5°	416.8	416.8	443.2	481.8	449.3	441.2	378.1	374.1	317.1	286.7	223.6
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	6279.9	6279.9	6279.9	6279.9	6279.9	6279.9	6279.9	6279.9	6279.9	6279.9	6279.9
2.5°	6255.5	6267.7	6261.6	6269.7	6263.6	6263.6	6255.5	6253.5	6259.5	6251.4	6253.5
5°	6200.6	6202.6	6192.5	6196.5	6184.3	6180.3	6174.2	6157.9	6168.1	6157.9	6162.0
7.5°	6121.3	6115.2	6101.0	6080.6	6066.4	6060.3	6048.1	6025.8	6029.8	6011.5	6021.7
10°	6019.7	5999.3	5974.9	5944.4	5924.1	5905.8	5879.4	5853.0	5838.7	5822.5	5820.4
12.5°	5905.8	5881.4	5848.9	5802.1	5757.4	5726.9	5686.2	5639.5	5625.3	5598.8	5584.6
15°	5781.8	5743.2	5704.5	5651.7	5602.9	5556.1	5501.2	5442.3	5403.7	5363.0	5332.5
17.5°	5670.0	5625.3	5574.4	5523.6	5470.8	5413.8	5344.7	5271.5	5214.6	5139.4	5078.4
20°	5582.6	5525.6	5474.8	5422.0	5363.0	5293.9	5210.5	5117.0	5021.5	4938.1	4867.0
22.5°	5548.0	5458.6	5397.6	5344.7	5285.8	5204.4	5102.8	4993.0	4877.1	4761.2	4667.7
25°	5576.5	5444.3	5348.8	5285.8	5234.9	5151.6	5037.7	4903.6	4769.4	4631.1	4505.1
27.5°	5659.8	5491.1	5352.8	5253.2	5194.3	5110.9	4991.0	4848.7	4690.1	4535.6	4381.1
30°	5789.9	5570.4	5395.5	5255.3	5163.8	5068.2	4942.2	4777.5	4616.9	4440.0	4271.3
32.5°	5916.0	5653.7	5444.3	5263.4	5123.1	4999.1	4858.8	4696.2	4523.4	4338.4	4163.5
35°	6005.4	5708.6	5462.6	5245.1	5060.1	4905.6	4755.1	4592.5	4423.8	4234.7	4055.8
37.5°	6048.1	5739.1	5464.7	5196.3	4976.7	4806.0	4645.4	4484.8	4326.2	4147.3	3978.5
40°	6046.1	5737.1	5436.2	5133.3	4877.1	4696.2	4537.6	4381.1	4232.7	4076.1	3923.7
42.5°	6001.4	5704.5	5395.5	5072.3	4806.0	4604.7	4440.0	4289.6	4163.5	4025.3	3897.2
45°	5932.2	5649.7	5352.8	5043.8	4785.6	4584.4	4409.5	4263.2	4151.3	4025.3	3915.5
47.5°	5879.4	5619.2	5358.9	5094.7	4848.7	4639.3	4454.3	4293.7	4198.1	4096.5	4019.2
50°	5887.5	5633.4	5379.3	5125.1	4893.4	4682.0	4503.1	4356.7	4287.6	4261.1	4242.8
52.5°	5930.2	5655.8	5440.3	5287.8	5208.5	5049.9	4944.2	4852.7	4903.6	4803.9	4686.0
55°	6475.0	6385.6	6595.0	6792.2	7042.2	7135.8	7046.3	7030.0	7111.4	6773.9	5999.3
57.5°	8725.6	8957.3	9280.6	9451.3	9658.7	9603.8	9396.4	9223.6	9020.3	8625.9	7660.3
60°	12553.7	12378.8	12232.4	11819.8	11482.3	11087.9	10648.8	10272.7	9912.8	9345.6	8300.7
62.5°	16497.6	15284.0	14269.5	13289.6	12500.8	11846.2	11209.9	10644.7	10099.9	9309.0	8184.8
65°	19909.0	17353.5	15448.6	14011.3	12858.6	11864.5	11047.2	10266.6	9573.3	8646.3	7534.2
67.5°	21441.9	18239.9	15469.0	13409.5	11813.7	10463.8	9406.6	8227.5	7450.9	6857.2	6231.1
69°	21328.0	17562.9	14365.0	11829.9	9996.2	8422.6	7288.2	6058.3	5314.2	5062.1	5047.9
70°	20787.2	16416.3	13076.1	10547.1	8449.1	6885.7	5798.1	4694.2	4000.9	3828.1	4135.1
72.5°	16971.3	11600.2	8194.9	6257.5	4812.1	3803.7	3102.3	2461.9	1965.9	1703.6	1760.6
75°	9585.5	5371.1	3472.3	2624.6	2218.0	1833.7	1573.5	1341.8	1213.7	986.0	780.7
77.5°	3484.5	2305.4	1833.7	1585.7	1124.2	774.6	648.5	567.2	514.3	514.3	489.9
80°	2203.8	1736.2	1211.7	829.5	614.0	534.7	467.6	410.7	378.1	370.0	378.1
82.5°	1376.3	1063.2	679.0	520.4	437.1	392.4	341.5	298.8	272.4	266.3	278.5
85°	679.0	526.5	412.7	368.0	345.6	321.2	282.6	241.9	233.8	250.1	292.7
87.5°	203.3	180.9	148.4	154.5	162.6	158.6	126.0	109.8	103.7	136.2	213.5
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°	6279.9	6279.9	6279.9	6279.9	6279.9	6279.9	6279.9	6279.9	6279.9	6279.9	6279.9
2.5°	6257.5	6255.5	6259.5	6253.5	6257.5	6259.5	6255.5	6273.8	6261.6	6263.6	6271.7
5°	6166.0	6162.0	6178.2	6174.2	6182.3	6190.4	6186.4	6212.8	6202.6	6210.8	6227.0
7.5°	6013.6	6021.7	6023.7	6023.7	6040.0	6066.4	6072.5	6088.8	6088.8	6111.1	6127.4
10°	5810.3	5812.3	5824.5	5822.5	5842.8	5871.3	5875.3	5903.8	5913.9	5950.5	5972.9
12.5°	5574.4	5564.3	5562.2	5560.2	5586.6	5617.1	5621.2	5670.0	5690.3	5722.8	5759.4
15°	5310.1	5283.7	5275.6	5291.9	5285.8	5304.0	5322.3	5348.8	5377.2	5442.3	5474.8
17.5°	5052.0	4999.1	4984.9	4966.6	4948.3	4948.3	4956.4	4988.9	5047.9	5082.5	5155.6
20°	4787.7	4724.6	4673.8	4625.0	4582.3	4566.1	4568.1	4608.8	4651.5	4708.4	4777.5
22.5°	4566.1	4470.5	4383.1	4318.1	4230.6	4228.6	4216.4	4228.6	4275.4	4289.6	4328.2
25°	4375.0	4246.9	4129.0	4023.3	3937.9	3893.2	3881.0	3876.9	3854.5	3848.4	3820.0
27.5°	4226.6	4072.1	3919.6	3791.5	3685.8	3624.8	3547.6	3492.7	3413.4	3393.0	3342.2
30°	4104.6	3937.9	3771.2	3604.5	3484.5	3374.7	3244.6	3149.1	3027.1	2947.8	2878.7
32.5°	3986.7	3817.9	3649.2	3484.5	3299.5	3128.8	2958.0	2809.6	2673.4	2551.4	2449.7
35°	3889.1	3728.5	3557.7	3358.5	3122.7	2876.7	2671.3	2502.6	2315.6	2187.5	2059.4
37.5°	3826.1	3679.7	3508.9	3234.5	2931.6	2667.3	2433.5	2228.1	2037.0	1843.9	1699.6
40°	3797.6	3669.5	3456.1	3120.6	2764.9	2472.1	2213.9	1986.2	1742.3	1524.7	1370.2
42.5°	3795.6	3665.5	3382.9	2994.6	2626.6	2307.4	2020.8	1748.4	1478.0	1254.3	1101.9
45°	3832.2	3659.4	3305.6	2888.9	2504.6	2171.2	1829.7	1498.3	1195.4	1028.7	947.4
47.5°	3929.8	3669.5	3242.6	2791.3	2388.8	2006.6	1610.1	1223.9	973.8	896.5	896.5
50°	4104.6	3728.5	3226.3	2722.2	2272.9	1815.5	1341.8	988.0	862.0	862.0	886.4
52.5°	4372.9	3852.5	3254.8	2673.4	2128.5	1563.4	1057.2	851.8	827.4	849.8	882.3
55°	4991.0	4072.1	3293.4	2590.0	1909.0	1240.1	872.1	805.1	815.2	841.7	872.1
57.5°	6125.4	4541.7	3334.1	2407.1	1555.2	955.5	790.8	786.8	805.1	829.5	855.9
60°	6871.5	5139.4	3437.8	2130.6	1177.1	788.8	750.2	774.6	796.9	817.3	837.6
62.5°	6871.5	5308.1	3515.0	1821.6	884.3	717.6	723.7	762.4	788.8	799.0	811.2
65°	6432.4	4999.1	3252.8	1484.1	719.7	677.0	699.3	738.0	762.4	770.5	780.7
67.5°	5621.2	4415.6	2740.5	1118.1	642.4	642.4	670.9	699.3	719.7	735.9	752.2
69°	4887.3	3962.3	2413.1	947.4	611.9	616.0	644.5	668.9	693.2	713.6	733.9
70°	4358.7	3622.8	2185.5	860.0	593.6	595.7	624.1	650.6	672.9	695.3	719.7
72.5°	2333.9	2502.6	1660.9	705.4	546.9	553.0	579.4	603.8	624.1	646.5	668.9
75°	794.9	1075.4	1057.2	577.4	494.0	510.3	526.5	548.9	575.3	589.6	601.8
77.5°	465.6	481.8	563.1	469.6	445.2	453.4	471.7	489.9	512.3	526.5	536.7
80°	390.3	388.3	390.3	382.2	388.3	406.6	418.8	443.2	463.5	467.6	465.6
82.5°	317.1	333.4	335.4	331.4	349.7	363.9	374.1	388.3	386.3	390.3	398.5
85°	282.6	280.6	294.8	296.8	296.8	286.7	288.7	288.7	288.7	294.8	296.8
87.5°	282.6	235.8	183.0	164.7	172.8	162.6	154.5	152.5	168.7	185.0	180.9
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):

	160°	165°	170°	175°	180°
0°	6279.9	6279.9	6279.9	6279.9	6279.9
2.5°	6275.8	6281.9	6277.8	6277.8	6281.9
5°	6233.1	6243.3	6239.2	6243.3	6243.3
7.5°	6135.5	6149.8	6159.9	6170.1	6164.0
10°	5995.3	6019.7	6035.9	6048.1	6042.0
12.5°	5785.9	5808.2	5842.8	5863.1	5846.9
15°	5499.2	5562.2	5582.6	5611.0	5594.8
17.5°	5200.4	5239.0	5263.4	5289.8	5306.1
20°	4801.9	4832.4	4864.9	4877.1	4858.8
22.5°	4322.1	4338.4	4332.3	4350.6	4314.0
25°	3795.6	3805.7	3799.6	3815.9	3785.4
27.5°	3297.5	3295.5	3297.5	3277.2	3256.8
30°	2817.7	2799.4	2791.3	2760.8	2754.7
32.5°	2388.8	2325.7	2293.2	2248.5	2238.3
35°	1959.8	1870.3	1811.4	1760.6	1738.2
37.5°	1575.6	1467.8	1398.7	1354.0	1347.9
40°	1246.2	1146.6	1097.8	1073.4	1069.3
42.5°	1016.5	973.8	961.6	961.6	961.6
45°	927.0	925.0	935.2	943.3	945.3
47.5°	908.7	920.9	935.2	947.4	951.4
50°	908.7	920.9	931.1	943.3	947.4
52.5°	904.7	914.8	918.9	927.0	931.1
55°	892.5	898.6	898.6	902.6	906.7
57.5°	872.1	876.2	870.1	874.2	884.3
60°	851.8	855.9	845.7	855.9	862.0
62.5°	829.5	831.5	827.4	835.6	835.6
65°	792.9	788.8	794.9	801.0	803.0
67.5°	756.3	746.1	752.2	754.2	758.3
69°	727.8	721.7	723.7	727.8	731.9
70°	707.5	703.4	707.5	713.6	719.7
72.5°	656.7	658.7	672.9	685.1	697.3
75°	609.9	624.1	642.4	668.9	683.1
77.5°	553.0	563.1	577.4	605.8	632.3
80°	477.8	483.8	485.9	496.0	494.0
82.5°	388.3	382.2	378.1	374.1	372.0
85°	278.5	276.5	260.2	248.0	248.0
87.5°	166.7	158.6	150.4	140.3	134.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)