

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: P165549

Luminaire Tested: **VST-E11-LED-E-U-SL4-HSS-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165549
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33728)
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-SL4-HSS-7060
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (231) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22692.7 lumens
Efficiency: N/A
Efficacy: 84.1 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.83' x L: 1' x H: 0.1')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G4

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

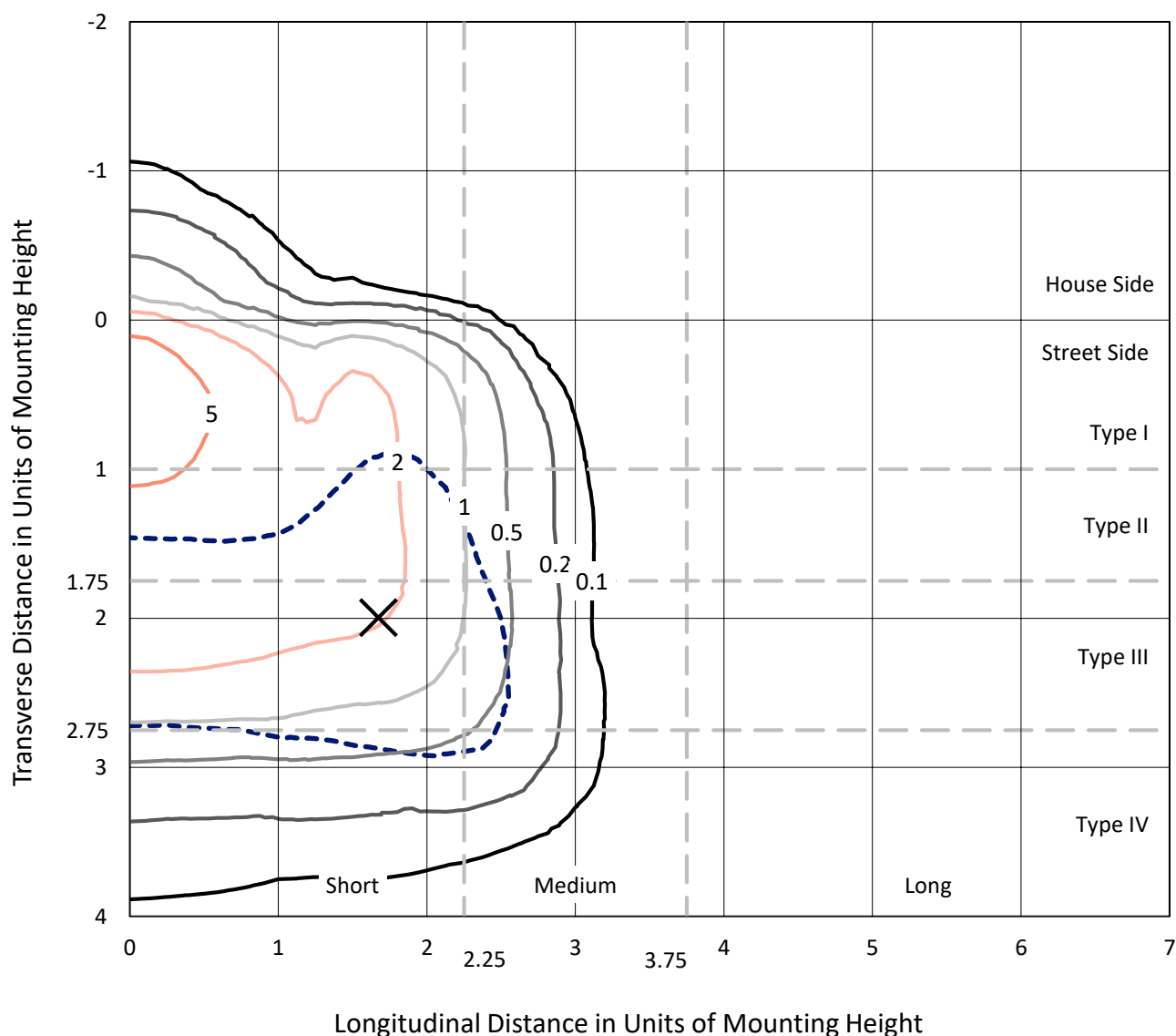


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

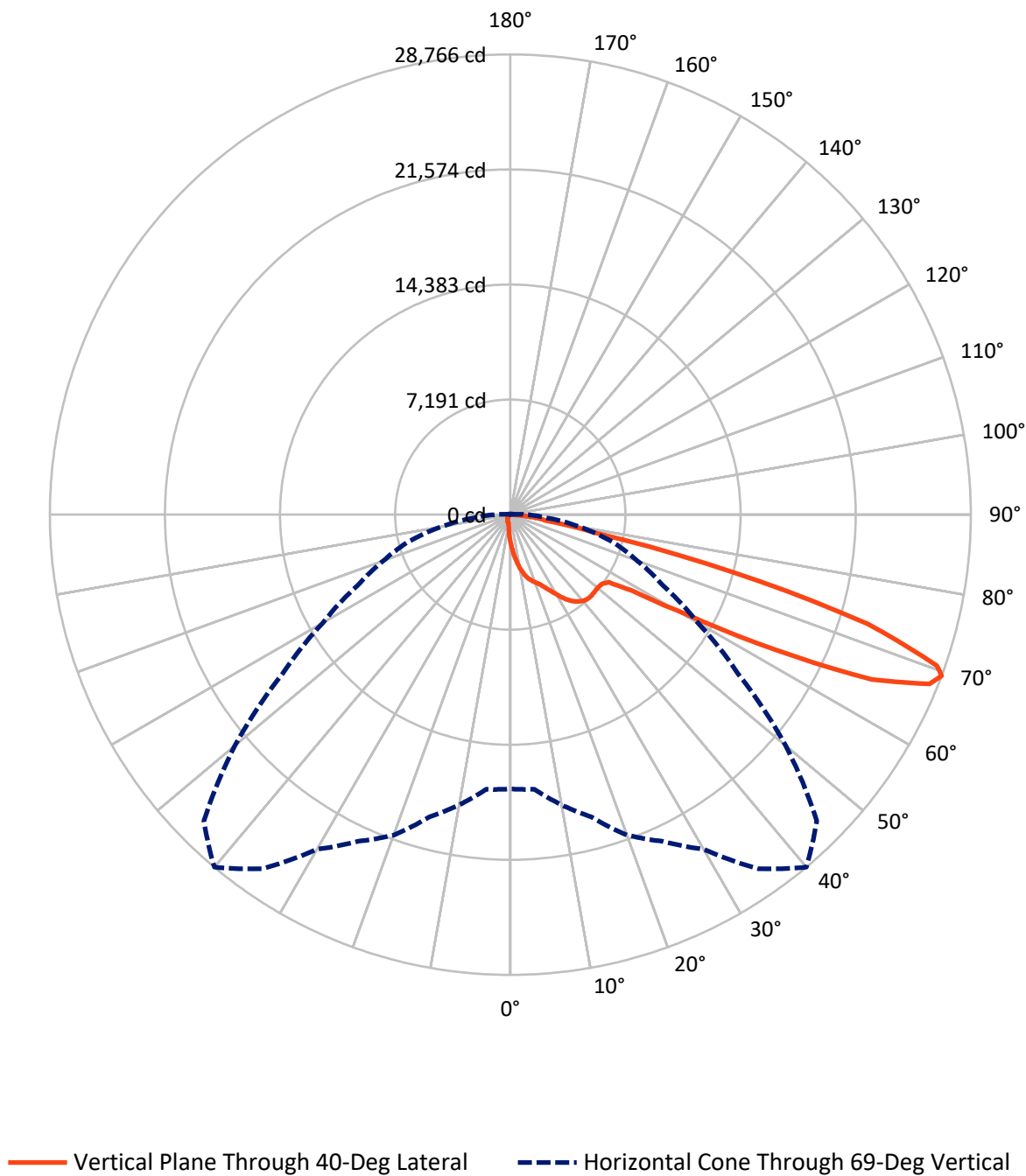


Based on 25 foot mounting height. Maximum calculated value = 8.1 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	675.8	0.0	675.8
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	22017.0	0.0	22017.0
	% Fixture	97.0	0.0	97.0
Total	Lumens	22692.7	0.0	22692.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.1	0.8
10°-20°	607.3	2.7
20°-30°	1162.3	5.1
30°-40°	1933.0	8.5
40°-50°	2615.7	11.5
50°-60°	4090.7	18.0
60°-70°	8410.3	37.1
70°-80°	3384.2	14.9
80°-90°	313.0	1.4
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°	22692.7	100.0
0°-180°	22692.7	100.0

Coefficient of Utilization



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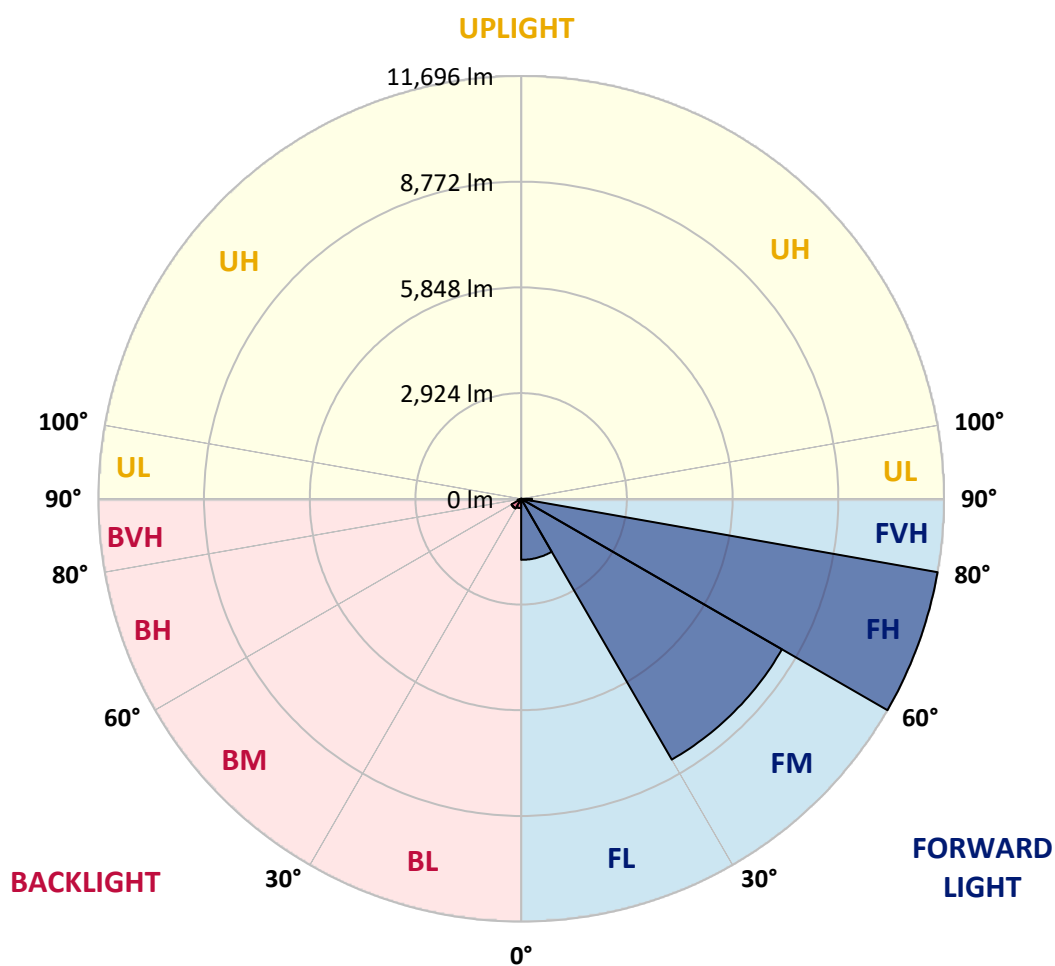
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1688.8	7.4			
FM	(30°-60°)	8330.9	36.7			
FH	(60°-80°)	11695.9	51.5			G4/12000
FVH	(80°-90°)	301.4	1.3			G3/500
BL	(0°-30°)	257.0	1.1	B1/500		
BM	(30°-60°)	308.5	1.4	B1/1000		
BH	(60°-80°)	98.6	0.4	B0/110		G0/110
BVH	(80°-90°)	11.6	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1713.8	1713.8	1713.8	1713.8	1713.8	1713.8	1713.8	1713.8	1713.8	1713.8	1713.8
2.5°	2286.3	2260.1	2230.3	2230.3	2193.3	2193.3	2171.0	2111.6	2104.2	2070.5	2037.1
5°	2918.2	2895.8	2858.8	2825.2	2795.6	2743.5	2706.2	2635.6	2557.7	2483.2	2416.4
7.5°	3535.4	3524.1	3457.3	3446.0	3397.7	3312.3	3237.8	3133.8	2999.9	2895.8	2773.3
10°	4107.8	4081.7	4066.8	4003.6	3933.1	3840.1	3724.8	3598.6	3442.4	3278.7	3104.0
12.5°	4561.4	4546.5	4479.4	4453.5	4379.2	4286.2	4141.3	3977.6	3821.6	3609.6	3405.1
15°	4899.5	4873.6	4828.9	4788.0	4698.8	4617.1	4483.3	4304.7	4115.3	3884.8	3639.4
17.5°	5182.2	5133.9	5122.6	5059.4	4966.6	4869.7	4721.2	4557.5	4334.5	4104.0	3836.3
20°	5561.2	5494.4	5472.0	5379.0	5271.3	5137.5	4966.6	4762.1	4527.7	4275.1	3999.9
22.5°	6007.3	5958.9	5910.6	5828.9	5691.4	5501.8	5252.8	5029.8	4732.3	4453.5	4156.2
25°	6639.3	6598.5	6520.4	6408.8	6237.7	6011.1	5709.9	5382.8	5033.4	4676.5	4327.0
27.5°	7252.7	7215.4	7159.7	7074.3	6880.9	6631.9	6260.1	5843.8	5401.4	4970.2	4583.5
30°	7829.0	7795.4	7739.6	7654.3	7483.2	7237.8	6817.7	6371.6	5821.5	5319.6	4855.1
32.5°	8449.8	8438.5	8375.3	8252.7	8104.0	7773.2	7315.9	6836.4	6278.8	5698.9	5156.0
35°	9152.3	9066.7	9007.4	8884.6	8632.0	8278.7	7743.4	7219.3	6631.9	6037.1	5431.2
37.5°	9747.1	9665.4	9590.9	9434.9	9126.3	8676.4	8070.5	7494.2	6888.3	6282.4	5665.3
40°	10181.9	10141.1	10051.9	9847.4	9501.8	8966.5	8312.1	7683.8	7074.3	6464.6	5854.9
42.5°	10505.4	10442.2	10342.0	10130.0	9721.2	9111.4	8408.7	7762.0	7159.7	6576.1	5977.7
45°	10624.4	10572.5	10479.5	10249.0	9806.5	9152.3	8405.1	7739.6	7163.5	6609.5	6059.4
47.5°	10553.7	10501.8	10419.9	10204.3	9769.5	9104.0	8338.3	7676.4	7126.3	6620.8	6133.7
50°	10319.6	10289.8	10226.6	10044.4	9654.1	9011.0	8278.7	7643.0	7118.8	6676.6	6237.7
52.5°	10297.3	10278.8	10200.7	10018.5	9620.7	8981.2	8271.2	7661.7	7182.0	6747.2	6312.2
55°	12583.4	12319.5	11728.5	11226.7	10401.3	9420.0	8646.6	7962.6	7449.8	7026.0	6721.1
57.5°	17884.5	17490.6	16713.6	15758.2	13862.2	11999.8	10509.2	9431.1	8899.5	8706.2	8821.4
60°	20367.7	20297.2	20174.4	19720.9	18750.7	17148.6	15364.1	13434.9	12661.5	12594.7	12828.8
62.5°	21546.3	21501.6	21538.8	21483.1	21181.9	20713.5	20200.4	19367.9	18601.9	18107.5	17059.2
65°	22089.0	22118.8	22330.5	22497.8	22535.0	22657.6	23033.3	24070.3	24828.6	23553.6	20642.9
67.5°	20709.7	20884.4	21371.6	21981.1	22694.9	23386.3	24501.5	26687.4	28245.0	26747.0	22613.1
69°	17144.7	17230.3	18419.7	19568.5	21312.0	22531.4	24148.4	27014.5	28765.6	27074.1	22456.9
70°	13497.9	13576.0	14851.2	16412.4	19360.4	20929.1	23044.3	26460.7	28278.4	26639.1	21654.0
72.5°	6089.2	5977.7	6427.4	7263.7	10468.2	12959.0	16657.8	21438.4	23330.6	21341.8	16200.5
75°	4252.8	4204.5	4252.8	4256.4	4754.6	6133.7	7739.6	11620.6	14371.5	12401.4	7739.6
77.5°	3293.6	3260.2	3226.8	3189.5	3249.1	3639.4	3795.4	4122.5	5353.0	5063.2	2951.6
80°	2606.0	2576.2	2657.9	2631.9	2631.9	2676.6	2646.8	2524.0	2293.6	2126.3	1903.2
82.5°	1211.8	1219.2	1219.2	1323.3	1594.9	1862.4	1947.9	1825.4	1620.8	1379.1	1111.6
85°	115.1	130.0	219.4	338.4	672.9	758.3	762.1	631.9	631.9	498.2	401.4
87.5°	0.0	3.6	3.6	3.6	33.4	93.0	78.1	22.3	11.1	11.1	18.5
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1713.8	1713.8	1713.8	1713.8	1713.8	1713.8	1713.8	1713.8	1713.8	1713.8	1713.8
2.5°	1977.7	1966.4	1922.0	1877.3	1836.4	1791.7	1750.9	1710.0	1665.3	1631.9	1591.0
5°	2312.3	2230.3	2137.6	2048.4	1959.0	1866.2	1769.6	1684.0	1594.9	1512.9	1434.8
7.5°	2650.5	2490.6	2364.2	2204.4	2059.5	1914.5	1780.7	1643.2	1516.8	1397.8	1286.3
10°	2936.7	2743.5	2546.4	2342.1	2133.7	1940.5	1754.7	1591.0	1423.8	1278.8	1141.4
12.5°	3171.0	2925.6	2684.1	2427.4	2193.3	1947.9	1717.5	1520.4	1323.3	1159.9	1018.6
15°	3382.8	3100.4	2810.3	2513.0	2215.7	1936.9	1680.2	1434.8	1234.1	1048.4	888.5
17.5°	3553.9	3230.4	2903.3	2568.7	2249.1	1922.0	1631.9	1375.5	1141.4	947.9	791.9
20°	3702.6	3364.3	3011.2	2635.6	2271.4	1918.1	1591.0	1301.2	1059.4	855.1	702.5
22.5°	3840.1	3501.7	3122.7	2721.1	2304.8	1914.5	1553.8	1245.4	988.8	784.5	631.9
25°	3996.3	3639.4	3241.7	2810.3	2364.2	1929.4	1531.7	1200.7	925.5	717.4	576.1
27.5°	4171.1	3795.4	3382.8	2921.8	2442.3	1959.0	1524.2	1152.4	869.8	654.2	531.6
30°	4416.2	3981.4	3524.1	3033.3	2513.0	1992.6	1516.8	1122.6	814.0	605.9	486.9
32.5°	4632.0	4163.6	3680.3	3148.7	2591.1	2026.0	1512.9	1081.8	762.1	557.6	453.5
35°	4858.7	4330.9	3814.2	3260.2	2657.9	2063.1	1509.3	1052.0	713.8	509.3	420.1
37.5°	5055.7	4472.0	3918.2	3356.8	2732.4	2096.7	1512.9	1026.0	669.1	468.4	390.3
40°	5223.0	4617.1	4033.4	3446.0	2810.3	2148.6	1516.8	1000.0	624.6	431.2	364.3
42.5°	5371.8	4754.6	4156.2	3546.4	2899.7	2208.2	1539.1	977.7	587.4	397.8	338.4
45°	5486.9	4881.0	4289.8	3687.7	3044.6	2304.8	1580.0	962.8	550.1	368.0	316.0
47.5°	5605.9	5066.8	4516.7	3910.8	3256.6	2457.2	1650.6	959.2	520.3	345.6	297.3
50°	5769.5	5252.8	4717.4	4137.4	3449.8	2613.4	1736.0	962.8	483.3	323.5	278.8
52.5°	5888.5	5442.2	4977.6	4531.6	3910.8	3089.1	2066.9	1029.6	464.6	304.8	256.4
55°	6591.0	6512.9	6524.0	6598.5	6119.0	5256.4	3457.3	1487.0	546.5	345.6	252.8
57.5°	9293.6	9568.6	9728.4	9724.8	8932.9	7408.9	4643.1	1910.7	609.7	401.4	301.1
60°	12847.5	12639.4	12345.7	11620.6	10568.6	8457.2	5193.2	2055.8	527.8	319.7	275.2
62.5°	15988.7	14769.2	13687.5	12512.9	11133.7	8821.4	5304.7	2044.6	461.0	241.5	193.2
65°	17947.7	15754.4	14007.4	12535.1	10910.6	8516.6	5018.5	1877.3	390.3	197.1	159.8
67.5°	18416.1	15222.8	12750.9	10873.4	9115.1	6628.3	3683.9	1412.7	304.8	163.7	141.3
69°	17393.7	13531.5	10565.0	8434.9	6631.9	4397.7	2278.9	892.1	234.1	148.8	130.0
70°	15999.8	11769.3	8605.8	6769.4	4910.8	3089.1	1594.9	628.2	189.6	137.5	119.0
72.5°	10293.7	6182.0	4230.4	2944.1	2026.0	1230.5	624.6	282.6	144.9	115.1	96.6
75°	3992.5	2286.3	1658.1	1260.1	985.1	684.0	379.2	182.2	122.6	96.6	74.3
77.5°	1966.4	1505.5	1230.5	843.8	490.8	304.8	204.5	141.3	100.5	70.7	48.3
80°	1553.8	1033.5	617.2	382.9	289.9	219.4	156.2	115.1	74.3	44.7	33.4
82.5°	795.5	435.0	319.7	260.3	215.6	171.1	126.4	81.7	48.3	29.8	26.0
85°	249.0	182.2	163.7	159.8	148.8	122.6	89.2	52.1	29.8	18.5	18.5
87.5°	18.5	26.0	33.4	26.0	29.8	26.0	33.4	22.3	14.9	14.9	11.1
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°	1713.8	1713.8	1713.8	1713.8	1713.8	1713.8	1713.8	1713.8	1713.8	1713.8	1713.8
2.5°	1561.2	1516.8	1475.9	1449.7	1401.4	1382.9	1364.4	1356.9	1323.3	1330.8	1301.2
5°	1364.4	1286.3	1226.7	1167.3	1111.6	1070.7	1037.1	996.2	962.8	947.9	918.1
7.5°	1185.8	1085.6	1007.5	944.3	877.2	825.3	780.6	750.8	721.2	691.5	676.6
10°	1029.6	921.9	832.8	769.6	706.4	661.7	628.2	605.9	587.4	576.1	572.5
12.5°	884.7	780.6	698.9	643.1	594.8	572.5	557.6	546.5	542.7	539.1	539.1
15°	773.2	669.1	605.9	565.0	542.7	531.6	527.8	520.3	513.1	509.3	509.3
17.5°	669.1	591.0	546.5	524.2	513.1	505.7	498.2	490.8	483.3	479.5	479.5
20°	598.4	535.2	513.1	498.2	486.9	479.5	468.4	461.0	457.4	453.5	449.9
22.5°	542.7	501.8	486.9	475.9	461.0	449.9	442.5	435.0	427.6	423.7	420.1
25°	501.8	475.9	464.6	449.9	435.0	423.7	412.7	401.4	394.1	390.3	382.9
27.5°	472.0	453.5	438.6	420.1	405.2	394.1	382.9	371.8	364.3	356.9	353.1
30°	446.1	427.6	408.8	394.1	375.4	364.3	349.5	338.4	334.6	327.1	319.7
32.5°	420.1	401.4	382.9	364.3	345.6	330.9	323.5	308.6	301.1	297.3	289.9
35°	390.3	371.8	349.5	334.6	316.0	301.1	289.9	278.8	271.3	263.9	260.3
37.5°	364.3	342.0	319.7	301.1	286.2	271.3	260.3	249.0	241.5	234.1	230.5
40°	334.6	312.2	289.9	271.3	256.4	245.4	234.1	223.0	215.6	212.0	212.0
42.5°	308.6	282.6	260.3	245.4	234.1	219.4	208.1	197.1	193.2	189.6	193.2
45°	282.6	256.4	237.9	223.0	212.0	197.1	185.8	178.3	174.7	178.3	182.2
47.5°	260.3	234.1	215.6	204.5	193.2	182.2	171.1	163.7	163.7	171.1	178.3
50°	237.9	212.0	197.1	189.6	178.3	167.3	152.4	148.8	152.4	159.8	167.3
52.5°	215.6	185.8	174.7	171.1	159.8	148.8	137.5	133.9	137.5	144.9	141.3
55°	193.2	163.7	159.8	156.2	144.9	130.0	119.0	119.0	119.0	115.1	107.9
57.5°	185.8	144.9	141.3	137.5	126.4	111.5	104.1	96.6	93.0	81.7	78.1
60°	193.2	130.0	130.0	122.6	111.5	96.6	85.6	74.3	66.8	59.4	59.4
62.5°	156.2	119.0	115.1	107.9	93.0	78.1	66.8	55.8	52.1	48.3	48.3
65°	126.4	107.9	100.5	89.2	78.1	63.2	52.1	44.7	40.9	40.9	44.7
67.5°	115.1	96.6	85.6	74.3	63.2	48.3	40.9	37.2	37.2	40.9	40.9
69°	107.9	89.2	78.1	66.8	55.8	44.7	37.2	37.2	37.2	37.2	40.9
70°	100.5	85.6	74.3	63.2	48.3	37.2	33.4	33.4	37.2	37.2	40.9
72.5°	78.1	66.8	63.2	52.1	37.2	33.4	29.8	33.4	33.4	37.2	37.2
75°	59.4	48.3	48.3	40.9	29.8	26.0	26.0	29.8	29.8	33.4	33.4
77.5°	40.9	33.4	33.4	29.8	26.0	22.3	22.3	26.0	29.8	29.8	33.4
80°	29.8	26.0	22.3	26.0	22.3	18.5	22.3	26.0	26.0	29.8	29.8
82.5°	22.3	22.3	22.3	22.3	18.5	18.5	22.3	22.3	26.0	29.8	29.8
85°	18.5	18.5	18.5	18.5	18.5	18.5	18.5	22.3	22.3	26.0	26.0
87.5°	11.1	11.1	11.1	14.9	14.9	18.5	18.5	18.5	18.5	22.3	22.3
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):

	165°	170°	175°	180°
0°	1713.8	1713.8	1713.8	1713.8
2.5°	1293.7	1289.9	1275.0	1278.8
5°	907.0	884.7	899.6	896.0
7.5°	665.5	661.7	658.0	665.5
10°	568.9	568.9	565.0	568.9
12.5°	535.2	535.2	535.2	535.2
15°	509.3	509.3	505.7	505.7
17.5°	479.5	479.5	479.5	475.9
20°	449.9	446.1	446.1	446.1
22.5°	416.3	412.7	412.7	412.7
25°	382.9	379.2	379.2	379.2
27.5°	349.5	345.6	342.0	342.0
30°	316.0	312.2	308.6	308.6
32.5°	282.6	278.8	275.2	275.2
35°	252.8	252.8	249.0	245.4
37.5°	226.9	226.9	226.9	226.9
40°	208.1	212.0	212.0	212.0
42.5°	197.1	200.7	204.5	208.1
45°	189.6	197.1	200.7	200.7
47.5°	185.8	189.6	193.2	193.2
50°	171.1	167.3	167.3	167.3
52.5°	137.5	130.0	126.4	122.6
55°	100.5	96.6	89.2	89.2
57.5°	70.7	70.7	66.8	66.8
60°	55.8	55.8	52.1	55.8
62.5°	48.3	48.3	48.3	48.3
65°	44.7	44.7	44.7	44.7
67.5°	44.7	44.7	44.7	44.7
69°	40.9	40.9	40.9	40.9
70°	40.9	40.9	40.9	40.9
72.5°	37.2	37.2	37.2	37.2
75°	33.4	37.2	37.2	37.2
77.5°	33.4	33.4	33.4	33.4
80°	29.8	29.8	33.4	33.4
82.5°	29.8	29.8	29.8	29.8
85°	26.0	26.0	29.8	29.8
87.5°	22.3	22.3	26.0	26.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)