

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: P165535

Luminaire Tested: **VST-E10-LED-E-U-SL4-HSS-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165535
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-E10-LED-E-U-SL4-HSS-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(10) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (210) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16968.4 lumens
Efficiency: N/A
Efficacy: 68.5 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.67' x L: 1' x H: 0.1')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G4

Input Watts (W): 247.7
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

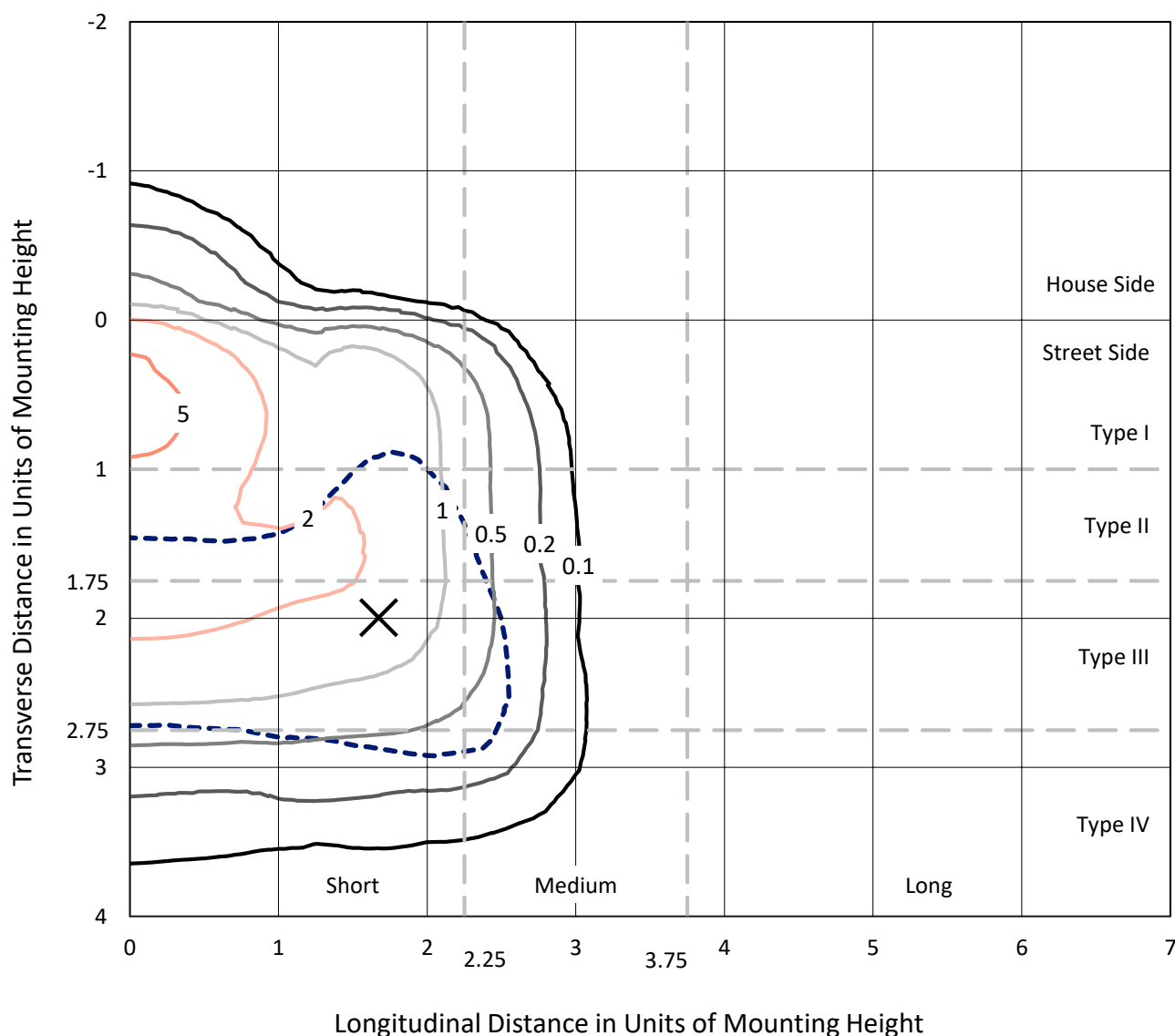


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

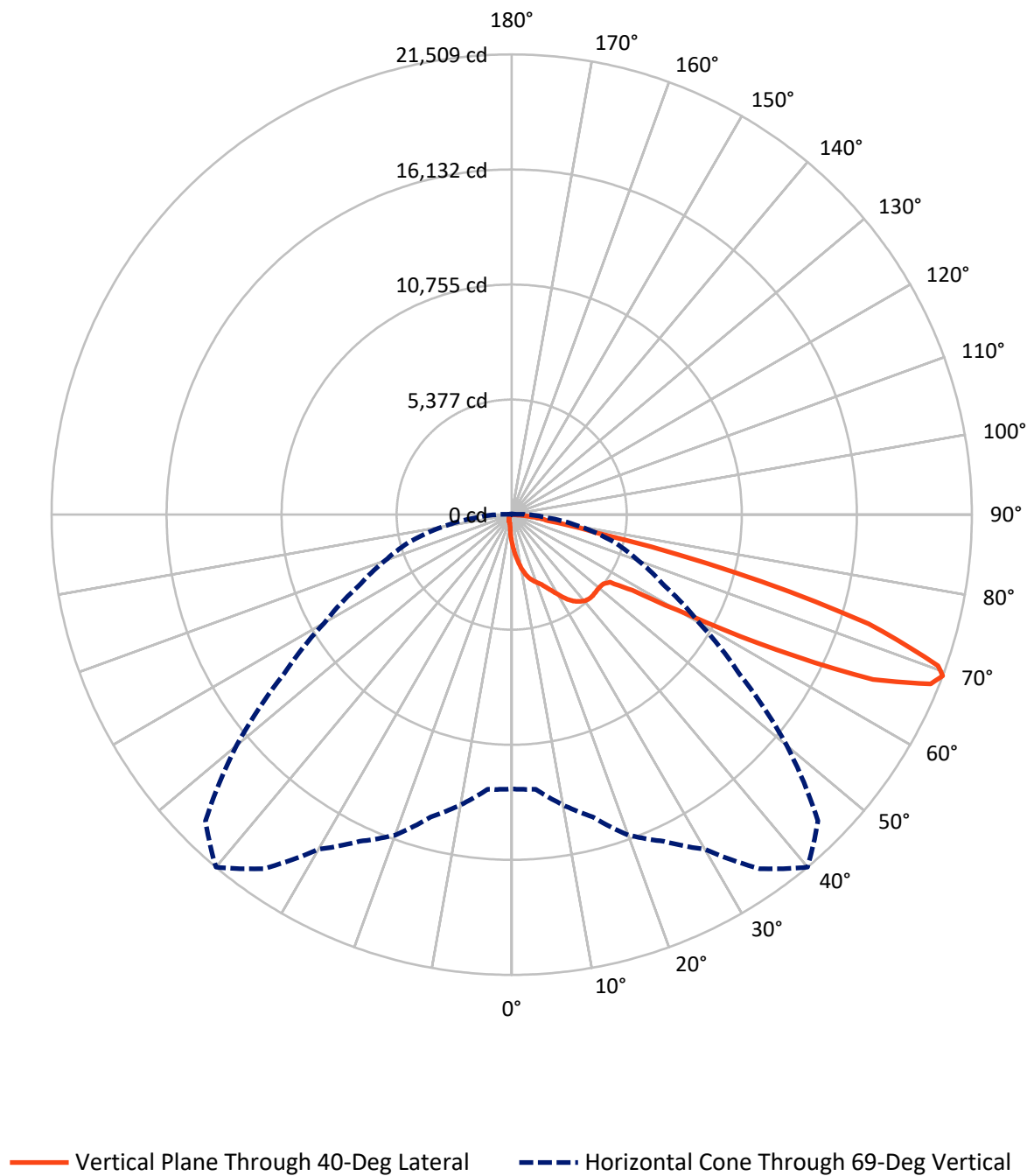


Based on 25 foot mounting height. Maximum calculated value = 6.1 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	505.3	0.0	505.3
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	16463.1	0.0	16463.1
	% Fixture	97.0	0.0	97.0
Total	Lumens	16968.4	0.0	16968.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.7	0.8
10°-20°	454.1	2.7
20°-30°	869.1	5.1
30°-40°	1445.4	8.5
40°-50°	1955.9	11.5
50°-60°	3058.8	18.0
60°-70°	6288.8	37.1
70°-80°	2530.5	14.9
80°-90°	234.1	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°	16968.4	100.0
0°-180°	16968.4	100.0

Coefficient of Utilization



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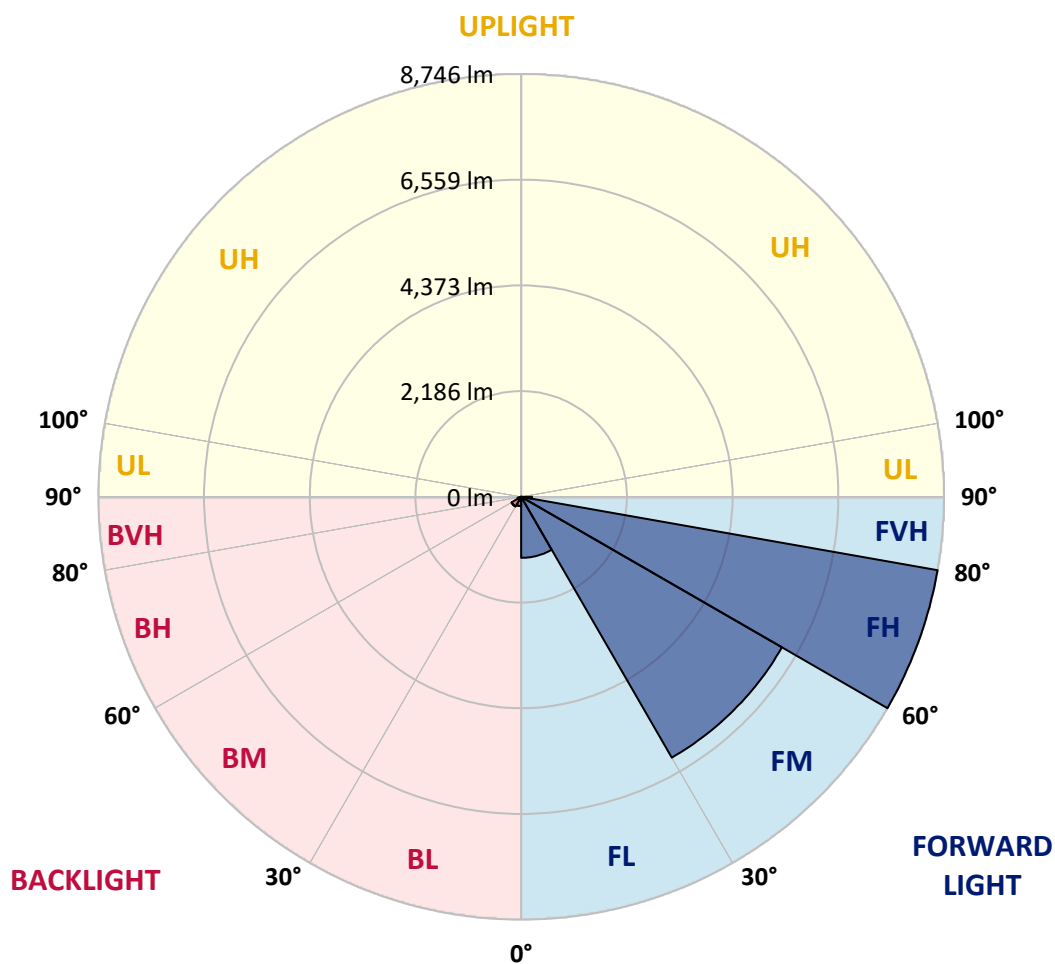
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1262.8	7.4			
FM	(30°-60°)	6229.4	36.7			
FH	(60°-80°)	8745.6	51.5			G4/12000
FVH	(80°-90°)	225.4	1.3			G3/500
BL	(0°-30°)	192.2	1.1	B1/500		
BM	(30°-60°)	230.7	1.4	B1/1000		
BH	(60°-80°)	73.7	0.4	B0/110		G0/110
BVH	(80°-90°)	8.7	0.1			G0/10
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°	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5
2.5°	1709.6	1690.0	1667.7	1667.7	1640.0	1640.0	1623.3	1578.9	1573.4	1548.2	1523.2
5°	2182.1	2165.3	2137.7	2112.5	2090.4	2051.4	2023.6	1970.7	1912.5	1856.8	1806.8
7.5°	2643.5	2635.1	2585.1	2576.7	2540.6	2476.8	2421.1	2343.3	2243.2	2165.3	2073.7
10°	3071.6	3052.0	3040.9	2993.6	2941.0	2871.4	2785.2	2690.8	2574.0	2451.6	2321.0
12.5°	3410.7	3399.6	3349.5	3330.1	3274.5	3205.0	3096.6	2974.2	2857.6	2699.1	2546.2
15°	3663.6	3644.2	3610.8	3580.2	3513.5	3452.4	3352.3	3218.8	3077.2	2904.8	2721.4
17.5°	3874.9	3838.8	3830.4	3783.1	3713.7	3641.3	3530.2	3407.9	3241.1	3068.8	2868.6
20°	4158.3	4108.4	4091.7	4022.1	3941.6	3841.5	3713.7	3560.8	3385.6	3196.7	2990.9
22.5°	4491.9	4455.8	4419.6	4358.5	4255.7	4113.9	3927.8	3761.0	3538.5	3330.1	3107.7
25°	4964.5	4934.0	4875.6	4792.2	4664.2	4494.8	4269.6	4025.0	3763.7	3496.8	3235.5
27.5°	5423.1	5395.3	5353.6	5289.8	5145.1	4959.0	4680.9	4369.7	4038.8	3716.4	3427.3
30°	5854.1	5828.9	5787.2	5723.4	5595.5	5412.0	5097.9	4764.3	4353.0	3977.7	3630.3
32.5°	6318.3	6309.8	6262.6	6170.9	6059.7	5812.4	5470.4	5111.9	4695.0	4261.3	3855.4
35°	6843.6	6779.6	6735.2	6643.4	6454.5	6190.3	5790.1	5398.2	4959.0	4514.2	4061.1
37.5°	7288.4	7227.3	7171.6	7054.9	6824.2	6487.8	6034.7	5603.8	5150.7	4697.7	4236.2
40°	7613.5	7582.9	7516.2	7363.3	7104.9	6704.7	6215.3	5745.6	5289.8	4833.9	4377.9
42.5°	7855.4	7808.1	7733.2	7574.6	7269.0	6813.0	6287.6	5804.0	5353.6	4917.3	4469.8
45°	7944.3	7905.5	7835.9	7663.6	7332.8	6843.6	6284.9	5787.2	5356.5	4942.2	4530.9
47.5°	7891.5	7852.7	7791.4	7630.2	7305.1	6807.5	6234.9	5740.0	5328.6	4950.7	4586.4
50°	7716.4	7694.2	7646.9	7510.7	7218.8	6737.9	6190.3	5715.0	5323.1	4992.4	4664.2
52.5°	7699.7	7685.9	7627.5	7491.3	7193.8	6715.6	6184.8	5729.0	5370.3	5045.2	4719.9
55°	9409.1	9211.8	8769.9	8394.7	7777.5	7043.8	6465.5	5954.0	5570.5	5253.7	5025.6
57.5°	13373.0	13078.5	12497.5	11783.1	10365.4	8972.8	7858.2	7052.1	6654.5	6510.0	6596.1
60°	15229.8	15177.2	15085.3	14746.2	14020.7	12822.8	11488.4	10045.9	9467.6	9417.6	9592.6
62.5°	16111.1	16077.7	16105.5	16063.8	15838.7	15488.4	15104.7	14482.2	13909.5	13539.8	12755.9
65°	16516.9	16539.2	16697.5	16822.6	16850.4	16942.1	17223.0	17998.4	18565.4	17612.1	15435.6
67.5°	15485.5	15616.2	15980.5	16436.2	16970.0	17487.0	18320.8	19955.3	21120.0	19999.9	16908.9
69°	12819.9	12883.9	13773.3	14632.3	15935.9	16847.7	18056.8	20199.9	21509.3	20244.5	16792.0
70°	10092.9	10151.4	11104.9	12272.3	14476.6	15649.6	17231.3	19785.8	21145.0	19919.2	16191.6
72.5°	4553.2	4469.8	4806.0	5431.4	7827.5	9690.0	12455.8	16030.4	17445.3	15958.2	12113.8
75°	3180.0	3143.9	3180.0	3182.7	3555.2	4586.4	5787.2	8689.2	10746.2	9273.1	5787.2
77.5°	2462.8	2437.8	2412.8	2384.9	2429.5	2721.4	2838.0	3082.6	4002.7	3786.0	2207.0
80°	1948.6	1926.3	1987.4	1968.0	1968.0	2001.4	1979.2	1887.3	1715.0	1589.9	1423.1
82.5°	906.1	911.7	911.7	989.5	1192.6	1392.6	1456.6	1364.9	1212.0	1031.2	831.2
85°	86.1	97.2	164.1	253.0	503.2	567.0	569.9	472.5	472.5	372.5	300.1
87.5°	0.0	2.7	2.7	2.7	25.0	69.5	58.4	16.7	8.3	8.3	13.8
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°	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5
2.5°	1478.8	1470.4	1437.1	1403.7	1373.2	1339.8	1309.2	1278.6	1245.2	1220.2	1189.7
5°	1729.0	1667.7	1598.4	1531.7	1464.8	1395.5	1323.2	1259.2	1192.6	1131.3	1072.9
7.5°	1981.9	1862.4	1767.8	1648.3	1539.9	1431.6	1331.5	1228.7	1134.2	1045.2	961.8
10°	2195.9	2051.4	1904.0	1751.3	1595.5	1451.0	1312.1	1189.7	1064.6	956.2	853.4
12.5°	2371.1	2187.6	2007.0	1815.1	1640.0	1456.6	1284.2	1136.9	989.5	867.3	761.6
15°	2529.4	2318.3	2101.4	1879.1	1656.8	1448.3	1256.4	1072.9	922.8	783.9	664.4
17.5°	2657.4	2415.5	2170.9	1920.8	1681.7	1437.1	1220.2	1028.5	853.4	708.8	592.1
20°	2768.6	2515.6	2251.6	1970.7	1698.4	1434.3	1189.7	973.0	792.2	639.4	525.3
22.5°	2871.4	2618.4	2335.0	2034.7	1723.4	1431.6	1161.8	931.3	739.3	586.6	472.5
25°	2988.2	2721.4	2423.9	2101.4	1767.8	1442.7	1145.3	897.8	692.1	536.4	430.8
27.5°	3118.9	2838.0	2529.4	2184.8	1826.2	1464.8	1139.7	861.7	650.4	489.2	397.5
30°	3302.2	2977.1	2635.1	2268.1	1879.1	1490.0	1134.2	839.4	608.7	453.1	364.1
32.5°	3463.6	3113.3	2751.9	2354.4	1937.5	1515.0	1131.3	808.9	569.9	416.9	339.1
35°	3633.0	3238.4	2852.0	2437.8	1987.4	1542.6	1128.6	786.6	533.7	380.8	314.1
37.5°	3780.4	3343.9	2929.8	2510.0	2043.1	1567.8	1131.3	767.2	500.3	350.3	291.9
40°	3905.5	3452.4	3015.9	2576.7	2101.4	1606.6	1134.2	747.8	467.1	322.4	272.4
42.5°	4016.7	3555.2	3107.7	2651.8	2168.2	1651.2	1150.9	731.1	439.2	297.4	253.0
45°	4102.8	3649.8	3207.7	2757.5	2276.6	1723.4	1181.4	719.9	411.4	275.1	236.3
47.5°	4191.8	3788.7	3377.3	2924.3	2435.1	1837.4	1234.3	717.2	389.1	258.4	222.3
50°	4314.1	3927.8	3527.4	3093.7	2579.6	1954.2	1298.1	719.9	361.4	241.9	208.5
52.5°	4403.1	4069.4	3722.0	3388.5	2924.3	2309.8	1545.5	769.9	347.4	227.9	191.8
55°	4928.4	4870.0	4878.3	4934.0	4575.4	3930.5	2585.1	1111.9	408.7	258.4	189.1
57.5°	6949.3	7154.8	7274.4	7271.7	6679.5	5540.0	3471.8	1428.7	455.9	300.1	225.2
60°	9606.6	9451.0	9231.4	8689.2	7902.6	6323.9	3883.2	1537.2	394.7	239.0	205.8
62.5°	11955.5	11043.6	10234.7	9356.5	8325.1	6596.1	3966.6	1528.8	344.7	180.6	144.5
65°	13420.3	11780.3	10473.9	9373.0	8158.4	6368.2	3752.6	1403.7	291.9	147.4	119.5
67.5°	13770.6	11382.7	9534.4	8130.5	6815.7	4956.3	2754.6	1056.3	227.9	122.4	105.7
69°	13006.1	10118.1	7899.9	6307.1	4959.0	3288.4	1704.0	667.1	175.0	111.2	97.2
70°	11963.7	8800.5	6434.9	5061.8	3672.0	2309.8	1192.6	469.8	141.8	102.8	89.0
72.5°	7697.0	4622.5	3163.3	2201.5	1515.0	920.1	467.1	211.3	108.4	86.1	72.2
75°	2985.4	1709.6	1239.8	942.2	736.6	511.5	283.6	136.2	91.7	72.2	55.5
77.5°	1470.4	1125.7	920.1	631.0	367.0	227.9	152.9	105.7	75.1	52.8	36.1
80°	1161.8	772.8	461.5	286.3	216.7	164.1	116.8	86.1	55.5	33.4	25.0
82.5°	594.8	325.3	239.0	194.6	161.2	127.9	94.5	61.1	36.1	22.3	19.4
85°	186.2	136.2	122.4	119.5	111.2	91.7	66.7	39.0	22.3	13.8	13.8
87.5°	13.8	19.4	25.0	19.4	22.3	19.4	25.0	16.7	11.1	11.1	8.3
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5
2.5°	1167.4	1134.2	1103.6	1084.0	1047.9	1034.1	1020.2	1014.6	989.5	995.1	973.0
5°	1020.2	961.8	917.2	872.9	831.2	800.6	775.5	744.9	719.9	708.8	686.5
7.5°	886.7	811.8	753.3	706.1	655.9	617.1	583.7	561.4	539.3	517.0	505.9
10°	769.9	689.4	622.7	575.4	528.2	494.7	469.8	453.1	439.2	430.8	428.1
12.5°	661.5	583.7	522.6	480.9	444.8	428.1	416.9	408.7	405.8	403.1	403.1
15°	578.1	500.3	453.1	422.5	405.8	397.5	394.7	389.1	383.7	380.8	380.8
17.5°	500.3	441.9	408.7	391.9	383.7	378.1	372.5	367.0	361.4	358.5	358.5
20°	447.5	400.2	383.7	372.5	364.1	358.5	350.3	344.7	342.0	339.1	336.4
22.5°	405.8	375.2	364.1	355.8	344.7	336.4	330.8	325.3	319.7	316.8	314.1
25°	375.2	355.8	347.4	336.4	325.3	316.8	308.6	300.1	294.7	291.9	286.3
27.5°	353.0	339.1	328.0	314.1	303.0	294.7	286.3	278.0	272.4	266.9	264.0
30°	333.5	319.7	305.7	294.7	280.7	272.4	261.3	253.0	250.2	244.6	239.0
32.5°	314.1	300.1	286.3	272.4	258.4	247.5	241.9	230.7	225.2	222.3	216.7
35°	291.9	278.0	261.3	250.2	236.3	225.2	216.7	208.5	202.9	197.3	194.6
37.5°	272.4	255.7	239.0	225.2	214.0	202.9	194.6	186.2	180.6	175.0	172.3
40°	250.2	233.4	216.7	202.9	191.8	183.5	175.0	166.8	161.2	158.5	158.5
42.5°	230.7	211.3	194.6	183.5	175.0	164.1	155.6	147.4	144.5	141.8	144.5
45°	211.3	191.8	177.9	166.8	158.5	147.4	138.9	133.4	130.6	133.4	136.2
47.5°	194.6	175.0	161.2	152.9	144.5	136.2	127.9	122.4	122.4	127.9	133.4
50°	177.9	158.5	147.4	141.8	133.4	125.1	113.9	111.2	113.9	119.5	125.1
52.5°	161.2	138.9	130.6	127.9	119.5	111.2	102.8	100.1	102.8	108.4	105.7
55°	144.5	122.4	119.5	116.8	108.4	97.2	89.0	89.0	89.0	86.1	80.7
57.5°	138.9	108.4	105.7	102.8	94.5	83.4	77.8	72.2	69.5	61.1	58.4
60°	144.5	97.2	97.2	91.7	83.4	72.2	64.0	55.5	50.0	44.4	44.4
62.5°	116.8	89.0	86.1	80.7	69.5	58.4	50.0	41.7	39.0	36.1	36.1
65°	94.5	80.7	75.1	66.7	58.4	47.3	39.0	33.4	30.6	30.6	33.4
67.5°	86.1	72.2	64.0	55.5	47.3	36.1	30.6	27.9	27.9	30.6	30.6
69°	80.7	66.7	58.4	50.0	41.7	33.4	27.9	27.9	27.9	27.9	30.6
70°	75.1	64.0	55.5	47.3	36.1	27.9	25.0	25.0	27.9	27.9	30.6
72.5°	58.4	50.0	47.3	39.0	27.9	25.0	22.3	25.0	25.0	27.9	27.9
75°	44.4	36.1	36.1	30.6	22.3	19.4	19.4	22.3	22.3	25.0	25.0
77.5°	30.6	25.0	25.0	22.3	19.4	16.7	16.7	19.4	22.3	22.3	25.0
80°	22.3	19.4	16.7	19.4	16.7	13.8	16.7	19.4	19.4	22.3	22.3
82.5°	16.7	16.7	16.7	16.7	13.8	13.8	16.7	16.7	19.4	22.3	22.3
85°	13.8	13.8	13.8	13.8	13.8	13.8	13.8	16.7	16.7	19.4	19.4
87.5°	8.3	8.3	8.3	11.1	11.1	13.8	13.8	13.8	13.8	16.7	16.7
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):

	165°	170°	175°	180°
0°	1281.5	1281.5	1281.5	1281.5
2.5°	967.4	964.5	953.4	956.2
5°	678.2	661.5	672.7	670.0
7.5°	497.6	494.7	492.0	497.6
10°	425.4	425.4	422.5	425.4
12.5°	400.2	400.2	400.2	400.2
15°	380.8	380.8	378.1	378.1
17.5°	358.5	358.5	358.5	355.8
20°	336.4	333.5	333.5	333.5
22.5°	311.3	308.6	308.6	308.6
25°	286.3	283.6	283.6	283.6
27.5°	261.3	258.4	255.7	255.7
30°	236.3	233.4	230.7	230.7
32.5°	211.3	208.5	205.8	205.8
35°	189.1	189.1	186.2	183.5
37.5°	169.6	169.6	169.6	169.6
40°	155.6	158.5	158.5	158.5
42.5°	147.4	150.1	152.9	155.6
45°	141.8	147.4	150.1	150.1
47.5°	138.9	141.8	144.5	144.5
50°	127.9	125.1	125.1	125.1
52.5°	102.8	97.2	94.5	91.7
55°	75.1	72.2	66.7	66.7
57.5°	52.8	52.8	50.0	50.0
60°	41.7	41.7	39.0	41.7
62.5°	36.1	36.1	36.1	36.1
65°	33.4	33.4	33.4	33.4
67.5°	33.4	33.4	33.4	33.4
69°	30.6	30.6	30.6	30.6
70°	30.6	30.6	30.6	30.6
72.5°	27.9	27.9	27.9	27.9
75°	25.0	27.9	27.9	27.9
77.5°	25.0	25.0	25.0	25.0
80°	22.3	22.3	25.0	25.0
82.5°	22.3	22.3	22.3	22.3
85°	19.4	19.4	22.3	22.3
87.5°	16.7	16.7	19.4	19.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)