

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: P179083

Luminaire Tested: **VERD-A016-E-U-T4-AP**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P179083
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26294)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VERD-A016-E-U-T4-AP
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K LED AT 60% STANDARD LUMENS AND TYPE IV OPTICS, GREY
PAINTED FINISH
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3785 lumens
Efficiency: N/A
Efficacy: 105.1 lumens/watt
Luminous Opening: Rectangular (W 0.79' x L: 1.25' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 36
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

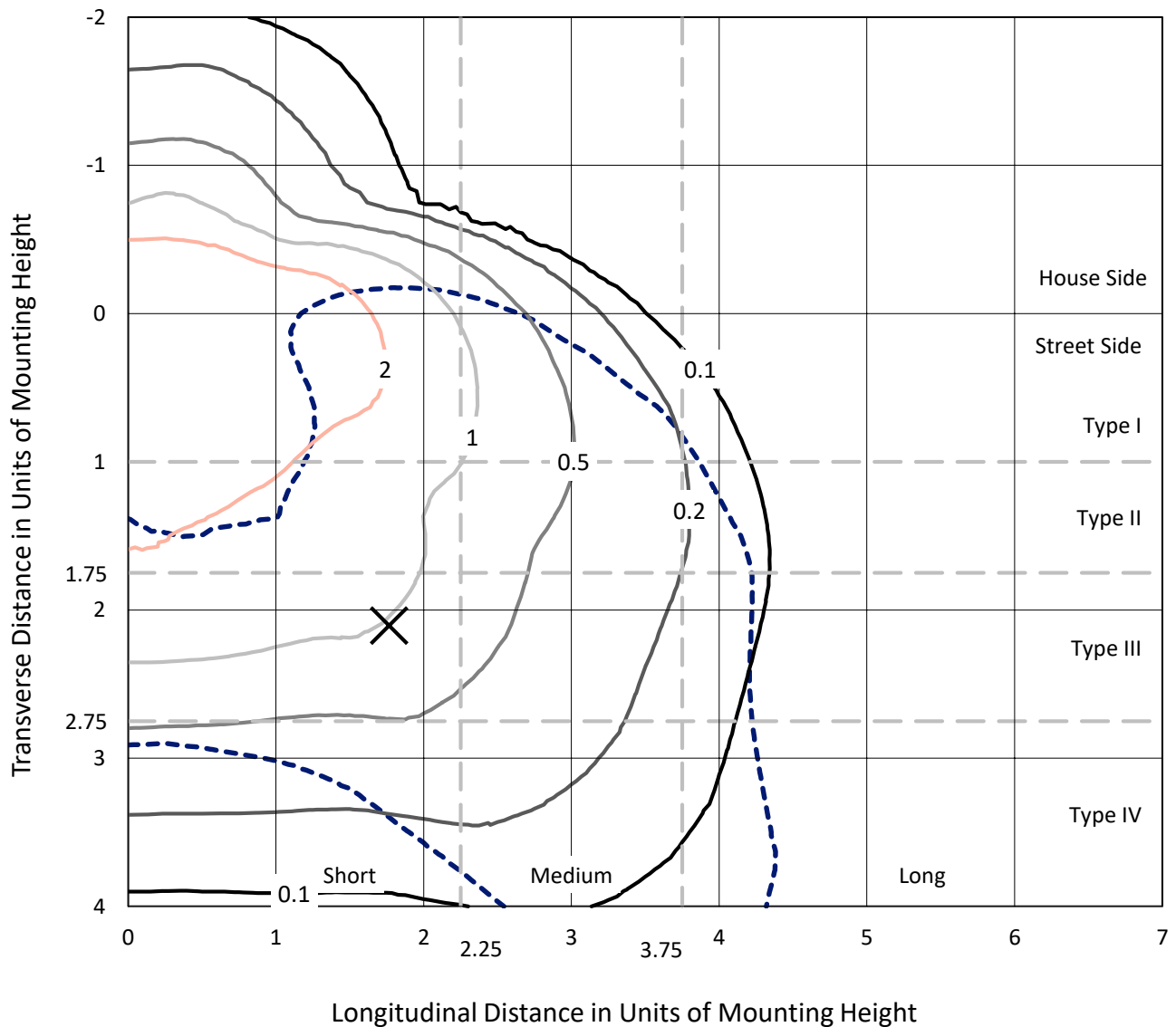


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

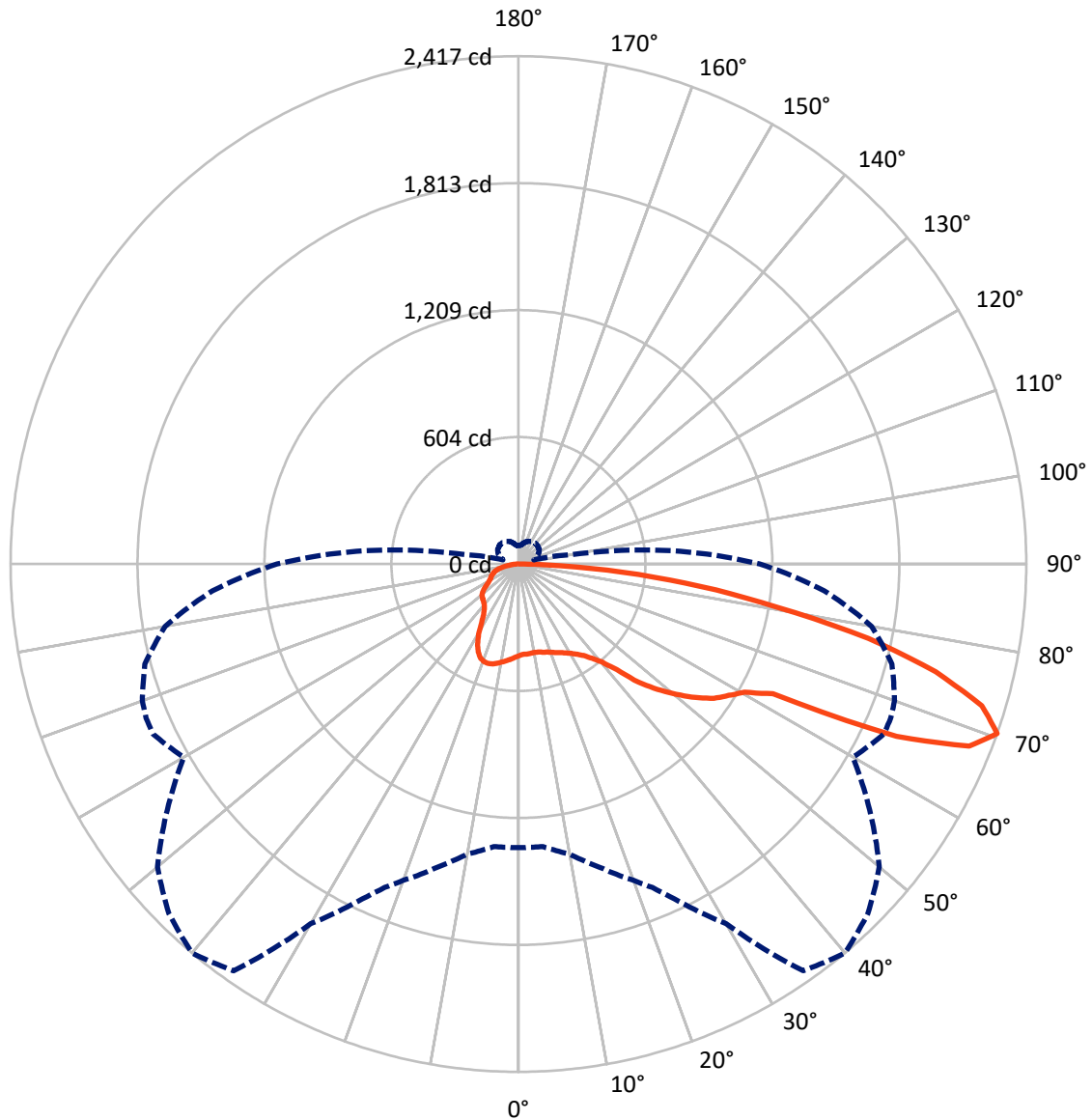


Based on 10 foot mounting height. Maximum calculated value = 4.6 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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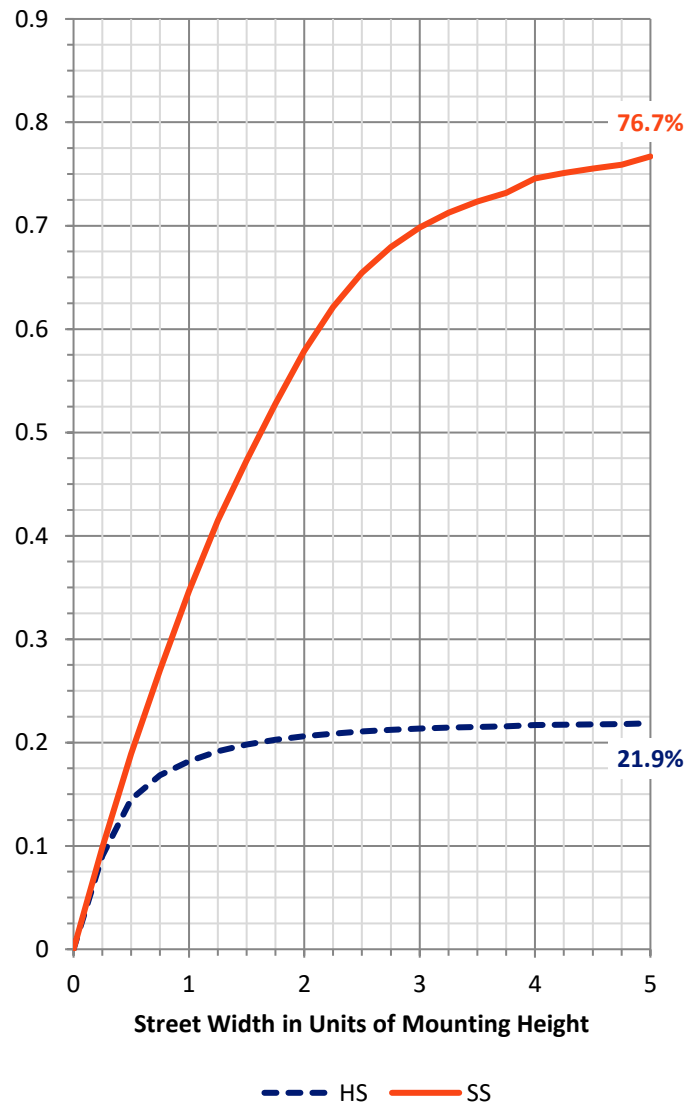
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	838.5	0.0	838.5
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	2946.5	0.0	2946.5
	% Fixture	77.8	0.0	77.8
Total	Lumens	3785.0	0.0	3785.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.4	1.1
10°-20°	132.6	3.5
20°-30°	222.0	5.9
30°-40°	312.9	8.3
40°-50°	490.0	12.9
50°-60°	716.7	18.9
60°-70°	994.0	26.3
70°-80°	744.8	19.7
80°-90°	129.6	3.4
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°	3785.0	100.0
0°-180°	3785.0	100.0



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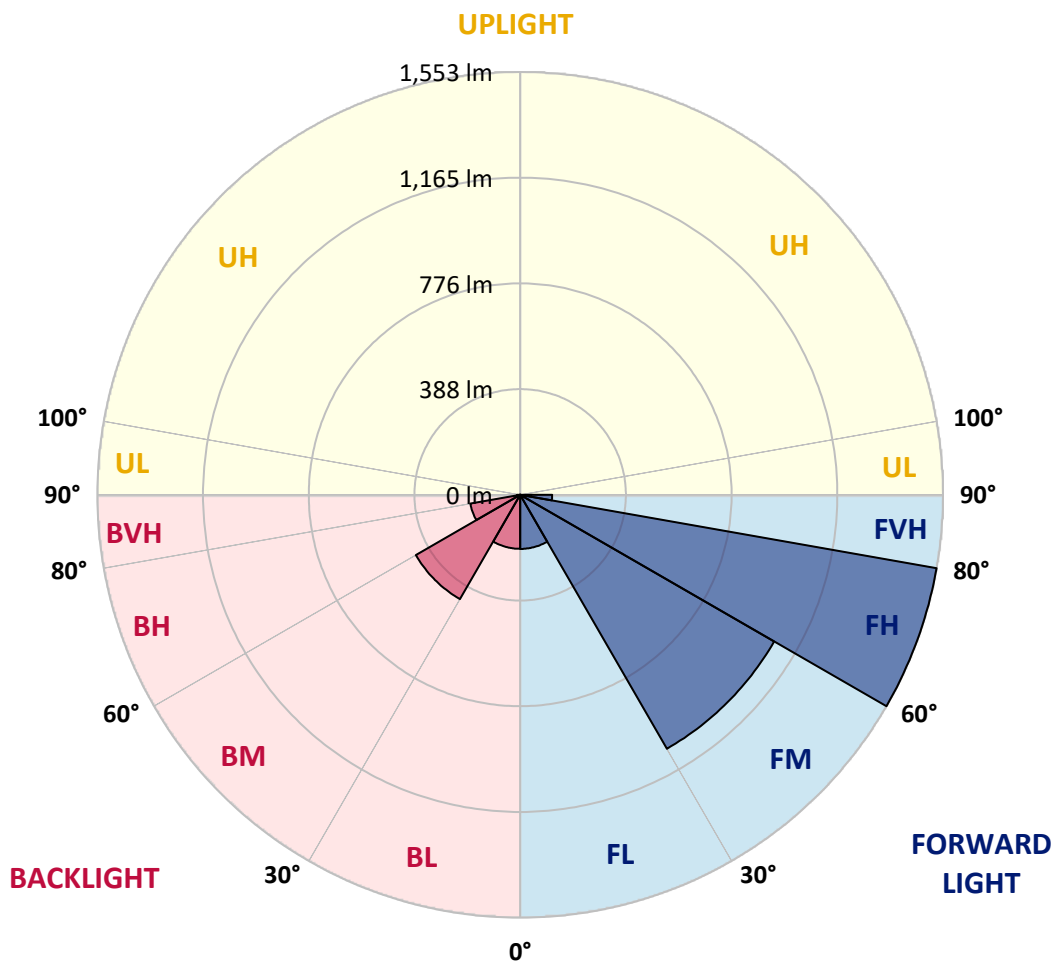
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	198.7	5.2			
FM	(30°-60°)	1077.2	28.5			
FH	(60°-80°)	1553.0	41.0			G1/1800
FVH	(80°-90°)	117.7	3.1			G2/225
BL	(0°-30°)	198.3	5.2	B1/500		
BM	(30°-60°)	442.4	11.7	B1/1000		
BH	(60°-80°)	185.8	4.9	B1/500		G1/500
BVH	(80°-90°)	11.9	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	435.9	435.9	435.9	435.9	435.9	435.9	435.9	435.9	435.9	435.9	435.9
2.5°	432.5	432.1	430.0	429.2	426.7	427.9	430.5	432.5	431.7	430.5	431.3
5°	431.3	430.5	428.8	427.5	425.0	425.4	427.9	429.2	430.9	430.5	431.3
7.5°	425.8	425.0	422.5	422.1	420.0	420.4	421.7	423.8	427.1	428.8	429.2
10°	422.5	420.8	418.7	418.7	416.6	417.1	418.3	420.4	424.6	427.5	428.8
12.5°	420.8	419.6	418.3	418.7	417.5	418.3	419.6	422.1	426.3	430.0	430.9
15°	423.8	423.8	422.1	422.9	422.9	424.6	425.8	427.5	430.9	435.5	438.4
17.5°	431.7	432.1	430.5	432.1	432.1	433.4	434.6	435.5	436.7	440.9	445.9
20°	435.1	436.3	435.9	438.8	440.9	442.2	443.0	444.7	445.1	448.0	452.6
22.5°	444.3	443.4	443.4	447.6	447.6	449.3	450.6	451.4	453.5	458.1	461.4
25°	454.3	453.1	453.5	456.8	456.0	456.4	457.7	459.3	461.4	467.3	473.6
27.5°	461.0	460.6	461.0	463.5	465.6	466.5	467.7	469.4	474.0	479.0	486.1
30°	475.7	475.7	471.9	473.6	474.8	475.7	477.8	482.4	487.8	493.7	500.8
32.5°	500.0	500.4	495.4	493.7	492.0	491.6	492.8	500.8	504.6	511.7	519.2
35°	525.1	521.3	518.8	521.3	522.2	521.3	521.7	526.3	528.9	535.1	541.8
37.5°	592.5	583.3	579.1	577.0	567.0	559.4	556.9	558.6	560.7	569.0	576.2
40°	690.5	690.5	679.6	673.3	656.6	644.4	635.6	619.7	610.5	613.4	620.1
42.5°	796.8	791.4	784.7	769.6	758.7	743.7	732.8	709.7	693.4	686.7	674.2
45°	881.0	884.4	886.9	874.7	865.9	859.2	853.8	843.7	823.2	804.0	777.2
47.5°	960.1	963.9	963.5	936.7	943.4	944.2	943.0	931.7	909.9	891.1	860.1
50°	1038.4	1046.4	1037.2	993.2	1003.3	1005.8	1006.2	997.0	980.7	974.4	959.7
52.5°	1135.6	1128.5	1086.6	1059.4	1053.9	1055.6	1055.2	1053.5	1054.4	1056.0	1052.7
55°	1247.4	1190.9	1136.4	1122.2	1112.6	1105.9	1101.3	1093.7	1098.3	1128.9	1127.6
57.5°	1263.3	1261.2	1258.3	1199.7	1183.3	1178.7	1169.5	1162.8	1139.8	1180.0	1198.0
60°	1514.1	1538.8	1511.2	1491.5	1455.9	1404.0	1341.6	1271.7	1203.4	1237.3	1264.1
62.5°	1786.3	1786.3	1818.9	1797.2	1774.6	1731.9	1708.8	1618.8	1489.4	1359.6	1363.0
65°	1815.2	1826.1	1852.4	1904.4	1926.6	1938.3	1954.2	1945.8	1965.5	1978.1	1752.4
67.5°	1632.2	1645.6	1679.5	1759.5	1837.8	1876.3	1921.5	2019.1	2198.7	2313.5	2283.3
70°	1349.6	1350.0	1401.9	1494.0	1602.5	1666.5	1757.8	1976.8	2363.3	2417.3	2352.8
72.5°	999.5	999.1	1054.8	1136.8	1245.7	1336.6	1430.0	1747.3	2245.2	2306.8	2279.1
75°	704.3	707.6	753.7	828.7	924.1	997.0	1086.2	1422.0	1898.9	2051.3	2094.9
77.5°	491.2	502.9	531.8	594.2	674.6	733.2	802.7	1083.2	1495.7	1703.8	1770.4
80°	312.4	322.8	348.8	404.1	474.4	526.3	581.2	791.4	1113.0	1247.4	1308.5
82.5°	178.4	185.5	208.5	252.5	306.1	347.1	389.4	532.2	788.9	874.3	858.0
85°	87.5	92.1	107.2	136.9	177.5	206.9	236.6	322.0	450.1	498.7	474.0
87.5°	23.4	25.1	31.4	44.8	61.1	73.3	84.2	119.3	147.4	127.7	95.5
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	435.9	435.9	435.9	435.9	435.9	435.9	435.9	435.9	435.9	435.9	435.9
2.5°	430.5	428.4	429.6	430.0	430.0	431.3	432.5	433.4	431.7	435.9	434.2
5°	430.9	428.8	431.7	433.0	433.0	433.8	436.3	437.2	438.0	440.9	440.1
7.5°	430.0	430.9	434.2	437.2	437.6	438.0	442.6	442.6	446.8	447.2	448.0
10°	430.9	434.2	438.0	443.4	444.7	445.1	449.3	451.8	456.8	455.2	458.9
12.5°	434.6	440.5	444.7	452.6	455.6	456.8	462.7	468.1	474.0	472.3	475.7
15°	441.8	449.3	455.6	465.2	469.0	471.9	479.9	488.7	493.3	494.5	499.5
17.5°	449.7	458.5	466.9	476.9	482.4	486.6	495.8	507.5	512.1	517.1	522.6
20°	457.2	467.3	475.3	486.1	492.8	498.7	511.3	523.8	530.9	539.3	545.6
22.5°	465.6	475.3	484.0	495.4	503.3	511.3	527.6	540.6	551.9	561.9	570.3
25°	479.0	486.1	496.6	508.3	518.0	528.4	545.2	559.4	574.9	586.6	596.3
27.5°	493.3	499.1	510.8	525.5	535.6	546.0	561.9	579.9	598.8	614.7	627.7
30°	507.9	516.3	530.9	546.0	555.7	565.7	582.9	606.3	629.3	650.3	661.6
32.5°	525.9	537.6	555.7	571.6	579.9	589.1	609.7	636.9	669.5	692.2	693.4
35°	551.9	566.1	585.0	601.7	609.7	619.7	644.0	676.7	718.1	736.5	727.3
37.5°	586.6	604.2	622.2	640.7	649.9	662.0	690.5	738.2	784.3	792.6	768.8
40°	633.5	650.7	671.2	692.6	706.4	722.7	760.4	836.6	878.1	866.8	826.1
42.5°	684.2	708.5	733.6	764.2	784.3	801.4	859.2	949.7	971.9	950.9	889.4
45°	767.9	781.8	806.9	843.3	866.3	894.4	977.3	1071.1	1083.7	1041.8	958.0
47.5°	848.8	847.5	872.2	923.7	956.8	1000.3	1105.9	1193.8	1192.5	1139.4	1033.0
50°	946.3	945.5	957.2	1020.0	1066.9	1118.4	1251.2	1315.6	1294.3	1226.0	1104.6
52.5°	1040.5	1049.3	1072.8	1123.9	1171.6	1237.8	1375.5	1413.2	1388.9	1304.8	1164.9
55°	1128.1	1146.5	1177.9	1243.6	1304.3	1388.1	1496.5	1512.0	1470.1	1365.9	1208.4
57.5°	1211.8	1237.3	1280.9	1370.5	1457.2	1533.8	1599.5	1597.9	1535.9	1412.8	1236.5
60°	1290.1	1328.2	1384.3	1499.5	1597.9	1656.1	1699.2	1673.7	1586.6	1442.9	1246.1
62.5°	1380.5	1420.3	1484.8	1639.3	1725.6	1765.4	1777.9	1726.4	1615.0	1448.8	1229.8
65°	1552.2	1564.8	1612.9	1777.5	1833.6	1848.7	1828.6	1749.4	1620.5	1429.5	1169.1
67.5°	2107.5	1798.0	1740.2	1883.0	1903.5	1896.4	1848.7	1749.0	1589.9	1351.7	1022.9
70°	2242.7	2040.5	1838.6	1918.2	1917.8	1904.8	1840.7	1706.7	1461.8	1148.1	731.5
72.5°	2189.5	1997.7	1826.9	1882.6	1897.3	1897.7	1765.4	1532.5	1183.3	781.8	338.7
75°	2050.1	1870.9	1799.3	1794.2	1767.9	1693.3	1463.9	1153.6	718.1	311.5	50.2
77.5°	1735.2	1567.3	1445.4	1323.2	1256.6	1150.7	859.2	517.5	236.2	37.7	32.2
80°	1227.3	1003.7	744.5	565.3	476.5	326.2	111.8	41.0	33.9	23.9	20.5
82.5°	726.5	494.9	216.9	50.2	38.5	35.6	29.7	25.5	21.8	14.7	13.0
85°	370.6	196.0	28.5	23.4	22.2	20.9	18.0	15.9	12.1	8.0	8.8
87.5°	49.8	15.1	8.4	8.4	8.0	8.0	7.5	5.9	3.8	2.5	2.5
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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	435.9	435.9	435.9	435.9	435.9	435.9	435.9	435.9	435.9	435.9	435.9
2.5°	434.2	435.5	436.7	437.6	438.4	438.8	440.1	440.1	441.8	443.9	445.5
5°	440.1	443.0	443.0	443.9	446.4	446.4	448.9	448.5	451.4	454.7	455.2
7.5°	448.9	453.1	452.2	453.1	456.0	456.8	458.5	457.2	461.4	463.9	464.4
10°	461.0	463.5	464.4	465.6	468.1	470.2	470.6	469.4	472.7	472.7	473.2
12.5°	481.1	482.0	484.9	485.3	485.3	488.7	487.0	485.3	485.7	482.8	480.7
15°	505.4	505.0	509.6	509.2	507.5	509.2	505.4	502.1	498.7	491.2	484.9
17.5°	528.4	528.9	532.2	530.9	529.7	528.0	523.0	516.7	507.5	494.9	484.0
20°	551.5	551.9	551.5	550.2	548.5	540.6	533.0	523.0	510.0	492.4	477.3
22.5°	575.3	575.3	571.1	568.6	565.3	551.5	539.3	524.2	505.0	482.4	461.4
25°	600.5	600.9	591.2	585.8	579.9	558.6	539.7	517.1	489.5	460.2	434.2
27.5°	629.3	622.2	605.9	596.3	585.0	556.5	528.0	499.1	464.4	427.9	394.4
30°	654.1	636.5	610.9	596.3	579.1	544.3	505.4	466.9	426.3	384.4	343.4
32.5°	675.4	645.7	608.4	587.9	564.9	520.5	475.3	425.0	378.5	331.2	298.6
35°	695.5	652.4	603.8	577.4	548.1	491.6	437.2	380.2	331.6	292.3	264.6
37.5°	720.6	659.5	595.4	562.4	527.2	461.0	401.1	345.4	301.9	270.1	252.1
40°	752.9	667.9	583.7	542.7	500.8	427.1	362.2	311.5	277.6	254.6	246.6
42.5°	791.4	677.1	565.3	514.2	465.6	384.4	320.7	280.5	257.5	246.2	241.6
45°	832.0	686.7	543.1	481.5	426.3	341.7	284.7	254.6	243.3	239.5	237.0
47.5°	880.2	699.7	517.1	443.4	382.3	299.4	254.2	234.1	234.1	234.5	234.1
50°	929.6	712.7	491.6	402.8	334.1	257.9	229.0	221.9	224.4	227.8	229.0
52.5°	971.4	724.4	483.2	386.9	292.3	221.9	208.1	207.7	211.0	215.2	216.5
55°	994.1	726.5	490.3	384.4	283.1	197.6	187.2	190.1	193.5	198.1	198.1
57.5°	1006.6	710.6	455.2	329.1	245.0	176.3	167.5	171.7	172.9	177.1	179.6
60°	990.3	676.2	337.1	230.3	180.9	150.7	147.8	154.1	156.6	161.6	164.6
62.5°	945.5	585.0	211.5	149.1	134.4	131.9	134.8	140.7	145.7	150.7	153.3
65°	839.1	389.8	117.7	116.8	119.8	122.3	130.2	135.7	140.3	144.9	144.0
67.5°	603.4	145.7	98.0	103.0	108.0	117.2	125.6	132.7	134.4	136.9	136.9
70°	254.6	76.6	87.5	93.8	103.0	112.6	121.0	122.7	126.9	126.9	127.7
72.5°	57.4	62.4	75.4	84.2	94.2	103.0	110.5	114.3	115.6	121.4	120.2
75°	45.2	51.5	67.0	74.5	80.0	87.5	96.3	100.1	103.8	108.0	111.0
77.5°	32.7	40.6	55.3	60.3	65.7	74.1	78.3	84.2	87.5	90.0	90.4
80°	23.0	32.7	42.7	45.6	49.0	50.2	54.9	64.1	66.6	70.8	72.0
82.5°	17.2	22.6	25.5	26.4	27.2	31.0	31.8	36.8	39.4	46.1	49.8
85°	12.6	13.0	10.0	9.6	9.6	11.7	13.4	17.6	21.4	26.0	28.5
87.5°	2.9	3.3	3.8	4.2	4.6	5.9	8.0	12.1	17.6	22.6	23.9
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):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	435.9	435.9	435.9	435.9	435.9	435.9	435.9	435.9
2.5°	445.9	449.3	450.1	450.6	452.2	452.6	453.1	453.5
5°	455.6	459.8	460.6	461.0	463.5	463.9	463.9	464.8
7.5°	464.4	467.7	468.6	469.0	471.1	472.3	472.3	473.2
10°	472.3	473.6	473.2	473.2	475.3	475.3	475.3	475.3
12.5°	477.8	476.1	474.0	472.7	471.5	469.4	468.1	466.9
15°	478.2	471.9	467.7	464.8	460.2	453.9	450.1	446.8
17.5°	471.5	460.6	454.7	449.3	439.2	429.2	422.1	416.2
20°	457.7	439.2	431.3	423.3	407.8	393.6	384.8	378.5
22.5°	434.6	408.7	397.0	387.3	367.2	350.9	341.7	335.8
25°	402.4	368.5	353.0	339.2	321.2	308.6	301.1	296.0
27.5°	355.9	323.3	311.1	300.6	284.7	273.4	265.5	262.5
30°	311.1	286.8	277.6	269.2	256.3	245.4	237.0	233.2
32.5°	273.4	257.9	251.7	246.2	236.6	225.7	216.9	213.6
35°	248.3	239.5	235.3	231.1	221.5	211.0	200.6	196.0
37.5°	243.3	237.0	233.6	230.3	222.3	209.4	197.2	192.2
40°	241.2	236.2	234.5	232.4	223.2	211.5	198.1	192.2
42.5°	239.1	237.4	234.9	231.6	221.5	210.2	199.3	193.0
45°	237.0	235.3	232.0	228.6	218.6	206.0	195.5	189.3
47.5°	233.6	229.9	226.1	222.3	212.7	199.7	187.6	182.1
50°	224.0	218.2	215.6	210.6	199.7	186.8	175.4	172.1
52.5°	210.2	203.1	200.6	195.1	183.8	170.0	159.1	154.9
55°	194.3	189.3	187.6	183.0	172.1	157.9	148.6	144.5
57.5°	181.3	180.1	179.6	177.5	168.3	156.6	149.5	146.6
60°	166.7	166.7	168.3	170.0	163.3	149.9	140.7	138.2
62.5°	153.3	151.6	152.0	152.0	145.3	134.0	126.5	122.7
65°	141.1	137.3	136.5	133.6	125.2	113.5	105.9	104.3
67.5°	132.7	127.7	126.0	123.5	114.7	104.3	97.1	94.6
70°	123.9	118.1	116.4	113.5	104.7	94.6	88.8	86.7
72.5°	115.6	108.5	107.2	104.7	95.5	86.7	79.6	76.6
75°	105.9	94.2	90.0	85.0	73.7	63.6	57.8	55.7
77.5°	85.4	82.1	79.1	75.4	64.5	54.4	49.0	46.5
80°	69.5	68.3	66.6	64.9	53.6	43.1	29.3	26.0
82.5°	50.2	48.2	49.8	51.1	41.5	25.5	20.1	18.0
85°	28.1	26.4	26.0	28.5	23.4	18.0	13.0	11.3
87.5°	24.3	22.6	21.4	20.1	14.2	12.1	10.0	8.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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