

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: P240323

Luminaire Tested: **UTLD-AF24-90-D-U-T2U-FP**

Issue Date: 5/28/2020

Test Information

Test Method: LM-79-08
Report Number: P240323
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1710-388-28)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 5/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: UTLD-AF24-90-D-U-T2U-FP
Description: TRADITIONAIRE LED DOWNLIGHT LUMINAIRE
(1) 70 CRI, 4000K, 1180mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS
AND FROSTED LENS PANELS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7599.5 lumens
Efficiency: N/A
Efficacy: 80.8 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.21' x L: 1.21' x H: 0.96')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U4 - G3

Input Watts (W): 94
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

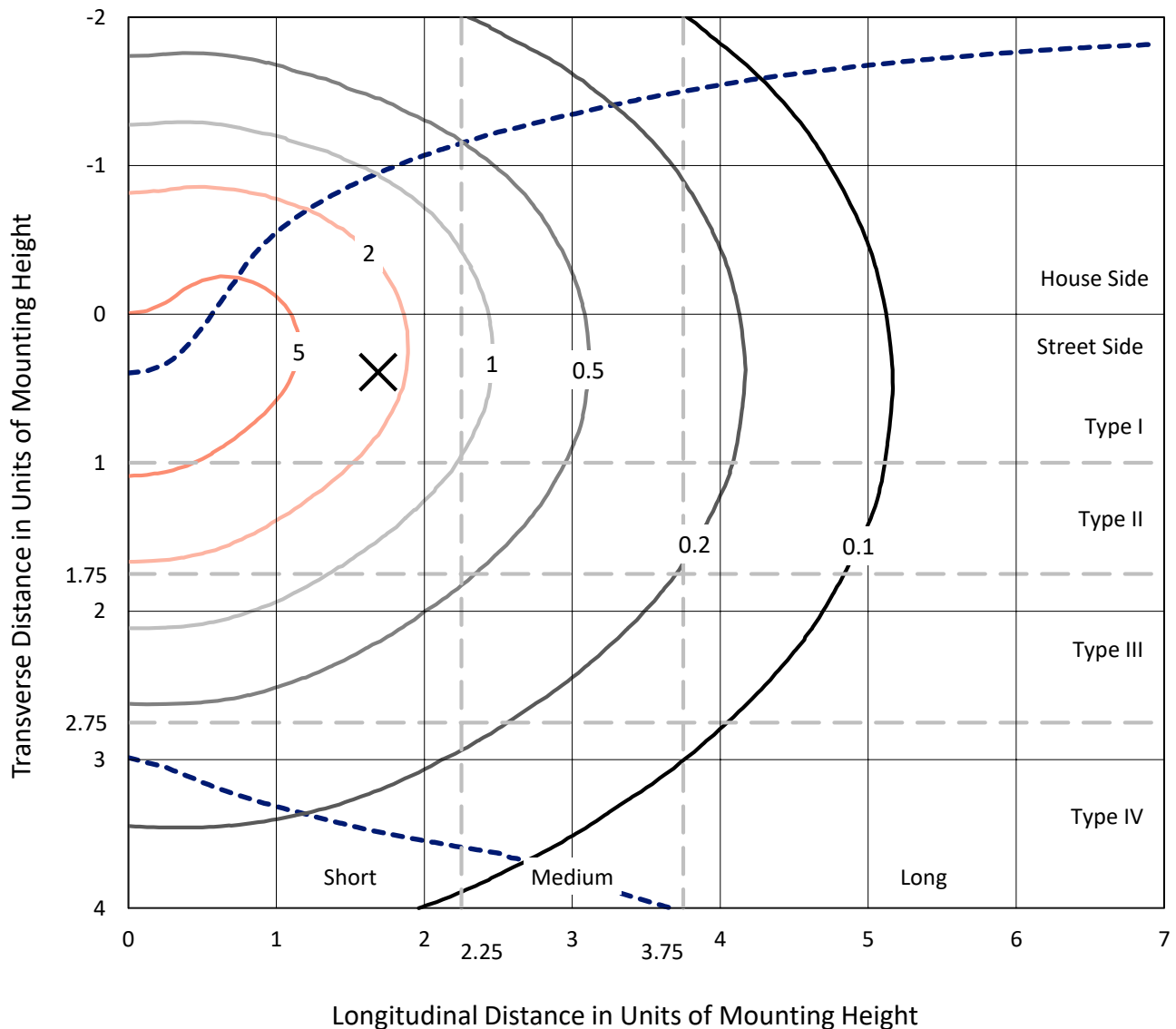


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

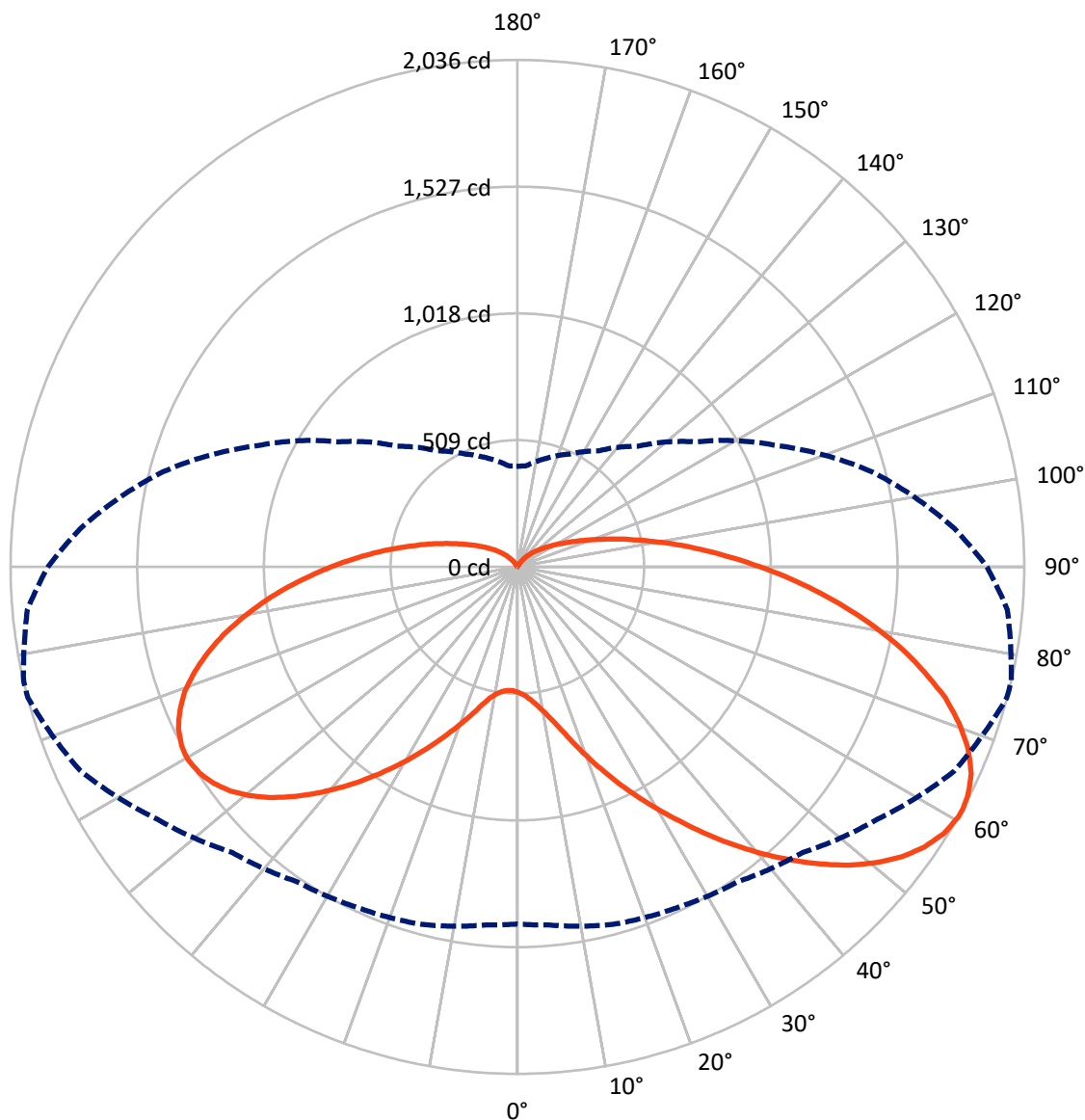


Based on 10 foot mounting height. Maximum calculated value = 8.4 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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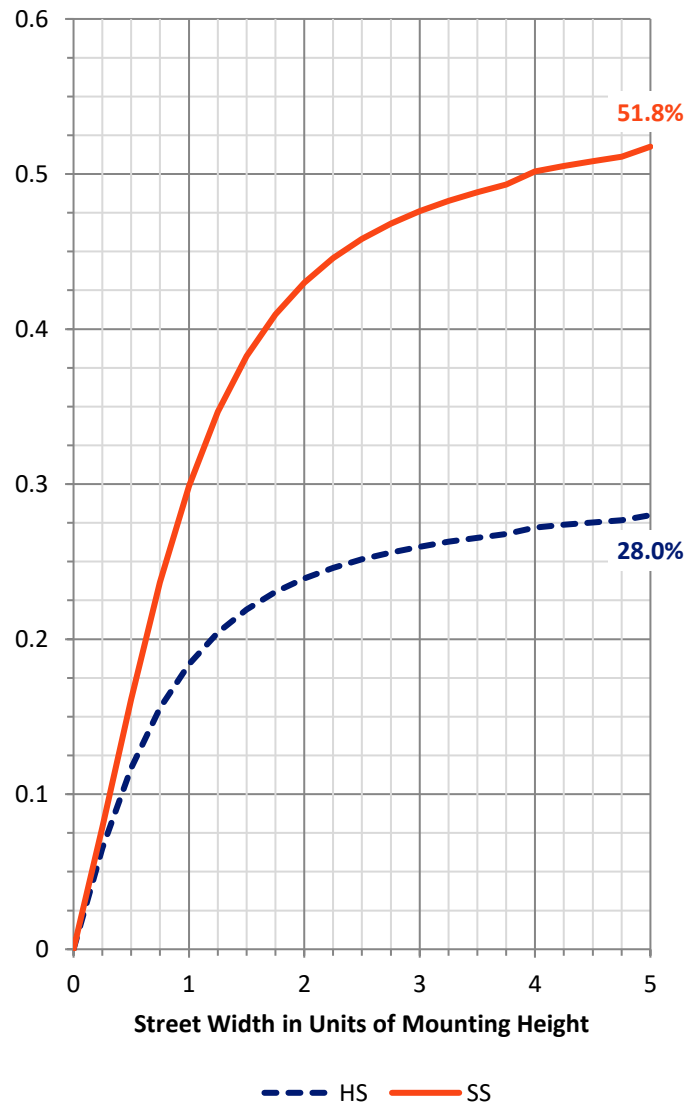
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2260.0	485.4	2745.4
	% Fixture	29.7	6.4	36.1
Street Side	Lumens	4169.1	685.1	4854.1
	% Fixture	54.9	9.0	63.9
Total	Lumens	6429.1	1170.4	7599.5
	% Fixture	84.6	15.4	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.2	0.7
10°-20°	177.0	2.3
20°-30°	379.2	5.0
30°-40°	653.7	8.6
40°-50°	949.1	12.5
50°-60°	1168.0	15.4
60°-70°	1210.2	15.9
70°-80°	1055.2	13.9
80°-90°	786.5	10.3
90°-100°	520.0	6.8
100°-110°	317.3	4.2
110°-120°	181.8	2.4
120°-130°	96.1	1.3
130°-140°	42.5	0.6
140°-150°	11.8	0.2
150°-160°	0.9	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	6429.1	84.6
0°-180°	7599.5	100.0

Coefficient of Utilization



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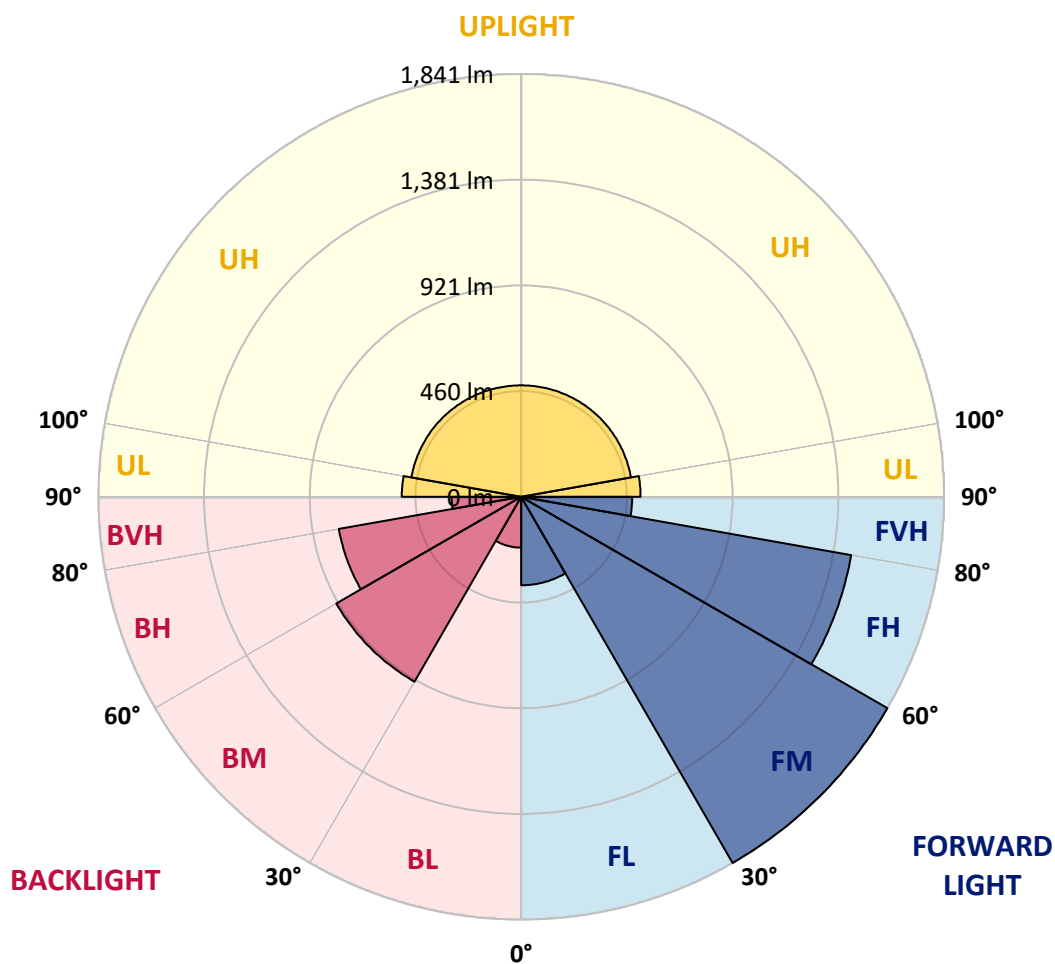
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	385.1	5.1			
FM	(30°-60°)	1841.2	24.2			
FH	(60°-80°)	1459.3	19.2			G1/1800
FVH	(80°-90°)	483.5	6.4			G3/500
BL	(0°-30°)	221.3	2.9	B1/500		
BM	(30°-60°)	929.6	12.2	B1/1000		
BH	(60°-80°)	806.1	10.6	B2/1000		G2/1000
BVH	(80°-90°)	303.0	4.0			G3/500
UL	(90°-100°)	520.0	6.8		U4/1000	
UH	(100°-180°)	485.4	6.4		U3/500	

BUG Rating: B2-U4-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	504.4	504.4	504.4	504.4	504.4	504.4	504.4	504.4	504.4	504.4	504.4
2.5°	547.8	547.8	545.8	544.9	540.9	536.0	531.0	524.2	517.2	515.3	511.3
5°	595.3	595.3	593.2	588.3	581.4	572.5	561.7	550.8	536.9	534.0	523.1
7.5°	648.6	646.5	641.6	636.7	626.8	614.0	599.1	582.4	563.6	559.7	543.9
10°	701.8	701.8	696.9	689.0	677.2	660.4	642.6	621.9	597.2	592.3	571.5
12.5°	763.0	761.1	753.2	747.3	733.5	714.6	694.9	669.2	639.7	634.7	608.0
15°	828.2	827.2	820.3	807.4	791.7	773.9	753.2	725.5	694.0	686.0	656.4
17.5°	901.2	895.3	891.4	877.5	860.7	838.0	822.2	793.6	759.0	750.2	713.7
20°	968.3	969.3	960.4	948.6	932.8	917.0	894.3	868.7	831.1	819.3	777.9
22.5°	1044.3	1044.3	1035.4	1023.7	1007.8	999.9	974.3	947.7	902.2	893.3	846.9
25°	1123.3	1120.3	1111.4	1100.6	1092.7	1082.9	1059.2	1027.6	981.2	972.3	919.9
27.5°	1196.3	1197.4	1186.5	1177.6	1176.6	1163.8	1144.1	1110.5	1066.0	1053.2	997.0
30°	1271.4	1272.3	1264.5	1253.6	1254.6	1246.7	1229.9	1195.4	1153.0	1138.1	1077.9
32.5°	1346.4	1344.5	1333.6	1332.6	1329.6	1323.7	1310.9	1289.1	1242.8	1226.9	1164.7
35°	1413.5	1413.5	1402.7	1406.7	1400.7	1399.7	1395.7	1378.9	1337.5	1321.8	1254.6
37.5°	1475.7	1474.7	1468.9	1469.8	1465.9	1464.9	1471.7	1469.8	1431.3	1418.4	1349.4
40°	1533.0	1527.1	1522.2	1526.0	1522.2	1528.0	1544.9	1556.6	1524.1	1514.2	1444.1
42.5°	1572.5	1570.4	1568.5	1575.4	1569.5	1583.3	1609.9	1638.6	1618.8	1609.0	1538.9
45°	1604.0	1600.1	1604.0	1610.9	1607.0	1624.8	1672.1	1715.6	1715.6	1701.8	1629.7
47.5°	1616.9	1615.9	1625.8	1631.7	1629.7	1658.3	1721.5	1787.6	1801.4	1790.6	1717.5
50°	1613.9	1613.9	1629.7	1638.6	1640.6	1678.0	1758.0	1844.9	1876.5	1867.6	1795.5
52.5°	1595.2	1595.2	1618.8	1629.7	1637.6	1685.0	1782.7	1893.3	1939.6	1934.7	1862.7
55°	1559.6	1558.7	1589.3	1603.1	1619.8	1678.0	1792.6	1924.9	1989.0	1985.0	1919.9
57.5°	1504.4	1506.3	1543.8	1565.5	1587.2	1656.4	1787.6	1940.6	2022.6	2020.6	1956.4
60°	1434.3	1444.1	1486.6	1511.2	1543.8	1621.8	1766.9	1937.7	2035.4	2036.4	1976.1
61°	1404.6	1414.5	1457.9	1487.6	1522.2	1605.0	1755.1	1931.7	2034.4	2036.4	1978.2
62.5°	1357.3	1363.2	1414.5	1450.0	1487.6	1574.4	1731.3	1916.0	2027.5	2030.5	1975.2
65°	1268.5	1279.3	1331.6	1376.0	1420.5	1515.2	1680.1	1875.5	1998.8	2003.9	1952.5
67.5°	1170.7	1183.6	1243.7	1295.1	1346.4	1447.1	1616.9	1817.3	1947.6	1953.4	1909.0
70°	1074.0	1089.7	1153.0	1204.2	1267.4	1371.1	1539.8	1742.2	1877.4	1883.4	1844.9
72.5°	975.3	993.0	1058.1	1117.4	1181.5	1287.2	1454.0	1653.4	1789.7	1797.5	1761.9
75°	876.6	899.3	960.4	1028.6	1092.7	1201.3	1365.1	1558.7	1682.0	1689.9	1662.3
77.5°	787.7	807.4	867.7	938.8	1008.8	1112.5	1268.5	1446.1	1574.4	1578.4	1553.7
80°	697.9	718.6	783.8	850.9	925.0	1024.6	1168.7	1332.6	1444.1	1454.9	1429.4
82.5°	618.0	638.6	699.9	772.9	843.9	939.7	1067.0	1216.1	1314.8	1326.7	1308.9
85°	550.8	565.6	625.8	695.9	765.0	855.8	978.2	1107.5	1196.3	1198.4	1180.6
87.5°	483.7	499.5	556.7	624.8	694.9	777.9	882.5	994.0	1066.0	1073.0	1055.2
90°	428.4	438.2	492.6	559.7	627.8	703.8	794.6	893.3	951.5	951.5	937.7
92.5°	380.0	384.9	439.3	503.4	568.6	633.7	713.7	789.7	840.0	839.0	823.3
95°	335.6	341.6	387.0	449.2	512.3	572.5	637.7	697.9	735.4	737.3	718.6
97.5°	296.1	300.0	342.5	403.8	460.0	516.3	570.5	618.9	643.5	644.6	630.8
100°	264.5	264.5	305.0	359.3	413.6	463.9	510.4	546.9	557.7	556.7	544.9
102.5°	236.9	235.0	269.4	321.8	372.1	415.5	453.1	476.8	485.7	482.7	474.8
105°	210.2	212.3	238.9	288.3	333.7	372.1	400.8	420.5	420.5	418.5	410.6
107.5°	190.5	189.6	210.2	255.6	299.1	332.7	355.4	365.2	362.2	359.3	354.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
110°	170.7	170.7	186.6	229.0	266.5	297.2	312.9	318.9	310.0	308.9	308.0
112.5°	154.0	154.0	166.8	202.3	237.9	263.5	276.4	277.4	267.5	266.5	267.5
115°	141.2	141.2	148.0	179.6	212.3	235.0	245.8	240.8	231.0	230.0	232.9
117.5°	128.3	128.3	134.2	156.9	187.5	208.3	215.2	208.3	199.4	199.4	203.4
120°	117.4	117.4	119.5	137.2	164.8	182.6	187.5	179.6	172.8	172.8	176.7
122.5°	107.6	106.6	107.6	119.5	142.2	159.0	160.9	154.0	149.0	150.1	156.0
125°	97.7	97.7	96.8	103.6	122.4	136.3	138.2	130.3	130.3	130.3	135.2
127.5°	88.8	88.8	86.8	89.8	103.6	115.5	115.5	109.6	111.5	113.5	117.4
130°	80.9	80.9	79.0	79.0	85.9	95.7	95.7	91.8	96.8	97.7	101.7
132.5°	73.0	72.0	70.1	67.1	70.1	76.0	76.0	75.0	83.0	83.9	86.8
135°	65.2	64.1	62.2	57.3	56.3	58.2	58.2	61.2	69.0	70.1	74.1
137.5°	56.3	56.3	53.3	48.4	42.5	42.5	42.5	48.4	56.3	58.2	60.3
140°	48.4	48.4	45.4	39.5	31.6	28.6	29.6	37.5	45.4	46.4	48.4
142.5°	39.5	39.5	36.5	30.6	22.7	16.8	18.7	26.7	33.6	35.5	37.5
145°	30.6	30.6	27.6	21.7	13.8	8.9	10.8	18.7	23.7	24.7	26.7
147.5°	22.7	22.7	19.7	14.8	7.9	3.0	5.9	10.8	15.8	16.8	18.7
150°	14.8	14.8	12.8	7.9	4.0	0.0	1.9	5.9	8.9	9.8	10.8
152.5°	7.9	7.9	5.9	4.0	1.0	0.0	0.0	1.9	4.0	4.0	4.9
155°	4.0	3.0	1.9	1.0	0.0	0.0	0.0	0.0	1.0	1.0	1.9
157.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	504.4	504.4	504.4	504.4	504.4	504.4	504.4	504.4	504.4	504.4	504.4
2.5°	507.4	503.4	495.5	489.6	482.7	476.8	471.8	467.9	466.9	463.9	464.9
5°	516.3	509.3	494.5	481.7	467.9	456.0	446.2	439.3	434.3	432.3	430.4
7.5°	533.1	521.2	499.5	478.7	459.0	441.2	425.4	415.5	407.6	403.8	403.8
10°	556.7	542.0	511.3	483.7	456.0	432.3	412.7	396.8	387.0	382.0	383.0
12.5°	589.3	569.6	532.0	494.5	460.9	430.4	403.8	387.0	375.1	369.2	369.2
15°	635.7	614.0	563.6	515.3	469.8	432.3	403.8	384.9	376.0	372.1	371.1
17.5°	691.9	663.3	606.1	547.8	490.6	444.2	415.5	397.8	384.9	380.0	379.0
20°	749.2	716.7	649.5	584.4	520.2	469.8	435.3	411.6	394.9	387.9	387.0
22.5°	814.4	776.8	697.9	620.9	551.8	503.4	455.0	424.4	404.7	395.8	394.9
25°	881.5	840.0	751.2	664.3	594.2	536.0	479.8	437.3	413.6	402.7	401.7
27.5°	952.6	908.2	806.5	707.8	634.7	566.6	502.5	449.2	421.5	409.7	408.7
30°	1031.5	978.2	866.6	758.1	675.1	595.3	524.2	463.0	429.4	415.5	413.6
32.5°	1113.5	1054.3	927.9	811.4	712.7	620.9	542.0	477.7	437.3	421.5	420.5
35°	1199.3	1133.2	991.0	863.7	746.2	643.5	557.7	490.6	443.2	426.5	424.4
37.5°	1289.1	1216.1	1057.2	913.1	778.8	663.3	570.5	501.5	449.2	429.4	427.4
40°	1378.9	1295.1	1122.4	963.4	808.4	680.2	581.4	509.3	453.1	432.3	430.4
42.5°	1465.9	1380.0	1188.5	1009.8	834.1	692.9	589.3	516.3	457.1	434.3	431.4
45°	1550.7	1460.9	1251.7	1049.2	855.8	702.8	594.2	520.2	462.0	434.3	431.4
47.5°	1635.6	1536.9	1313.9	1083.8	871.7	709.7	596.2	522.2	464.9	433.3	430.4
50°	1712.6	1605.0	1367.2	1114.4	883.4	711.7	595.3	521.2	466.0	431.4	427.4
52.5°	1775.8	1665.3	1411.6	1136.2	890.4	710.7	592.3	519.2	464.9	427.4	424.4
55°	1830.1	1711.6	1444.1	1150.0	890.4	705.7	587.3	515.3	460.9	422.5	418.5
57.5°	1865.7	1746.2	1465.9	1155.9	886.4	696.9	578.5	508.4	457.1	415.5	411.6
60°	1886.3	1763.0	1474.7	1151.9	875.5	685.1	568.6	500.4	451.1	407.6	403.8
61°	1888.4	1764.9	1474.7	1148.0	870.6	680.2	564.7	497.5	448.2	404.7	399.8
62.5°	1886.3	1763.0	1469.8	1139.2	860.7	671.3	556.7	490.6	442.2	397.8	394.9
65°	1866.6	1744.2	1450.0	1116.4	839.0	653.5	542.9	479.8	432.3	387.9	383.0
67.5°	1824.1	1706.7	1414.5	1084.8	813.3	632.7	527.1	466.9	421.5	376.0	370.2
70°	1763.0	1651.5	1370.1	1048.3	784.7	610.0	509.3	452.0	407.6	364.3	356.3
72.5°	1686.9	1584.2	1307.9	1001.9	751.2	586.4	490.6	436.3	392.9	350.5	340.5
75°	1592.2	1498.4	1238.8	950.5	713.7	558.7	470.9	418.5	376.0	335.6	324.8
77.5°	1487.6	1403.7	1163.8	894.3	676.2	532.0	449.2	398.7	358.3	318.9	308.0
80°	1373.0	1300.0	1078.9	835.1	636.7	504.4	427.4	380.0	340.5	302.1	289.2
82.5°	1255.6	1190.4	994.0	774.9	594.2	475.8	403.8	359.3	320.8	284.3	270.5
85°	1136.2	1079.9	908.2	712.7	551.8	447.1	382.0	338.6	300.0	265.6	253.7
87.5°	1017.7	969.3	820.3	653.5	513.3	419.5	359.3	317.8	280.3	246.7	235.0
90°	907.2	865.7	739.3	598.2	474.8	390.9	336.6	297.2	260.5	227.0	219.1
92.5°	802.5	767.0	661.3	539.9	436.3	363.2	313.9	275.4	238.9	208.3	203.4
95°	707.8	674.2	590.2	488.7	400.8	338.6	292.2	255.6	219.1	190.5	186.6
97.5°	615.0	594.2	524.2	439.3	366.2	311.9	270.5	235.9	200.4	173.7	171.8
100°	538.0	516.3	460.0	393.8	334.6	288.3	249.7	216.1	182.6	157.9	156.9
102.5°	467.9	453.1	405.7	355.4	304.0	262.6	229.0	197.4	164.8	143.1	143.1
105°	408.7	394.9	359.3	315.9	274.5	240.8	208.3	177.7	147.1	128.3	129.3
107.5°	352.4	343.5	313.9	279.4	246.7	218.2	188.5	159.0	129.3	114.5	115.5



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	307.0	298.1	275.4	249.7	222.1	197.4	169.8	141.2	112.5	103.6	103.6
112.5°	266.5	260.5	241.8	221.1	199.4	177.7	153.0	124.4	98.7	91.8	92.8
115°	232.9	228.0	212.3	196.4	178.7	159.9	136.3	108.5	85.9	83.0	83.0
117.5°	202.3	199.4	186.6	172.8	159.0	142.2	120.4	93.8	74.1	74.1	74.1
120°	176.7	173.7	163.9	152.0	140.1	125.3	103.6	80.0	65.2	65.2	66.2
122.5°	155.0	153.0	143.1	134.2	123.4	108.5	88.8	67.1	57.3	58.2	58.2
125°	135.2	133.3	126.3	116.5	106.6	92.8	75.0	55.2	49.3	51.4	51.4
127.5°	117.4	116.5	109.6	100.7	90.8	79.0	61.2	46.4	43.5	45.4	45.4
130°	102.7	101.7	94.7	85.9	77.0	64.1	49.3	38.5	37.5	39.5	39.5
132.5°	87.9	86.8	80.9	72.0	63.2	51.4	38.5	30.6	32.5	34.6	34.6
135°	74.1	73.0	69.0	59.2	51.4	40.5	29.6	25.7	27.6	29.6	29.6
137.5°	61.2	60.3	56.3	47.4	38.5	29.6	21.7	20.8	22.7	24.7	24.7
140°	49.3	48.4	44.4	36.5	27.6	20.8	14.8	16.8	18.7	20.8	20.8
142.5°	37.5	37.5	34.6	27.6	18.7	12.8	9.8	12.8	14.8	16.8	16.8
145°	27.6	27.6	23.7	18.7	10.8	7.0	5.9	8.9	11.9	12.8	12.8
147.5°	18.7	18.7	15.8	11.9	5.9	3.0	4.0	5.9	7.9	8.9	9.8
150°	10.8	10.8	8.9	5.9	3.0	1.0	1.0	4.0	4.9	5.9	5.9
152.5°	4.9	4.9	4.0	1.9	1.0	1.0	1.0	1.0	3.0	3.0	3.0
155°	1.9	1.9	1.9	1.0	1.0	1.0	1.0	0.0	1.0	1.0	1.0
157.5°	0.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)