

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: P239941

Luminaire Tested: **UTLD-AF24-50-D-U-T4W-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239941
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1710-388-16)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: UTLD-AF24-50-D-U-T4W-A
Description: TRADITIONAIRE LED DOWNLIGHT LUMINAIRE
(1) 70 CRI, 4000K, 670mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS AND REFRACTOR PANELS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4689 lumens
Efficiency: N/A
Efficacy: 86.8 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.21' x L: 1.21' x H: 0.96')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B1 - U3 - G2

Input Watts (W): 54
Input Voltage (V): NR
Input Current (A_{in}): 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

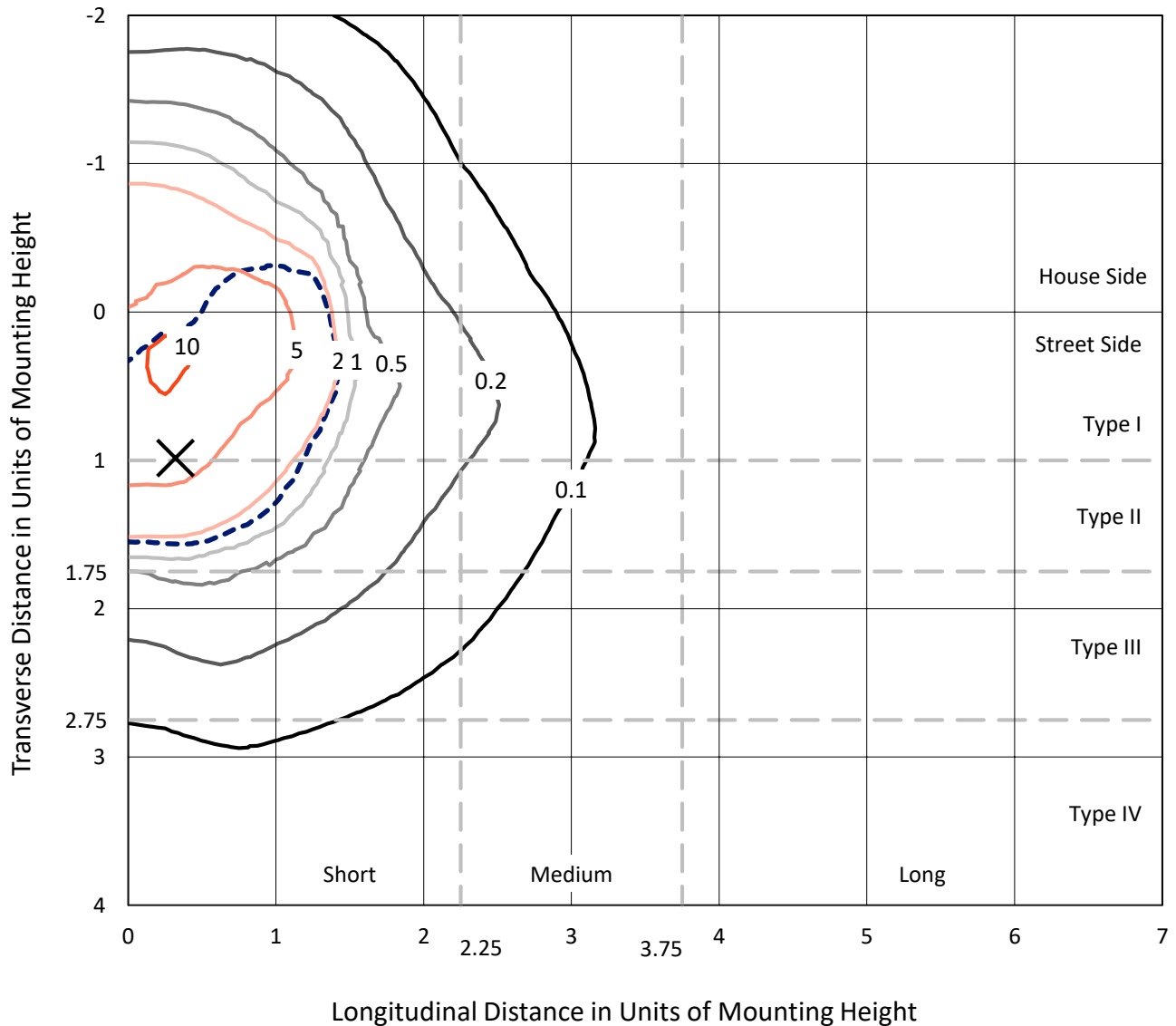


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

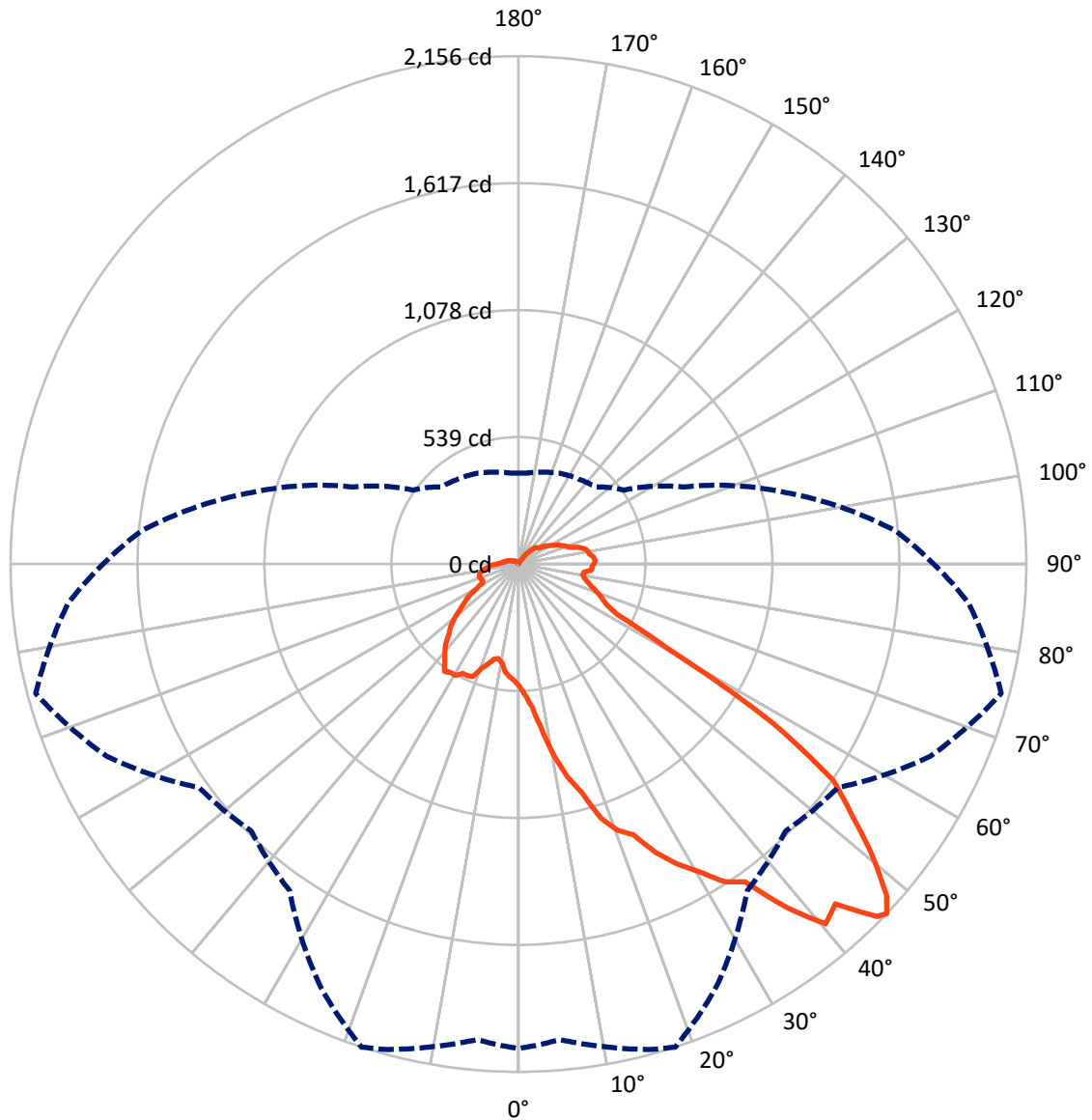


Based on 10 foot mounting height. Maximum calculated value = 11.4 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 18-Deg Lateral - - - Horizontal Cone Through 46-Deg Vertical

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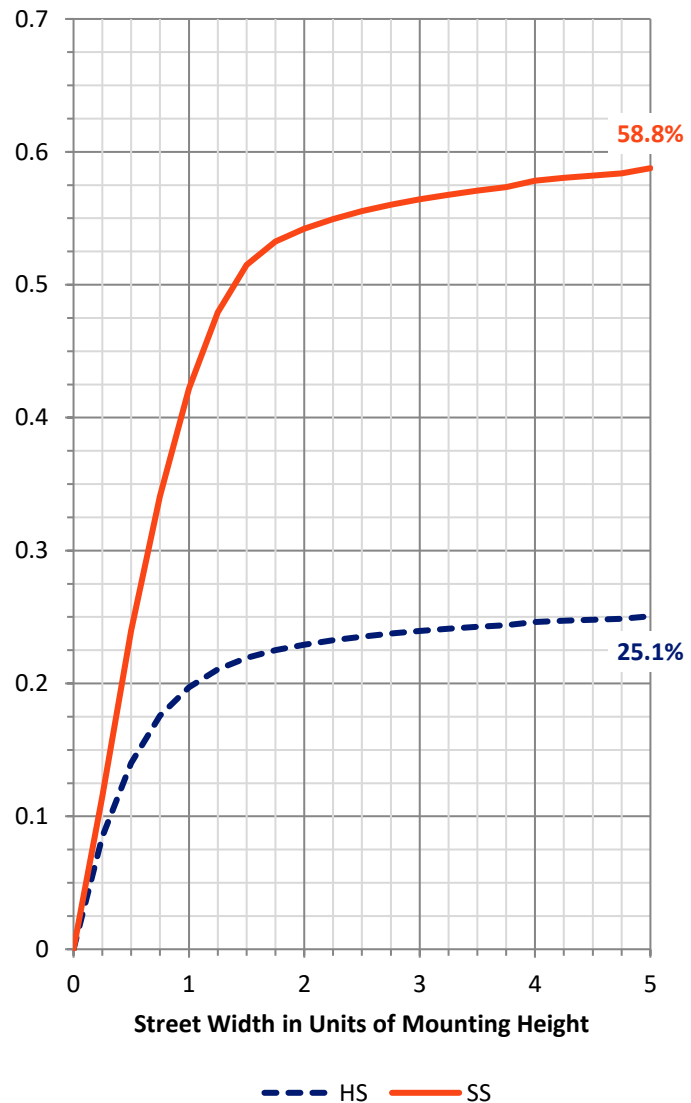
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1219.7	151.8	1371.6
	% Fixture	26.0	3.2	29.3
Street Side	Lumens	2862.2	455.2	3317.4
	% Fixture	61.0	9.7	70.7
Total	Lumens	4081.9	607.0	4689.0
	% Fixture	87.1	12.9	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.6	1.2
10°-20°	227.0	4.8
20°-30°	461.7	9.8
30°-40°	755.8	16.1
40°-50°	983.7	21.0
50°-60°	736.1	15.7
60°-70°	306.6	6.5
70°-80°	278.9	5.9
80°-90°	276.5	5.9
90°-100°	222.4	4.7
100°-110°	158.0	3.4
110°-120°	106.8	2.3
120°-130°	68.8	1.5
130°-140°	40.7	0.9
140°-150°	9.9	0.2
150°-160°	0.5	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	4081.9	87.1
0°-180°	4689.0	100.0



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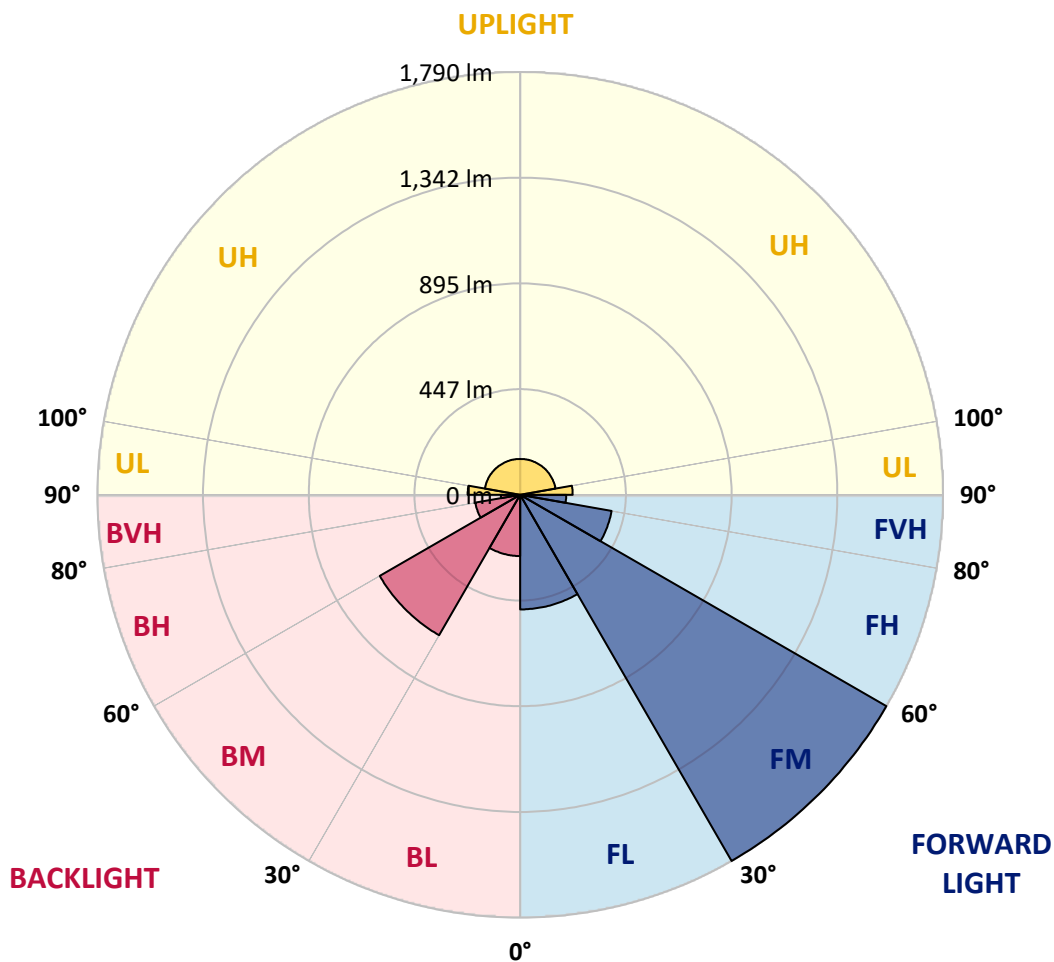
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	485.0	10.3			
FM (30°-60°)	1789.5	38.2			
FH (60°-80°)	392.7	8.4			G0/660
FVH (80°-90°)	195.0	4.2			G2/225
BL (0°-30°)	259.3	5.5	B1/500		
BM (30°-60°)	686.1	14.6	B1/1000		
BH (60°-80°)	192.8	4.1	B1/500		G1/500
BVH (80°-90°)	81.5	1.7			G1/100
UL (90°-100°)	222.4	4.7		U3/500	
UH (100°-180°)	151.8	3.2		U3/500	

BUG Rating: B1-U3-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	18°	25°	35°	45°	55°	65°	75°	85°
0°	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3
2.5°	558.2	555.7	557.0	557.0	553.7	552.4	549.2	545.3	540.1	534.3	529.1
5°	613.4	611.4	610.8	610.1	609.5	601.0	591.3	582.9	573.8	564.1	550.5
7.5°	715.2	714.5	710.6	706.1	699.6	685.3	667.8	659.4	647.1	632.2	611.4
10°	842.2	833.2	824.7	824.7	811.8	806.6	801.4	789.1	781.3	760.5	730.7
12.5°	914.9	910.3	927.8	926.5	943.4	973.9	984.2	994.6	947.3	887.0	831.2
15°	982.9	982.9	1005.0	1005.6	1055.5	1123.0	1174.2	1124.3	1037.4	940.1	865.6
17.5°	1076.3	1082.1	1113.9	1135.3	1202.7	1318.8	1283.8	1191.7	1062.0	946.0	862.3
20°	1117.1	1130.1	1178.7	1206.6	1311.0	1420.6	1386.9	1278.6	1128.2	995.9	911.6
22.5°	1142.4	1151.5	1208.6	1248.1	1381.7	1474.4	1469.2	1359.6	1217.6	1052.3	955.1
25°	1246.2	1252.0	1316.8	1357.7	1499.0	1528.9	1469.9	1394.0	1254.6	1082.8	997.2
27.5°	1281.2	1281.8	1381.7	1443.3	1559.3	1549.0	1472.5	1440.7	1370.0	1234.5	1176.8
30°	1328.5	1327.2	1450.4	1516.5	1587.2	1543.1	1481.5	1509.4	1513.9	1403.7	1298.7
32.5°	1386.9	1381.7	1528.9	1608.0	1630.7	1541.8	1496.4	1543.8	1612.5	1498.4	1385.6
35°	1440.7	1445.2	1603.4	1657.2	1678.6	1549.6	1504.2	1608.0	1747.4	1659.2	1469.9
37.5°	1786.9	1781.7	1831.6	1850.5	1796.6	1576.2	1534.0	1687.7	1891.9	1853.7	1650.8
40°	1865.4	1847.9	1997.0	2008.0	1913.3	1670.2	1615.7	1735.7	2006.1	2074.1	1912.7
42.5°	1799.2	1794.7	1957.4	1972.3	1904.3	1733.7	1669.6	1774.6	2019.0	2074.8	1806.4
45°	2090.3	2066.4	2151.3	2133.8	1945.1	1706.5	1636.5	1731.2	1974.3	2130.5	1917.9
46°	2057.3	2026.8	2133.8	2155.8	1984.0	1692.9	1603.4	1654.6	1929.6	2121.5	1919.2
47.5°	1956.1	1958.7	2101.4	2102.7	1944.5	1694.8	1549.0	1608.6	1829.7	2005.4	1735.7
50°	1707.8	1678.6	1939.3	1947.7	1796.6	1621.6	1493.2	1520.4	1731.2	1838.8	1564.5
52.5°	1644.3	1621.6	1775.2	1773.9	1637.8	1510.1	1391.4	1419.9	1657.9	1780.4	1584.6
55°	1510.7	1502.9	1632.0	1620.9	1525.6	1372.6	1287.7	1305.2	1375.2	1327.2	789.7
57.5°	1003.7	1033.5	1256.5	1277.9	1278.6	1206.6	1100.3	938.8	812.4	691.2	386.4
60°	409.8	444.1	692.5	724.9	772.2	904.5	797.5	627.6	524.5	545.3	333.9
62.5°	309.3	322.2	462.3	468.1	486.3	550.5	544.0	455.2	448.0	493.4	319.6
65°	287.9	299.5	409.8	407.8	399.4	416.9	415.6	394.9	402.6	459.7	318.4
67.5°	272.3	284.0	380.6	381.2	374.1	377.4	379.9	369.6	387.7	446.7	326.8
70°	256.8	269.1	350.1	352.1	357.3	368.9	373.5	365.7	381.9	430.5	326.1
72.5°	238.0	251.6	321.6	324.8	335.2	361.8	377.4	375.4	377.4	406.5	324.8
75°	231.5	245.1	297.6	303.4	318.4	358.5	398.7	385.8	372.8	391.0	317.1
77.5°	202.9	218.5	272.3	285.3	318.4	368.9	413.0	408.5	384.5	380.6	308.6
80°	195.2	210.1	261.9	276.2	311.9	378.0	427.3	427.9	415.6	394.9	317.1
82.5°	196.5	210.7	264.5	280.7	321.6	384.5	415.6	431.8	433.1	407.2	326.8
85°	230.8	244.4	295.7	312.5	348.2	382.5	406.5	418.2	429.9	429.9	358.5
87.5°	246.4	258.7	297.6	312.5	346.9	387.1	383.2	402.6	414.3	429.2	369.6
90°	260.6	268.4	308.6	322.9	341.0	373.5	363.1	357.3	367.0	382.5	346.2
92.5°	271.0	278.2	313.8	326.1	341.7	348.8	333.3	316.4	340.4	352.7	322.2
95°	289.8	296.3	315.1	319.6	317.7	324.2	300.2	293.7	304.1	317.7	298.3
97.5°	276.9	281.4	299.5	304.7	303.4	293.7	269.7	265.8	274.9	285.3	263.9
100°	276.9	282.7	296.3	299.5	291.8	267.1	242.5	241.2	247.0	252.2	232.1
102.5°	282.7	285.3	287.9	289.8	275.6	248.3	230.2	225.6	227.6	230.2	212.0
105°	267.8	268.4	269.7	263.9	252.2	231.5	213.3	205.5	212.0	219.8	204.9
107.5°	231.5	230.8	231.5	229.5	228.2	215.9	202.9	193.2	193.2	195.8	181.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	18°	25°	35°	45°	55°	65°	75°	85°
110°	215.9	216.6	215.9	215.9	210.1	201.6	189.3	179.0	173.8	175.1	162.1
112.5°	197.8	197.8	198.4	199.0	195.8	188.0	175.7	165.3	158.9	157.6	145.2
115°	197.8	195.8	190.0	189.3	182.8	171.8	162.7	149.8	145.2	145.2	137.5
117.5°	176.4	175.1	170.5	169.2	165.3	156.3	151.1	140.7	137.5	135.5	128.4
120°	156.3	156.3	154.3	153.7	149.8	144.6	133.6	129.7	127.1	129.7	125.1
122.5°	145.2	145.2	142.0	140.7	136.2	132.3	122.5	115.4	110.9	116.1	113.5
125°	133.6	132.9	128.4	127.7	119.9	119.9	114.8	105.7	93.4	98.6	97.3
127.5°	117.4	116.7	110.9	110.2	105.7	110.9	109.6	97.9	81.0	84.3	84.3
130°	112.8	111.5	106.3	105.0	100.5	99.2	104.4	85.6	75.9	79.1	78.5
132.5°	112.8	111.5	105.0	103.1	96.0	88.8	94.0	74.6	72.6	76.5	75.9
135°	101.8	101.8	96.0	92.1	84.9	72.0	73.3	57.7	63.5	69.4	69.4
137.5°	86.2	86.2	80.4	79.1	70.7	57.7	51.9	44.1	53.8	60.3	60.9
140°	67.4	67.4	62.9	60.3	54.5	38.3	24.0	27.2	40.8	46.7	48.6
142.5°	48.6	48.0	44.1	40.8	35.0	20.7	7.8	15.6	24.0	31.8	34.4
145°	33.7	33.1	28.5	26.6	21.4	9.7	1.9	6.5	14.3	18.8	22.0
147.5°	20.1	20.1	16.9	16.2	11.0	2.6	1.3	1.9	7.1	11.7	13.6
150°	11.7	11.7	8.4	6.5	2.6	0.6	0.6	0.6	1.9	5.2	6.5
152.5°	2.6	2.6	1.9	1.3	1.3	0.6	0.0	0.6	0.6	0.6	1.3
155°	1.3	1.3	1.3	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
157.5°	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.6	0.6	0.6	0.6
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6
162.5°	0.6	0.6	0.0	0.0	0.6	0.0	0.6	0.0	0.6	0.6	0.6
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°	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3
2.5°	526.5	523.9	518.0	510.9	505.7	501.2	497.9	496.0	494.7	491.5	492.8
5°	545.9	540.7	527.1	516.1	504.4	494.1	486.3	481.1	479.1	476.6	476.6
7.5°	601.7	589.4	568.6	542.7	518.7	497.9	478.5	467.5	457.8	452.6	451.3
10°	711.3	695.1	650.3	597.1	544.6	497.9	460.3	433.1	420.1	415.6	415.6
12.5°	802.0	776.7	718.4	658.7	588.7	515.5	459.7	422.7	405.2	399.4	399.4
15°	829.3	796.2	727.5	669.1	606.2	544.6	492.8	439.6	407.8	398.1	394.9
17.5°	820.8	788.4	726.2	655.5	584.8	538.8	492.8	464.2	435.1	418.2	415.6
20°	874.7	844.8	780.0	700.9	614.0	510.9	481.7	475.3	468.1	457.1	457.1
22.5°	919.4	891.5	826.7	741.7	637.3	569.9	526.5	520.0	512.2	510.3	509.0
25°	953.8	923.9	835.1	737.2	661.3	612.1	556.3	534.3	515.5	509.6	507.7
27.5°	1137.2	1091.2	948.6	809.8	700.9	626.3	562.1	533.6	516.1	509.0	513.5
30°	1244.9	1194.9	1038.7	856.5	748.2	657.4	573.8	540.1	544.6	550.5	555.0
32.5°	1327.2	1261.7	1078.2	862.3	740.4	663.3	592.6	552.4	539.4	547.2	548.5
35°	1408.3	1328.5	1129.5	899.3	750.8	641.9	579.6	556.3	552.4	562.8	560.8
37.5°	1572.9	1468.6	1193.0	909.7	741.1	616.6	557.6	533.0	512.9	510.3	513.5
40°	1788.2	1648.2	1256.5	905.1	695.7	586.1	529.7	501.8	486.3	476.6	470.7
42.5°	1680.6	1539.9	1174.8	868.8	640.6	531.7	501.2	476.6	456.5	444.1	440.9
45°	1798.6	1661.1	1195.6	795.6	577.7	483.0	458.4	441.5	413.7	402.0	400.0
46°	1762.9	1607.3	1172.3	772.9	547.2	462.3	441.5	424.0	403.3	387.1	385.8
47.5°	1633.2	1451.7	1103.5	711.9	526.5	427.9	413.7	403.3	392.3	373.5	370.9
50°	1457.5	1318.8	979.7	632.8	443.5	381.9	369.6	366.3	354.0	331.3	333.3
52.5°	1443.9	1309.7	912.3	582.2	393.6	334.6	330.7	320.9	310.6	290.5	289.8
55°	696.4	592.0	506.4	455.8	329.4	296.3	294.4	289.8	276.9	258.7	261.9
57.5°	330.0	287.2	248.3	263.2	258.7	260.0	261.3	260.6	245.7	221.1	226.3
60°	289.2	250.9	214.6	203.6	214.0	230.2	230.2	220.4	199.7	170.5	167.9
62.5°	278.8	240.5	207.5	192.6	197.8	207.5	202.3	186.7	166.0	139.4	138.1
65°	280.1	239.2	206.8	188.0	192.6	196.5	186.7	174.4	163.4	144.6	144.6
67.5°	285.9	244.4	209.4	186.1	189.3	191.9	182.8	173.8	167.3	153.0	154.3
70°	287.2	247.7	212.0	186.7	186.1	188.7	182.2	173.8	170.5	160.8	160.1
72.5°	287.2	250.3	209.4	182.2	180.9	182.2	178.3	173.8	173.1	167.3	166.0
75°	277.5	244.4	200.3	173.1	171.8	173.1	171.8	171.2	173.8	171.2	168.6
77.5°	267.8	238.6	193.9	166.0	164.0	163.4	162.7	163.4	167.3	165.3	161.4
80°	272.3	241.2	192.6	160.1	154.3	151.7	151.7	152.4	152.4	146.5	140.7
82.5°	280.1	245.7	186.1	149.1	139.4	134.9	136.2	140.7	142.6	138.1	133.6
85°	308.6	266.5	187.4	141.3	127.1	121.9	123.8	129.7	125.8	119.3	114.1
87.5°	320.9	273.6	183.5	129.7	118.0	116.1	116.1	119.3	116.7	106.3	101.8
90°	306.7	261.9	166.0	110.2	102.4	104.4	105.0	101.8	90.8	79.1	75.2
92.5°	287.2	245.1	153.7	101.1	90.8	90.1	89.5	87.5	79.1	66.1	63.5
95°	271.0	230.8	142.0	92.7	83.0	81.0	80.4	77.8	70.0	60.3	59.0
97.5°	236.0	201.6	129.0	85.6	74.6	73.3	72.6	69.4	62.2	55.1	54.5
100°	212.0	179.6	115.4	77.2	67.4	65.5	64.8	62.9	57.1	51.9	51.2
102.5°	192.6	164.7	107.0	70.7	60.3	57.7	57.7	56.4	53.2	49.9	49.9
105°	187.4	161.4	103.7	64.8	53.8	52.5	51.9	51.9	49.3	47.3	47.3
107.5°	164.7	141.3	89.5	57.7	48.6	47.3	47.3	47.3	46.7	46.0	46.7



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	148.5	127.7	82.3	53.8	45.4	43.4	43.4	43.4	43.4	44.7	44.7
112.5°	132.3	114.8	75.9	51.2	42.1	40.2	38.9	38.3	37.6	40.2	40.8
115°	125.1	109.6	72.6	48.6	40.2	38.3	35.7	34.4	32.4	34.4	35.0
117.5°	118.0	103.7	71.3	48.0	38.9	35.7	33.1	31.8	29.2	31.1	31.1
120°	116.1	103.1	72.6	48.6	37.6	33.1	31.1	27.9	26.6	27.9	28.5
122.5°	107.0	95.3	68.1	45.4	35.7	31.8	29.2	24.0	23.3	25.3	25.3
125°	90.8	81.7	59.0	40.8	33.7	31.1	28.5	21.4	22.0	23.3	24.0
127.5°	79.7	72.0	53.8	39.6	33.7	31.8	26.6	18.8	20.7	22.7	23.3
130°	74.6	68.7	53.8	40.8	35.0	32.4	22.0	17.5	19.5	21.4	21.4
132.5°	72.6	68.1	55.1	43.4	36.3	31.1	18.2	16.2	18.2	19.5	19.5
135°	66.8	62.9	52.5	42.1	33.1	24.6	14.3	14.3	16.9	18.2	18.2
137.5°	59.0	55.8	47.3	38.9	29.2	18.8	10.4	12.3	14.3	15.6	15.6
140°	47.3	45.4	38.9	30.5	20.7	10.4	7.8	9.7	11.7	13.0	13.0
142.5°	33.7	32.4	27.2	19.5	12.3	4.5	5.2	7.1	9.1	10.4	10.4
145°	22.0	20.7	16.9	12.3	5.2	1.3	3.2	5.2	7.1	7.8	7.8
147.5°	13.6	13.0	10.4	5.8	1.9	1.3	1.3	3.9	5.2	5.8	5.8
150°	7.1	6.5	4.5	1.9	0.6	0.6	0.6	1.3	3.2	3.9	4.5
152.5°	1.9	1.3	1.3	0.6	0.6	0.6	0.6	0.6	0.6	1.3	1.9
155°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
157.5°	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.6	0.0	0.6	0.6	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

(END OF REPORT)