

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: P239997

Luminaire Tested: **UTLD-AF24-70-D-U-T2U-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239997
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1710-388-18)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: UTLD-AF24-70-D-U-T2U-A
Description: TRADITIONAIRE LED DOWNLIGHT LUMINAIRE
(1) 70 CRI, 4000K, 930mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS
AND REFRACTOR PANELS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6283 lumens
Efficiency: N/A
Efficacy: 84.9 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: B2 - U3 - G2

Input Watts (W): 74
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

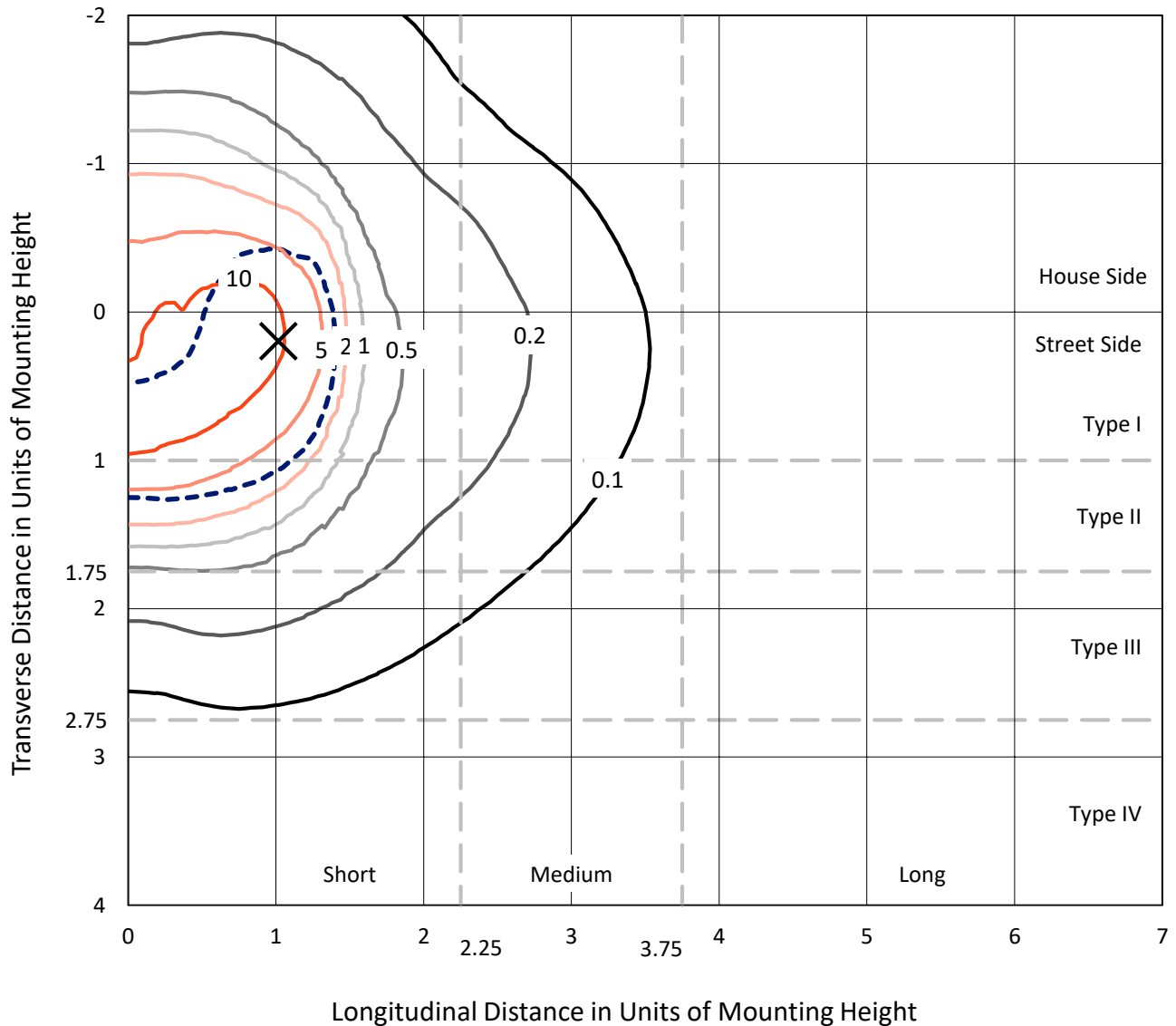


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

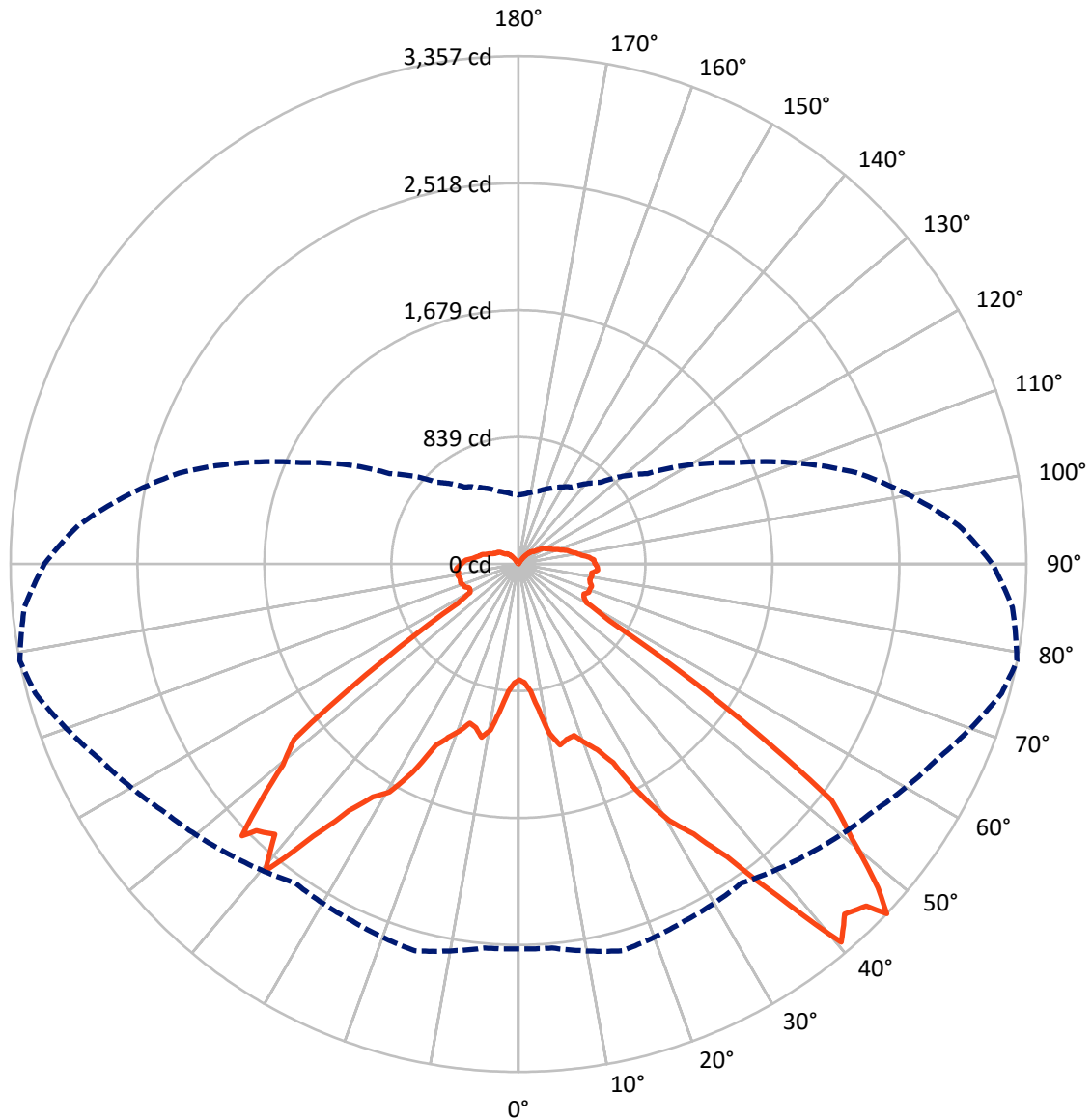


Based on 10 foot mounting height. Maximum calculated value = 13.8 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 46-Deg Vertical



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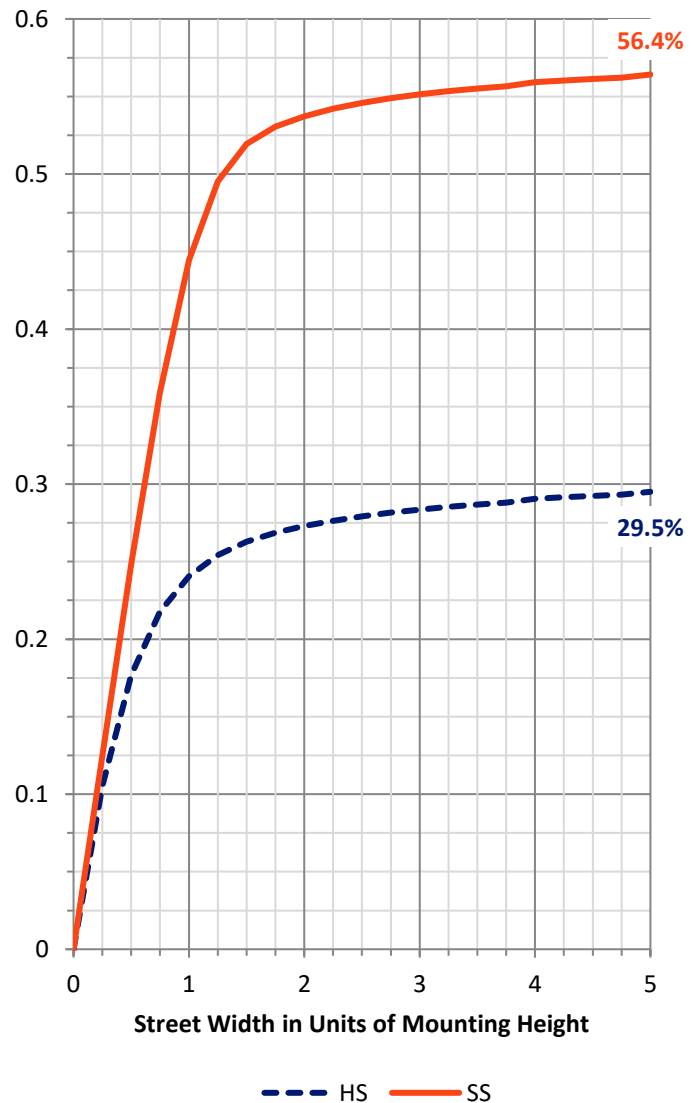
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1915.2	238.2	2153.4
	% Fixture	30.5	3.8	34.3
Street Side	Lumens	3612.8	516.8	4129.6
	% Fixture	57.5	8.2	65.7
Total	Lumens	5528.1	755.0	6283.0
	% Fixture	88.0	12.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.6	1.3
10°-20°	298.5	4.8
20°-30°	603.0	9.6
30°-40°	1104.0	17.6
40°-50°	1525.6	24.3
50°-60°	973.8	15.5
60°-70°	348.8	5.6
70°-80°	313.2	5.0
80°-90°	278.5	4.4
90°-100°	255.5	4.1
100°-110°	198.6	3.2
110°-120°	137.9	2.2
120°-130°	92.3	1.5
130°-140°	55.3	0.9
140°-150°	14.7	0.2
150°-160°	0.7	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	5528.1	88.0
0°-180°	6283.0	100.0



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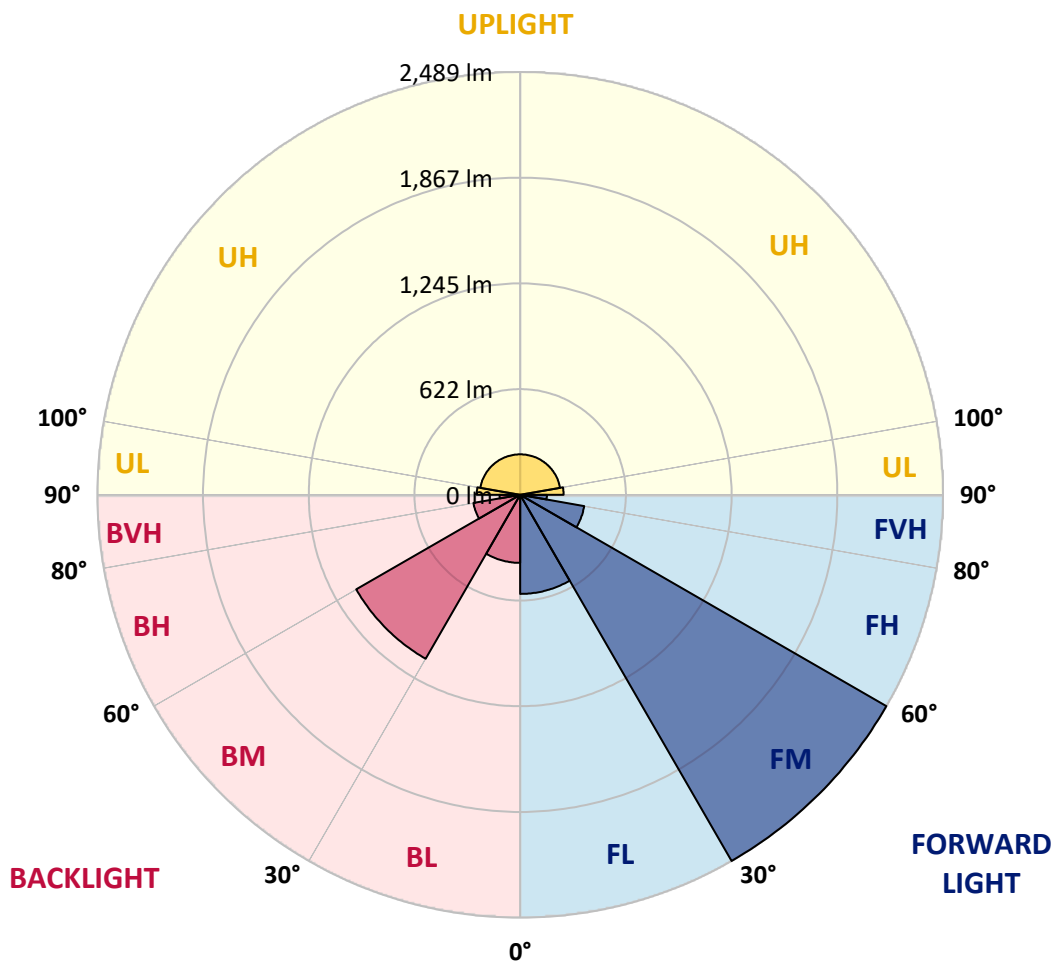
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	583.6	9.3			
FM (30°-60°)	2489.1	39.6			
FH (60°-80°)	382.8	6.1			G0/660
FVH (80°-90°)	157.3	2.5			G2/225
BL (0°-30°)	400.5	6.4	B1/500		
BM (30°-60°)	1114.3	17.7	B2/2500		
BH (60°-80°)	279.2	4.4	B1/500		G1/500
BVH (80°-90°)	121.2	1.9			G2/225
UL (90°-100°)	255.5	4.1		U3/500	
UH (100°-180°)	238.2	3.8		U3/500	

BUG Rating: B2-U3-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	765.8	765.8	765.8	765.8	765.8	765.8	765.8	765.8	765.8	765.8	765.8
2.5°	778.4	780.9	780.1	778.4	781.8	783.5	783.5	782.6	783.5	785.2	788.5
5°	815.5	814.7	817.2	824.0	833.2	835.8	843.4	841.7	845.9	845.9	850.9
7.5°	880.5	881.3	889.7	896.5	906.6	928.5	949.6	977.5	976.6	974.9	981.7
10°	947.9	947.9	964.8	989.3	1030.6	1077.0	1097.2	1121.7	1147.0	1142.8	1136.0
12.5°	969.0	972.4	1001.9	1062.6	1152.0	1231.3	1271.8	1266.7	1241.4	1227.1	1204.3
15°	1007.8	1012.0	1044.1	1136.8	1243.1	1314.0	1329.1	1266.7	1211.9	1201.8	1182.4
17.5°	1153.7	1153.7	1186.6	1271.8	1351.9	1335.9	1276.0	1246.5	1211.1	1191.7	1163.8
20°	1254.9	1260.8	1313.1	1373.0	1416.8	1364.6	1365.4	1310.6	1274.3	1262.5	1236.4
22.5°	1352.7	1361.2	1376.4	1470.0	1482.6	1492.7	1462.4	1412.6	1351.9	1332.5	1305.5
25°	1560.2	1562.7	1578.8	1623.5	1589.7	1572.9	1529.0	1488.5	1464.9	1454.8	1426.1
27.5°	1806.5	1798.9	1805.6	1809.0	1757.6	1711.2	1647.1	1690.1	1723.8	1733.1	1707.8
30°	1857.1	1844.4	1895.9	1950.7	1925.4	1869.7	1865.5	1917.0	1980.2	1968.4	1933.0
32.5°	2061.2	2041.8	2065.4	2071.3	2067.1	2051.0	2044.3	2109.2	2154.8	2128.6	2077.2
35°	2225.6	2224.8	2141.3	2160.7	2172.5	2209.6	2246.7	2335.3	2375.7	2377.4	2334.4
37.5°	2577.3	2552.0	2520.8	2397.7	2332.7	2349.6	2477.8	2634.7	2725.7	2785.6	2717.3
40°	2697.9	2708.9	2682.7	2669.2	2574.8	2535.1	2682.7	2952.6	3199.7	3287.4	3279.0
42.5°	2499.7	2525.0	2509.8	2603.4	2678.5	2729.1	2907.1	3138.1	3185.4	3162.6	3042.0
45°	2665.0	2665.0	2624.5	2566.3	2592.5	2756.9	2897.8	3053.8	3201.4	3225.0	3158.4
46°	2545.3	2547.8	2647.3	2603.4	2573.9	2710.6	2857.3	3053.8	3306.0	3357.4	3279.0
47.5°	2324.3	2320.1	2503.1	2517.4	2537.7	2649.8	2810.9	3053.0	3195.5	3198.9	3101.0
50°	1841.9	1849.5	2100.8	2234.1	2367.3	2477.8	2695.4	2832.0	2864.0	2858.1	2751.9
52.5°	1495.3	1515.5	1648.8	1816.6	1977.7	2190.2	2443.2	2570.6	2640.6	2594.2	2496.3
55°	1036.5	1080.3	1248.2	1399.1	1635.3	1839.4	2057.8	2069.6	1750.0	1604.1	1422.7
57.5°	641.0	649.4	797.8	1011.2	1188.3	1348.5	1351.1	1050.0	817.2	710.1	590.4
60°	355.9	363.5	495.1	652.8	825.6	845.0	754.8	607.2	544.8	517.0	474.8
62.5°	264.8	270.7	356.7	453.7	522.9	550.7	506.9	496.7	497.6	484.9	457.1
65°	238.7	242.0	312.9	361.8	402.3	408.2	424.2	459.6	479.0	476.5	464.7
67.5°	216.7	221.0	285.1	320.5	344.9	373.6	387.1	441.9	494.2	502.6	491.7
70°	193.1	199.9	257.2	294.3	322.2	350.0	377.0	445.3	487.5	499.3	494.2
72.5°	167.0	175.4	223.5	262.3	293.5	323.8	370.2	428.4	485.8	506.9	510.2
75°	146.7	157.7	197.3	231.9	264.8	301.1	350.0	422.5	476.5	490.0	496.7
77.5°	132.4	144.2	174.6	206.6	237.8	277.5	334.0	420.8	467.2	482.4	494.2
80°	121.4	133.3	158.6	183.9	210.0	254.7	317.1	418.3	476.5	492.5	499.3
82.5°	113.0	124.0	145.9	168.7	189.8	230.2	305.3	414.1	474.0	487.5	490.8
85°	113.9	122.3	142.5	163.6	183.0	217.6	299.4	415.8	505.2	526.3	529.6
87.5°	119.8	125.7	146.7	171.2	193.1	228.6	310.4	412.4	501.8	521.2	529.6
90°	129.9	134.9	160.2	188.9	215.1	247.9	307.8	403.1	487.5	505.2	510.2
92.5°	161.1	165.3	193.1	224.3	247.1	258.1	297.7	417.5	490.0	500.1	500.1
95°	208.3	213.4	240.4	264.0	268.2	262.3	292.6	371.1	447.0	468.9	481.6
97.5°	260.6	262.3	277.5	281.7	269.0	255.5	285.9	346.6	405.7	420.8	424.2
100°	277.5	277.5	287.6	284.2	259.8	241.2	258.9	315.4	372.8	389.6	394.7
102.5°	280.8	282.5	292.6	281.7	248.8	218.4	230.2	284.2	337.3	355.9	366.0
105°	297.7	298.5	292.6	265.7	225.2	198.2	208.3	262.3	318.8	336.5	347.5
107.5°	278.3	275.8	259.8	234.5	207.5	188.1	199.9	239.5	282.5	296.9	304.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
110°	230.2	228.6	222.6	213.4	196.5	182.2	189.8	226.0	267.3	278.3	285.1
112.5°	221.8	220.1	214.2	203.2	183.9	172.9	185.5	216.7	242.0	247.1	247.9
115°	213.4	211.7	198.2	185.5	170.4	165.3	173.7	202.4	226.0	231.9	237.0
117.5°	183.9	182.2	172.0	164.5	158.6	161.1	175.4	191.4	208.3	213.4	216.7
120°	163.6	162.8	157.7	152.6	149.3	151.0	166.1	183.9	200.7	205.8	208.3
122.5°	154.3	153.5	147.6	140.0	140.0	140.0	151.8	165.3	183.9	188.1	194.0
125°	135.8	135.8	129.9	124.0	132.4	135.8	138.3	139.2	153.5	160.2	162.8
127.5°	120.6	121.4	116.4	112.2	127.3	134.9	133.3	122.3	130.7	135.8	139.2
130°	118.9	118.9	113.0	107.9	115.5	130.7	125.7	114.7	124.8	128.2	129.9
132.5°	115.5	115.5	109.6	102.0	103.7	120.6	109.6	107.1	116.4	119.8	120.6
135°	106.3	106.3	102.0	91.9	85.2	102.0	88.6	93.6	102.9	105.4	106.3
137.5°	94.5	94.5	90.2	81.8	67.5	76.7	68.3	79.3	88.6	91.1	91.9
140°	77.6	76.7	74.2	64.1	48.9	43.0	46.4	63.3	72.5	74.2	76.7
142.5°	57.3	58.2	54.0	45.5	29.5	16.0	27.0	40.5	50.6	53.1	54.8
145°	42.2	41.3	37.1	29.5	16.0	2.5	12.7	25.3	32.0	34.6	36.3
147.5°	27.8	27.8	24.5	17.7	5.1	0.8	3.4	12.7	20.2	21.9	22.8
150°	18.6	18.6	13.5	5.1	0.8	0.8	0.8	2.5	8.4	10.1	11.8
152.5°	5.9	5.9	2.5	1.7	0.8	0.0	0.0	0.8	1.7	1.7	2.5
155°	1.7	1.7	1.7	0.8	0.0	0.0	0.0	0.0	0.8	0.8	0.8
157.5°	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.8	0.8	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°	765.8	765.8	765.8	765.8	765.8	765.8	765.8	765.8	765.8	765.8	765.8
2.5°	789.4	788.5	786.0	783.5	776.7	768.3	759.9	754.0	750.6	748.1	747.2
5°	849.3	850.9	839.1	819.7	801.2	784.3	768.3	753.1	744.7	737.9	735.4
7.5°	976.6	979.1	955.5	925.2	877.9	820.6	771.7	738.8	715.2	700.8	698.3
10°	1134.3	1127.6	1099.7	1034.8	948.8	860.2	768.3	697.5	659.5	641.8	641.0
12.5°	1198.4	1189.1	1157.9	1104.0	1013.7	898.2	784.3	690.7	634.2	611.4	610.6
15°	1168.9	1152.9	1095.5	1045.8	1010.3	946.2	844.2	737.1	659.5	630.8	623.2
17.5°	1143.6	1127.6	1079.5	1007.8	941.2	913.4	863.6	775.0	694.1	653.6	645.2
20°	1217.8	1207.7	1147.8	1052.5	979.1	867.8	827.3	766.6	705.9	680.6	673.8
22.5°	1286.1	1281.1	1206.0	1106.5	1007.8	930.2	849.3	804.6	745.5	727.8	720.2
25°	1413.5	1389.9	1266.7	1132.6	1047.5	971.5	867.8	797.8	726.1	703.4	699.1
27.5°	1712.9	1658.0	1478.4	1276.8	1105.6	985.0	866.1	763.2	684.8	656.1	654.4
30°	1903.5	1853.7	1651.3	1429.5	1196.7	1017.1	855.2	731.2	672.2	644.3	645.2
32.5°	2019.0	1952.4	1724.7	1443.8	1217.8	1033.1	861.9	720.2	641.0	605.5	604.7
35°	2269.5	2176.7	1846.1	1559.4	1259.1	1009.5	833.2	697.5	624.1	597.9	594.6
37.5°	2626.2	2521.6	2073.8	1653.0	1276.0	978.3	796.1	671.3	583.6	547.3	544.8
40°	3141.5	2988.0	2389.2	1766.0	1262.5	954.7	755.6	631.7	559.1	535.5	527.9
42.5°	2886.0	2712.2	2201.2	1744.1	1228.8	889.7	716.9	612.3	544.8	526.3	516.1
45°	3045.4	2843.0	2223.9	1621.8	1099.7	793.6	651.1	573.5	506.0	479.9	477.3
46°	3133.9	2922.2	2322.6	1584.7	1040.7	763.2	621.6	555.8	497.6	463.8	456.3
47.5°	2941.6	2706.3	2135.4	1512.1	993.5	694.9	582.8	527.9	488.3	457.1	452.0
50°	2579.8	2349.6	1847.0	1289.5	855.2	613.1	519.5	486.6	447.0	413.2	407.3
52.5°	2354.7	2161.5	1690.9	1169.7	726.1	517.0	463.8	435.2	394.7	355.1	350.0
55°	1294.6	1161.3	1044.9	878.8	602.2	436.9	404.0	387.1	345.8	307.0	304.5
57.5°	533.0	479.0	474.8	447.8	414.1	367.7	349.2	339.0	297.7	250.5	248.8
60°	448.7	399.8	352.5	310.4	307.8	307.0	301.1	283.4	237.8	188.9	187.2
62.5°	436.9	388.8	342.4	291.0	269.0	275.8	264.8	242.9	208.3	161.1	159.4
65°	445.3	395.5	340.7	282.5	258.9	261.4	249.6	232.8	209.2	175.4	173.7
67.5°	474.0	422.5	361.0	279.2	250.5	255.5	247.1	234.5	221.0	199.9	195.7
70°	478.2	432.6	361.8	280.8	241.2	247.1	244.6	233.6	224.3	205.8	203.2
72.5°	490.8	449.5	369.4	274.9	231.1	233.6	237.0	233.6	227.7	216.7	212.5
75°	479.0	442.8	366.0	269.9	221.0	219.3	227.7	231.9	233.6	229.4	224.3
77.5°	476.5	446.1	366.9	266.5	211.7	204.9	211.7	218.4	221.8	217.6	213.4
80°	479.9	453.7	377.8	267.3	201.6	184.7	188.1	195.7	196.5	188.9	183.0
82.5°	472.3	447.0	366.0	258.1	185.5	164.5	165.3	172.9	173.7	164.5	157.7
85°	506.0	475.7	374.5	246.3	168.7	150.1	151.0	154.3	149.3	139.2	132.4
87.5°	505.2	468.9	357.6	227.7	157.7	141.7	140.8	140.0	131.6	119.8	113.9
90°	487.5	449.5	334.8	200.7	139.2	129.9	127.3	122.3	110.5	97.0	92.8
92.5°	475.7	435.2	319.6	189.8	122.3	113.9	112.2	107.1	95.3	81.0	78.4
95°	463.0	423.4	294.3	166.1	107.9	99.5	97.0	91.9	82.6	70.8	69.2
97.5°	408.2	369.4	259.8	151.0	96.1	86.9	85.2	81.0	73.4	64.9	64.1
100°	377.0	342.4	241.2	138.3	86.0	75.9	75.1	72.5	67.5	61.6	60.7
102.5°	352.5	318.8	223.5	128.2	76.7	67.5	66.6	65.8	63.3	59.0	59.0
105°	334.0	301.9	214.2	119.8	69.2	61.6	60.7	60.7	58.2	55.7	55.7
107.5°	291.0	264.0	186.4	106.3	63.3	56.5	56.5	56.5	54.8	53.1	54.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	274.1	248.8	177.1	99.5	60.7	52.3	51.4	51.4	50.6	51.4	51.4
112.5°	236.1	214.2	156.0	95.3	59.0	49.8	47.2	45.5	43.9	45.5	46.4
115°	226.9	206.6	151.0	91.9	57.3	48.1	44.7	42.2	38.8	41.3	41.3
117.5°	208.3	189.8	140.0	89.4	57.3	45.5	42.2	39.6	36.3	38.0	38.0
120°	199.9	183.9	140.8	91.9	58.2	43.0	39.6	35.4	32.9	35.4	35.4
122.5°	188.1	173.7	132.4	86.9	55.7	42.2	38.8	30.4	28.7	31.2	31.2
125°	157.7	145.9	113.9	76.7	53.1	42.2	38.0	27.0	27.0	28.7	29.5
127.5°	134.1	124.8	98.7	71.7	54.0	44.7	36.3	23.6	25.3	27.8	27.8
130°	126.5	118.9	97.8	73.4	56.5	47.2	29.5	21.9	23.6	26.1	26.1
132.5°	118.1	111.3	94.5	75.1	57.3	44.7	24.5	20.2	21.9	23.6	23.6
135°	103.7	98.7	85.2	68.3	51.4	35.4	19.4	17.7	20.2	21.9	22.8
137.5°	91.1	86.9	75.1	61.6	46.4	30.4	13.5	16.0	17.7	18.6	19.4
140°	75.1	72.5	63.3	50.6	34.6	16.9	10.1	12.7	14.3	16.0	16.0
142.5°	54.8	53.1	44.7	32.9	21.1	6.7	6.7	9.3	11.0	12.7	12.7
145°	36.3	34.6	28.7	21.1	9.3	1.7	4.2	6.7	9.3	10.1	10.1
147.5°	22.8	21.9	17.7	11.0	3.4	1.7	1.7	5.1	6.7	7.6	7.6
150°	11.8	11.0	7.6	3.4	1.7	0.8	0.8	1.7	4.2	5.1	5.1
152.5°	2.5	2.5	1.7	0.8	0.8	0.8	0.8	0.8	0.8	1.7	1.7
155°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
157.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
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°	0.0	0.0	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

(END OF REPORT)