

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: P157068

Luminaire Tested: **UTLD-E02-LED-E-U-SL3-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157068
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33669)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: UTLD-E02-LED-E-U-SL3-8030
Description: TRADITIONAIRE LED DOWNLIGHT LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL
Light Source: (42) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4437.3 lumens
Efficiency: N/A
Efficacy: 85.2 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 52.1
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



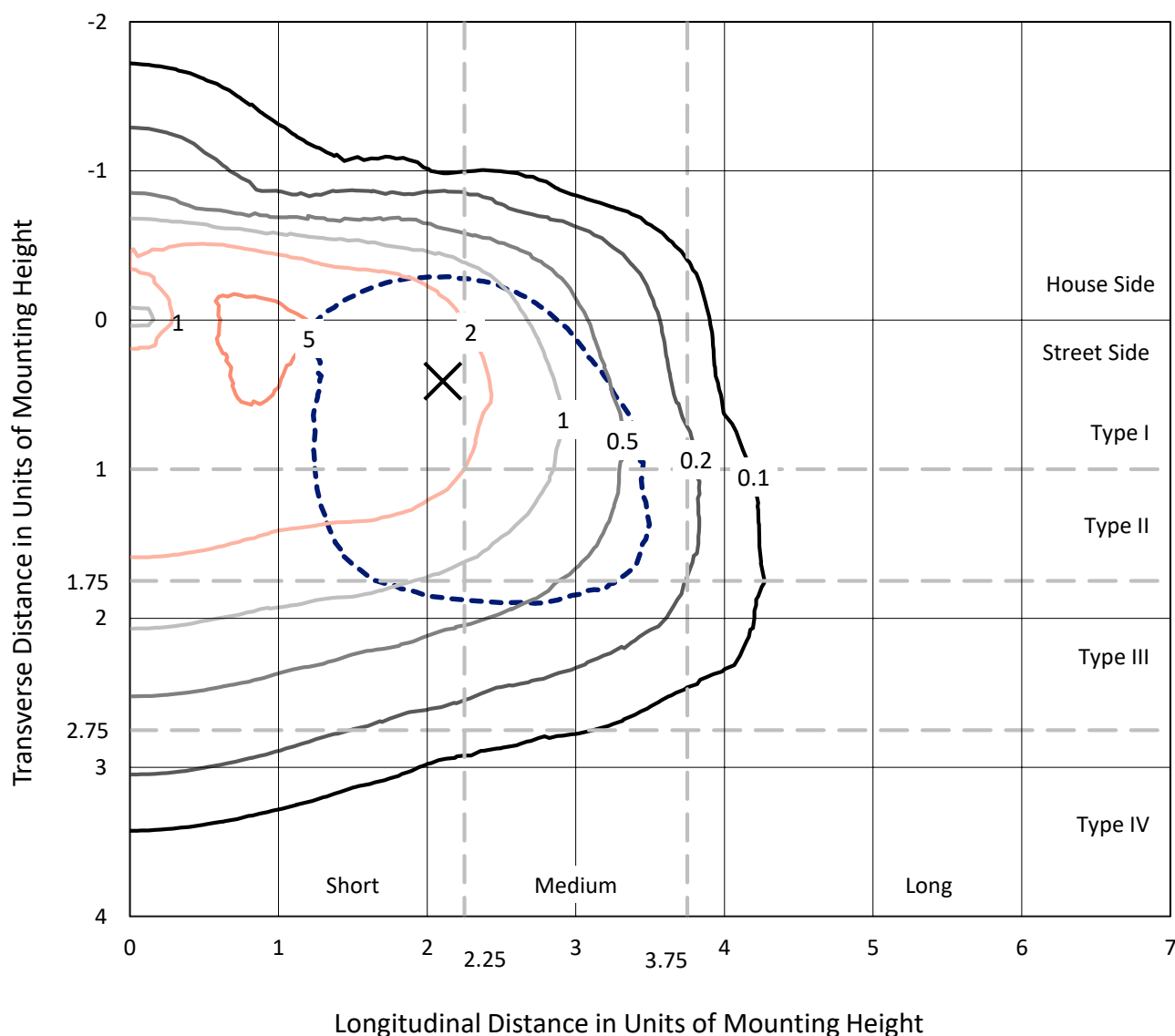
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

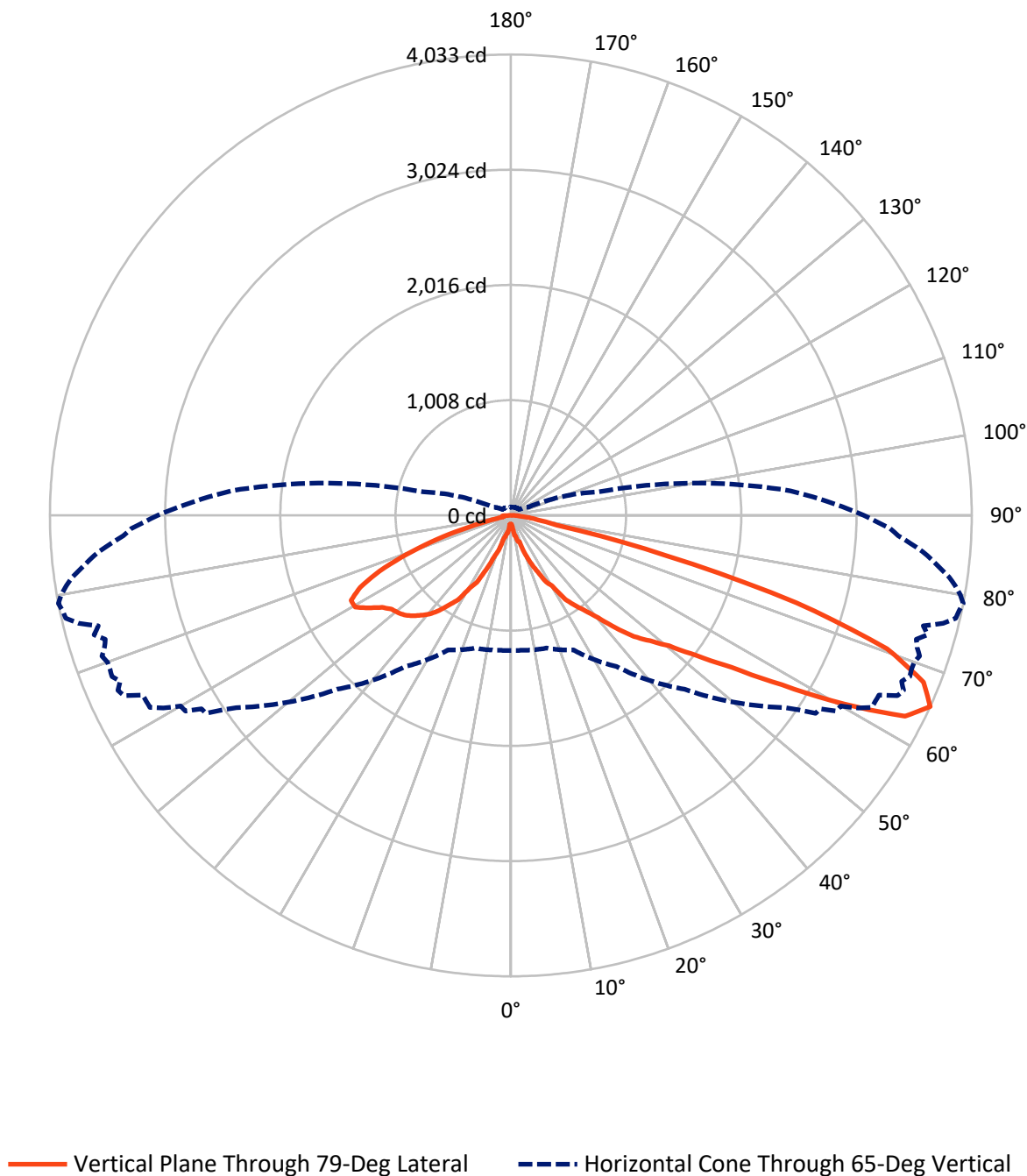


Based on 10 foot mounting height. Maximum calculated value = 5.6 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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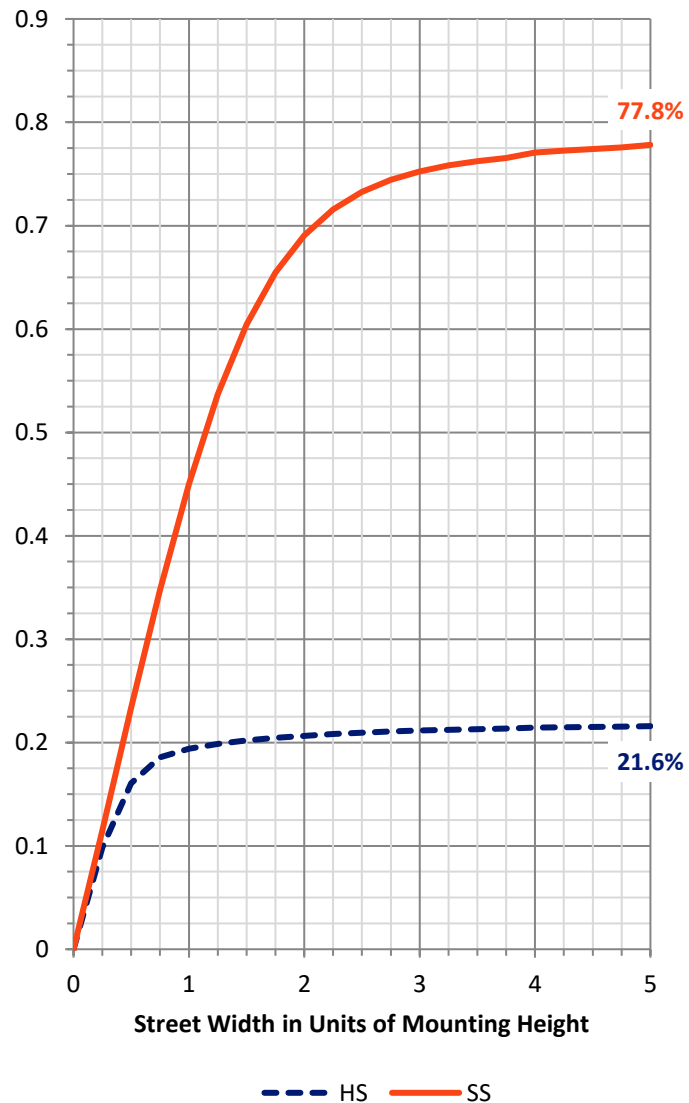
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	970.7	0.0	970.7
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	3466.5	0.0	3466.5
	% Fixture	78.1	0.0	78.1
Total	Lumens	4437.3	0.0	4437.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	10.7	0.2
10°-20°	68.0	1.5
20°-30°	209.5	4.7
30°-40°	403.3	9.1
40°-50°	666.6	15.0
50°-60°	1002.6	22.6
60°-70°	1342.9	30.3
70°-80°	631.2	14.2
80°-90°	102.5	2.3
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°	4437.3	100.0
0°-180°	4437.3	100.0

Coefficient of Utilization



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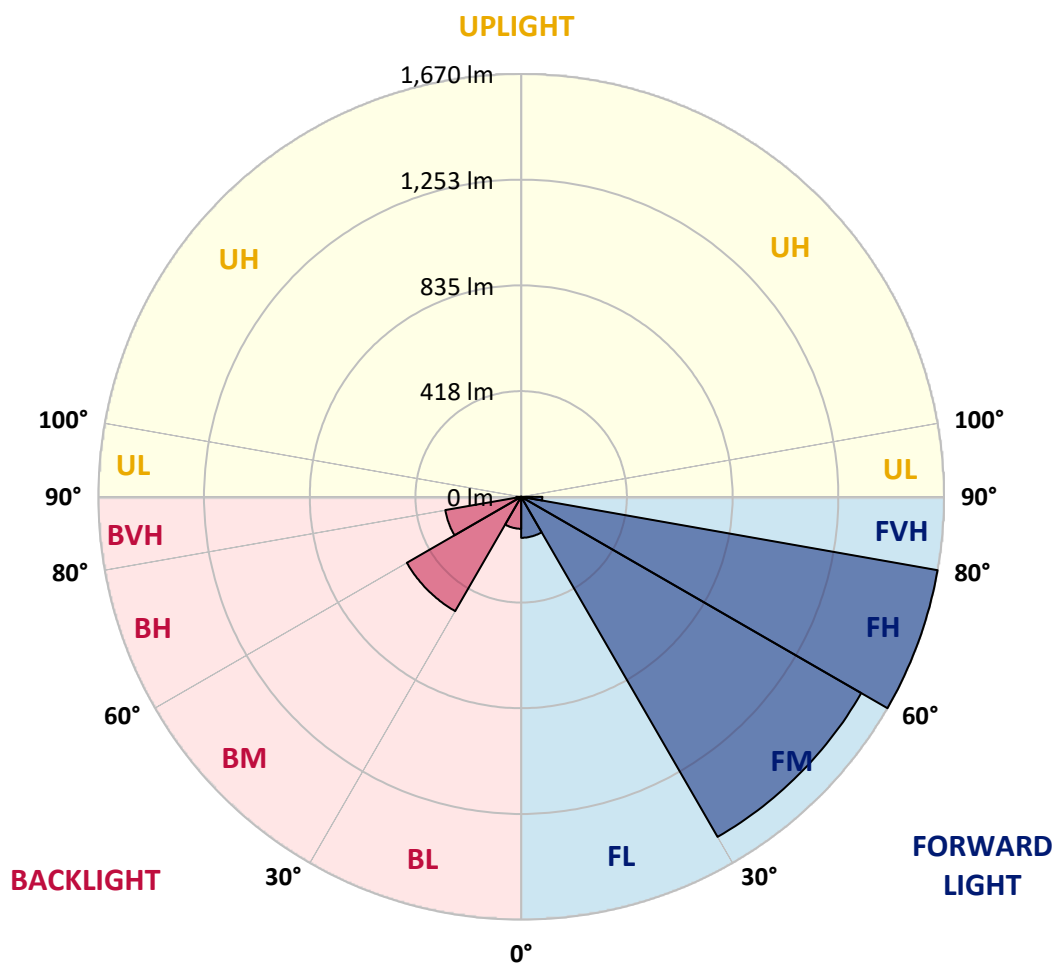
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	161.8	3.6			
FM	(30°-60°)	1551.0	35.0			
FH	(60°-80°)	1670.0	37.6			G1/1800
FVH	(80°-90°)	83.7	1.9			G1/100
BL	(0°-30°)	126.3	2.8	B1/500		
BM	(30°-60°)	521.5	11.8	B1/1000		
BH	(60°-80°)	304.1	6.9	B1/500		G1/500
BVH	(80°-90°)	18.8	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0
2.5°	126.6	125.8	125.8	126.6	124.9	124.1	108.0	104.7	101.3	98.7	96.2
5°	104.7	105.5	104.7	104.7	107.2	103.8	113.9	115.6	119.8	121.5	124.9
7.5°	168.0	168.8	167.1	165.4	135.9	108.9	105.5	105.5	105.5	108.9	108.0
10°	178.1	178.1	176.4	174.7	169.6	162.0	118.2	119.0	139.3	124.1	146.9
12.5°	249.0	250.7	247.3	235.5	181.5	225.3	227.0	224.5	222.8	216.9	211.8
15°	268.4	274.3	264.2	251.5	292.9	249.0	238.8	236.3	234.6	234.6	248.1
17.5°	370.5	372.2	364.6	341.0	309.7	297.1	293.7	292.0	291.2	291.2	292.9
20°	442.3	447.3	390.8	407.6	377.3	343.5	331.7	331.7	332.5	325.8	316.5
22.5°	487.0	485.3	459.1	469.3	416.1	384.0	413.6	421.2	429.6	433.0	438.0
25°	578.1	577.3	512.3	468.4	455.8	431.3	437.2	444.8	450.7	464.2	489.5
27.5°	588.3	587.4	541.0	521.6	452.4	492.9	553.7	566.3	573.9	575.6	573.9
30°	663.4	661.7	626.2	544.4	516.5	536.8	595.0	607.7	614.4	619.5	619.5
32.5°	741.0	741.0	674.3	572.2	556.2	613.6	699.7	703.9	709.0	709.8	711.5
35°	798.4	780.7	703.9	642.3	617.8	678.6	786.6	789.1	804.3	844.0	855.8
37.5°	828.8	830.5	801.8	727.5	730.1	798.4	966.4	969.7	972.3	982.4	996.8
40°	877.8	886.2	865.9	820.4	840.6	948.6	1122.5	1133.5	1142.8	1144.5	1172.3
42.5°	927.5	934.3	935.1	948.6	966.4	1105.6	1273.6	1284.6	1282.9	1295.5	1337.7
45°	1011.1	1021.2	1038.1	1054.1	1093.8	1250.8	1423.8	1440.7	1427.2	1459.3	1486.3
47.5°	1118.3	1125.9	1154.6	1196.8	1212.8	1378.2	1580.8	1585.0	1596.8	1630.6	1640.7
50°	1212.8	1222.1	1258.4	1314.1	1333.5	1489.6	1700.6	1702.3	1721.7	1769.8	1750.4
52.5°	1284.6	1294.7	1325.9	1412.8	1443.2	1613.7	1793.5	1794.3	1828.1	1872.8	1833.1
55°	1324.2	1335.2	1356.3	1455.0	1514.1	1705.7	1903.2	1908.3	1956.4	1980.8	1950.5
57.5°	1325.9	1336.0	1360.5	1446.6	1544.5	1801.1	2055.1	2080.4	2131.1	2161.5	2161.5
60°	1310.7	1323.4	1347.0	1421.3	1573.2	1907.4	2288.9	2341.2	2422.3	2451.8	2518.5
62.5°	1271.1	1277.0	1291.3	1376.5	1615.4	2034.9	2625.7	2712.6	2832.4	2851.0	2986.9
65°	1180.7	1184.1	1201.8	1298.9	1613.7	2151.3	2931.2	3045.1	3179.3	3192.0	3321.9
67.5°	1062.6	1070.2	1083.7	1176.5	1460.9	2106.6	2957.3	3105.9	3210.5	3214.8	3323.6
70°	879.4	876.1	892.1	957.9	1177.4	1766.5	2673.8	2813.0	2883.9	2913.5	2987.7
72.5°	576.4	578.1	566.3	606.8	793.4	1244.0	2153.9	2309.2	2341.2	2413.0	2450.1
75°	324.1	317.3	330.0	363.8	447.3	748.6	1466.0	1603.6	1670.3	1729.3	1761.4
77.5°	192.4	189.9	211.0	258.3	361.2	502.2	845.7	914.0	968.9	1014.5	1072.7
80°	89.5	95.4	93.7	106.3	196.6	429.6	587.4	614.4	638.1	664.2	699.7
82.5°	43.9	48.1	55.7	58.2	69.2	216.9	524.1	551.1	573.9	600.1	635.5
85°	28.7	29.5	41.4	42.2	43.0	65.8	256.6	297.1	313.1	357.0	417.8
87.5°	10.1	14.3	30.4	27.0	27.0	32.1	86.9	95.4	99.6	108.9	121.5
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):

	60°	61°	62°	64°	65°	66°	67°	68°	69°	70°	71°
0°	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0
2.5°	95.4	95.4	92.0	88.6	86.9	86.9	84.4	84.4	83.6	82.7	81.0
5°	124.1	125.8	125.8	125.8	124.9	124.1	123.2	121.5	119.8	116.5	113.9
7.5°	105.5	103.8	102.1	98.7	99.6	102.1	104.7	108.0	113.1	115.6	116.5
10°	148.5	152.8	151.9	152.8	151.9	153.6	153.6	155.3	154.5	155.3	157.0
12.5°	203.4	186.5	170.5	167.1	166.3	165.4	167.1	166.3	170.5	173.0	173.0
15°	255.7	273.5	274.3	283.6	281.9	268.4	254.0	249.8	246.4	246.4	238.0
17.5°	293.7	299.6	300.5	297.9	301.3	300.5	296.2	291.2	285.3	274.3	258.3
20°	350.3	358.7	363.8	368.8	379.0	371.4	369.7	403.4	407.6	411.0	407.6
22.5°	444.8	443.9	441.4	427.9	421.2	420.3	422.8	429.6	428.7	431.3	433.8
25°	501.3	500.5	507.2	531.7	538.5	562.9	556.2	556.2	560.4	564.6	557.9
27.5°	569.7	577.3	586.6	585.7	597.5	594.2	593.3	600.1	600.1	591.6	596.7
30°	623.7	647.3	679.4	689.5	682.8	682.8	692.1	701.4	698.8	698.0	699.7
32.5°	721.6	745.2	725.0	747.8	734.3	756.2	790.8	814.5	822.9	822.0	834.7
35°	879.4	883.7	871.0	880.3	896.3	900.5	903.9	903.9	893.8	910.7	918.3
37.5°	1013.6	992.5	1011.1	1000.1	1011.9	1025.4	1023.8	1007.7	1002.7	1030.5	1028.0
40°	1184.1	1150.4	1174.0	1168.1	1174.8	1179.1	1160.5	1149.5	1163.0	1171.5	1169.8
42.5°	1309.9	1327.6	1328.4	1325.9	1331.8	1332.7	1298.9	1304.0	1320.0	1317.5	1309.0
45°	1445.8	1475.3	1459.3	1483.7	1486.3	1453.4	1445.8	1467.7	1472.8	1464.3	1454.2
47.5°	1611.2	1630.6	1603.6	1640.7	1641.6	1604.4	1621.3	1636.5	1639.9	1623.0	1638.2
50°	1753.8	1755.5	1749.6	1778.3	1761.4	1742.8	1780.0	1788.4	1780.8	1758.0	1781.7
52.5°	1871.1	1848.3	1872.0	1911.6	1866.1	1868.6	1924.3	1917.5	1893.9	1915.9	1899.8
55°	1998.6	1978.3	2034.9	2053.4	2011.2	2050.1	2088.9	2079.6	2052.6	2097.3	2066.1
57.5°	2190.2	2195.2	2245.0	2259.4	2241.6	2327.7	2346.3	2343.8	2344.6	2374.1	2360.6
60°	2535.3	2585.1	2642.5	2686.4	2715.1	2817.2	2818.9	2820.6	2853.5	2867.9	2916.0
62.5°	2977.6	3109.3	3141.3	3194.5	3300.8	3398.8	3377.7	3380.2	3422.4	3388.6	3451.1
65°	3334.6	3474.7	3576.0	3583.6	3732.1	3761.7	3713.6	3764.2	3755.8	3755.8	3782.8
67.5°	3368.4	3512.7	3603.8	3643.5	3815.7	3808.1	3761.7	3837.6	3792.9	3830.9	3819.9
70°	3066.2	3174.2	3268.8	3353.2	3508.5	3500.0	3502.6	3607.2	3601.3	3630.8	3600.5
72.5°	2537.9	2633.3	2685.6	2839.2	2879.7	2873.8	2937.1	2945.5	2992.8	3056.9	3017.3
75°	1900.7	1963.1	1967.3	2069.5	2053.4	2034.0	2043.3	2077.1	1989.3	1933.6	1888.9
77.5°	1160.5	1174.8	1161.3	1148.7	1107.3	1066.8	1088.7	1070.2	1013.6	977.3	934.3
80°	730.9	748.6	755.4	795.9	784.9	819.5	845.7	871.8	879.4	848.2	817.8
82.5°	676.9	682.8	703.0	744.4	752.0	796.7	802.6	818.7	790.8	773.1	718.2
85°	435.5	449.0	490.4	464.2	499.6	500.5	481.9	480.2	426.2	398.4	335.1
87.5°	133.4	136.7	152.8	153.6	173.9	177.2	183.1	177.2	158.7	133.4	110.6
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):

	72°	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°
0°	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0
2.5°	80.2	79.3	78.5	78.5	78.5	77.6	77.6	77.6	77.6	76.8	76.8
5°	108.9	104.7	99.6	92.8	86.1	83.6	83.6	81.9	81.0	80.2	79.3
7.5°	116.5	115.6	115.6	115.6	113.9	112.3	110.6	103.0	87.8	81.0	80.2
10°	157.0	162.0	170.5	178.9	180.6	180.6	178.9	175.6	172.2	168.0	154.5
12.5°	172.2	172.2	169.6	167.1	170.5	178.1	185.7	189.1	188.2	186.5	185.7
15°	235.5	235.5	234.6	232.9	232.9	232.1	232.9	237.2	242.2	247.3	247.3
17.5°	258.3	256.6	257.4	259.9	249.8	247.3	246.4	242.2	241.4	244.8	247.3
20°	403.4	397.5	380.6	379.0	375.6	373.9	373.0	368.0	365.4	372.2	373.0
22.5°	430.4	438.0	433.0	458.3	416.9	418.6	445.6	460.8	460.8	458.3	454.1
25°	565.5	560.4	566.3	568.0	559.6	566.3	553.7	546.9	537.6	536.8	538.5
27.5°	598.4	612.7	615.3	638.9	653.2	646.5	672.7	661.7	652.4	644.8	651.6
30°	710.6	706.4	713.2	715.7	725.0	719.9	710.6	715.7	723.3	735.1	725.8
32.5°	845.7	852.4	858.3	860.0	865.1	858.3	859.2	876.1	887.0	874.4	855.0
35°	926.7	926.7	937.7	936.0	926.7	930.1	958.8	965.5	953.7	945.3	958.8
37.5°	1030.5	1028.8	1029.7	1032.2	1026.3	1058.4	1073.6	1056.7	1044.0	1070.2	1059.2
40°	1158.0	1169.8	1159.6	1161.3	1186.7	1205.2	1189.2	1176.5	1207.8	1188.3	1172.3
42.5°	1316.6	1305.7	1291.3	1320.8	1344.5	1331.8	1313.2	1345.3	1336.0	1309.0	1355.4
45°	1473.6	1459.3	1461.8	1488.0	1497.2	1471.1	1488.0	1510.7	1468.5	1512.4	1529.3
47.5°	1612.0	1618.8	1648.3	1672.8	1640.7	1648.3	1673.6	1639.0	1671.1	1704.0	1700.6
50°	1758.0	1787.6	1807.8	1803.6	1781.7	1829.8	1807.0	1794.3	1862.7	1872.0	1882.1
52.5°	1895.6	1940.3	1944.6	1918.4	1952.2	1979.2	1947.9	2035.7	2064.4	2071.2	2099.8
55°	2090.6	2131.1	2114.2	2108.3	2192.7	2173.3	2236.6	2345.5	2359.0	2386.0	2391.0
57.5°	2414.7	2445.0	2427.3	2495.7	2564.0	2552.2	2741.3	2797.0	2873.8	2889.0	2903.3
60°	2975.1	2951.4	2951.4	3098.3	3080.6	3202.1	3338.8	3354.0	3436.7	3442.6	3459.5
62.5°	3459.5	3449.4	3528.7	3571.8	3563.3	3784.5	3819.9	3869.7	3860.4	3877.3	3775.2
65°	3738.0	3709.3	3792.9	3736.3	3897.6	3996.3	4009.0	4032.6	3992.9	3936.4	3872.2
67.5°	3741.4	3746.5	3754.9	3716.9	3900.9	3907.7	3928.8	3894.2	3860.4	3714.4	3648.6
70°	3533.8	3566.7	3495.0	3563.3	3636.8	3597.1	3583.6	3493.3	3404.7	3251.9	3121.9
72.5°	2957.3	2913.5	2870.4	2921.9	2886.4	2813.9	2726.9	2614.7	2450.1	2334.5	2209.6
75°	1785.9	1704.0	1747.1	1671.9	1565.6	1536.1	1437.3	1406.1	1274.4	1106.5	1043.2
77.5°	891.3	806.0	817.0	752.8	671.8	605.1	503.0	411.9	328.3	254.0	207.6
80°	746.1	704.7	663.4	595.9	527.5	438.0	346.9	245.6	167.1	122.4	104.7
82.5°	642.3	630.5	549.4	484.5	408.5	332.5	234.6	162.0	104.7	81.0	75.1
85°	297.1	267.5	232.1	222.0	174.7	142.6	106.3	78.5	60.8	54.0	49.8
87.5°	107.2	92.0	85.2	73.4	64.1	58.2	54.9	53.2	53.2	53.2	50.6
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):

	83°	84°	85°	86°	87°	88°	89°	90°	95°	105°	115°
0°	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0
2.5°	76.8	76.8	76.0	76.0	76.0	76.0	76.0	75.1	75.1	75.1	76.8
5°	79.3	78.5	78.5	77.6	77.6	77.6	76.8	76.8	76.0	78.5	105.5
7.5°	80.2	81.0	81.0	81.0	81.0	81.0	80.2	80.2	80.2	89.5	103.8
10°	137.6	132.5	131.7	130.0	128.3	127.4	125.8	123.2	126.6	172.2	119.8
12.5°	180.6	161.2	146.0	143.5	141.8	139.3	139.3	132.5	138.4	164.6	128.3
15°	245.6	239.7	222.8	206.8	208.5	208.5	206.8	205.9	190.7	192.4	195.0
17.5°	253.2	265.9	275.1	254.0	234.6	222.0	225.3	243.1	218.6	209.3	249.8
20°	372.2	376.4	378.1	366.3	340.1	340.1	344.3	348.6	329.2	325.8	324.9
22.5°	446.5	451.5	448.2	453.2	446.5	442.3	433.8	424.5	414.4	373.9	400.1
25°	540.2	552.8	559.6	548.6	532.6	513.1	507.2	508.1	525.0	522.4	553.7
27.5°	660.0	653.2	644.8	652.4	659.2	638.1	630.5	622.9	618.6	682.8	607.7
30°	703.0	698.0	709.0	698.0	696.3	705.6	714.0	700.5	699.7	751.2	688.7
32.5°	864.2	860.9	835.6	845.7	856.7	858.3	857.5	871.8	863.4	874.4	723.3
35°	941.9	924.2	948.6	952.0	940.2	955.4	955.4	952.0	974.8	930.1	752.0
37.5°	1046.5	1059.2	1075.2	1080.3	1093.0	1065.1	1087.9	1092.1	1127.6	984.9	730.9
40°	1213.7	1222.9	1233.1	1231.4	1218.7	1249.1	1219.6	1231.4	1271.1	1017.0	707.3
42.5°	1369.0	1377.4	1392.6	1391.7	1396.8	1381.6	1405.2	1396.8	1401.9	1025.4	677.7
45°	1533.5	1554.6	1540.3	1571.5	1563.1	1557.2	1571.5	1566.4	1515.0	1041.5	627.9
47.5°	1720.1	1715.0	1729.3	1729.3	1735.2	1745.4	1730.2	1734.4	1612.9	1052.5	573.9
50°	1882.9	1890.5	1904.9	1903.2	1915.9	1904.0	1918.4	1871.1	1693.9	1045.7	504.7
52.5°	2094.8	2125.2	2109.1	2117.6	2104.1	2125.2	2081.3	2059.3	1804.5	1013.6	433.8
55°	2446.7	2399.5	2429.8	2396.1	2398.6	2392.7	2337.0	2321.8	1965.7	996.8	352.8
57.5°	2887.3	2882.2	2859.4	2817.2	2807.1	2770.8	2724.4	2670.4	2223.1	991.7	286.1
60°	3421.5	3401.3	3330.4	3290.7	3218.1	3144.7	3104.2	3038.4	2497.4	969.7	236.3
62.5°	3766.7	3680.6	3629.2	3534.6	3467.1	3381.9	3316.0	3193.7	2575.0	920.8	209.3
65°	3783.6	3703.4	3615.7	3504.3	3395.4	3321.1	3202.1	3088.2	2458.5	795.9	174.7
67.5°	3539.7	3452.8	3278.9	3196.2	3089.9	3002.1	2858.6	2759.0	2161.5	638.9	138.4
70°	3049.3	2902.5	2742.1	2630.7	2540.4	2437.4	2302.4	2193.5	1725.1	470.1	107.2
72.5°	2111.7	2027.3	1879.6	1823.0	1734.4	1684.6	1612.9	1569.8	1220.4	323.2	88.6
75°	1027.1	963.8	875.2	893.8	831.3	844.8	854.1	804.3	674.3	183.1	76.8
77.5°	191.6	200.9	178.9	178.9	181.5	173.0	174.7	189.9	189.1	92.8	65.0
80°	97.9	96.2	92.8	91.2	86.9	84.4	81.0	79.3	76.8	66.7	56.5
82.5°	70.9	66.7	62.5	59.9	57.4	54.0	51.5	52.3	57.4	65.8	60.8
85°	45.6	43.9	40.5	39.7	38.8	38.0	38.8	40.5	54.9	78.5	59.9
87.5°	49.0	44.7	40.5	38.8	38.0	36.3	35.4	38.0	58.2	85.2	51.5
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):

	125°	135°	145°	155°	165°	175°	180°
0°	76.0	76.0	76.0	76.0	76.0	76.0	76.0
2.5°	78.5	84.4	103.8	119.0	120.7	120.7	119.8
5°	118.2	81.9	76.0	77.6	74.3	75.1	74.3
7.5°	75.1	75.1	76.8	106.3	119.8	124.9	121.5
10°	89.5	119.0	120.7	125.8	126.6	125.8	124.9
12.5°	173.9	171.3	130.8	139.3	181.5	184.0	183.1
15°	187.4	185.7	226.2	187.4	194.1	195.8	194.1
17.5°	244.8	244.8	243.9	224.5	252.4	252.4	251.5
20°	289.5	301.3	292.9	281.0	247.3	248.1	248.1
22.5°	410.2	335.1	319.9	306.4	277.7	277.7	276.8
25°	422.8	376.4	335.9	293.7	269.2	294.6	292.0
27.5°	545.2	393.3	315.7	298.8	267.5	259.9	259.9
30°	536.8	415.2	352.8	272.6	258.3	247.3	242.2
32.5°	568.0	411.0	311.4	248.1	210.2	205.9	200.9
35°	550.3	389.9	266.7	197.5	161.2	153.6	153.6
37.5°	531.7	332.5	215.2	146.9	128.3	122.4	123.2
40°	468.4	267.5	149.4	113.1	113.1	113.9	113.9
42.5°	400.1	185.7	109.7	97.1	102.1	105.5	104.7
45°	314.8	124.9	88.6	89.5	96.2	98.7	98.7
47.5°	224.5	92.8	81.0	83.6	91.2	94.5	93.7
50°	152.8	79.3	76.0	80.2	87.8	89.5	89.5
52.5°	110.6	75.1	72.6	76.8	84.4	86.1	86.1
55°	92.0	73.4	70.9	74.3	81.0	82.7	83.6
57.5°	86.9	73.4	70.1	73.4	78.5	80.2	80.2
60°	86.9	74.3	71.7	73.4	76.0	77.6	78.5
62.5°	88.6	78.5	75.1	75.1	75.1	76.0	76.0
65°	92.0	86.1	81.0	78.5	75.1	72.6	73.4
67.5°	96.2	93.7	89.5	82.7	73.4	68.4	68.4
70°	99.6	101.3	99.6	86.1	71.7	63.3	62.5
72.5°	98.7	107.2	101.3	86.9	70.1	59.1	58.2
75°	92.8	99.6	87.8	78.5	65.8	55.7	54.0
77.5°	81.0	73.4	60.8	60.8	54.9	49.8	48.1
80°	65.0	49.0	40.5	43.0	41.4	31.2	27.0
82.5°	51.5	32.1	30.4	32.1	31.2	22.8	19.4
85°	42.2	21.9	21.9	24.5	21.9	16.9	12.7
87.5°	32.9	12.7	14.3	13.5	13.5	10.1	3.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)