

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: P179247

Luminaire Tested: **UTLD-F02-LED-E-U-SL2-HSS-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P179247
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P34324)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: UTLD-F02-LED-E-U-SL2-HSS-7060
Description: TRADITIONAIRE LED DOWNLIGHT LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (14) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2751.4 lumens
Efficiency: N/A
Efficacy: 50.0 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 1' x H: 0.1')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 55
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

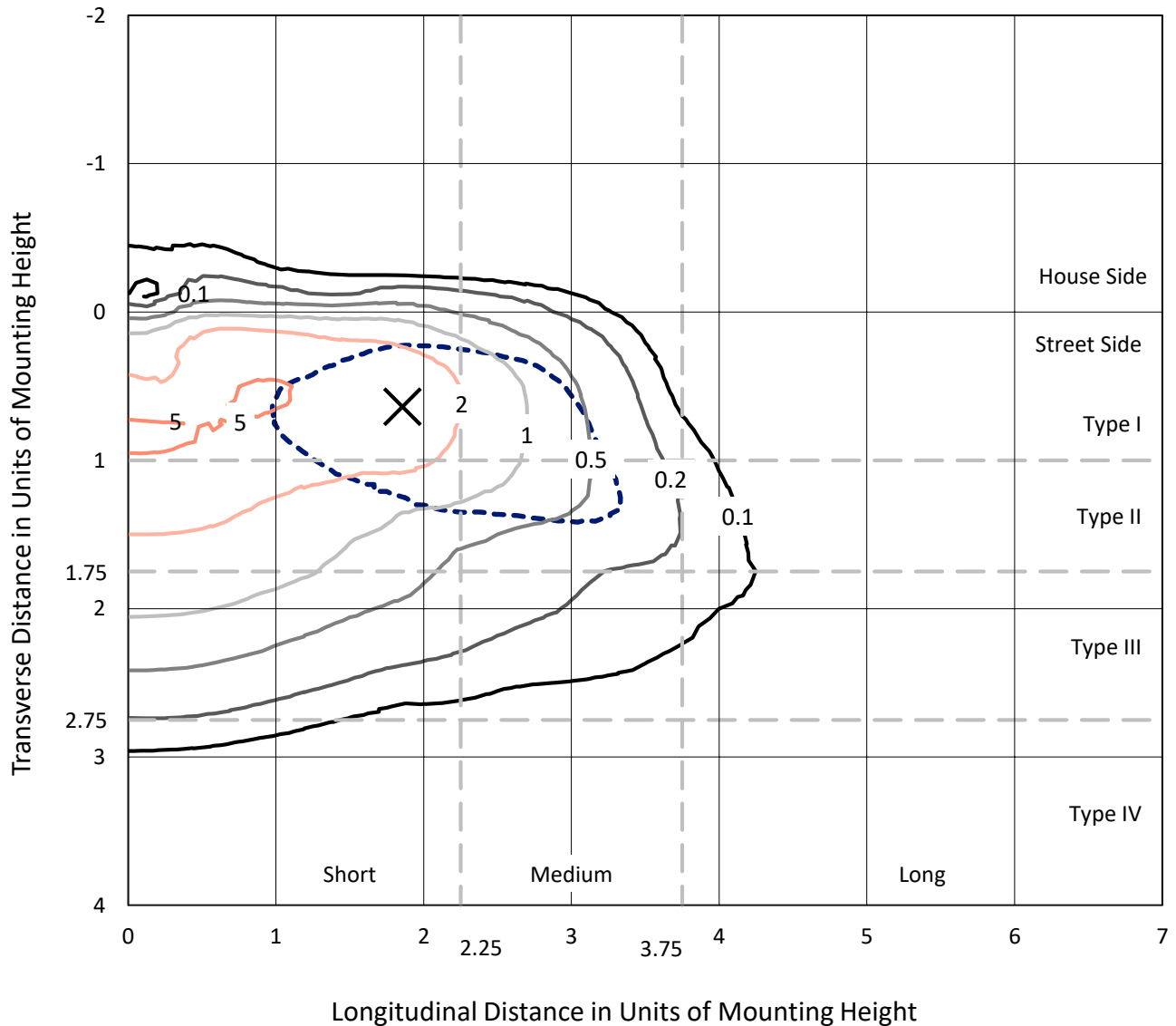


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

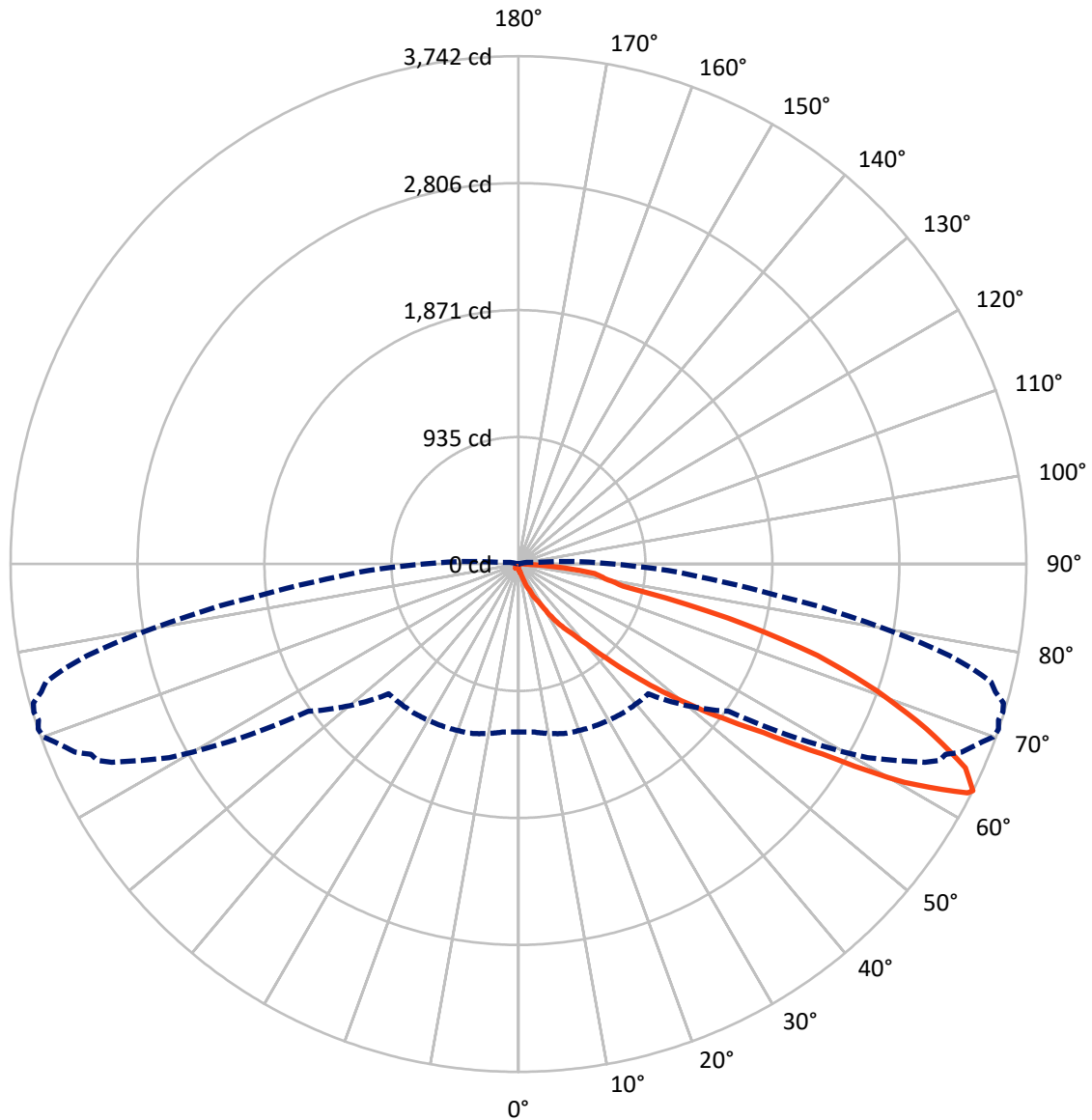


Based on 10 foot mounting height. Maximum calculated value = 5.4 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 71-Deg Lateral - - - Horizontal Cone Through 63-Deg Vertical

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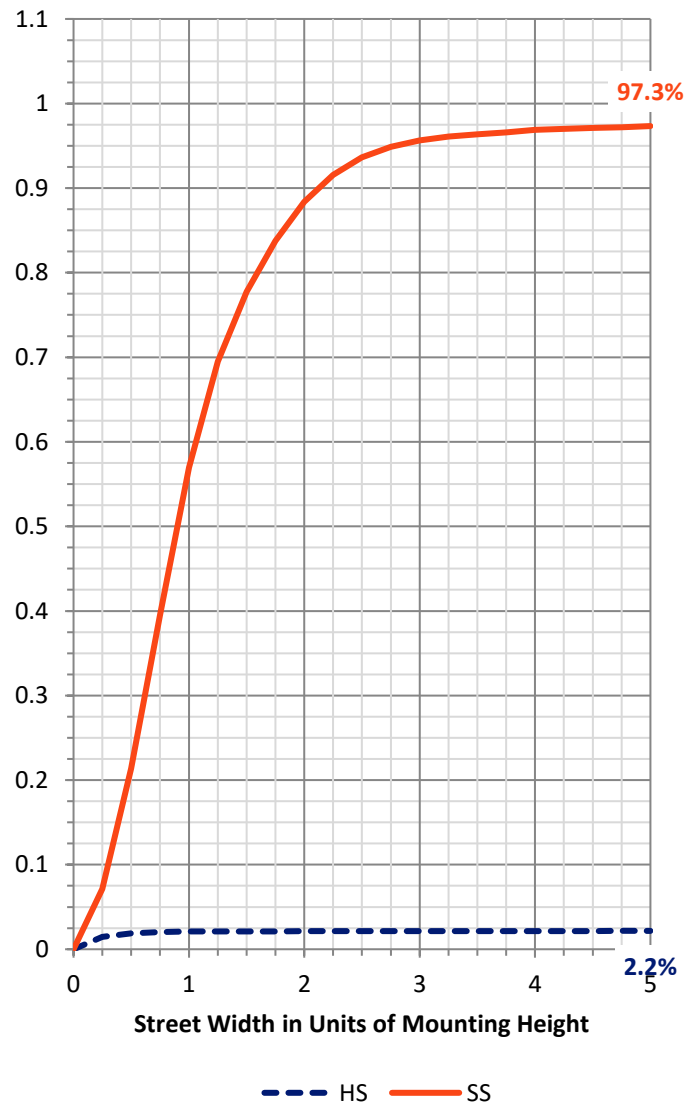
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	61.0	0.0	61.0
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	2690.4	0.0	2690.4
	% Fixture	97.8	0.0	97.8
Total	Lumens	2751.4	0.0	2751.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.9	0.1
10°-20°	21.8	0.8
20°-30°	66.8	2.4
30°-40°	205.8	7.5
40°-50°	488.9	17.8
50°-60°	706.4	25.7
60°-70°	874.2	31.8
70°-80°	331.9	12.1
80°-90°	51.8	1.9
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°	2751.4	100.0
0°-180°	2751.4	100.0



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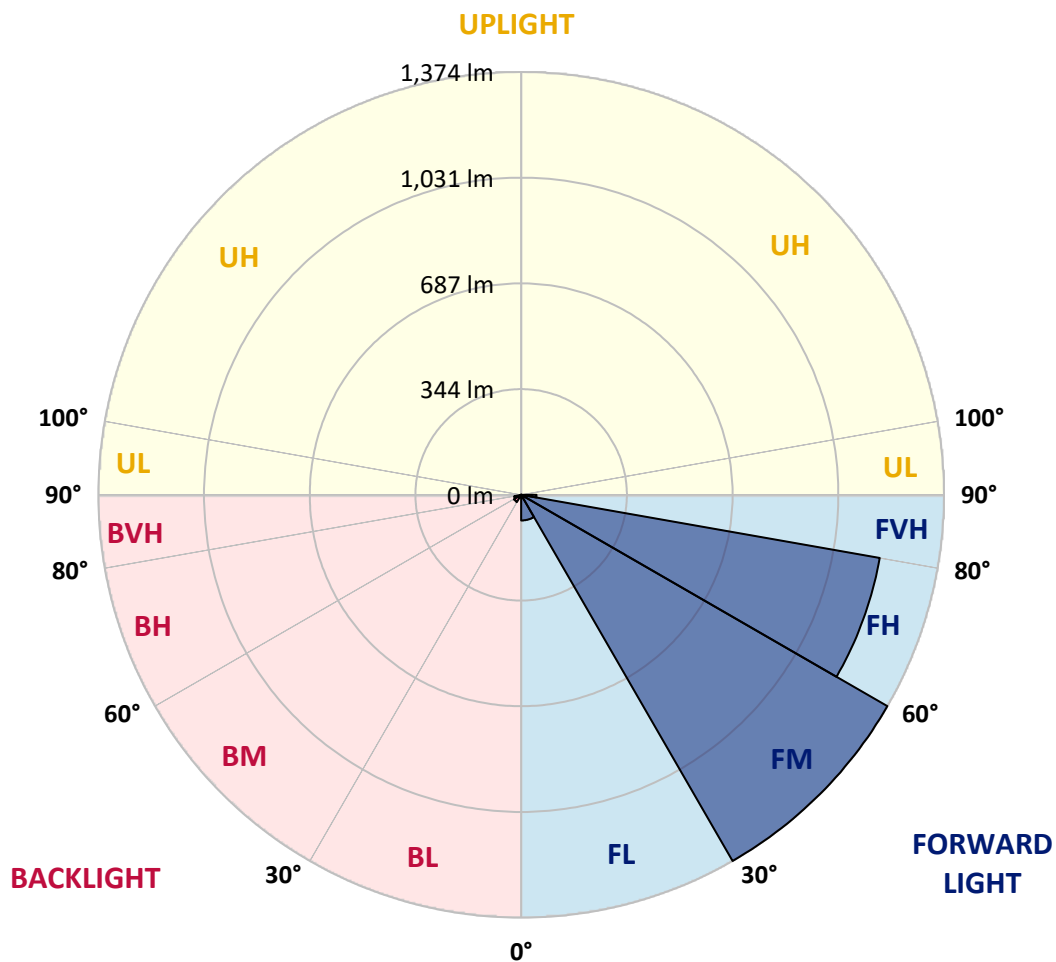
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	83.4	3.0			
FM (30°-60°)	1374.0	49.9			
FH (60°-80°)	1183.1	43.0			G1/1800
FVH (80°-90°)	49.9	1.8			G1/100
BL (0°-30°)	9.1	0.3	B0/110		
BM (30°-60°)	27.1	1.0	B0/220		
BH (60°-80°)	22.9	0.8	B0/110		G0/110
BVH (80°-90°)	1.8	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0
2.5°	52.5	51.7	50.0	50.0	49.1	49.1	48.3	47.4	47.4	47.4	46.6
5°	61.8	61.0	58.4	55.9	55.9	54.2	50.8	50.0	49.1	48.3	48.3
7.5°	100.8	100.0	98.3	95.7	91.5	62.7	55.9	55.1	54.2	53.4	52.5
10°	112.7	112.7	111.8	108.4	104.2	97.4	88.9	64.4	62.7	63.5	66.1
12.5°	151.6	147.4	149.9	145.7	122.8	115.2	117.7	109.3	107.6	106.7	83.0
15°	161.8	157.6	149.9	150.8	154.2	163.5	133.0	125.4	121.1	118.6	118.6
17.5°	177.9	177.9	178.7	178.7	172.0	175.3	172.8	153.3	152.5	149.1	148.2
20°	218.5	216.9	193.1	182.1	200.8	205.0	205.8	177.0	171.1	170.3	175.3
22.5°	231.3	229.6	225.3	229.6	205.8	231.3	266.0	265.1	258.4	255.0	233.8
25°	294.8	292.2	277.0	237.2	253.3	254.1	288.0	290.5	288.9	294.8	312.6
27.5°	340.5	343.9	309.2	283.8	266.8	303.3	366.8	374.4	374.4	365.9	366.8
30°	433.7	432.0	393.9	329.5	321.9	326.1	404.1	430.3	452.3	438.8	454.0
32.5°	623.4	615.0	556.5	438.8	385.4	403.2	484.5	515.9	510.8	503.2	516.7
35°	897.9	892.0	771.7	659.0	554.0	512.5	572.6	625.1	614.1	638.7	648.0
37.5°	1091.0	1075.8	1024.1	910.6	808.1	739.5	764.9	744.6	742.0	759.0	757.3
40°	1233.3	1234.2	1216.4	1124.1	1049.5	1011.4	1014.8	939.4	934.3	940.3	928.4
42.5°	1302.8	1308.7	1323.1	1277.4	1246.9	1251.1	1285.0	1221.5	1218.9	1203.7	1158.0
45°	1345.2	1352.8	1396.8	1412.1	1402.8	1445.1	1537.4	1485.8	1490.0	1503.6	1438.3
47.5°	1350.2	1361.3	1418.9	1464.6	1501.9	1587.4	1728.9	1740.7	1753.4	1764.5	1716.2
50°	1300.3	1304.5	1377.3	1443.4	1498.5	1659.4	1874.6	1948.3	1971.1	1971.1	1930.5
52.5°	1209.6	1215.6	1285.0	1357.0	1409.5	1656.0	1968.6	2102.4	2153.3	2155.0	2096.5
55°	1170.7	1177.4	1230.0	1293.5	1319.7	1573.9	2026.2	2242.2	2295.6	2304.9	2270.2
57.5°	1170.7	1178.3	1220.6	1257.9	1271.5	1478.1	2060.9	2405.7	2465.8	2523.4	2521.7
60°	1223.2	1231.6	1265.5	1263.0	1250.3	1410.4	2045.7	2605.6	2703.0	2799.6	2910.6
62.5°	1253.7	1257.9	1304.5	1318.0	1315.5	1360.4	1926.2	2754.7	2905.5	3046.1	3286.7
63°	1236.7	1241.8	1293.5	1318.0	1340.1	1352.8	1893.2	2770.8	2941.0	3065.6	3332.4
65°	1145.2	1146.1	1201.2	1231.6	1380.7	1351.9	1716.2	2739.4	2947.8	3071.5	3368.8
67.5°	907.2	912.3	950.4	1002.1	1140.2	1372.3	1474.8	2380.3	2591.2	2690.3	3021.5
70°	477.8	498.9	530.3	598.9	787.8	1165.6	1234.2	1753.4	1957.6	2105.0	2485.3
72.5°	144.8	134.7	175.3	256.7	400.7	806.4	1082.6	1238.4	1356.2	1502.7	1907.6
75°	65.2	66.9	76.2	109.3	175.3	432.9	946.2	1017.3	1033.4	1083.4	1329.1
77.5°	37.3	38.1	44.9	61.8	91.5	216.0	716.6	912.3	899.6	917.4	962.3
80°	24.6	25.4	32.2	44.0	50.8	105.9	406.6	711.5	753.1	798.8	831.8
82.5°	13.6	13.6	20.3	35.6	33.0	50.8	160.1	465.9	540.4	587.9	687.0
85°	5.9	6.8	11.9	23.7	20.3	23.7	77.1	158.4	181.3	190.6	237.2
87.5°	1.7	1.7	3.4	8.5	8.5	11.0	22.9	71.2	75.4	81.3	99.1
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):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0
2.5°	46.6	46.6	44.9	44.0	41.5	41.5	39.8	40.7	38.1	37.3	35.6
5°	47.4	47.4	47.4	47.4	46.6	46.6	46.6	46.6	46.6	46.6	45.7
7.5°	51.7	51.7	51.7	51.7	50.8	50.0	48.3	48.3	47.4	47.4	47.4
10°	66.1	65.2	63.5	62.7	61.8	61.0	59.3	60.1	58.4	59.3	57.6
12.5°	78.8	77.1	74.5	72.0	71.2	70.3	68.6	67.8	66.9	68.6	67.8
15°	122.8	122.0	122.8	118.6	96.6	95.7	96.6	94.9	93.2	90.6	87.2
17.5°	146.5	144.0	135.5	132.1	133.0	130.4	123.7	110.1	102.5	99.1	97.4
20°	188.1	188.9	190.6	190.6	187.2	183.0	178.7	177.9	172.8	155.0	148.2
22.5°	225.3	225.3	221.1	216.9	211.8	212.6	206.7	193.1	188.9	183.8	181.3
25°	323.6	318.5	306.6	302.4	298.2	287.2	272.8	265.1	262.6	259.2	248.2
27.5°	365.9	359.2	356.6	351.5	336.3	318.5	312.6	308.3	312.6	292.2	277.8
30°	443.0	442.2	439.6	428.6	410.0	395.6	396.4	392.2	364.2	343.1	329.5
32.5°	521.8	515.9	536.2	515.9	498.9	504.9	497.2	471.0	451.5	429.5	426.9
35°	645.5	645.5	628.5	606.5	609.0	613.3	576.9	549.8	537.0	527.7	509.1
37.5°	759.0	753.9	722.6	710.7	724.2	700.5	659.9	642.1	637.8	621.8	592.1
40°	913.1	882.7	858.9	856.4	854.7	799.6	776.8	778.5	756.4	724.2	690.4
42.5°	1124.9	1075.8	1058.0	1059.7	998.7	954.7	946.2	925.0	896.2	859.8	829.3
45°	1368.9	1321.4	1322.3	1268.9	1191.8	1153.7	1145.2	1112.2	1076.6	1034.3	990.2
47.5°	1634.0	1600.1	1617.1	1510.3	1442.6	1420.5	1366.3	1314.7	1273.2	1221.5	1166.4
50°	1872.9	1890.7	1853.4	1760.2	1711.1	1681.4	1617.9	1553.5	1500.2	1421.4	1346.9
52.5°	2096.5	2130.4	2071.9	1986.4	1993.2	1936.4	1887.3	1822.1	1750.9	1657.7	1578.9
55°	2320.1	2327.8	2279.5	2251.5	2249.8	2213.4	2191.4	2144.8	2049.1	1955.1	1919.5
57.5°	2602.2	2592.9	2559.0	2603.1	2606.5	2618.3	2642.0	2593.7	2564.9	2496.3	2441.3
60°	3009.7	3002.0	3017.3	3146.9	3173.1	3251.9	3268.9	3270.6	3246.0	3268.0	3134.2
62.5°	3369.7	3400.2	3499.3	3559.4	3621.2	3697.5	3714.4	3683.1	3699.2	3700.9	3596.7
63°	3422.2	3445.9	3548.4	3600.1	3659.4	3722.9	3741.5	3717.8	3732.2	3717.8	3639.0
65°	3445.1	3456.1	3576.4	3562.8	3638.2	3666.1	3618.7	3609.4	3662.8	3586.5	3572.1
67.5°	3107.1	3174.0	3254.5	3254.5	3312.9	3307.0	3243.5	3257.0	3257.9	3228.2	3220.6
70°	2598.0	2733.5	2750.5	2811.4	2852.1	2816.5	2803.0	2812.3	2741.1	2757.2	2686.1
72.5°	2066.9	2212.6	2239.7	2353.2	2365.0	2284.6	2304.0	2248.1	2170.2	2121.9	2023.7
75°	1504.4	1596.7	1677.2	1709.4	1710.2	1634.0	1601.0	1472.2	1357.9	1220.6	1184.2
77.5°	1050.4	1040.2	1070.7	1052.9	933.5	895.4	787.8	725.1	666.6	565.0	509.1
80°	848.8	839.5	853.9	815.7	764.1	720.9	643.8	586.2	521.0	476.9	409.1
82.5°	724.2	762.4	771.7	717.5	691.2	654.8	565.8	503.2	439.6	382.9	329.5
85°	276.1	329.5	325.3	338.8	339.7	321.0	282.9	224.5	177.9	144.0	116.9
87.5°	106.7	119.4	111.8	111.0	111.8	102.5	87.2	77.1	65.2	52.5	44.0
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):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0
2.5°	34.7	33.0	33.0	31.3	31.3	30.5	30.5	29.6	29.6	28.8	28.8
5°	45.7	45.7	44.9	43.2	39.0	37.3	33.9	31.3	30.5	29.6	28.8
7.5°	47.4	47.4	46.6	46.6	45.7	44.9	44.0	41.5	37.3	33.9	31.3
10°	57.6	55.9	56.8	58.4	57.6	57.6	56.8	55.9	54.2	52.5	42.4
12.5°	66.9	66.1	64.4	61.0	59.3	58.4	58.4	57.6	56.8	55.9	54.2
15°	84.7	82.2	81.3	78.8	77.1	74.5	75.4	74.5	72.8	69.5	61.8
17.5°	94.0	92.3	89.8	90.6	88.9	83.9	75.4	72.8	70.3	67.8	65.2
20°	145.7	143.2	138.1	129.6	119.4	114.4	110.1	105.9	106.7	105.9	99.1
22.5°	170.3	155.0	145.7	138.9	136.4	136.4	133.0	134.7	123.7	120.3	105.9
25°	228.7	217.7	205.8	199.1	195.7	188.1	173.7	163.5	152.5	149.1	138.1
27.5°	273.6	263.4	263.4	252.4	233.8	219.4	205.0	196.5	183.0	173.7	161.8
30°	329.5	316.8	300.7	280.4	262.6	249.0	238.9	218.5	205.8	193.1	169.4
32.5°	411.7	388.0	367.6	349.0	332.9	305.8	289.7	272.8	246.5	219.4	207.5
35°	487.9	458.3	435.4	415.9	382.9	364.2	339.7	301.6	273.6	260.1	232.9
37.5°	562.5	534.5	512.5	474.4	444.7	413.4	372.7	344.8	320.2	286.3	249.0
40°	659.9	628.5	583.6	550.6	511.6	459.1	428.6	394.7	353.2	311.7	280.4
42.5°	787.8	737.8	701.4	659.9	588.7	554.8	513.3	453.2	400.7	363.4	311.7
45°	941.9	890.3	851.3	770.0	718.3	666.6	604.0	533.7	481.1	422.7	378.6
47.5°	1105.4	1069.9	986.8	905.5	854.7	777.6	705.6	632.8	559.9	508.2	428.6
50°	1309.6	1219.8	1128.3	1069.9	987.7	901.3	816.6	724.2	660.7	581.1	504.0
52.5°	1513.7	1390.1	1324.0	1237.6	1125.8	1026.7	928.4	838.6	748.8	663.3	571.8
55°	1789.0	1665.4	1566.2	1441.7	1314.7	1201.2	1099.5	988.5	890.3	780.2	680.2
57.5°	2292.2	2155.8	2013.5	1827.1	1672.1	1534.9	1397.7	1266.4	1119.8	1001.2	880.1
60°	3044.4	2901.2	2705.6	2487.9	2248.1	2034.7	1839.0	1642.5	1461.2	1315.5	1128.3
62.5°	3539.1	3391.7	3210.4	2952.1	2698.8	2415.9	2171.9	1899.1	1696.7	1487.5	1314.7
63°	3588.2	3431.5	3249.4	3004.6	2736.9	2471.8	2224.4	1927.1	1719.6	1509.5	1330.8
65°	3512.8	3415.4	3246.0	3041.0	2833.5	2575.1	2304.9	2012.7	1778.0	1564.5	1355.3
67.5°	3139.3	3094.4	2984.2	2872.4	2686.9	2507.3	2260.0	2002.5	1753.4	1551.0	1357.9
70°	2659.0	2597.1	2510.7	2465.8	2337.9	2185.5	2015.2	1813.6	1634.0	1434.9	1259.6
72.5°	1987.2	1865.3	1795.8	1720.4	1639.1	1532.4	1433.3	1319.7	1174.0	1068.2	892.0
75°	1040.2	904.7	812.3	703.9	616.7	527.7	480.3	448.1	399.0	344.8	304.9
77.5°	421.8	352.4	284.6	242.3	182.1	145.7	124.5	110.1	101.6	90.6	83.9
80°	354.1	282.9	227.9	172.8	127.1	92.3	68.6	53.4	45.7	39.8	36.4
82.5°	286.3	245.7	204.1	160.9	123.7	100.0	73.7	52.5	38.1	30.5	26.3
85°	91.5	80.5	62.7	52.5	43.2	36.4	30.5	24.6	22.0	20.3	18.6
87.5°	38.1	29.6	27.1	24.6	23.7	22.9	22.9	21.2	19.5	16.9	15.2
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):

	87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	155°
0°	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0
2.5°	28.0	28.0	27.1	28.0	26.3	24.6	23.7	22.9	22.0	22.0	22.0
5°	28.8	28.0	27.1	26.3	23.7	22.0	20.3	18.6	21.2	18.6	12.7
7.5°	29.6	28.8	27.1	26.3	23.7	21.2	19.5	11.9	7.6	7.6	8.5
10°	39.8	37.3	36.4	33.9	31.3	22.9	14.4	7.6	6.8	10.2	11.9
12.5°	43.2	40.7	38.1	35.6	29.6	24.6	11.9	10.2	12.7	10.2	11.0
15°	58.4	50.0	47.4	44.9	39.8	28.8	13.6	13.6	12.7	11.0	12.7
17.5°	64.4	55.1	52.5	50.8	39.0	18.6	15.2	16.1	12.7	14.4	11.9
20°	93.2	83.0	75.4	72.0	52.5	27.1	21.2	15.2	16.1	12.7	14.4
22.5°	106.7	99.1	91.5	89.8	59.3	29.6	24.6	21.2	15.2	15.2	13.6
25°	132.1	122.0	109.3	98.3	62.7	37.3	29.6	21.2	17.8	14.4	13.6
27.5°	149.9	133.0	122.0	115.2	67.8	39.0	28.8	23.7	17.8	13.6	11.9
30°	156.7	147.4	132.1	115.2	68.6	40.7	30.5	22.9	17.8	13.6	12.7
32.5°	191.4	170.3	148.2	135.5	73.7	43.2	29.6	22.9	16.9	12.7	11.9
35°	205.0	184.7	160.9	143.2	77.1	41.5	28.8	20.3	15.2	11.9	9.3
37.5°	227.0	197.4	174.5	152.5	77.9	39.0	26.3	19.5	13.6	10.2	8.5
40°	243.1	218.5	184.7	160.1	77.9	36.4	24.6	16.9	11.9	8.5	6.8
42.5°	281.2	238.0	204.1	175.3	79.6	33.0	22.0	14.4	10.2	5.9	5.1
45°	321.9	280.4	235.5	200.8	81.3	30.5	19.5	12.7	7.6	4.2	2.5
47.5°	379.5	325.3	274.5	230.4	82.2	28.0	17.8	11.0	5.9	2.5	1.7
50°	434.5	376.1	314.3	269.4	83.9	25.4	15.2	9.3	4.2	1.7	0.8
52.5°	498.9	426.9	364.2	300.7	84.7	23.7	13.6	7.6	2.5	0.8	0.0
55°	590.4	514.2	426.1	359.2	86.4	21.2	11.0	5.9	1.7	0.8	0.0
57.5°	772.5	669.2	560.8	464.2	94.9	18.6	9.3	4.2	0.8	0.8	0.0
60°	994.5	879.3	736.1	596.3	111.8	16.1	7.6	2.5	0.8	0.0	0.0
62.5°	1155.4	1007.2	836.9	686.1	123.7	13.6	6.8	1.7	0.8	0.8	0.0
63°	1181.7	1021.6	844.5	692.1	124.5	13.6	5.9	1.7	0.8	0.0	0.0
65°	1201.2	1035.1	854.7	701.4	127.1	11.9	5.1	1.7	0.8	0.8	0.0
67.5°	1185.1	1005.5	830.1	683.6	128.8	10.2	4.2	1.7	0.8	0.8	0.8
70°	1074.9	914.8	761.5	624.3	119.4	8.5	3.4	1.7	0.8	0.8	0.8
72.5°	772.5	688.7	548.1	450.6	91.5	7.6	3.4	2.5	0.8	1.7	1.7
75°	260.1	232.9	194.0	172.0	53.4	5.1	2.5	2.5	0.8	1.7	1.7
77.5°	74.5	69.5	60.1	55.1	27.1	4.2	2.5	2.5	0.8	2.5	2.5
80°	32.2	29.6	26.3	22.9	11.9	3.4	2.5	3.4	0.8	3.4	2.5
82.5°	23.7	21.2	18.6	15.2	6.8	3.4	3.4	4.2	0.8	3.4	3.4
85°	16.9	15.2	12.7	11.0	5.1	3.4	3.4	4.2	1.7	4.2	4.2
87.5°	13.6	11.9	10.2	7.6	5.1	3.4	3.4	5.1	1.7	5.1	4.2
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):

	165°	175°	180°
0°	28.0	28.0	28.0
2.5°	22.0	22.9	22.9
5°	11.0	11.9	11.9
7.5°	9.3	10.2	10.2
10°	12.7	12.7	12.7
12.5°	11.9	12.7	12.7
15°	13.6	14.4	14.4
17.5°	11.9	15.2	16.1
20°	13.6	13.6	13.6
22.5°	13.6	14.4	14.4
25°	12.7	12.7	12.7
27.5°	12.7	12.7	12.7
30°	11.0	12.7	12.7
32.5°	11.0	11.0	11.0
35°	10.2	10.2	10.2
37.5°	8.5	9.3	9.3
40°	6.8	6.8	6.8
42.5°	4.2	4.2	4.2
45°	2.5	2.5	2.5
47.5°	1.7	1.7	1.7
50°	0.8	0.8	0.8
52.5°	0.8	0.8	0.8
55°	0.0	0.8	0.8
57.5°	0.0	0.0	0.8
60°	0.0	0.0	0.8
62.5°	0.0	0.0	0.8
63°	0.0	0.0	0.8
65°	0.8	0.0	0.8
67.5°	0.8	0.8	0.8
70°	0.8	0.8	0.8
72.5°	1.7	0.8	1.7
75°	1.7	1.7	1.7
77.5°	2.5	1.7	1.7
80°	2.5	2.5	1.7
82.5°	3.4	2.5	0.8
85°	3.4	3.4	1.7
87.5°	4.2	4.2	1.7
90°	0.0	0.0	0.0

(END OF REPORT)