

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: McGRAW-EDISON

Report Number: P228353

Luminaire Tested: **ISS-AF-600-LED-E1-SL4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P228353
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29763)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISS-AF-600-LED-E1-SL4-7050
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV W/SPILL CONTROL
Light Source: (16) 5000K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3456 lumens
Efficiency: N/A
Efficacy: 102.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G1

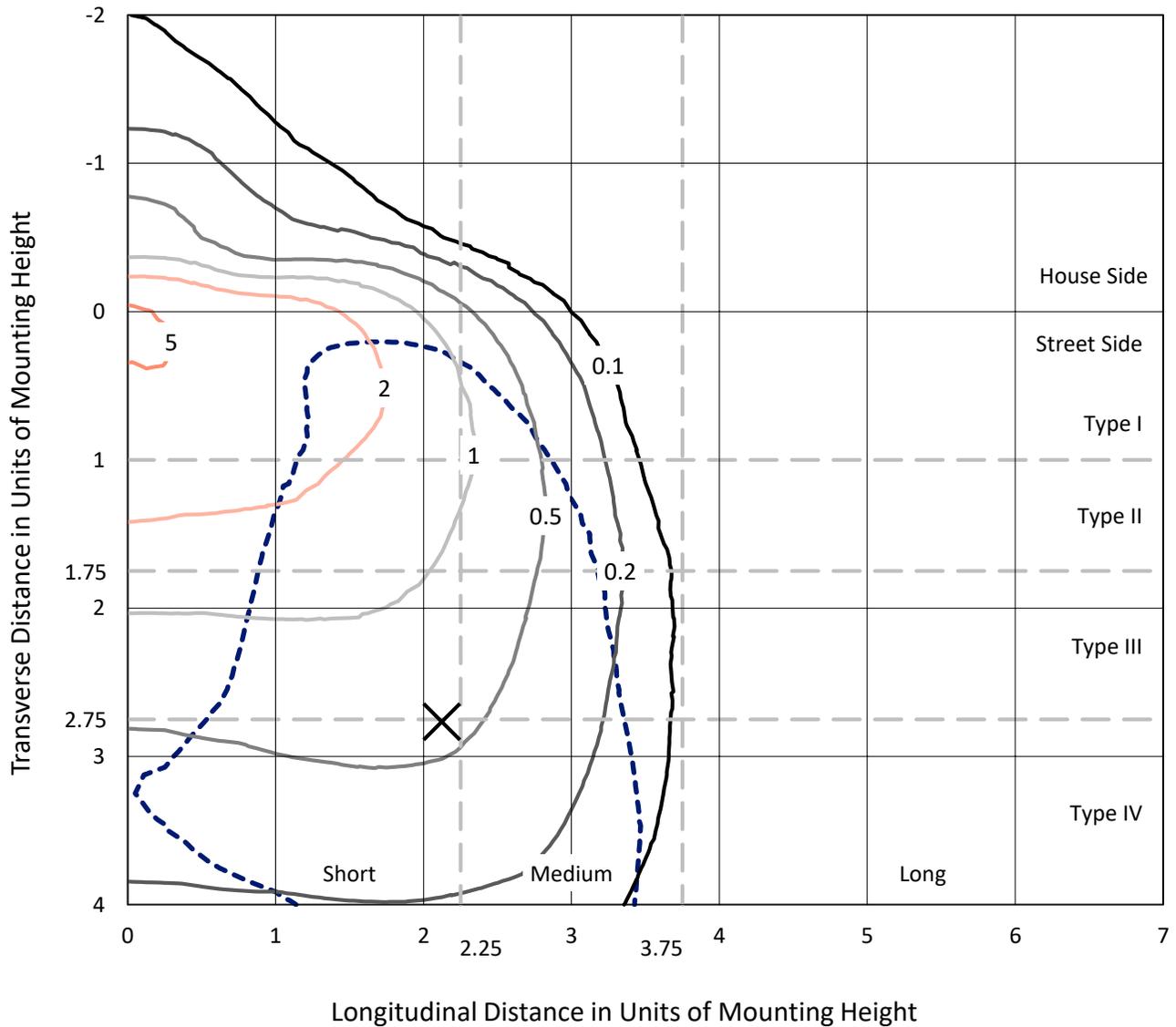
Input Watts (W): 33.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

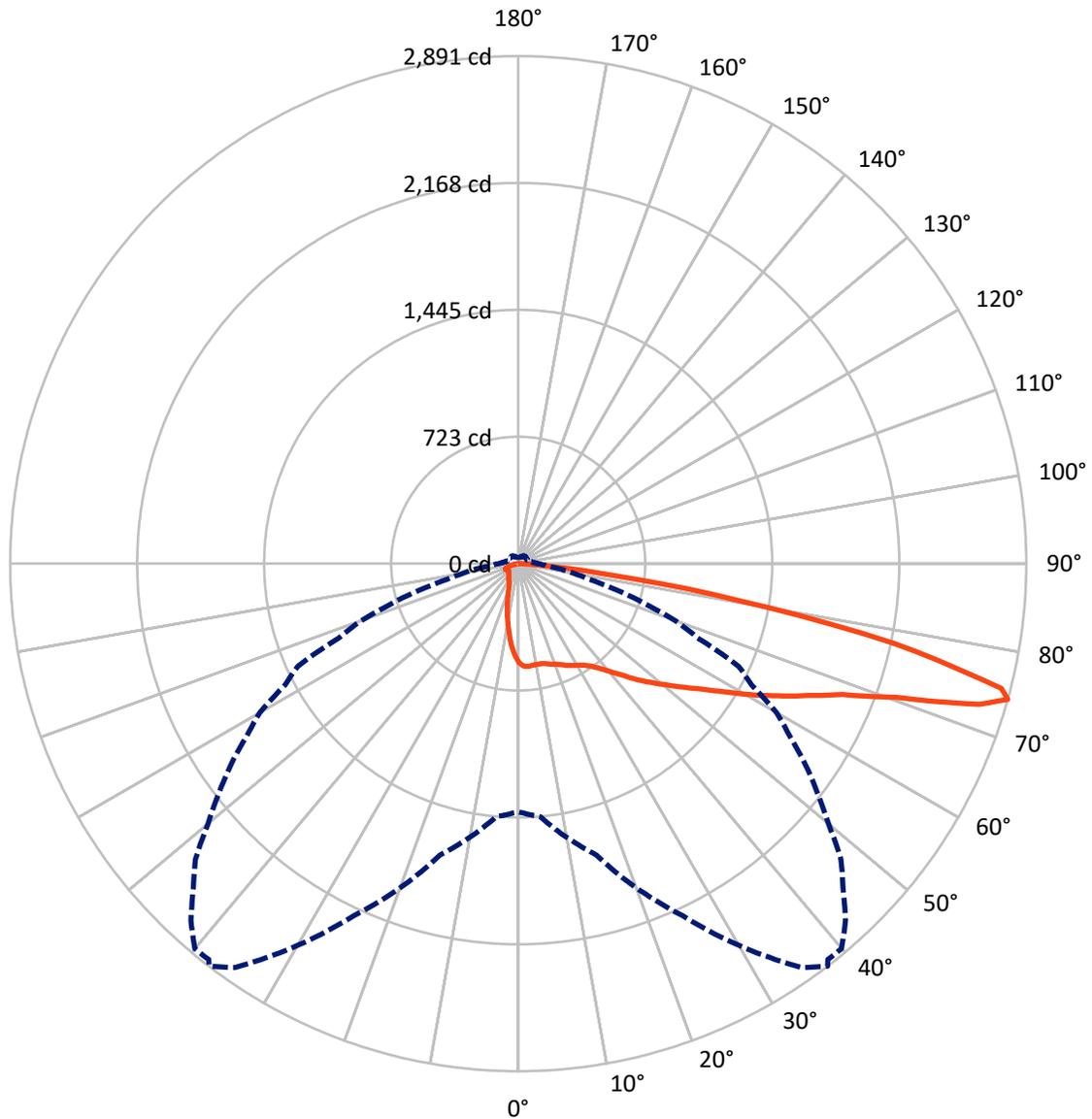
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.9 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 37.5-Deg Lateral - - - Horizontal Cone Through 74-Deg Vertical

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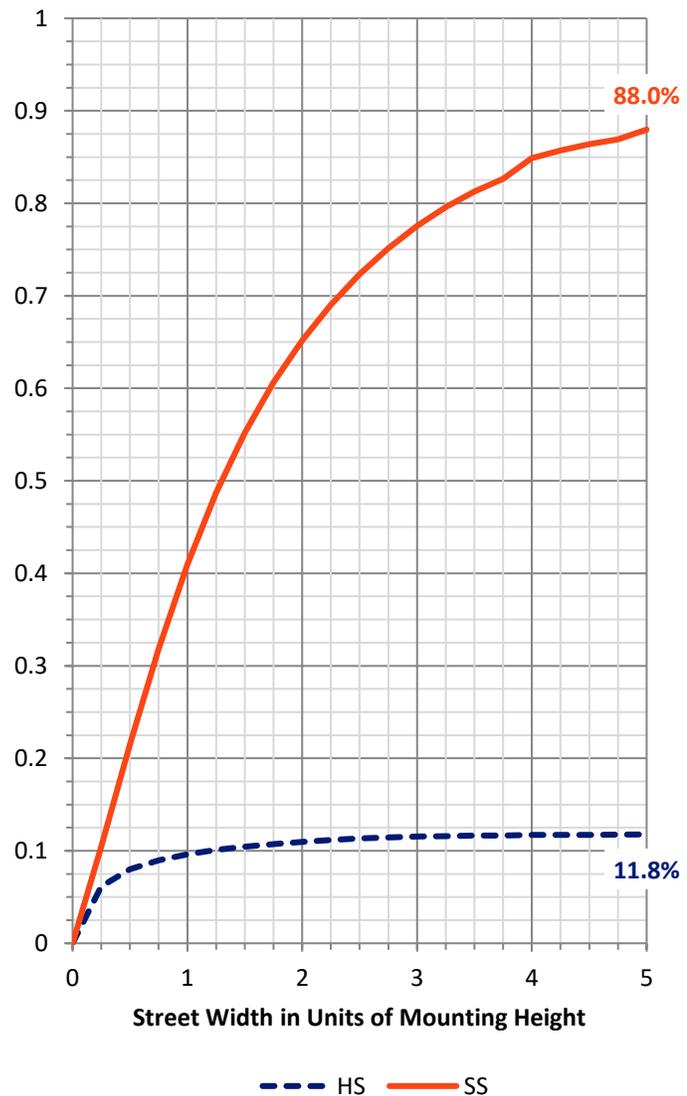
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	409.8	0.0	409.8
	% Fixture	11.9	0.0	11.9
Street Side	Lumens	3046.2	0.0	3046.2
	% Fixture	88.1	0.0	88.1
Total	Lumens	3456.0	0.0	3456.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.1	1.4
10°-20°	125.1	3.6
20°-30°	193.8	5.6
30°-40°	287.5	8.3
40°-50°	442.3	12.8
50°-60°	653.7	18.9
60°-70°	871.4	25.2
70°-80°	752.2	21.8
80°-90°	80.9	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°	3456.0	100.0
0°-180°	3456.0	100.0



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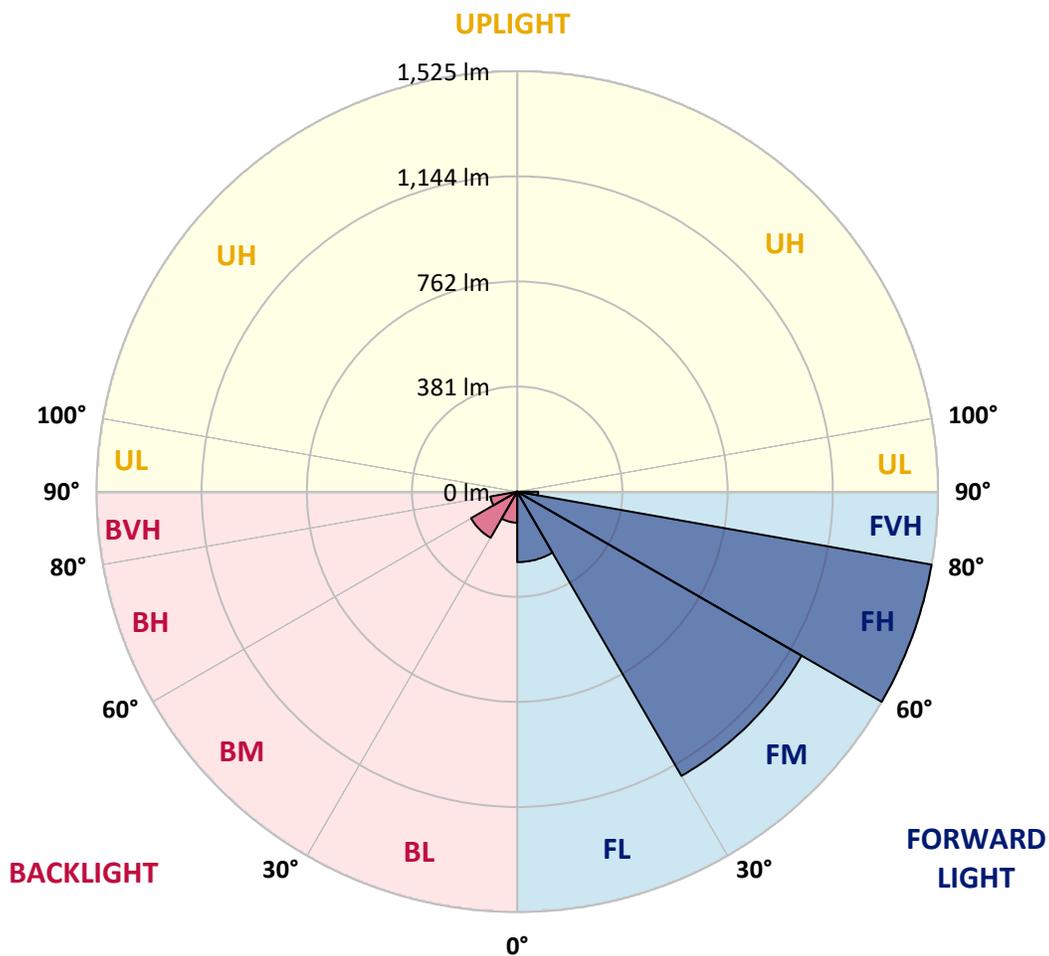
CATALOG NUMBER: ISS-AF-600-LED-E1-SL4-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	255.5	7.4			
FM	(30°-60°)	1190.3	34.4			
FH	(60°-80°)	1524.8	44.1			G1/1800
FVH	(80°-90°)	75.6	2.2			G1/100
BL	(0°-30°)	112.5	3.3	B1/500		
BM	(30°-60°)	193.2	5.6	B0/220		
BH	(60°-80°)	98.8	2.9	B0/110		G0/110
BVH	(80°-90°)	5.3	0.2			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37.5°	38°	40°	42.5°	45°	47.5°
0°	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
2.5°	596.2	594.9	592.4	591.1	588.5	584.6	588.5	583.3	580.7	583.3	578.2
5°	606.6	605.3	602.7	597.5	594.9	588.5	592.4	585.9	584.6	587.2	580.7
7.5°	607.8	605.3	601.4	594.9	592.4	584.6	587.2	579.5	576.9	579.5	575.6
10°	604.0	602.7	598.8	588.5	585.9	583.3	582.0	576.9	575.6	574.3	573.0
12.5°	597.5	597.5	594.9	591.1	589.8	584.6	585.9	580.7	582.0	579.5	576.9
15°	594.9	593.6	596.2	598.8	598.8	591.1	596.2	592.4	589.8	591.1	587.2
17.5°	592.4	593.6	602.7	607.8	610.4	602.7	610.4	602.7	597.5	604.0	597.5
20°	591.1	594.9	610.4	622.0	623.3	610.4	623.3	610.4	610.4	618.2	606.6
22.5°	597.5	604.0	625.9	638.8	641.4	624.6	640.1	623.3	623.3	629.8	618.2
25°	618.2	624.6	649.1	663.3	660.8	642.7	656.9	640.1	638.8	646.6	631.1
27.5°	645.3	654.3	677.5	690.4	681.4	656.9	677.5	653.0	653.0	664.6	644.0
30°	684.0	690.4	711.1	712.4	700.8	671.1	694.3	667.2	663.3	684.0	658.2
32.5°	726.6	731.7	747.2	738.2	721.4	690.4	717.5	685.3	684.0	705.9	676.2
35°	771.7	776.9	782.1	766.6	751.1	717.5	747.2	715.0	713.7	738.2	709.8
37.5°	818.2	818.2	818.2	800.1	789.8	757.5	784.6	758.8	756.3	782.1	755.0
40°	855.6	858.2	854.3	837.6	832.4	809.2	832.4	809.2	813.0	836.3	814.3
42.5°	886.6	889.2	890.5	876.3	881.4	868.5	886.6	869.8	871.1	896.9	884.0
45°	917.6	916.3	926.6	922.7	938.2	939.5	949.8	943.4	946.0	965.3	961.4
47.5°	949.8	943.4	955.0	971.8	1000.2	1009.2	1015.7	1018.2	1028.6	1037.6	1046.6
50°	980.8	974.4	982.1	1019.5	1064.7	1084.1	1085.3	1098.2	1109.9	1122.8	1140.8
52.5°	1013.1	1007.9	1015.7	1068.6	1140.8	1167.9	1164.1	1186.0	1202.8	1217.0	1246.7
55°	1046.6	1041.5	1049.2	1127.9	1222.1	1259.6	1255.7	1286.7	1318.9	1324.1	1357.6
57.5°	1078.9	1072.4	1094.4	1197.6	1318.9	1375.7	1357.6	1405.4	1436.4	1433.8	1480.2
60°	1113.7	1108.6	1143.4	1282.8	1440.2	1513.8	1486.7	1549.9	1571.9	1562.8	1606.7
62.5°	1147.3	1146.0	1204.1	1382.2	1587.4	1658.3	1633.8	1689.3	1704.8	1693.2	1715.1
65°	1178.3	1186.0	1269.9	1481.5	1729.3	1810.6	1777.1	1832.6	1850.6	1841.6	1879.0
67.5°	1229.9	1238.9	1351.2	1608.0	1904.8	1988.7	1960.3	2018.4	2045.5	2042.9	2084.2
70°	1306.0	1322.8	1471.2	1787.4	2172.0	2279.1	2263.6	2334.6	2400.4	2395.2	2436.5
72.5°	1438.9	1466.0	1668.7	2066.1	2610.8	2741.1	2723.0	2763.0	2751.4	2657.2	2581.1
74°	1413.1	1446.7	1717.7	2212.0	2808.2	2890.8	2861.1	2862.4	2756.6	2613.3	2490.7
75°	1318.9	1353.8	1646.7	2193.9	2794.0	2839.2	2796.6	2743.7	2615.9	2470.1	2319.1
77.5°	904.7	949.8	1210.5	1771.9	2249.4	2187.5	2177.1	2076.5	1907.4	1743.5	1549.9
80°	463.3	495.6	625.9	926.6	1334.4	1272.5	1293.1	1211.8	1071.1	952.4	755.0
82.5°	111.0	118.7	184.5	358.8	578.2	529.1	536.9	474.9	393.6	321.3	249.1
85°	58.1	65.8	90.3	99.4	152.3	157.4	153.6	148.4	121.3	102.0	89.0
87.5°	0.0	0.0	0.0	2.6	1.3	0.0	1.3	0.0	0.0	1.3	2.6
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):

	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°
0°	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
2.5°	582.0	579.5	582.0	574.3	578.2	571.7	574.3	567.8	570.4	565.3	566.5
5°	584.6	578.2	582.0	575.6	576.9	571.7	570.4	567.8	566.5	562.7	560.1
7.5°	578.2	573.0	571.7	569.1	565.3	566.5	561.4	560.1	556.2	556.2	548.5
10°	571.7	573.0	565.3	567.8	561.4	562.7	553.6	556.2	549.8	554.9	543.3
12.5°	576.9	578.2	571.7	575.6	564.0	566.5	558.8	562.7	553.6	560.1	545.9
15°	588.5	587.2	584.6	584.6	573.0	578.2	569.1	571.7	562.7	570.4	554.9
17.5°	598.8	597.5	593.6	592.4	584.6	585.9	576.9	582.0	571.7	578.2	562.7
20°	610.4	604.0	602.7	601.4	592.4	592.4	585.9	588.5	578.2	585.9	567.8
22.5°	619.5	614.3	613.0	607.8	601.4	604.0	594.9	596.2	585.9	593.6	578.2
25°	633.7	627.2	627.2	619.5	615.6	614.3	609.1	613.0	602.7	607.8	593.6
27.5°	653.0	638.8	644.0	636.2	633.7	632.4	629.8	632.4	624.6	628.5	614.3
30°	671.1	653.0	660.8	650.4	655.6	650.4	654.3	650.4	650.4	650.4	644.0
32.5°	695.6	673.7	689.1	673.7	684.0	676.2	689.1	681.4	686.6	685.3	682.7
35°	730.4	704.6	726.6	705.9	724.0	713.7	731.7	727.9	738.2	733.0	738.2
37.5°	776.9	749.8	775.6	756.3	778.2	762.7	788.5	785.9	807.9	800.1	807.9
40°	835.0	815.6	835.0	820.8	844.0	837.6	864.7	866.0	890.5	886.6	895.6
42.5°	899.5	885.3	904.7	896.9	920.2	925.3	956.3	964.0	987.3	993.7	995.0
45°	969.2	966.6	982.1	989.8	1013.1	1028.6	1055.7	1075.0	1100.8	1115.0	1112.4
47.5°	1050.5	1060.8	1071.1	1090.5	1111.2	1143.4	1170.5	1195.0	1224.7	1233.8	1237.6
50°	1142.1	1160.2	1169.2	1196.3	1217.0	1257.0	1294.4	1325.4	1357.6	1353.8	1356.4
52.5°	1238.9	1262.1	1275.1	1307.3	1334.4	1380.9	1413.1	1442.8	1482.8	1472.5	1468.6
55°	1346.0	1380.9	1391.2	1427.3	1450.6	1498.3	1526.7	1578.3	1595.1	1584.8	1562.8
57.5°	1459.6	1500.9	1512.5	1561.5	1573.2	1624.8	1649.3	1684.2	1698.3	1681.6	1653.2
60°	1588.7	1626.1	1635.1	1679.0	1694.5	1742.2	1760.3	1791.3	1801.6	1760.3	1720.3
62.5°	1717.7	1756.4	1761.6	1800.3	1815.8	1857.1	1877.7	1895.8	1890.6	1830.0	1779.7
65°	1864.8	1902.3	1915.2	1953.9	1962.9	1993.9	2010.7	1990.0	1978.4	1886.8	1830.0
67.5°	2098.4	2138.4	2143.6	2152.6	2151.3	2135.8	2128.1	2057.1	2005.5	1836.4	1755.1
70°	2405.6	2375.9	2317.8	2250.7	2201.7	2113.9	2062.3	1916.4	1808.0	1618.3	1481.5
72.5°	2461.1	2364.3	2221.0	2106.2	1987.4	1849.3	1738.4	1517.7	1365.4	1166.6	1022.1
74°	2303.6	2146.2	1995.2	1833.9	1697.1	1495.7	1383.5	1104.7	953.7	752.4	576.9
75°	2113.9	1929.4	1759.0	1553.8	1426.0	1184.7	1078.9	778.2	627.2	446.5	300.7
77.5°	1348.6	1127.9	965.3	727.9	628.5	433.6	317.5	197.5	145.8	127.8	111.0
80°	605.3	431.0	342.0	236.2	197.5	151.0	127.8	103.2	94.2	82.6	78.7
82.5°	193.6	154.9	147.1	131.6	131.6	105.8	90.3	71.0	64.5	55.5	50.3
85°	83.9	78.7	81.3	74.9	76.1	58.1	46.5	34.8	34.8	24.5	21.9
87.5°	2.6	0.0	1.3	0.0	2.6	0.0	1.3	0.0	1.3	0.0	1.3
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):

	77.5°	80°	85°	90°	95°	100°	102.5°	105°	107.5°	110°	112.5°
0°	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
2.5°	561.4	564.0	562.7	557.5	556.2	552.3	543.3	544.6	539.4	543.3	536.9
5°	556.2	554.9	549.8	543.3	536.9	529.1	522.7	520.1	514.9	512.3	508.5
7.5°	548.5	543.3	534.3	524.0	514.9	504.6	499.4	490.4	487.8	478.8	477.5
10°	545.9	536.9	526.5	513.6	498.1	482.7	481.4	465.9	464.6	450.4	446.5
12.5°	551.1	539.4	526.5	511.1	493.0	471.0	471.0	447.8	446.5	427.2	420.7
15°	561.4	547.2	530.4	512.3	489.1	462.0	460.7	433.6	431.0	407.8	400.1
17.5°	570.4	551.1	535.6	511.1	484.0	453.0	446.5	419.4	414.3	387.2	376.8
20°	576.9	554.9	536.9	508.5	474.9	438.8	429.7	401.4	389.7	362.6	348.4
22.5°	584.6	564.0	539.4	507.2	469.8	427.2	407.8	382.0	365.2	336.8	317.5
25°	596.2	578.2	548.5	511.1	465.9	415.6	389.7	362.6	339.4	311.0	282.6
27.5°	614.3	596.2	561.4	516.2	464.6	403.9	375.5	342.0	313.6	282.6	250.4
30°	640.1	620.7	583.3	530.4	465.9	394.9	360.1	323.9	290.4	254.2	220.7
32.5°	673.7	658.2	611.7	545.9	471.0	387.2	345.9	304.6	263.3	228.4	198.7
35°	720.1	709.8	651.7	575.6	484.0	383.3	331.7	286.5	240.0	205.2	172.9
37.5°	788.5	774.3	709.8	618.2	504.6	380.7	321.3	264.6	220.7	183.3	156.2
40°	875.0	855.6	778.2	669.8	536.9	382.0	312.3	247.8	203.9	163.9	142.0
42.5°	978.2	949.8	862.1	733.0	569.1	384.6	307.1	232.3	191.0	148.4	131.6
45°	1094.4	1062.1	961.4	811.7	615.6	391.0	303.3	219.4	179.4	136.8	125.2
47.5°	1207.9	1175.7	1063.4	890.5	663.3	402.6	305.9	211.6	171.6	130.3	117.4
50°	1318.9	1285.4	1153.7	961.4	704.6	418.1	316.2	212.9	170.4	127.8	113.6
52.5°	1417.0	1375.7	1231.2	1016.9	734.3	428.5	325.2	216.8	171.6	126.5	112.3
55°	1515.1	1462.2	1293.1	1060.8	752.4	429.7	325.2	218.1	172.9	126.5	111.0
57.5°	1588.7	1528.0	1340.9	1086.6	758.8	423.3	317.5	211.6	165.2	125.2	108.4
60°	1635.1	1570.6	1374.4	1103.4	749.8	396.2	276.2	187.1	145.8	116.1	100.7
62.5°	1673.8	1608.0	1384.7	1075.0	673.7	314.9	215.5	152.3	121.3	103.2	92.9
65°	1682.9	1604.1	1312.5	949.8	526.5	218.1	156.2	120.0	99.4	91.6	83.9
67.5°	1546.1	1451.9	1103.4	743.3	358.8	149.7	116.1	98.1	85.2	81.3	78.7
70°	1257.0	1153.7	807.9	486.5	200.0	104.5	89.0	81.3	73.6	73.6	69.7
72.5°	810.5	703.3	414.3	207.8	102.0	80.0	72.3	69.7	63.2	64.5	60.7
74°	414.3	322.6	169.1	109.7	83.9	71.0	64.5	63.2	56.8	58.1	54.2
75°	210.4	166.5	118.7	91.6	77.4	67.1	59.4	59.4	51.6	52.9	49.0
77.5°	98.1	94.2	81.3	72.3	65.8	56.8	49.0	47.7	40.0	42.6	37.4
80°	68.4	68.4	63.2	60.7	54.2	46.5	37.4	37.4	29.7	31.0	27.1
82.5°	38.7	36.1	36.1	41.3	42.6	34.8	27.1	25.8	21.9	21.9	18.1
85°	16.8	19.4	23.2	28.4	31.0	27.1	19.4	18.1	11.6	11.6	6.5
87.5°	0.0	1.3	1.3	2.6	5.2	5.2	0.0	2.6	0.0	1.3	0.0
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):

	115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°	155°	165°
0°	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
2.5°	539.4	533.0	536.9	530.4	533.0	526.5	529.1	525.2	521.4	516.2	514.9
5°	504.6	499.4	498.1	491.7	493.0	487.8	482.7	476.2	468.5	458.1	454.3
7.5°	465.9	464.6	455.6	451.7	446.5	441.4	432.3	422.0	406.5	392.3	383.3
10°	432.3	428.5	415.6	409.1	401.4	394.9	382.0	367.8	345.9	323.9	312.3
12.5°	403.9	398.8	382.0	374.3	362.6	354.9	339.4	321.3	290.4	259.4	245.2
15°	380.7	373.0	353.6	342.0	326.5	318.8	302.0	276.2	238.7	206.5	187.1
17.5°	353.6	343.3	322.6	308.4	293.0	278.8	262.0	234.9	192.3	162.6	143.2
20°	323.9	311.0	289.1	269.7	252.9	240.0	223.3	196.2	153.6	130.3	120.0
22.5°	293.0	272.3	252.9	236.2	216.8	203.9	187.1	162.6	130.3	117.4	113.6
25°	260.7	237.5	218.1	201.3	183.3	171.6	157.4	138.1	118.7	114.9	114.9
27.5°	228.4	205.2	187.1	170.4	154.9	147.1	134.2	121.3	112.3	113.6	114.9
30°	198.7	175.5	158.7	145.8	131.6	126.5	116.1	108.4	107.1	111.0	112.3
32.5°	172.9	152.3	136.8	126.5	114.9	112.3	103.2	99.4	103.2	108.4	107.1
35°	151.0	134.2	118.7	112.3	102.0	100.7	94.2	91.6	96.8	103.2	103.2
37.5°	134.2	118.7	107.1	102.0	94.2	92.9	87.8	85.2	89.0	98.1	100.7
40°	120.0	111.0	99.4	94.2	89.0	86.5	83.9	81.3	82.6	94.2	95.5
42.5°	111.0	104.5	94.2	91.6	85.2	83.9	80.0	77.4	78.7	87.8	91.6
45°	104.5	99.4	90.3	89.0	82.6	81.3	77.4	74.9	76.1	83.9	87.8
47.5°	99.4	94.2	86.5	83.9	80.0	78.7	76.1	73.6	73.6	81.3	85.2
50°	96.8	91.6	83.9	81.3	77.4	76.1	73.6	71.0	72.3	78.7	81.3
52.5°	95.5	89.0	82.6	78.7	76.1	73.6	71.0	68.4	69.7	76.1	78.7
55°	95.5	87.8	82.6	78.7	74.9	71.0	69.7	65.8	68.4	73.6	77.4
57.5°	95.5	87.8	82.6	78.7	76.1	72.3	69.7	67.1	68.4	73.6	77.4
60°	92.9	86.5	83.9	80.0	78.7	74.9	73.6	71.0	71.0	77.4	83.9
62.5°	89.0	85.2	83.9	81.3	81.3	78.7	78.7	76.1	76.1	83.9	90.3
65°	83.9	81.3	82.6	81.3	81.3	81.3	80.0	80.0	80.0	86.5	94.2
67.5°	78.7	77.4	78.7	78.7	80.0	78.7	80.0	78.7	78.7	85.2	92.9
70°	71.0	71.0	72.3	71.0	72.3	72.3	73.6	73.6	73.6	77.4	85.2
72.5°	61.9	60.7	61.9	60.7	63.2	60.7	63.2	64.5	63.2	64.5	68.4
74°	55.5	54.2	55.5	54.2	56.8	54.2	55.5	55.5	54.2	43.9	37.4
75°	50.3	49.0	50.3	49.0	51.6	49.0	51.6	50.3	47.7	32.3	31.0
77.5°	40.0	36.1	40.0	36.1	38.7	34.8	37.4	32.3	24.5	23.2	23.2
80°	29.7	25.8	28.4	24.5	23.2	18.1	19.4	18.1	16.8	18.1	18.1
82.5°	18.1	12.9	15.5	11.6	14.2	10.3	12.9	11.6	10.3	10.3	10.3
85°	9.0	6.5	9.0	5.2	7.7	5.2	6.5	6.5	3.9	3.9	3.9
87.5°	1.3	0.0	2.6	0.0	2.6	0.0	1.3	1.3	0.0	0.0	0.0
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):

	175°	180°
0°	564.0	564.0
2.5°	511.1	512.3
5°	447.8	451.7
7.5°	378.1	380.7
10°	304.6	307.1
12.5°	234.9	237.5
15°	176.8	174.2
17.5°	135.5	132.9
20°	114.9	114.9
22.5°	112.3	111.0
25°	113.6	112.3
27.5°	113.6	112.3
30°	111.0	109.7
32.5°	107.1	105.8
35°	103.2	103.2
37.5°	100.7	102.0
40°	96.8	98.1
42.5°	92.9	94.2
45°	89.0	90.3
47.5°	85.2	85.2
50°	80.0	80.0
52.5°	78.7	78.7
55°	78.7	78.7
57.5°	81.3	81.3
60°	89.0	90.3
62.5°	104.5	105.8
65°	120.0	122.6
67.5°	121.3	125.2
70°	117.4	121.3
72.5°	81.3	81.3
74°	36.1	34.8
75°	31.0	29.7
77.5°	23.2	23.2
80°	16.8	15.5
82.5°	9.0	9.0
85°	2.6	2.6
87.5°	0.0	0.0
90°	0.0	0.0

(END OF REPORT)