

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: P228345

Luminaire Tested: **ISS-AF-800-LED-E1-SL4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P228345
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-800-LED-E1-SL4
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV W/SPILL CONTROL
Light Source: (16) 4000K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4425.3 lumens
Efficiency: N/A
Efficacy: 101.7 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 - G2

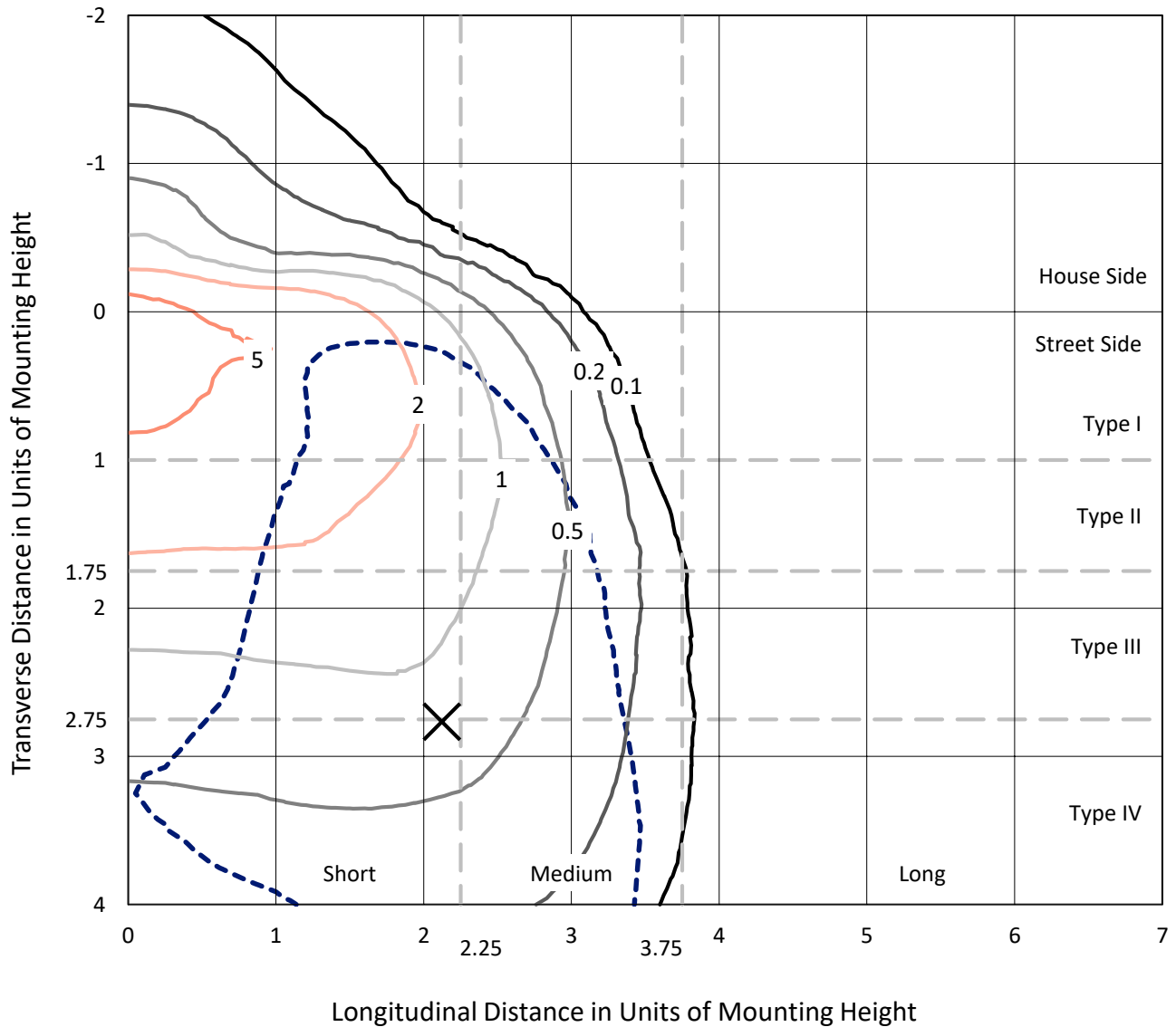
Input Watts (W): 43.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

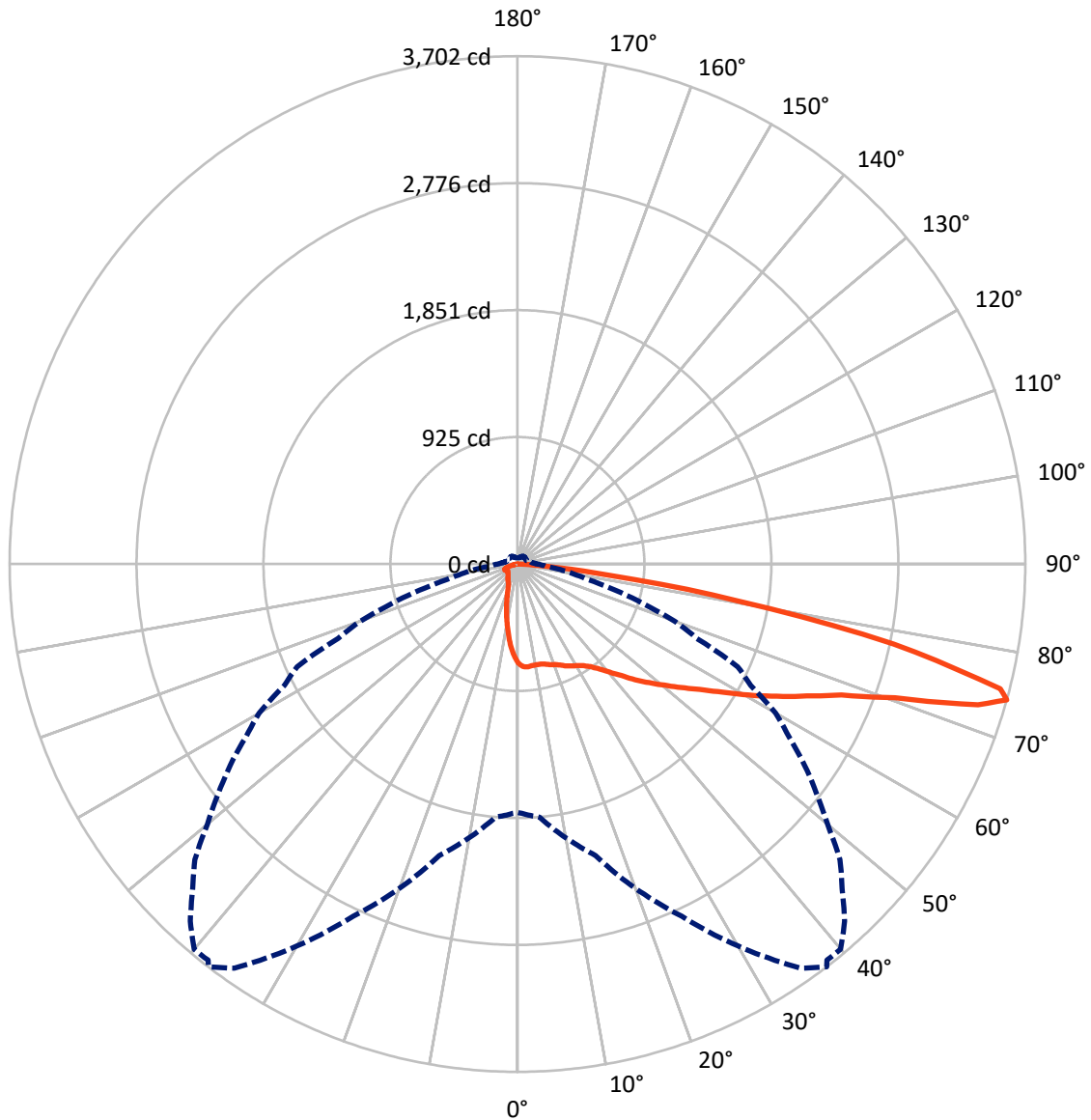
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.6 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	524.7	0.0	524.7
	% Fixture	11.9	0.0	11.9
Street Side	Lumens	3900.6	0.0	3900.6
	% Fixture	88.1	0.0	88.1
Total	Lumens	4425.3	0.0	4425.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.9	1.4
10°-20°	160.2	3.6
20°-30°	248.2	5.6
30°-40°	368.1	8.3
40°-50°	566.3	12.8
50°-60°	837.1	18.9
60°-70°	1115.8	25.2
70°-80°	963.1	21.8
80°-90°	103.6	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°	4425.3	100.0
0°-180°	4425.3	100.0



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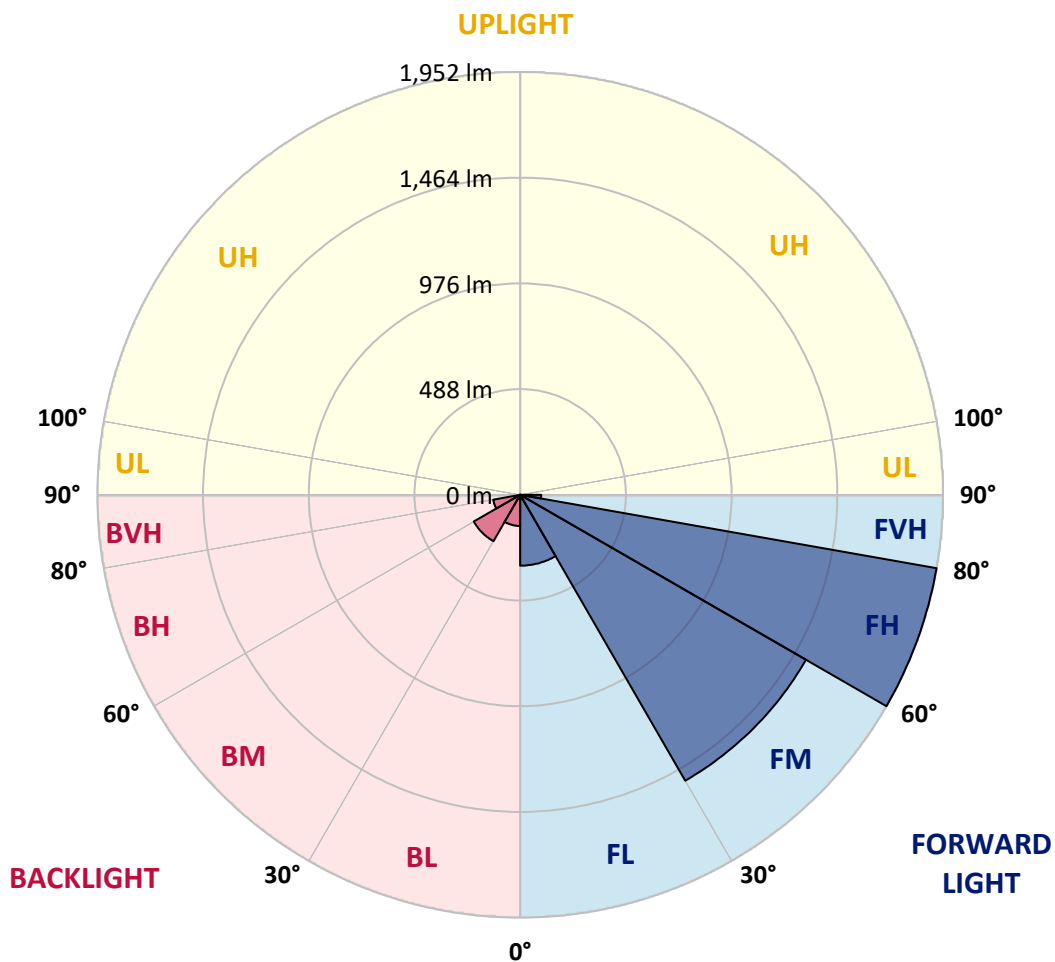
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	327.2	7.4			
FM (30°-60°)	1524.2	34.4			
FH (60°-80°)	1952.4	44.1			G2/5000
FVH (80°-90°)	96.8	2.2			G1/100
BL (0°-30°)	144.1	3.3	B1/500		
BM (30°-60°)	247.3	5.6	B1/1000		
BH (60°-80°)	126.5	2.9	B1/500		G1/500
BVH (80°-90°)	6.8	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-G2

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°	722.1	722.1	722.1	722.1	722.1	722.1	722.1	722.1	722.1	722.1	722.1
2.5°	763.4	761.8	758.5	756.9	753.5	748.6	753.5	747.0	743.6	747.0	740.3
5°	776.6	775.0	771.7	765.1	761.8	753.5	758.5	750.2	748.6	751.9	743.6
7.5°	778.4	775.0	770.1	761.8	758.5	748.6	751.9	741.9	738.7	741.9	737.0
10°	773.4	771.7	766.8	753.5	750.2	747.0	745.3	738.7	737.0	735.4	733.7
12.5°	765.1	765.1	761.8	756.9	755.1	748.6	750.2	743.6	745.3	741.9	738.7
15°	761.8	760.2	763.4	766.8	766.8	756.9	763.4	758.5	755.1	756.9	751.9
17.5°	758.5	760.2	771.7	778.4	781.6	771.7	781.6	771.7	765.1	773.4	765.1
20°	756.9	761.8	781.6	796.5	798.1	781.6	798.1	781.6	781.6	791.6	776.6
22.5°	765.1	773.4	801.5	818.0	821.3	799.8	819.6	798.1	798.1	806.4	791.6
25°	791.6	799.8	831.2	849.4	846.1	823.0	841.1	819.6	818.0	827.9	808.0
27.5°	826.2	837.8	867.6	884.0	872.5	841.1	867.6	836.2	836.2	851.0	824.6
30°	875.9	884.0	910.5	912.2	897.3	859.3	889.0	854.4	849.4	875.9	842.8
32.5°	930.4	936.9	956.8	945.2	923.7	884.0	918.8	877.5	875.9	903.9	865.9
35°	988.2	994.8	1001.4	981.6	961.8	918.8	956.8	915.4	913.8	945.2	908.9
37.5°	1047.7	1047.7	1047.7	1024.6	1011.3	970.0	1004.7	971.7	968.3	1001.4	966.7
40°	1095.6	1098.9	1093.9	1072.5	1065.8	1036.1	1065.8	1036.1	1041.1	1070.8	1042.7
42.5°	1135.3	1138.5	1140.2	1122.1	1128.6	1112.2	1135.3	1113.8	1115.4	1148.5	1132.0
45°	1175.0	1173.2	1186.5	1181.5	1201.4	1203.0	1216.2	1208.0	1211.3	1236.0	1231.1
47.5°	1216.2	1208.0	1222.8	1244.3	1280.6	1292.3	1300.5	1303.9	1317.0	1328.6	1340.2
50°	1255.9	1247.6	1257.5	1305.5	1363.3	1388.0	1389.8	1406.3	1421.2	1437.7	1460.8
52.5°	1297.2	1290.6	1300.5	1368.3	1460.8	1495.5	1490.5	1518.7	1540.2	1558.3	1596.3
55°	1340.2	1333.5	1343.4	1444.3	1564.9	1612.8	1607.9	1647.6	1688.9	1695.4	1738.4
57.5°	1381.5	1373.2	1401.3	1533.5	1688.9	1761.5	1738.4	1799.6	1839.3	1835.9	1895.4
60°	1426.1	1419.4	1464.1	1642.6	1844.2	1938.4	1903.7	1984.6	2012.8	2001.2	2057.4
62.5°	1469.1	1467.4	1541.8	1769.8	2032.6	2123.4	2092.0	2163.1	2183.0	2168.0	2196.2
65°	1508.8	1518.7	1626.1	1897.1	2214.4	2318.4	2275.5	2346.5	2369.7	2358.1	2406.0
67.5°	1574.8	1586.4	1730.1	2059.0	2439.0	2546.4	2510.1	2584.5	2619.2	2615.9	2668.8
70°	1672.3	1693.8	1883.9	2288.6	2781.1	2918.3	2898.4	2989.4	3073.7	3067.0	3119.9
72.5°	1842.5	1877.2	2136.6	2645.7	3343.0	3509.8	3486.7	3538.0	3523.1	3402.4	3304.9
74°	1809.5	1852.5	2199.4	2832.3	3595.8	3701.5	3663.6	3665.2	3529.7	3346.3	3189.3
75°	1688.9	1733.5	2108.6	2809.2	3577.7	3635.5	3580.9	3513.2	3349.6	3162.9	2969.5
77.5°	1158.4	1216.2	1550.1	2268.9	2880.3	2800.9	2787.7	2658.9	2442.4	2232.5	1984.6
80°	593.2	634.5	801.5	1186.5	1708.6	1629.4	1655.7	1551.7	1371.6	1219.6	966.7
82.5°	142.1	152.0	236.3	459.4	740.3	677.5	687.4	608.1	504.0	411.4	319.0
85°	74.4	84.3	115.7	127.3	195.0	201.6	196.6	190.1	155.3	130.5	114.1
87.5°	0.0	0.0	0.0	3.3	1.6	0.0	1.6	0.0	0.0	1.6	3.3
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):

	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°
0°	722.1	722.1	722.1	722.1	722.1	722.1	722.1	722.1	722.1	722.1	722.1
2.5°	745.3	741.9	745.3	735.4	740.3	732.0	735.4	727.1	730.4	723.8	725.5
5°	748.6	740.3	745.3	737.0	738.7	732.0	730.4	727.1	725.5	720.5	717.2
7.5°	740.3	733.7	732.0	728.8	723.8	725.5	718.8	717.2	712.2	712.2	702.3
10°	732.0	733.7	723.8	727.1	718.8	720.5	708.9	712.2	704.0	710.5	695.7
12.5°	738.7	740.3	732.0	737.0	722.1	725.5	715.6	720.5	708.9	717.2	699.0
15°	753.5	751.9	748.6	748.6	733.7	740.3	728.8	732.0	720.5	730.4	710.5
17.5°	766.8	765.1	760.2	758.5	748.6	750.2	738.7	745.3	732.0	740.3	720.5
20°	781.6	773.4	771.7	770.1	758.5	758.5	750.2	753.5	740.3	750.2	727.1
22.5°	793.2	786.5	784.9	778.4	770.1	773.4	761.8	763.4	750.2	760.2	740.3
25°	811.4	803.1	803.1	793.2	788.3	786.5	780.0	784.9	771.7	778.4	760.2
27.5°	836.2	818.0	824.6	814.7	811.4	809.8	806.4	809.8	799.8	804.8	786.5
30°	859.3	836.2	846.1	832.9	839.4	832.9	837.8	832.9	832.9	832.9	824.6
32.5°	890.7	862.6	882.4	862.6	875.9	865.9	882.4	872.5	879.1	877.5	874.2
35°	935.3	902.2	930.4	903.9	927.0	913.8	936.9	932.0	945.2	938.7	945.2
37.5°	994.8	960.1	993.2	968.3	996.5	976.6	1009.7	1006.4	1034.4	1024.6	1034.4
40°	1069.2	1044.3	1069.2	1051.0	1080.7	1072.5	1107.1	1108.8	1140.2	1135.3	1146.8
42.5°	1151.7	1133.6	1158.4	1148.5	1178.2	1184.8	1224.5	1234.4	1264.2	1272.4	1274.1
45°	1241.0	1237.7	1257.5	1267.4	1297.2	1317.0	1351.7	1376.5	1409.5	1427.7	1424.5
47.5°	1345.1	1358.4	1371.6	1396.3	1422.8	1464.1	1498.8	1530.2	1568.2	1579.7	1584.8
50°	1462.4	1485.6	1497.2	1531.9	1558.3	1609.5	1657.5	1697.1	1738.4	1733.5	1736.8
52.5°	1586.4	1616.2	1632.6	1674.0	1708.6	1768.2	1809.5	1847.4	1898.7	1885.5	1880.5
55°	1723.6	1768.2	1781.4	1827.6	1857.4	1918.5	1954.9	2020.9	2042.4	2029.2	2001.2
57.5°	1868.9	1921.8	1936.8	1999.5	2014.4	2080.5	2111.9	2156.5	2174.7	2153.2	2116.8
60°	2034.2	2082.1	2093.7	2149.9	2169.7	2230.9	2254.0	2293.7	2306.9	2254.0	2202.7
62.5°	2199.4	2249.1	2255.6	2305.2	2325.1	2378.0	2404.3	2427.5	2420.9	2343.3	2278.8
65°	2387.9	2435.7	2452.3	2501.8	2513.4	2553.1	2574.6	2548.2	2533.2	2415.9	2343.3
67.5°	2687.0	2738.1	2744.8	2756.3	2754.7	2734.9	2724.9	2634.1	2567.9	2351.5	2247.4
70°	3080.2	3042.3	2967.9	2882.0	2819.2	2706.7	2640.6	2454.0	2315.1	2072.2	1897.1
72.5°	3151.3	3027.3	2843.9	2696.9	2544.8	2368.0	2225.9	1943.3	1748.3	1493.8	1308.8
74°	2949.7	2748.1	2554.7	2348.2	2173.1	1915.3	1771.4	1414.5	1221.2	963.4	738.7
75°	2706.7	2470.4	2252.3	1989.6	1826.0	1516.9	1381.5	996.5	803.1	571.7	385.0
77.5°	1726.8	1444.3	1236.0	932.0	804.8	555.3	406.5	252.9	186.7	163.6	142.1
80°	775.0	551.9	437.9	302.4	252.9	193.3	163.6	132.2	120.6	105.8	100.8
82.5°	247.9	198.2	188.4	168.6	168.6	135.5	115.7	90.8	82.7	71.1	64.4
85°	107.4	100.8	104.1	95.9	97.5	74.4	59.5	44.6	44.6	31.4	28.1
87.5°	3.3	0.0	1.6	0.0	3.3	0.0	1.6	0.0	1.6	0.0	1.6
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):

	77.5°	80°	85°	90°	95°	100°	102.5°	105°	107.5°	110°	112.5°
0°	722.1	722.1	722.1	722.1	722.1	722.1	722.1	722.1	722.1	722.1	722.1
2.5°	718.8	722.1	720.5	713.9	712.2	707.3	695.7	697.3	690.7	695.7	687.4
5°	712.2	710.5	704.0	695.7	687.4	677.5	669.2	665.9	659.3	656.0	651.1
7.5°	702.3	695.7	684.1	671.0	659.3	646.1	639.5	628.0	624.6	613.1	611.4
10°	699.0	687.4	674.2	657.7	637.8	618.1	616.3	596.6	594.8	576.7	571.7
12.5°	705.6	690.7	674.2	654.4	631.3	603.1	603.1	573.4	571.7	547.0	538.7
15°	718.8	700.6	679.1	656.0	626.3	591.6	589.9	555.3	551.9	522.2	512.3
17.5°	730.4	705.6	685.8	654.4	619.7	580.0	571.7	537.0	530.4	495.7	482.5
20°	738.7	710.5	687.4	651.1	608.1	561.8	550.2	513.9	499.1	464.3	446.2
22.5°	748.6	722.1	690.7	649.5	601.5	547.0	522.2	489.2	467.7	431.3	406.5
25°	763.4	740.3	702.3	654.4	596.6	532.1	499.1	464.3	434.7	398.2	361.9
27.5°	786.5	763.4	718.8	661.0	594.8	517.2	480.9	437.9	401.5	361.9	320.6
30°	819.6	794.8	747.0	679.1	596.6	505.6	461.0	414.8	371.8	325.5	282.5
32.5°	862.6	842.8	783.3	699.0	603.1	495.7	442.8	389.9	337.1	292.5	254.5
35°	922.1	908.9	834.5	737.0	619.7	490.8	424.7	366.8	307.4	262.8	221.5
37.5°	1009.7	991.4	908.9	791.6	646.1	487.4	411.4	338.8	282.5	234.7	200.0
40°	1120.3	1095.6	996.5	857.6	687.4	489.2	399.9	317.3	261.1	209.9	181.8
42.5°	1252.6	1216.2	1103.9	938.7	728.8	492.4	393.3	297.5	244.6	190.1	168.6
45°	1401.3	1360.0	1231.1	1039.4	788.3	500.7	388.3	280.9	229.7	175.1	160.3
47.5°	1546.7	1505.4	1361.6	1140.2	849.4	515.6	391.7	271.0	219.7	166.9	150.4
50°	1688.9	1645.8	1477.3	1231.1	902.2	535.4	404.9	272.6	218.1	163.6	145.5
52.5°	1814.4	1761.5	1576.5	1302.1	940.3	548.6	416.4	277.6	219.7	161.9	143.7
55°	1940.0	1872.3	1655.7	1358.4	963.4	550.2	416.4	279.3	221.5	161.9	142.1
57.5°	2034.2	1956.5	1716.9	1391.4	971.7	542.1	406.5	271.0	211.5	160.3	138.8
60°	2093.7	2011.1	1759.9	1412.9	960.1	507.3	353.6	239.6	186.7	148.7	128.9
62.5°	2143.3	2059.0	1773.1	1376.5	862.6	403.2	276.0	195.0	155.3	132.2	119.0
65°	2154.8	2054.1	1680.6	1216.2	674.2	279.3	200.0	153.6	127.3	117.3	107.4
67.5°	1979.7	1859.0	1412.9	951.9	459.4	191.7	148.7	125.6	109.0	104.1	100.8
70°	1609.5	1477.3	1034.4	623.0	256.1	133.8	114.1	104.1	94.2	94.2	89.2
72.5°	1037.8	900.6	530.4	266.1	130.5	102.5	92.6	89.2	81.0	82.7	77.6
74°	530.4	413.2	216.5	140.5	107.4	90.8	82.7	81.0	72.7	74.4	69.4
75°	269.3	213.2	152.0	117.3	99.1	85.9	76.0	76.0	66.1	67.7	62.8
77.5°	125.6	120.6	104.1	92.6	84.3	72.7	62.8	61.2	51.2	54.5	47.9
80°	87.6	87.6	81.0	77.6	69.4	59.5	47.9	47.9	38.1	39.7	34.7
82.5°	49.6	46.2	46.2	52.9	54.5	44.6	34.7	33.0	28.1	28.1	23.1
85°	21.5	24.8	29.8	36.3	39.7	34.7	24.8	23.1	14.8	14.8	8.3
87.5°	0.0	1.6	1.6	3.3	6.6	6.6	0.0	3.3	0.0	1.6	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°	722.1	722.1	722.1	722.1	722.1	722.1	722.1	722.1	722.1	722.1	722.1
2.5°	690.7	682.5	687.4	679.1	682.5	674.2	677.5	672.6	667.6	661.0	659.3
5°	646.1	639.5	637.8	629.6	631.3	624.6	618.1	609.8	599.9	586.7	581.6
7.5°	596.6	594.8	583.3	578.4	571.7	565.2	553.6	540.3	520.6	502.4	490.8
10°	553.6	548.6	532.1	523.9	513.9	505.6	489.2	471.0	442.8	414.8	399.9
12.5°	517.2	510.7	489.2	479.3	464.3	454.4	434.7	411.4	371.8	332.2	313.9
15°	487.4	477.6	452.8	437.9	418.1	408.2	386.7	353.6	305.8	264.4	239.6
17.5°	452.8	439.6	413.2	395.0	375.1	356.9	335.4	300.7	246.2	208.2	183.4
20°	414.8	398.2	370.2	345.3	323.9	307.4	285.9	251.1	196.6	166.9	153.6
22.5°	375.1	348.7	323.9	302.4	277.6	261.1	239.6	208.2	166.9	150.4	145.5
25°	333.8	304.0	279.3	257.8	234.7	219.7	201.6	176.8	152.0	147.1	147.1
27.5°	292.5	262.8	239.6	218.1	198.2	188.4	171.9	155.3	143.7	145.5	147.1
30°	254.5	224.7	203.3	186.7	168.6	161.9	148.7	138.8	137.2	142.1	143.7
32.5°	221.5	195.0	175.1	161.9	147.1	143.7	132.2	127.3	132.2	138.8	137.2
35°	193.3	171.9	152.0	143.7	130.5	128.9	120.6	117.3	124.0	132.2	132.2
37.5°	171.9	152.0	137.2	130.5	120.6	119.0	112.3	109.0	114.1	125.6	128.9
40°	153.6	142.1	127.3	120.6	114.1	110.7	107.4	104.1	105.8	120.6	122.2
42.5°	142.1	133.8	120.6	117.3	109.0	107.4	102.5	99.1	100.8	112.3	117.3
45°	133.8	127.3	115.7	114.1	105.8	104.1	99.1	95.9	97.5	107.4	112.3
47.5°	127.3	120.6	110.7	107.4	102.5	100.8	97.5	94.2	94.2	104.1	109.0
50°	124.0	117.3	107.4	104.1	99.1	97.5	94.2	90.8	92.6	100.8	104.1
52.5°	122.2	114.1	105.8	100.8	97.5	94.2	90.8	87.6	89.2	97.5	100.8
55°	122.2	112.3	105.8	100.8	95.9	90.8	89.2	84.3	87.6	94.2	99.1
57.5°	122.2	112.3	105.8	100.8	97.5	92.6	89.2	85.9	87.6	94.2	99.1
60°	119.0	110.7	107.4	102.5	100.8	95.9	94.2	90.8	90.8	99.1	107.4
62.5°	114.1	109.0	107.4	104.1	104.1	100.8	100.8	97.5	97.5	107.4	115.7
65°	107.4	104.1	105.8	104.1	104.1	104.1	102.5	102.5	102.5	110.7	120.6
67.5°	100.8	99.1	100.8	100.8	102.5	100.8	102.5	100.8	100.8	109.0	119.0
70°	90.8	90.8	92.6	90.8	92.6	92.6	94.2	94.2	94.2	99.1	109.0
72.5°	79.3	77.6	79.3	77.6	81.0	77.6	81.0	82.7	81.0	82.7	87.6
74°	71.1	69.4	71.1	69.4	72.7	69.4	71.1	71.1	69.4	56.2	47.9
75°	64.4	62.8	64.4	62.8	66.1	62.8	66.1	64.4	61.2	41.3	39.7
77.5°	51.2	46.2	51.2	46.2	49.6	44.6	47.9	41.3	31.4	29.8	29.8
80°	38.1	33.0	36.3	31.4	29.8	23.1	24.8	23.1	21.5	23.1	23.1
82.5°	23.1	16.6	19.8	14.8	18.2	13.2	16.6	14.8	13.2	13.2	13.2
85°	11.6	8.3	11.6	6.6	9.9	6.6	8.3	8.3	4.9	4.9	4.9
87.5°	1.6	0.0	3.3	0.0	3.3	0.0	1.6	1.6	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°	722.1	722.1
2.5°	654.4	656.0
5°	573.4	578.4
7.5°	484.2	487.4
10°	389.9	393.3
12.5°	300.7	304.0
15°	226.4	223.1
17.5°	173.5	170.2
20°	147.1	147.1
22.5°	143.7	142.1
25°	145.5	143.7
27.5°	145.5	143.7
30°	142.1	140.5
32.5°	137.2	135.5
35°	132.2	132.2
37.5°	128.9	130.5
40°	124.0	125.6
42.5°	119.0	120.6
45°	114.1	115.7
47.5°	109.0	109.0
50°	102.5	102.5
52.5°	100.8	100.8
55°	100.8	100.8
57.5°	104.1	104.1
60°	114.1	115.7
62.5°	133.8	135.5
65°	153.6	157.0
67.5°	155.3	160.3
70°	150.4	155.3
72.5°	104.1	104.1
74°	46.2	44.6
75°	39.7	38.1
77.5°	29.8	29.8
80°	21.5	19.8
82.5°	11.6	11.6
85°	3.3	3.3
87.5°	0.0	0.0
90°	0.0	0.0

(END OF REPORT)