

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: P228351

Luminaire Tested: **ISS-AF-600-LED-E1-SL4-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P228351
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-SL4-8030
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV W/SPILL CONTROL
Light Source: (16) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2820 lumens
Efficiency: N/A
Efficacy: 83.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B0 - U0 - G1

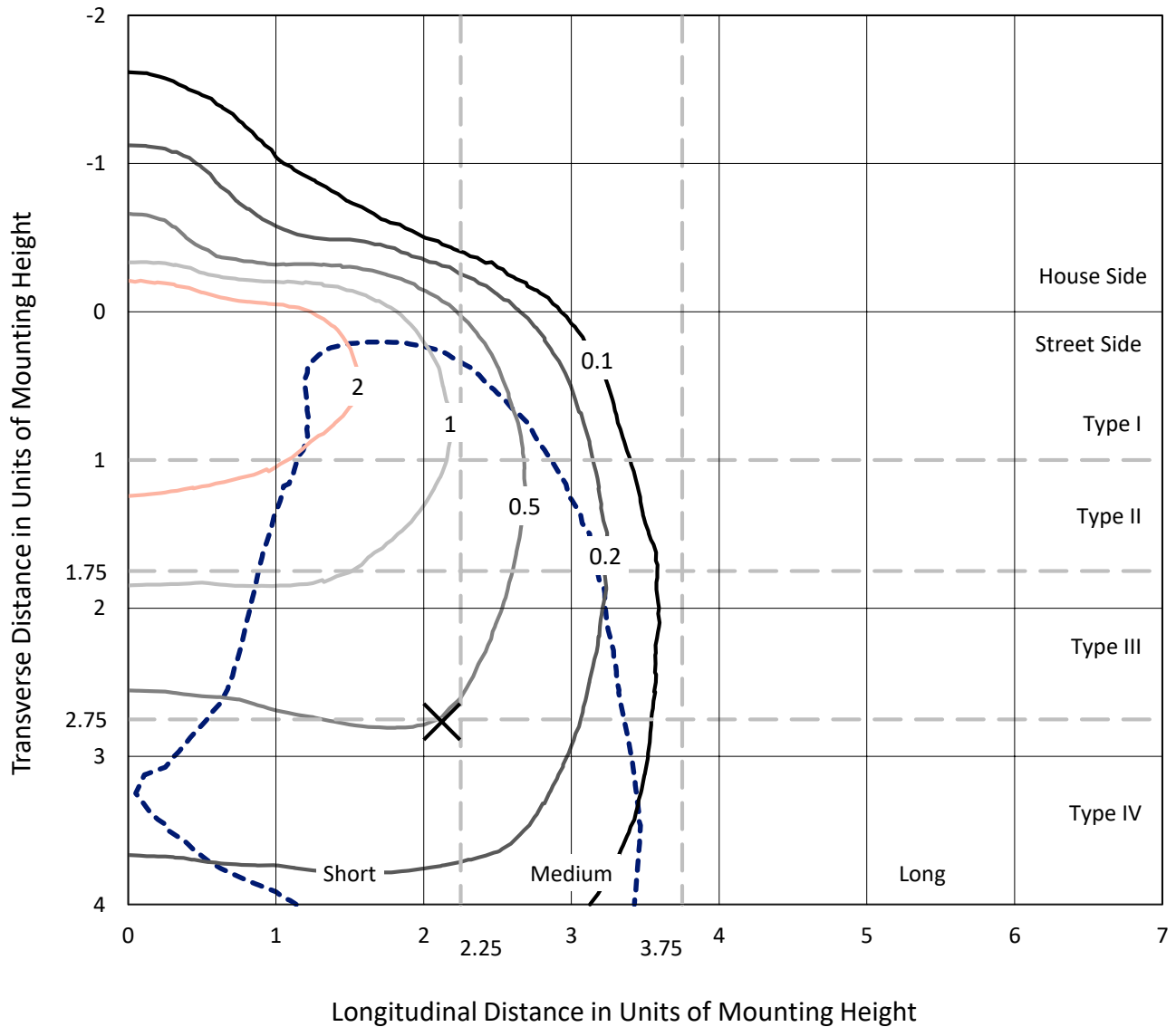
Input Watts (W): 33.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

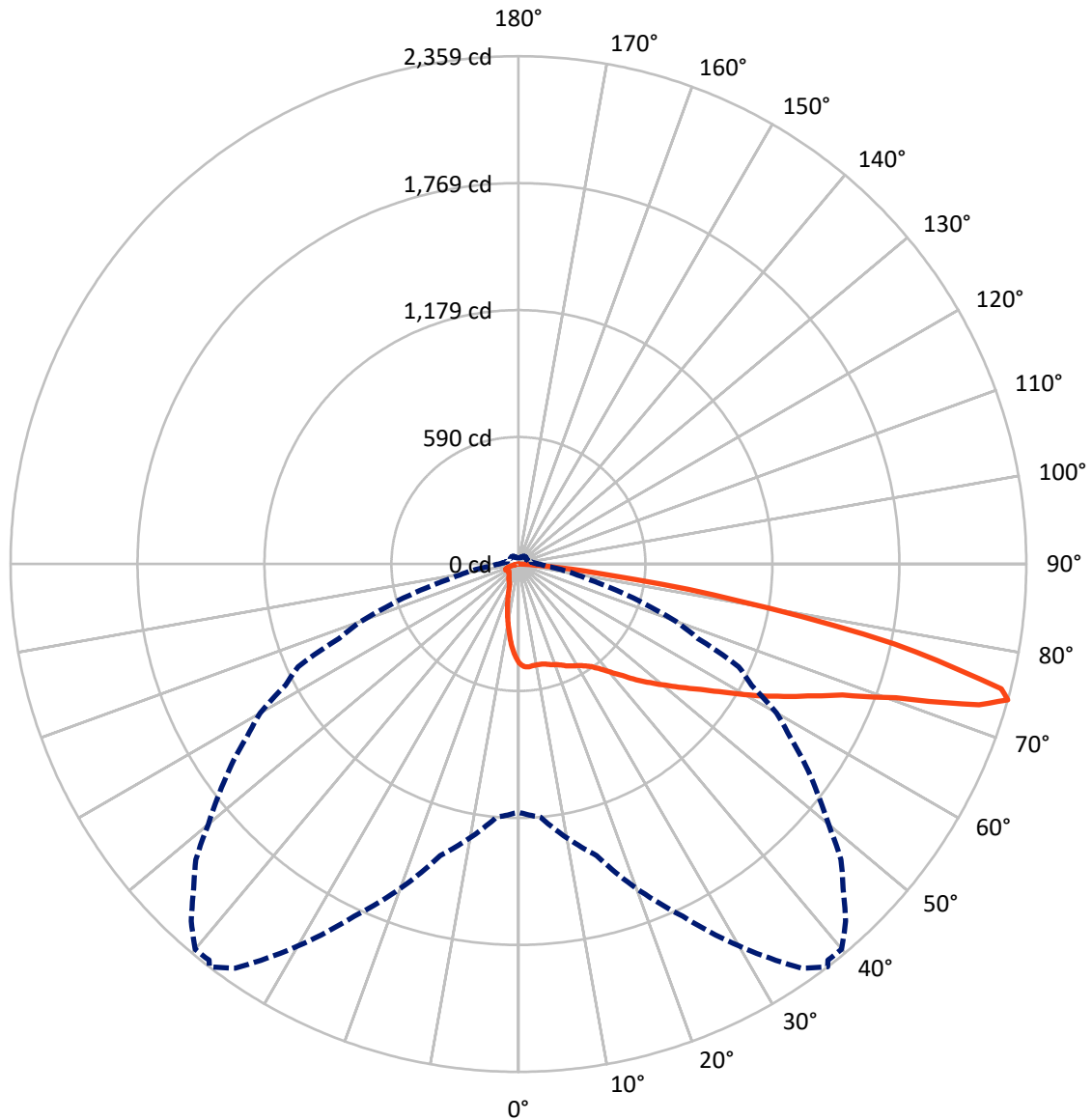
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.8 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	334.4	0.0	334.4
	% Fixture	11.9	0.0	11.9
Street Side	Lumens	2485.6	0.0	2485.6
	% Fixture	88.1	0.0	88.1
Total	Lumens	2820.0	0.0	2820.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.1	1.4
10°-20°	102.1	3.6
20°-30°	158.2	5.6
30°-40°	234.6	8.3
40°-50°	360.9	12.8
50°-60°	533.4	18.9
60°-70°	711.0	25.2
70°-80°	613.8	21.8
80°-90°	66.0	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°	2820.0	100.0
0°-180°	2820.0	100.0



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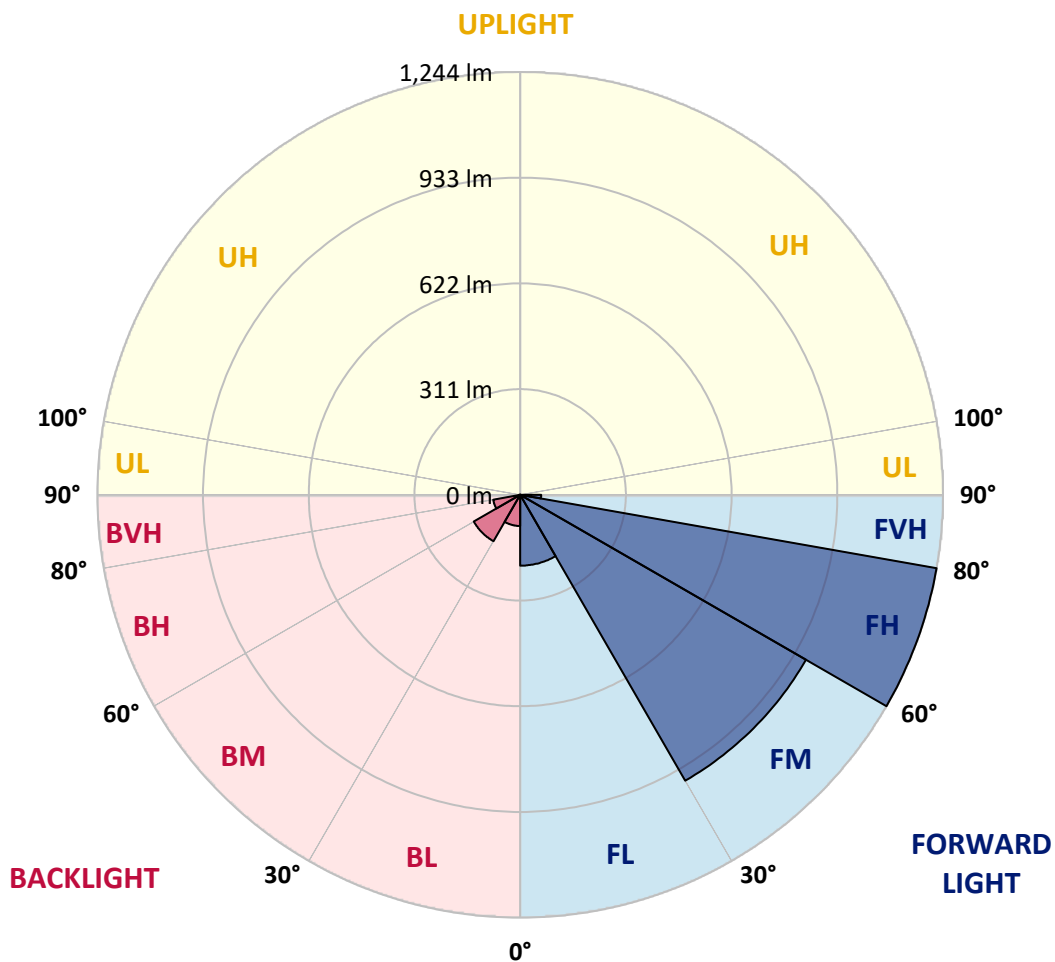
CATALOG NUMBER: ISS-AF-600-LED-E1-SL4-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	208.5	7.4			
FM	(30°-60°)	971.3	34.4			
FH	(60°-80°)	1244.2	44.1			G1/1800
FVH	(80°-90°)	61.7	2.2			G1/100
BL	(0°-30°)	91.8	3.3	B0/110		
BM	(30°-60°)	157.6	5.6	B0/220		
BH	(60°-80°)	80.6	2.9	B0/110		G0/110
BVH	(80°-90°)	4.3	0.2			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-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°	460.2	460.2	460.2	460.2	460.2	460.2	460.2	460.2	460.2	460.2	460.2
2.5°	486.5	485.5	483.3	482.3	480.2	477.0	480.2	476.0	473.9	476.0	471.8
5°	494.9	493.9	491.8	487.6	485.5	480.2	483.3	478.1	477.0	479.1	473.9
7.5°	496.0	493.9	490.7	485.5	483.3	477.0	479.1	472.8	470.7	472.8	469.7
10°	492.8	491.8	488.6	480.2	478.1	476.0	474.9	470.7	469.7	468.6	467.6
12.5°	487.6	487.6	485.5	482.3	481.2	477.0	478.1	473.9	474.9	472.8	470.7
15°	485.5	484.4	486.5	488.6	488.6	482.3	486.5	483.3	481.2	482.3	479.1
17.5°	483.3	484.4	491.8	496.0	498.1	491.8	498.1	491.8	487.6	492.8	487.6
20°	482.3	485.5	498.1	507.6	508.6	498.1	508.6	498.1	498.1	504.4	494.9
22.5°	487.6	492.8	510.7	521.3	523.4	509.7	522.3	508.6	508.6	513.9	504.4
25°	504.4	509.7	529.7	541.3	539.2	524.4	536.0	522.3	521.3	527.6	514.9
27.5°	526.5	533.9	552.8	563.4	556.0	536.0	552.8	532.8	532.8	542.3	525.5
30°	558.1	563.4	580.2	581.3	571.8	547.6	566.5	544.4	541.3	558.1	537.1
32.5°	592.9	597.1	609.7	602.3	588.7	563.4	585.5	559.2	558.1	576.0	551.8
35°	629.7	633.9	638.1	625.5	612.9	585.5	609.7	583.4	582.3	602.3	579.2
37.5°	667.6	667.6	667.6	652.9	644.5	618.1	640.2	619.2	617.1	638.1	616.0
40°	698.2	700.3	697.1	683.4	679.2	660.3	679.2	660.3	663.4	682.4	664.5
42.5°	723.4	725.5	726.6	715.0	719.2	708.7	723.4	709.8	710.8	731.9	721.3
45°	748.7	747.7	756.1	752.9	765.6	766.6	775.0	769.8	771.9	787.7	784.5
47.5°	775.0	769.8	779.3	792.9	816.1	823.5	828.7	830.9	839.3	846.6	854.0
50°	800.3	795.0	801.4	831.9	868.8	884.6	885.6	896.1	905.6	916.1	930.9
52.5°	826.6	822.4	828.7	871.9	930.9	953.0	949.8	967.7	981.4	993.0	1017.2
55°	854.0	849.8	856.1	920.4	997.2	1027.8	1024.6	1049.9	1076.2	1080.4	1107.8
57.5°	880.3	875.1	893.0	977.2	1076.2	1122.5	1107.8	1146.8	1172.0	1169.9	1207.8
60°	908.8	904.6	933.0	1046.7	1175.2	1235.2	1213.1	1264.7	1282.6	1275.2	1311.0
62.5°	936.2	935.1	982.5	1127.8	1295.2	1353.2	1333.2	1378.4	1391.1	1381.6	1399.5
65°	961.4	967.7	1036.2	1208.9	1411.1	1477.4	1450.0	1495.3	1510.1	1502.7	1533.2
67.5°	1003.5	1010.9	1102.5	1312.1	1554.3	1622.7	1599.6	1647.0	1669.1	1667.0	1700.7
70°	1065.7	1079.4	1200.5	1458.5	1772.3	1859.7	1847.0	1905.0	1958.7	1954.4	1988.1
72.5°	1174.1	1196.3	1361.6	1685.9	2130.3	2236.7	2221.9	2254.6	2245.1	2168.2	2106.1
74°	1153.1	1180.5	1401.6	1804.9	2291.4	2358.8	2334.6	2335.6	2249.3	2132.4	2032.4
75°	1076.2	1104.6	1343.7	1790.2	2279.8	2316.7	2281.9	2238.8	2134.5	2015.5	1892.3
77.5°	738.2	775.0	987.8	1445.8	1835.5	1784.9	1776.5	1694.3	1556.4	1422.7	1264.7
80°	378.0	404.4	510.7	756.1	1088.8	1038.3	1055.1	988.8	874.0	777.1	616.0
82.5°	90.6	96.9	150.6	292.7	471.8	431.7	438.1	387.5	321.2	262.2	203.2
85°	47.4	53.7	73.7	81.1	124.3	128.5	125.3	121.1	99.0	83.2	72.7
87.5°	0.0	0.0	0.0	2.1	1.1	0.0	1.1	0.0	0.0	1.1	2.1
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):

	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°
0°	460.2	460.2	460.2	460.2	460.2	460.2	460.2	460.2	460.2	460.2	460.2
2.5°	474.9	472.8	474.9	468.6	471.8	466.5	468.6	463.3	465.4	461.2	462.3
5°	477.0	471.8	474.9	469.7	470.7	466.5	465.4	463.3	462.3	459.1	457.0
7.5°	471.8	467.6	466.5	464.4	461.2	462.3	458.1	457.0	453.9	453.9	447.5
10°	466.5	467.6	461.2	463.3	458.1	459.1	451.8	453.9	448.6	452.8	443.3
12.5°	470.7	471.8	466.5	469.7	460.2	462.3	456.0	459.1	451.8	457.0	445.4
15°	480.2	479.1	477.0	477.0	467.6	471.8	464.4	466.5	459.1	465.4	452.8
17.5°	488.6	487.6	484.4	483.3	477.0	478.1	470.7	474.9	466.5	471.8	459.1
20°	498.1	492.8	491.8	490.7	483.3	483.3	478.1	480.2	471.8	478.1	463.3
22.5°	505.5	501.2	500.2	496.0	490.7	492.8	485.5	486.5	478.1	484.4	471.8
25°	517.0	511.8	511.8	505.5	502.3	501.2	497.0	500.2	491.8	496.0	484.4
27.5°	532.8	521.3	525.5	519.1	517.0	516.0	513.9	516.0	509.7	512.8	501.2
30°	547.6	532.8	539.2	530.7	534.9	530.7	533.9	530.7	530.7	530.7	525.5
32.5°	567.6	549.7	562.3	549.7	558.1	551.8	562.3	556.0	560.2	559.2	557.1
35°	596.0	575.0	592.9	576.0	590.8	582.3	597.1	593.9	602.3	598.1	602.3
37.5°	633.9	611.8	632.9	617.1	635.0	622.3	643.4	641.3	659.2	652.9	659.2
40°	681.3	665.5	681.3	669.7	688.7	683.4	705.5	706.6	726.6	723.4	730.8
42.5°	734.0	722.4	738.2	731.9	750.8	755.0	780.3	786.6	805.6	810.8	811.9
45°	790.8	788.7	801.4	807.7	826.6	839.3	861.4	877.2	898.2	909.8	907.7
47.5°	857.2	865.6	874.0	889.8	906.7	933.0	955.1	975.1	999.3	1006.7	1009.9
50°	931.9	946.7	954.1	976.2	993.0	1025.7	1056.2	1081.5	1107.8	1104.6	1106.7
52.5°	1010.9	1029.9	1040.4	1066.7	1088.8	1126.8	1153.1	1177.3	1209.9	1201.5	1198.4
55°	1098.3	1126.8	1135.2	1164.7	1183.6	1222.6	1245.7	1287.9	1301.6	1293.1	1275.2
57.5°	1191.0	1224.7	1234.2	1274.2	1283.7	1325.8	1345.8	1374.2	1385.8	1372.1	1348.9
60°	1296.3	1326.8	1334.2	1370.0	1382.6	1421.6	1436.3	1461.6	1470.0	1436.3	1403.7
62.5°	1401.6	1433.2	1437.4	1469.0	1481.6	1515.3	1532.2	1546.9	1542.7	1493.2	1452.1
65°	1521.6	1552.2	1562.7	1594.3	1601.7	1627.0	1640.6	1623.8	1614.3	1539.5	1493.2
67.5°	1712.2	1744.9	1749.1	1756.5	1755.4	1742.8	1736.5	1678.5	1636.4	1498.5	1432.1
70°	1962.9	1938.7	1891.3	1836.5	1796.5	1724.9	1682.8	1563.8	1475.3	1320.5	1208.9
72.5°	2008.2	1929.2	1812.3	1718.6	1621.7	1509.0	1418.4	1238.4	1114.1	952.0	834.0
74°	1879.7	1751.2	1628.0	1496.4	1384.8	1220.5	1128.9	901.4	778.2	613.9	470.7
75°	1724.9	1574.3	1435.3	1267.9	1163.6	966.7	880.3	635.0	511.8	364.4	245.4
77.5°	1100.4	920.4	787.7	593.9	512.8	353.8	259.0	161.1	119.0	104.3	90.6
80°	493.9	351.7	279.1	192.7	161.1	123.2	104.3	84.2	76.9	67.4	64.2
82.5°	158.0	126.4	120.0	107.4	107.4	86.3	73.7	57.9	52.7	45.3	41.1
85°	68.4	64.2	66.3	61.1	62.1	47.4	37.9	28.4	28.4	20.0	17.9
87.5°	2.1	0.0	1.1	0.0	2.1	0.0	1.1	0.0	1.1	0.0	1.1
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):

	77.5°	80°	85°	90°	95°	100°	102.5°	105°	107.5°	110°	112.5°
0°	460.2	460.2	460.2	460.2	460.2	460.2	460.2	460.2	460.2	460.2	460.2
2.5°	458.1	460.2	459.1	454.9	453.9	450.7	443.3	444.4	440.2	443.3	438.1
5°	453.9	452.8	448.6	443.3	438.1	431.7	426.5	424.4	420.2	418.1	414.9
7.5°	447.5	443.3	436.0	427.5	420.2	411.7	407.5	400.2	398.0	390.7	389.6
10°	445.4	438.1	429.6	419.1	406.5	393.8	392.8	380.1	379.1	367.5	364.4
12.5°	449.6	440.2	429.6	417.0	402.3	384.4	384.4	365.4	364.4	348.6	343.3
15°	458.1	446.5	432.8	418.1	399.1	377.0	375.9	353.8	351.7	332.8	326.4
17.5°	465.4	449.6	437.0	417.0	394.9	369.6	364.4	342.2	338.0	315.9	307.5
20°	470.7	452.8	438.1	414.9	387.5	358.0	350.7	327.5	318.0	295.9	284.3
22.5°	477.0	460.2	440.2	413.8	383.3	348.6	332.8	311.7	298.0	274.8	259.0
25°	486.5	471.8	447.5	417.0	380.1	339.1	318.0	295.9	277.0	253.8	230.6
27.5°	501.2	486.5	458.1	421.2	379.1	329.6	306.4	279.1	255.9	230.6	204.3
30°	522.3	506.5	476.0	432.8	380.1	322.2	293.8	264.3	236.9	207.4	180.1
32.5°	549.7	537.1	499.1	445.4	384.4	315.9	282.2	248.5	214.8	186.4	162.2
35°	587.6	579.2	531.8	469.7	394.9	312.8	270.6	233.8	195.9	167.4	141.1
37.5°	643.4	631.8	579.2	504.4	411.7	310.6	262.2	215.9	180.1	149.5	127.4
40°	714.0	698.2	635.0	546.5	438.1	311.7	254.8	202.2	166.4	133.7	115.8
42.5°	798.2	775.0	703.4	598.1	464.4	313.8	250.6	189.5	155.9	121.1	107.4
45°	893.0	866.7	784.5	662.4	502.3	319.1	247.5	179.0	146.4	111.6	102.1
47.5°	985.6	959.3	867.7	726.6	541.3	328.5	249.6	172.7	140.1	106.4	95.8
50°	1076.2	1048.8	941.4	784.5	575.0	341.2	258.0	173.8	139.0	104.3	92.7
52.5°	1156.2	1122.5	1004.6	829.8	599.2	349.6	265.4	176.9	140.1	103.2	91.6
55°	1236.3	1193.1	1055.1	865.6	613.9	350.7	265.4	178.0	141.1	103.2	90.6
57.5°	1296.3	1246.8	1094.1	886.7	619.2	345.4	259.0	172.7	134.8	102.1	88.5
60°	1334.2	1281.6	1121.5	900.4	611.8	323.3	225.4	152.7	119.0	94.8	82.1
62.5°	1365.8	1312.1	1129.9	877.2	549.7	256.9	175.9	124.3	99.0	84.2	75.8
65°	1373.2	1308.9	1070.9	775.0	429.6	178.0	127.4	97.9	81.1	74.8	68.4
67.5°	1261.5	1184.7	900.4	606.6	292.7	122.2	94.8	80.0	69.5	66.3	64.2
70°	1025.7	941.4	659.2	397.0	163.2	85.3	72.7	66.3	60.0	60.0	56.9
72.5°	661.3	573.9	338.0	169.5	83.2	65.3	59.0	56.9	51.6	52.7	49.5
74°	338.0	263.3	137.9	89.5	68.4	57.9	52.7	51.6	46.3	47.4	44.2
75°	171.6	135.8	96.9	74.8	63.2	54.8	48.4	48.4	42.1	43.2	40.0
77.5°	80.0	76.9	66.3	59.0	53.7	46.3	40.0	39.0	32.6	34.8	30.5
80°	55.8	55.8	51.6	49.5	44.2	37.9	30.5	30.5	24.2	25.3	22.1
82.5°	31.6	29.5	29.5	33.7	34.8	28.4	22.1	21.1	17.9	17.9	14.7
85°	13.7	15.8	19.0	23.2	25.3	22.1	15.8	14.7	9.5	9.5	5.3
87.5°	0.0	1.1	1.1	2.1	4.2	4.2	0.0	2.1	0.0	1.1	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°	460.2	460.2	460.2	460.2	460.2	460.2	460.2	460.2	460.2	460.2	460.2
2.5°	440.2	434.9	438.1	432.8	434.9	429.6	431.7	428.6	425.4	421.2	420.2
5°	411.7	407.5	406.5	401.2	402.3	398.0	393.8	388.6	382.3	373.8	370.7
7.5°	380.1	379.1	371.7	368.6	364.4	360.1	352.8	344.3	331.7	320.1	312.8
10°	352.8	349.6	339.1	333.8	327.5	322.2	311.7	300.1	282.2	264.3	254.8
12.5°	329.6	325.4	311.7	305.4	295.9	289.6	277.0	262.2	236.9	211.7	200.1
15°	310.6	304.3	288.5	279.1	266.4	260.1	246.4	225.4	194.8	168.5	152.7
17.5°	288.5	280.1	263.3	251.7	239.0	227.5	213.8	191.7	156.9	132.7	116.9
20°	264.3	253.8	235.9	220.1	206.4	195.9	182.2	160.1	125.3	106.4	97.9
22.5°	239.0	222.2	206.4	192.7	176.9	166.4	152.7	132.7	106.4	95.8	92.7
25°	212.7	193.8	178.0	164.3	149.5	140.1	128.5	112.7	96.9	93.7	93.7
27.5°	186.4	167.4	152.7	139.0	126.4	120.0	109.5	99.0	91.6	92.7	93.7
30°	162.2	143.2	129.5	119.0	107.4	103.2	94.8	88.5	87.4	90.6	91.6
32.5°	141.1	124.3	111.6	103.2	93.7	91.6	84.2	81.1	84.2	88.5	87.4
35°	123.2	109.5	96.9	91.6	83.2	82.1	76.9	74.8	79.0	84.2	84.2
37.5°	109.5	96.9	87.4	83.2	76.9	75.8	71.6	69.5	72.7	80.0	82.1
40°	97.9	90.6	81.1	76.9	72.7	70.6	68.4	66.3	67.4	76.9	77.9
42.5°	90.6	85.3	76.9	74.8	69.5	68.4	65.3	63.2	64.2	71.6	74.8
45°	85.3	81.1	73.7	72.7	67.4	66.3	63.2	61.1	62.1	68.4	71.6
47.5°	81.1	76.9	70.6	68.4	65.3	64.2	62.1	60.0	60.0	66.3	69.5
50°	79.0	74.8	68.4	66.3	63.2	62.1	60.0	57.9	59.0	64.2	66.3
52.5°	77.9	72.7	67.4	64.2	62.1	60.0	57.9	55.8	56.9	62.1	64.2
55°	77.9	71.6	67.4	64.2	61.1	57.9	56.9	53.7	55.8	60.0	63.2
57.5°	77.9	71.6	67.4	64.2	62.1	59.0	56.9	54.8	55.8	60.0	63.2
60°	75.8	70.6	68.4	65.3	64.2	61.1	60.0	57.9	57.9	63.2	68.4
62.5°	72.7	69.5	68.4	66.3	66.3	64.2	64.2	62.1	62.1	68.4	73.7
65°	68.4	66.3	67.4	66.3	66.3	66.3	65.3	65.3	65.3	70.6	76.9
67.5°	64.2	63.2	64.2	64.2	65.3	64.2	65.3	64.2	64.2	69.5	75.8
70°	57.9	57.9	59.0	57.9	59.0	59.0	60.0	60.0	60.0	63.2	69.5
72.5°	50.5	49.5	50.5	49.5	51.6	49.5	51.6	52.7	51.6	52.7	55.8
74°	45.3	44.2	45.3	44.2	46.3	44.2	45.3	45.3	44.2	35.8	30.5
75°	41.1	40.0	41.1	40.0	42.1	40.0	42.1	41.1	39.0	26.3	25.3
77.5°	32.6	29.5	32.6	29.5	31.6	28.4	30.5	26.3	20.0	19.0	19.0
80°	24.2	21.1	23.2	20.0	19.0	14.7	15.8	14.7	13.7	14.7	14.7
82.5°	14.7	10.5	12.6	9.5	11.6	8.4	10.5	9.5	8.4	8.4	8.4
85°	7.4	5.3	7.4	4.2	6.3	4.2	5.3	5.3	3.2	3.2	3.2
87.5°	1.1	0.0	2.1	0.0	2.1	0.0	1.1	1.1	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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	175°	180°
0°	460.2	460.2
2.5°	417.0	418.1
5°	365.4	368.6
7.5°	308.5	310.6
10°	248.5	250.6
12.5°	191.7	193.8
15°	144.3	142.2
17.5°	110.6	108.5
20°	93.7	93.7
22.5°	91.6	90.6
25°	92.7	91.6
27.5°	92.7	91.6
30°	90.6	89.5
32.5°	87.4	86.3
35°	84.2	84.2
37.5°	82.1	83.2
40°	79.0	80.0
42.5°	75.8	76.9
45°	72.7	73.7
47.5°	69.5	69.5
50°	65.3	65.3
52.5°	64.2	64.2
55°	64.2	64.2
57.5°	66.3	66.3
60°	72.7	73.7
62.5°	85.3	86.3
65°	97.9	100.0
67.5°	99.0	102.1
70°	95.8	99.0
72.5°	66.3	66.3
74°	29.5	28.4
75°	25.3	24.2
77.5°	19.0	19.0
80°	13.7	12.6
82.5°	7.4	7.4
85°	2.1	2.1
87.5°	0.0	0.0
90°	0.0	0.0

(END OF REPORT)