

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: P227724

Luminaire Tested: **ISS-AF-1000-LED-E1-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227724
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29759)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISS-AF-1000-LED-E1-T3-7030
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-TYPE III
Light Source: (16) 3000K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5116 lumens
Efficiency: N/A
Efficacy: 93.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G2

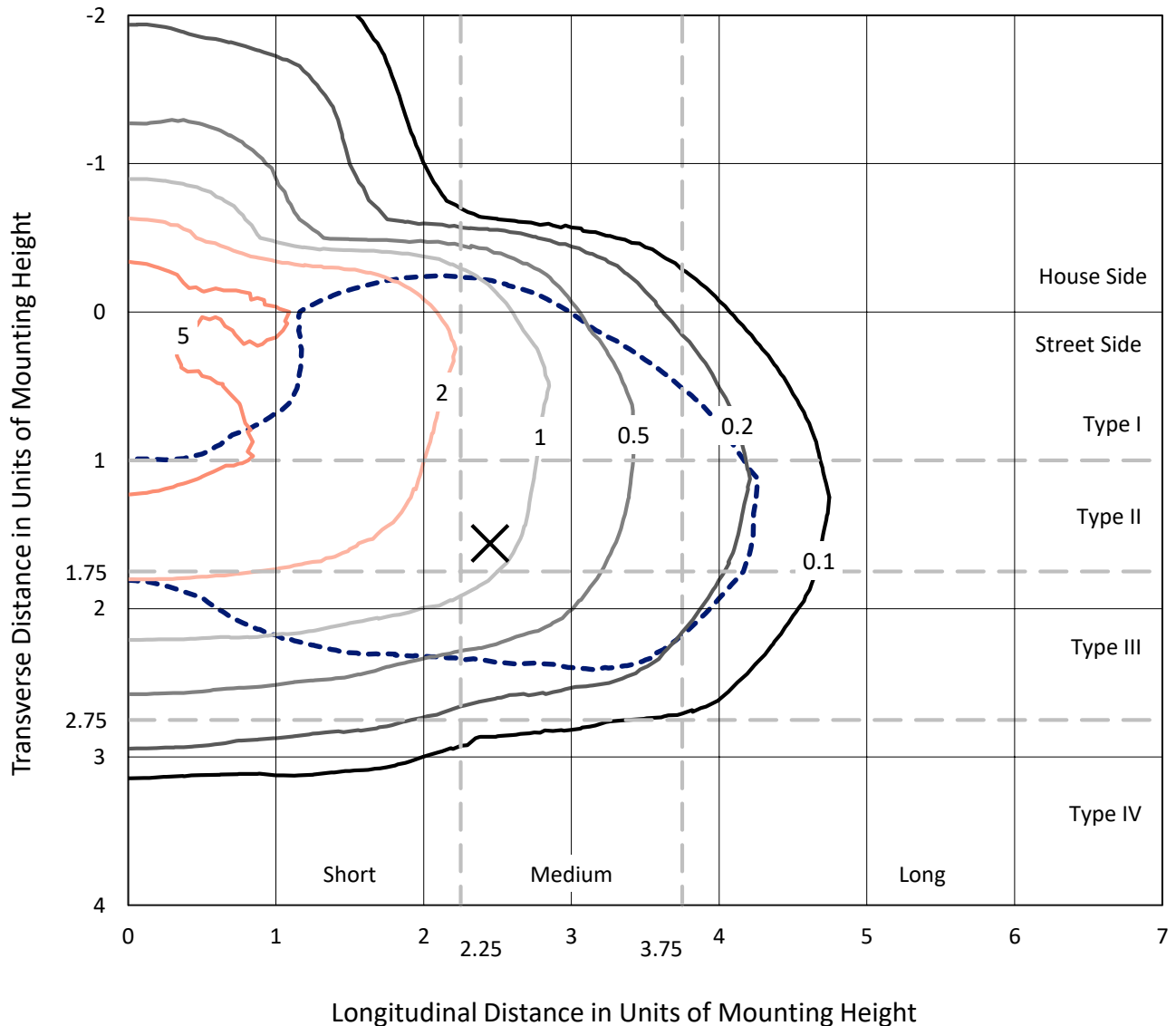
Input Watts (W): 54.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

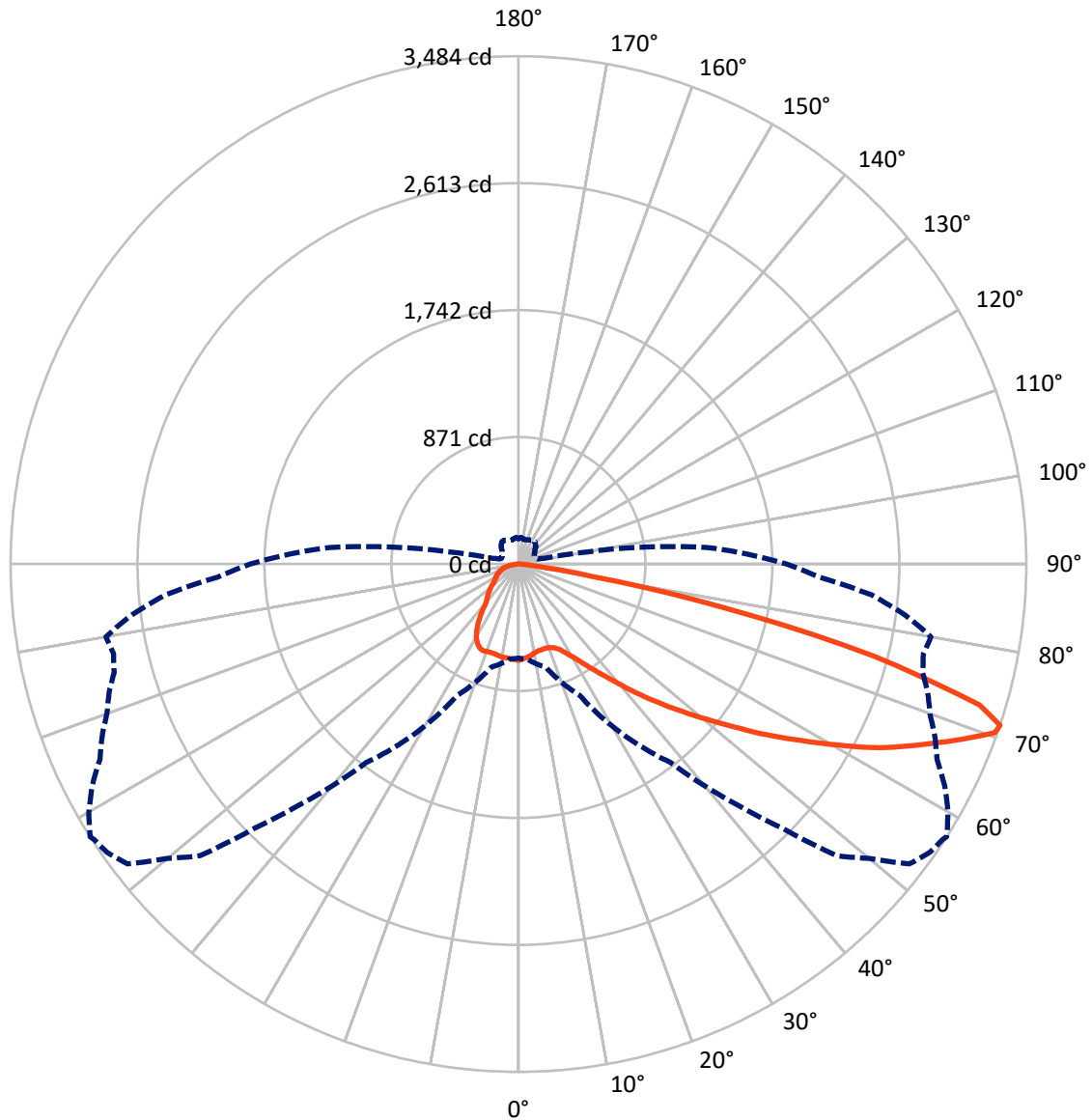
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.7 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 57.5-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1113.8	0.0	1113.8
	% Fixture	21.8	0.0	21.8
Street Side	Lumens	4002.2	0.0	4002.2
	% Fixture	78.2	0.0	78.2
Total	Lumens	5116.0	0.0	5116.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.2	1.2
10°-20°	179.2	3.5
20°-30°	297.5	5.8
30°-40°	473.6	9.3
40°-50°	769.5	15.0
50°-60°	1153.7	22.6
60°-70°	1376.4	26.9
70°-80°	743.4	14.5
80°-90°	60.5	1.2
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°	5116.0	100.0
0°-180°	5116.0	100.0



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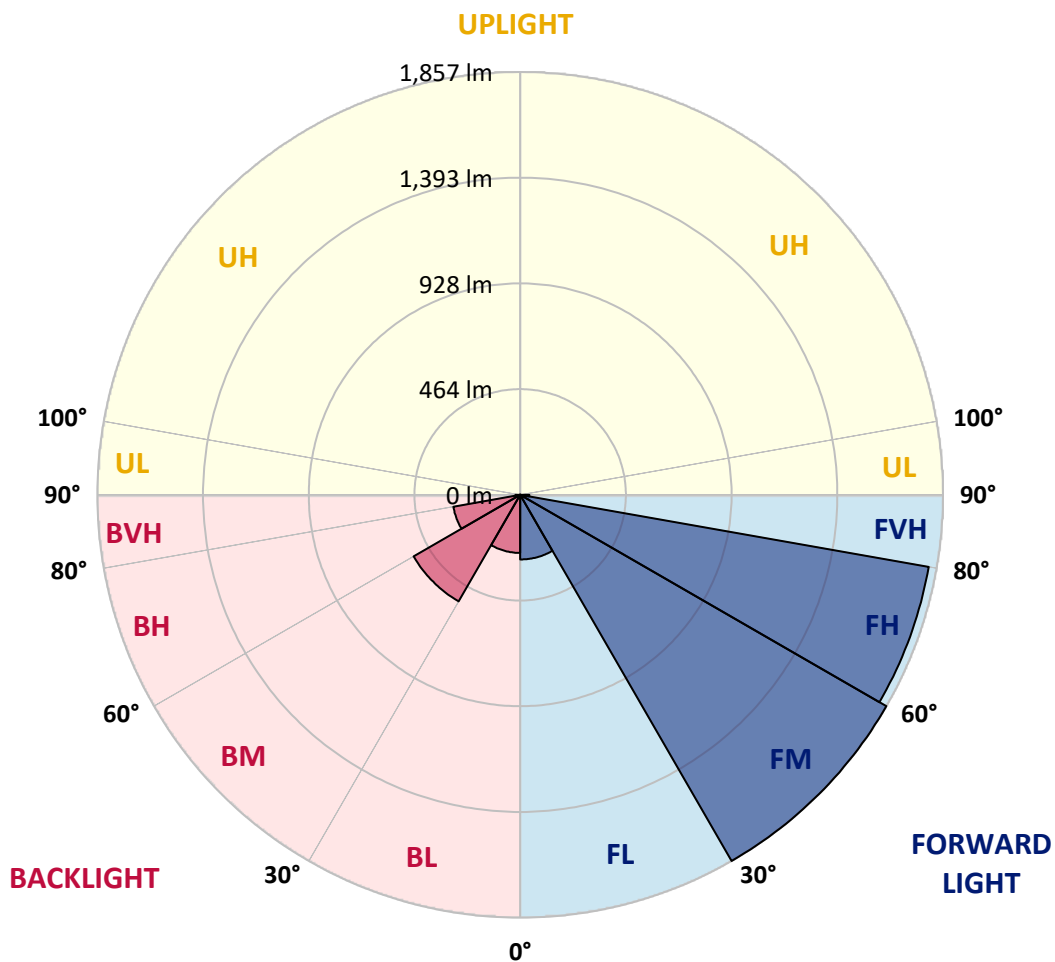
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	283.8	5.5			
FM	(30°-60°)	1856.8	36.3			
FH	(60°-80°)	1821.8	35.6			G2/5000
FVH	(80°-90°)	39.9	0.8			G1/100
BL	(0°-30°)	255.1	5.0	B1/500		
BM	(30°-60°)	540.1	10.6	B1/1000		
BH	(60°-80°)	297.9	5.8	B1/500		G1/500
BVH	(80°-90°)	20.7	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-G2

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°	50°
0°	660.9	660.9	660.9	660.9	660.9	660.9	660.9	660.9	660.9	660.9	660.9
2.5°	660.9	659.2	657.5	657.5	657.5	655.8	650.8	652.5	657.5	654.1	659.2
5°	659.2	655.8	654.1	654.1	654.1	649.1	647.4	645.7	655.8	647.4	654.1
7.5°	640.6	640.6	637.2	640.6	644.0	638.9	635.6	637.2	645.7	637.2	645.7
10°	627.1	623.7	622.0	622.0	625.4	618.7	615.3	618.7	628.8	618.7	630.5
12.5°	622.0	623.7	618.7	618.7	617.0	608.5	608.5	608.5	617.0	608.5	618.7
15°	630.5	628.8	623.7	620.3	615.3	608.5	606.8	608.5	615.3	605.1	617.0
17.5°	642.3	642.3	633.9	625.4	620.3	613.6	613.6	610.2	615.3	608.5	617.0
20°	672.7	667.7	655.8	642.3	628.8	625.4	618.7	618.7	622.0	615.3	620.3
22.5°	725.1	720.1	699.8	674.4	652.5	644.0	640.6	638.9	635.6	632.2	632.2
25°	794.4	786.0	762.3	731.9	694.7	688.0	681.2	676.1	664.3	664.3	655.8
27.5°	868.8	860.4	835.0	801.2	755.6	745.4	737.0	730.2	709.9	709.9	694.7
30°	953.3	943.2	912.8	875.6	823.2	819.8	808.0	797.8	770.8	769.1	748.8
32.5°	1051.4	1037.8	1007.4	958.4	902.6	904.3	885.7	879.0	843.5	845.2	818.1
35°	1162.9	1147.7	1117.3	1053.1	995.6	1000.7	983.8	971.9	928.0	928.0	899.2
37.5°	1281.3	1281.3	1242.4	1168.0	1098.7	1110.5	1090.2	1078.4	1034.5	1041.2	995.6
40°	1413.1	1421.5	1379.3	1294.8	1223.8	1228.9	1213.6	1200.1	1147.7	1159.6	1110.5
42.5°	1551.7	1566.9	1529.7	1441.8	1362.4	1379.3	1353.9	1340.4	1284.6	1310.0	1252.5
45°	1752.8	1756.2	1686.9	1602.4	1536.5	1551.7	1516.2	1511.1	1441.8	1468.9	1411.4
47.5°	1879.6	1871.2	1820.5	1769.8	1730.9	1761.3	1729.2	1720.7	1641.3	1659.9	1578.7
50°	1965.8	1970.9	1932.0	1926.9	1933.7	1991.2	1986.1	1969.2	1874.5	1861.0	1759.6
52.5°	2043.6	2021.6	2014.8	2062.2	2134.9	2202.5	2229.5	2207.5	2104.4	2067.2	1969.2
55°	2030.1	1997.9	2033.4	2148.4	2292.1	2396.9	2400.2	2385.0	2292.1	2276.8	2170.4
57.5°	1938.8	1945.5	2018.2	2182.2	2425.6	2533.8	2552.4	2533.8	2457.7	2471.2	2383.3
60°	1812.0	1825.5	1940.5	2151.8	2532.1	2625.0	2633.5	2655.5	2604.8	2640.3	2579.4
62.5°	1622.7	1641.3	1788.3	2075.7	2457.7	2596.3	2674.1	2724.8	2714.6	2795.8	2763.7
65°	1490.9	1490.9	1634.5	1987.8	2385.0	2567.6	2684.2	2778.9	2792.4	2920.8	2909.0
67.5°	1245.8	1254.2	1377.6	1742.7	2297.1	2503.3	2679.1	2839.7	2920.8	3123.7	3133.8
70°	862.1	868.8	950.0	1244.1	1856.0	2031.7	2290.4	2552.4	2795.8	3101.7	3260.6
71°	645.7	654.1	733.6	992.2	1572.0	1717.4	1986.1	2258.2	2564.2	2961.4	3140.6
72.5°	316.1	321.2	398.9	637.2	1093.6	1279.6	1435.1	1695.4	2019.9	2474.6	2728.2
75°	147.1	148.7	165.7	229.9	417.5	497.0	566.3	733.6	934.7	1333.7	1641.3
77.5°	108.2	108.2	118.3	150.4	216.4	219.7	216.4	221.4	267.1	382.0	574.7
80°	79.4	79.4	86.2	101.4	143.7	143.7	138.6	140.3	135.2	140.3	158.9
82.5°	52.4	52.4	55.8	60.9	87.9	87.9	84.5	84.5	81.1	79.4	86.2
85°	30.4	32.1	33.8	28.7	37.2	35.5	32.1	35.5	33.8	30.4	37.2
87.5°	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	1.7	0.0	1.7
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):

	52.5°	55°	57°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°
0°	660.9	660.9	660.9	660.9	660.9	660.9	660.9	660.9	660.9	660.9	660.9
2.5°	652.5	657.5	657.5	650.8	655.8	650.8	654.1	649.1	654.1	645.7	655.8
5°	647.4	652.5	652.5	642.3	652.5	642.3	650.8	638.9	650.8	637.2	650.8
7.5°	633.9	645.7	645.7	632.2	644.0	633.9	644.0	632.2	642.3	627.1	644.0
10°	618.7	630.5	632.2	618.7	632.2	620.3	635.6	620.3	635.6	618.7	637.2
12.5°	608.5	622.0	625.4	610.2	627.1	611.9	630.5	613.6	630.5	611.9	633.9
15°	606.8	618.7	622.0	608.5	623.7	606.8	628.8	608.5	630.5	610.2	635.6
17.5°	608.5	618.7	622.0	606.8	622.0	608.5	627.1	610.2	630.5	611.9	635.6
20°	613.6	620.3	620.3	611.9	623.7	611.9	627.1	610.2	632.2	615.3	637.2
22.5°	628.8	630.5	630.5	623.7	630.5	622.0	633.9	622.0	637.2	623.7	644.0
25°	654.1	652.5	649.1	647.4	649.1	644.0	650.8	642.3	657.5	645.7	666.0
27.5°	698.1	691.3	688.0	688.0	686.3	688.0	688.0	684.6	691.3	688.0	701.5
30°	752.2	740.4	735.3	740.4	733.6	740.4	738.7	737.0	743.7	740.4	752.2
32.5°	823.2	802.9	799.5	809.7	796.1	808.0	797.8	802.9	808.0	811.3	818.1
35°	906.0	882.3	879.0	889.1	873.9	890.8	879.0	885.7	889.1	897.6	902.6
37.5°	1004.0	975.3	970.2	983.8	963.5	982.1	965.2	985.4	980.4	992.2	997.3
40°	1122.4	1088.6	1076.7	1095.3	1071.7	1086.9	1070.0	1091.9	1086.9	1110.5	1115.6
42.5°	1267.7	1218.7	1206.9	1225.5	1190.0	1195.0	1181.5	1206.9	1203.5	1235.6	1240.7
45°	1418.2	1359.0	1342.1	1360.7	1320.1	1330.3	1310.0	1337.0	1335.3	1360.7	1381.0
47.5°	1585.5	1512.8	1490.9	1511.1	1462.1	1473.9	1453.7	1482.4	1484.1	1512.8	1533.1
50°	1759.6	1683.5	1654.8	1673.4	1627.8	1636.2	1615.9	1651.4	1649.7	1688.6	1703.8
52.5°	1948.9	1871.2	1849.2	1857.6	1803.6	1813.7	1796.8	1840.7	1830.6	1854.3	1884.7
55°	2158.5	2068.9	2043.6	2068.9	2004.7	2018.2	1996.3	2036.8	2019.9	2050.3	2058.8
57.5°	2373.2	2285.3	2265.0	2283.6	2222.8	2232.9	2204.2	2238.0	2224.4	2244.7	2258.2
60°	2601.4	2521.9	2501.7	2521.9	2462.8	2464.5	2415.4	2450.9	2430.7	2456.0	2450.9
62.5°	2819.4	2751.8	2746.7	2775.5	2701.1	2692.7	2633.5	2658.9	2630.1	2647.0	2626.7
65°	3005.4	2966.5	2973.2	2996.9	2931.0	2910.7	2843.1	2856.6	2814.4	2814.4	2789.0
67.5°	3248.8	3206.5	3206.5	3226.8	3144.0	3091.6	2998.6	2986.8	2917.5	2903.9	2844.8
70°	3451.6	3463.4	3449.9	3466.8	3368.8	3262.3	3138.9	3079.7	2988.5	2944.5	2875.2
71°	3378.9	3446.5	3470.2	3483.7	3402.6	3296.1	3167.6	3091.6	3003.7	2944.5	2870.1
72.5°	3049.3	3213.3	3306.2	3306.2	3316.4	3248.8	3125.4	3042.6	2942.8	2865.1	2795.8
75°	2136.5	2403.6	2523.6	2510.1	2598.0	2628.4	2638.6	2603.1	2547.3	2435.7	2386.7
77.5°	951.6	1254.2	1435.1	1436.8	1531.4	1614.2	1680.2	1749.5	1724.1	1670.0	1666.6
80°	216.4	392.2	502.0	507.1	593.3	669.4	715.0	784.3	792.8	715.0	671.1
82.5°	93.0	109.9	125.1	123.4	152.1	182.6	216.4	235.0	226.5	187.6	177.5
85°	38.9	50.7	54.1	50.7	62.5	69.3	81.1	82.8	96.3	86.2	91.3
87.5°	0.0	1.7	1.7	0.0	3.4	0.0	3.4	1.7	8.5	3.4	10.1
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°	82.5°	85°	87.5°	90°	95°	100°	102.5°	105°	107.5°
0°	660.9	660.9	660.9	660.9	660.9	660.9	660.9	660.9	660.9	660.9	660.9
2.5°	649.1	657.5	649.1	657.5	652.5	657.5	655.8	657.5	649.1	657.5	647.4
5°	637.2	650.8	638.9	649.1	638.9	650.8	650.8	650.8	638.9	652.5	640.6
7.5°	627.1	642.3	627.1	642.3	632.2	644.0	644.0	649.1	635.6	650.8	633.9
10°	617.0	635.6	617.0	638.9	622.0	640.6	642.3	645.7	627.1	647.4	630.5
12.5°	611.9	635.6	613.6	635.6	615.3	640.6	642.3	645.7	625.4	650.8	628.8
15°	611.9	637.2	613.6	637.2	615.3	640.6	644.0	647.4	625.4	652.5	628.8
17.5°	611.9	637.2	617.0	638.9	618.7	642.3	645.7	649.1	628.8	652.5	632.2
20°	617.0	640.6	620.3	644.0	623.7	647.4	649.1	654.1	632.2	654.1	635.6
22.5°	628.8	649.1	632.2	654.1	638.9	657.5	659.2	664.3	647.4	666.0	650.8
25°	649.1	671.1	657.5	674.4	666.0	681.2	684.6	684.6	677.8	689.6	684.6
27.5°	691.3	708.2	698.1	713.3	708.2	720.1	720.1	721.8	726.8	730.2	735.3
30°	745.4	757.3	753.9	762.3	764.0	770.8	770.8	780.9	801.2	780.9	779.2
32.5°	818.1	824.9	826.6	829.9	836.7	841.8	848.5	860.4	877.3	829.9	814.7
35°	907.7	909.4	914.5	919.5	931.4	934.7	956.7	948.3	948.3	873.9	841.8
37.5°	1005.7	1005.7	1019.3	1019.3	1048.0	1049.7	1071.7	1027.7	1002.4	906.0	858.7
40°	1129.1	1127.4	1142.6	1146.0	1184.9	1186.6	1183.2	1086.9	1032.8	914.5	850.2
42.5°	1259.3	1264.3	1284.6	1291.4	1320.1	1330.3	1288.0	1127.4	1046.3	909.4	821.5
45°	1401.3	1411.4	1436.8	1455.4	1485.8	1473.9	1372.5	1146.0	1031.1	879.0	765.7
47.5°	1556.8	1566.9	1587.2	1622.7	1636.2	1622.7	1441.8	1152.8	1007.4	831.6	684.6
50°	1714.0	1730.9	1759.6	1810.3	1817.1	1783.3	1526.3	1178.1	988.8	782.6	591.6
52.5°	1891.5	1908.4	1942.2	2026.7	2009.8	1940.5	1626.1	1225.5	993.9	752.2	512.2
55°	2079.1	2102.7	2168.7	2251.5	2214.3	2106.1	1735.9	1294.8	1014.2	720.1	424.3
57.5°	2276.8	2302.2	2388.4	2486.4	2413.8	2268.4	1847.5	1348.9	1024.3	654.1	327.9
60°	2472.9	2508.4	2620.0	2701.1	2587.9	2407.0	1947.2	1384.4	997.3	529.1	253.5
62.5°	2652.1	2709.6	2834.6	2878.6	2697.7	2494.9	2001.3	1359.0	887.4	365.1	204.5
65°	2778.9	2853.2	2934.4	2929.3	2677.4	2466.2	1960.8	1242.4	660.9	241.7	174.1
67.5°	2833.0	2902.3	2920.8	2834.6	2532.1	2339.4	1815.4	1000.7	380.3	180.9	152.1
70°	2853.2	2912.4	2807.6	2599.7	2248.1	2028.4	1484.1	637.2	207.9	147.1	131.8
71°	2844.8	2873.5	2674.1	2430.7	2067.2	1837.4	1301.5	485.1	177.5	136.9	125.1
72.5°	2729.8	2689.3	2381.6	2111.2	1752.8	1519.6	1012.5	305.9	145.4	123.4	116.6
75°	2231.2	2048.7	1752.8	1497.6	1193.4	955.0	549.3	157.2	116.6	106.5	101.4
77.5°	1458.7	1299.8	1056.4	858.7	652.5	495.3	224.8	108.2	93.0	89.6	87.9
80°	520.6	417.5	316.1	277.2	209.6	172.4	109.9	82.8	72.7	74.4	72.7
82.5°	147.1	135.2	116.6	108.2	94.7	93.0	71.0	62.5	57.5	60.9	59.2
85°	72.7	62.5	45.6	43.9	33.8	38.9	35.5	42.3	37.2	38.9	35.5
87.5°	5.1	6.8	1.7	5.1	0.0	5.1	6.8	8.5	1.7	6.8	5.1
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):

	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°
0°	660.9	660.9	660.9	660.9	660.9	660.9	660.9	660.9	660.9	660.9	660.9
2.5°	659.2	652.5	660.9	652.5	660.9	655.8	660.9	655.8	660.9	664.3	664.3
5°	655.8	644.0	659.2	650.8	660.9	652.5	659.2	654.1	662.6	666.0	669.4
7.5°	654.1	642.3	657.5	645.7	660.9	649.1	659.2	652.5	662.6	666.0	672.7
10°	652.5	637.2	657.5	640.6	659.2	647.4	659.2	649.1	660.9	664.3	666.0
12.5°	652.5	635.6	657.5	638.9	659.2	642.3	657.5	642.3	659.2	657.5	652.5
15°	654.1	632.2	657.5	635.6	657.5	637.2	655.8	635.6	652.5	647.4	644.0
17.5°	654.1	632.2	655.8	633.9	654.1	635.6	650.8	632.2	647.4	645.7	640.6
20°	657.5	635.6	655.8	640.6	655.8	637.2	649.1	632.2	644.0	633.9	613.6
22.5°	667.7	652.5	667.7	652.5	659.2	642.3	647.4	627.1	625.4	608.5	576.4
25°	691.3	684.6	681.2	662.6	657.5	635.6	628.8	605.1	596.7	571.3	527.4
27.5°	721.8	706.5	686.3	664.3	642.3	615.3	596.7	578.1	559.5	527.4	471.6
30°	742.0	720.1	677.8	647.4	606.8	584.8	552.7	532.4	505.4	464.8	410.7
32.5°	755.6	721.8	657.5	622.0	567.9	539.2	497.0	475.0	436.1	397.2	358.3
35°	758.9	715.0	630.5	591.6	520.6	488.5	432.7	409.1	371.9	344.8	329.6
37.5°	745.4	691.3	588.2	537.5	459.8	422.6	370.2	353.3	331.3	321.2	314.4
40°	718.4	645.7	522.3	463.1	383.7	355.0	327.9	327.9	316.1	311.0	299.2
42.5°	669.4	578.1	437.8	380.3	326.2	321.2	305.9	312.7	304.3	300.9	284.0
45°	593.3	481.7	353.3	319.5	294.1	297.5	287.4	294.1	289.0	287.4	267.1
47.5°	495.3	383.7	297.5	285.7	268.8	273.8	265.4	273.8	268.8	270.4	255.2
50°	395.5	311.0	263.7	256.9	245.1	248.5	243.4	251.9	250.2	256.9	248.5
52.5°	316.1	265.4	235.0	229.9	223.1	224.8	223.1	231.6	233.3	246.8	246.8
55°	262.0	228.2	211.3	209.6	202.8	204.5	206.2	214.7	221.4	238.3	246.8
57.5°	224.8	204.5	192.7	191.0	187.6	189.3	192.7	202.8	209.6	231.6	250.2
60°	197.8	185.9	177.5	177.5	174.1	177.5	180.9	191.0	199.5	224.8	243.4
62.5°	177.5	169.0	164.0	165.7	164.0	167.3	170.7	180.9	191.0	214.7	233.3
65°	158.9	153.8	150.4	152.1	152.1	157.2	160.6	170.7	179.2	201.1	224.8
67.5°	143.7	140.3	138.6	140.3	142.0	147.1	152.1	158.9	165.7	185.9	213.0
70°	131.8	128.5	128.5	128.5	130.2	135.2	142.0	145.4	152.1	174.1	199.5
71°	125.1	123.4	123.4	123.4	125.1	130.2	136.9	140.3	147.1	169.0	192.7
72.5°	116.6	116.6	118.3	116.6	120.0	121.7	128.5	131.8	140.3	162.3	184.2
75°	103.1	103.1	104.8	104.8	108.2	108.2	113.3	116.6	126.8	145.4	165.7
77.5°	91.3	91.3	94.7	93.0	93.0	89.6	96.3	99.7	108.2	126.8	147.1
80°	77.8	76.1	79.4	74.4	72.7	69.3	74.4	79.4	93.0	104.8	108.2
82.5°	60.9	55.8	57.5	52.4	52.4	49.0	54.1	55.8	64.2	76.1	82.8
85°	37.2	30.4	33.8	28.7	32.1	28.7	30.4	32.1	38.9	47.3	45.6
87.5°	8.5	5.1	6.8	1.7	5.1	0.0	5.1	1.7	5.1	1.7	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):

	155°	165°	175°	180°
0°	660.9	660.9	660.9	660.9
2.5°	667.7	666.0	667.7	666.0
5°	676.1	676.1	677.8	679.5
7.5°	677.8	681.2	684.6	682.9
10°	666.0	662.6	666.0	662.6
12.5°	647.4	644.0	647.4	647.4
15°	645.7	644.0	645.7	645.7
17.5°	633.9	625.4	622.0	620.3
20°	600.1	584.8	581.5	576.4
22.5°	552.7	530.8	524.0	518.9
25°	495.3	464.8	453.0	446.2
27.5°	432.7	402.3	390.5	390.5
30°	383.7	360.0	348.2	348.2
32.5°	348.2	334.7	326.2	327.9
35°	319.5	311.0	305.9	307.6
37.5°	300.9	287.4	275.5	275.5
40°	282.3	265.4	250.2	250.2
42.5°	265.4	248.5	238.3	236.6
45°	248.5	236.6	228.2	226.5
47.5°	240.0	229.9	221.4	219.7
50°	236.6	226.5	214.7	214.7
52.5°	240.0	231.6	209.6	209.6
55°	246.8	241.7	209.6	206.2
57.5°	240.0	231.6	211.3	206.2
60°	224.8	211.3	207.9	204.5
62.5°	214.7	201.1	207.9	206.2
65°	206.2	196.1	211.3	207.9
67.5°	197.8	187.6	211.3	204.5
70°	187.6	177.5	192.7	180.9
71°	182.6	170.7	182.6	172.4
72.5°	174.1	160.6	164.0	157.2
75°	157.2	143.7	140.3	138.6
77.5°	130.2	114.9	109.9	108.2
80°	99.7	89.6	89.6	84.5
82.5°	74.4	65.9	64.2	55.8
85°	38.9	30.4	25.4	25.4
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)