

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: P227815

Luminaire Tested: **ISS-AF-1000-LED-E1-T4FT-ULG**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P227815  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29760)-DOWNLIGHT AND  
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-T4FT-ULG  
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE WITH UPLIGHT  
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV FORWARD THROW, WITH UPLIGHT GLOW  
Light Source: (16) 4000K CCT, 70 CRI LEDs and (1) UPLIGHT LED  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7310.1 lumens  
Efficiency: N/A  
Efficacy: 102.5 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B1 - U5 - G2  
  
Input Watts (W): 71.3  
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

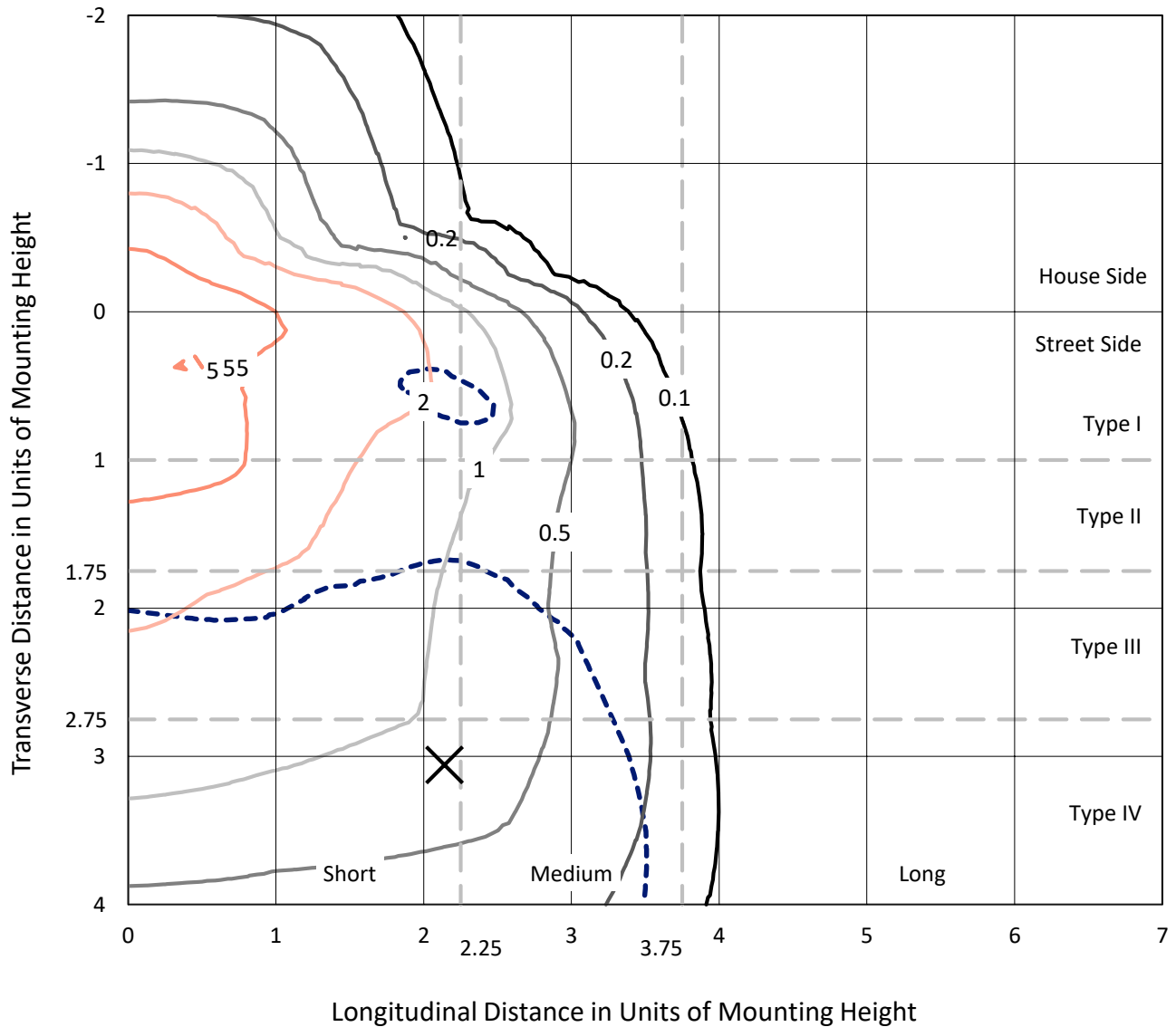


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### Iso-Footcandle Lines of Horizontal Illumination

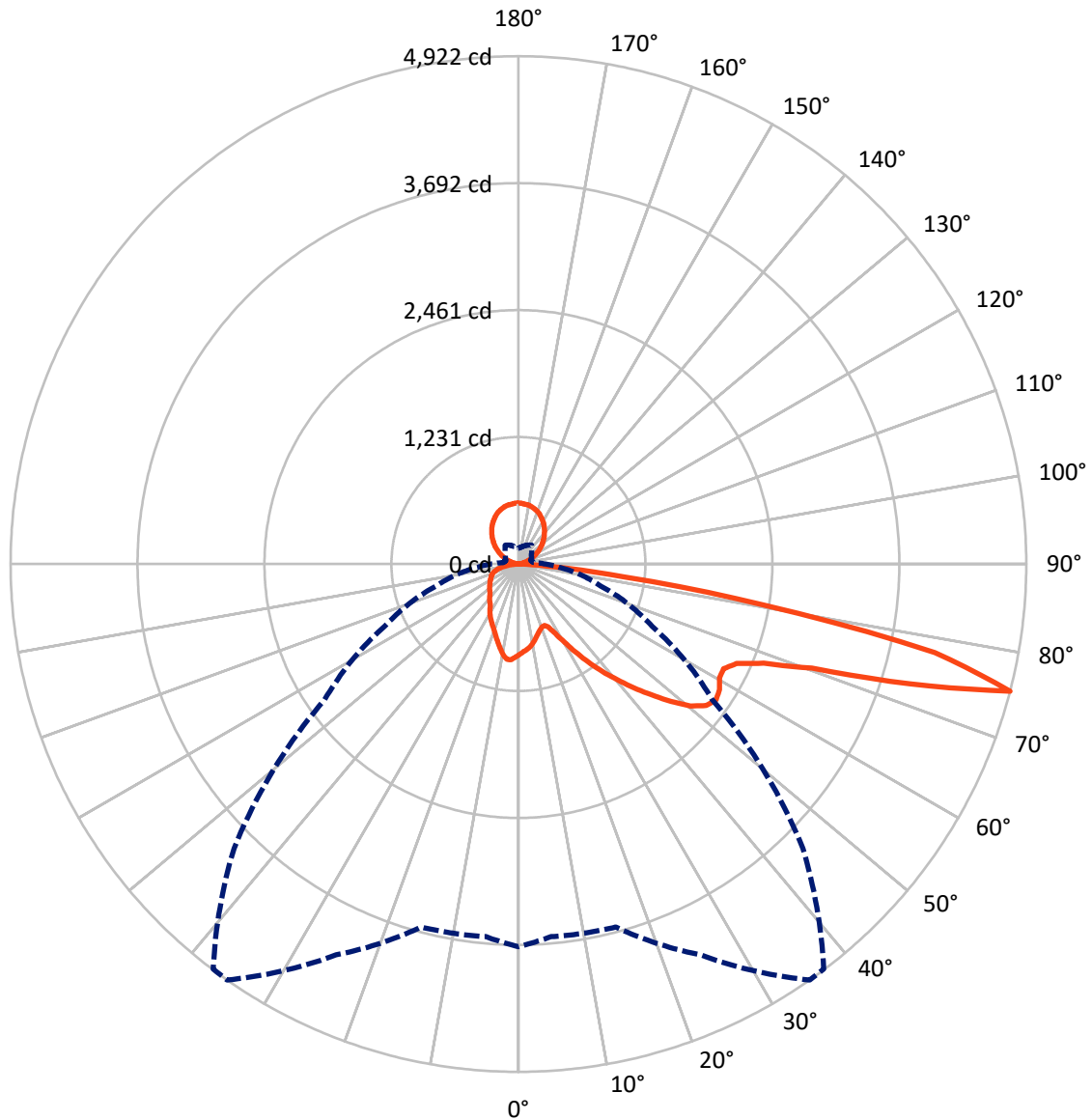
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral    - - - Horizontal Cone Through 75-Deg Vertical

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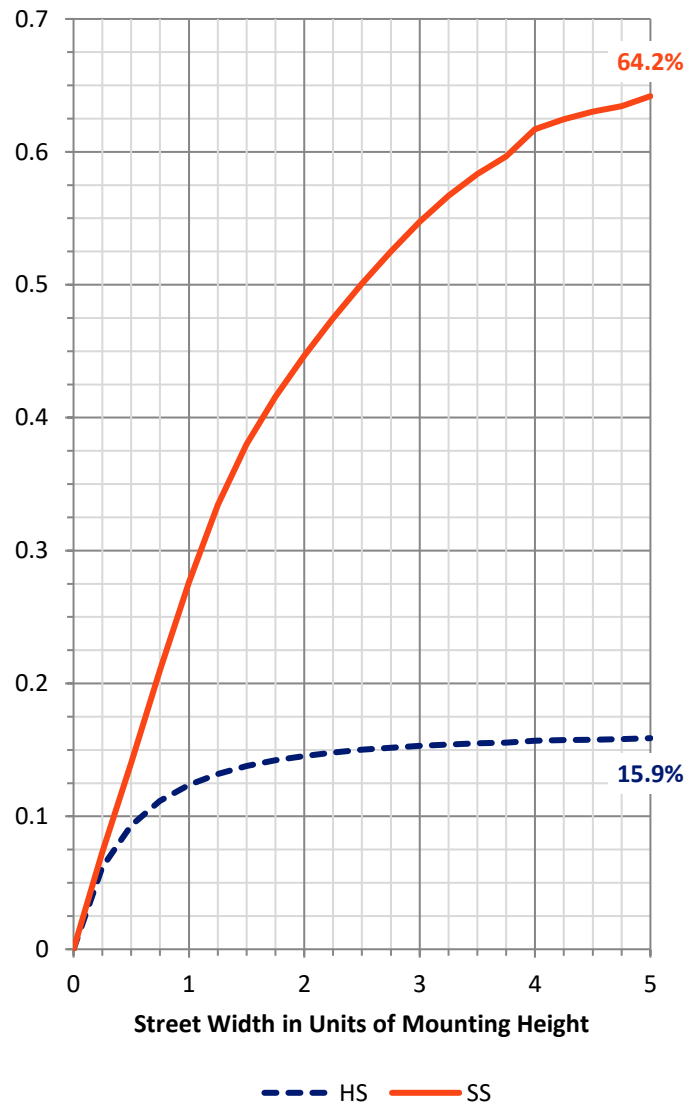
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1174.4	729.4	1903.8
	% Fixture	16.1	10.0	26.0
<b>Street Side</b>	Lumens	4676.9	729.4	5406.3
	% Fixture	64.0	10.0	74.0
<b>Total</b>	Lumens	5851.3	1458.9	7310.1
	% Fixture	80.0	20.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	82.5	1.1
10°-20°	217.8	3.0
20°-30°	344.5	4.7
30°-40°	556.0	7.6
40°-50°	822.6	11.3
50°-60°	1057.7	14.5
60°-70°	1309.6	17.9
70°-80°	1319.7	18.1
80°-90°	140.9	1.9
90°-100°	4.8	0.1
100°-110°	70.6	1.0
110°-120°	156.6	2.1
120°-130°	229.0	3.1
130°-140°	271.7	3.7
140°-150°	275.5	3.8
150°-160°	236.4	3.2
160°-170°	158.7	2.2
170°-180°	55.6	0.8
0°-90°	5851.3	80.0
0°-180°	7310.1	100.0



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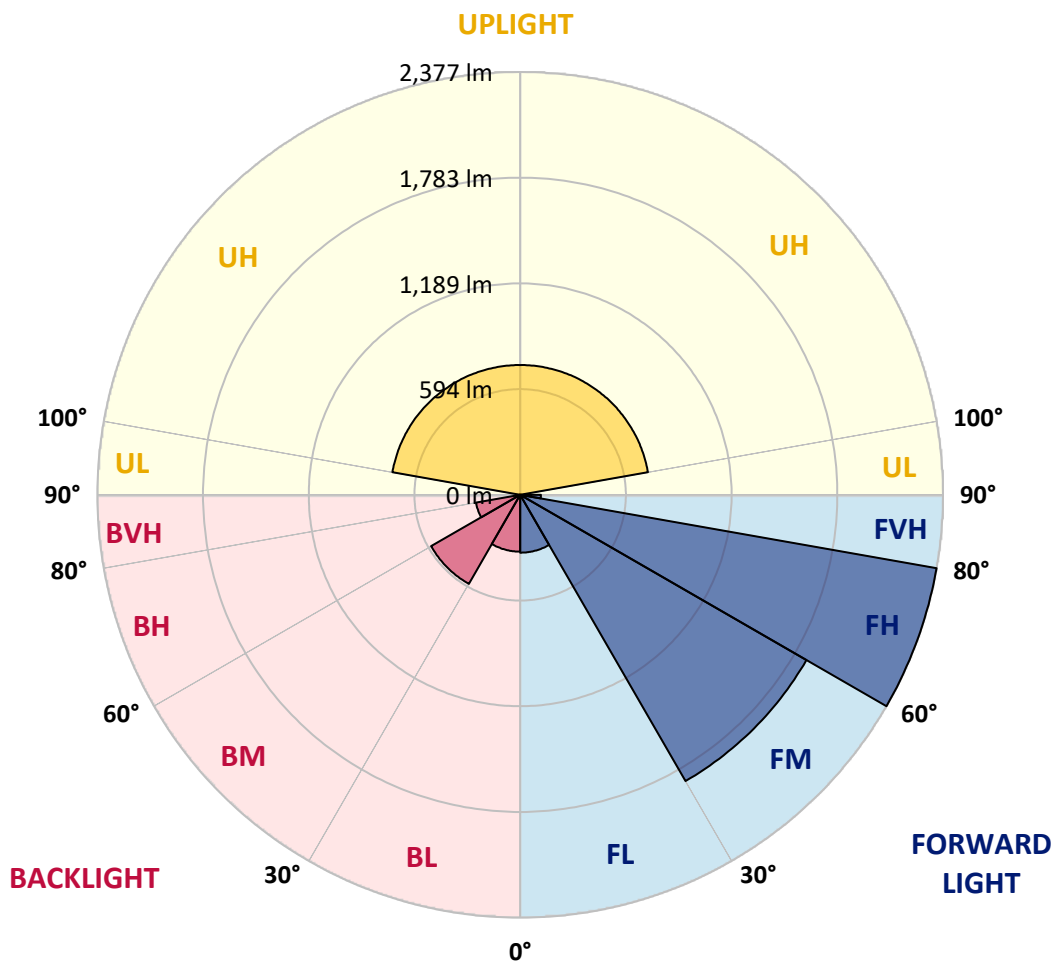
CATALOG NUMBER: ISS-AF-1000-LED-E1-T4FT-ULG

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	325.4	4.5			
FM (30°-60°)	1858.0	25.4			
FH (60°-80°)	2377.0	32.5			G2/5000
FVH (80°-90°)	116.5	1.6			G2/225
BL (0°-30°)	319.4	4.4	B1/500		
BM (30°-60°)	578.3	7.9	B1/1000		
BH (60°-80°)	252.3	3.5	B1/500		G1/500
BVH (80°-90°)	24.4	0.3			G1/100
UL (90°-100°)	4.8	0.1		U1/10	
UH (100°-180°)	729.4	10.0		U4/1000	

**BUG Rating: B1-U5-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	37°	45°	55°	65°	75°	85°
0°	879.0	879.0	879.0	879.0	879.0	879.0	879.0	879.0	879.0	879.0	879.0
2.5°	853.7	851.7	849.7	849.7	853.7	853.7	855.6	857.5	859.5	865.3	873.2
5°	830.2	828.2	826.2	828.2	834.1	834.1	839.9	843.8	847.7	857.5	867.3
7.5°	798.9	798.9	797.0	804.8	810.7	808.6	816.5	820.4	830.2	839.9	855.6
10°	757.9	757.9	757.9	767.6	777.4	777.4	783.3	793.1	800.9	814.6	834.1
12.5°	722.7	720.8	720.8	728.6	740.3	742.3	752.1	765.7	775.5	793.1	814.6
15°	711.1	707.1	697.3	697.3	703.2	703.2	718.8	738.4	754.0	771.6	797.0
17.5°	713.0	707.1	681.7	673.9	673.9	675.9	691.5	713.0	732.5	754.0	787.2
20°	730.6	720.8	673.9	656.3	652.4	654.4	668.1	689.6	713.0	742.3	779.4
22.5°	806.7	791.2	703.2	664.1	646.6	646.6	654.4	677.8	707.1	746.1	793.1
25°	982.5	957.2	800.9	730.6	677.8	672.0	658.3	681.7	716.9	763.7	832.2
27.5°	1162.3	1136.8	922.0	845.8	763.7	746.1	695.4	701.2	740.3	802.8	890.7
30°	1312.7	1291.2	1074.3	986.4	877.1	857.5	779.4	742.3	781.3	857.5	978.7
32.5°	1324.4	1314.6	1238.4	1148.6	1015.8	988.4	884.9	826.2	845.8	931.7	1074.3
35°	1433.8	1426.0	1385.0	1298.9	1166.2	1134.9	1025.5	935.7	929.8	1013.7	1183.8
37.5°	1541.2	1531.5	1504.0	1445.5	1322.5	1297.0	1211.1	1066.5	1025.5	1109.5	1291.2
40°	1642.8	1629.0	1594.0	1560.7	1470.9	1470.9	1379.0	1191.5	1117.4	1193.5	1381.0
42.5°	1830.3	1787.3	1693.6	1668.1	1642.8	1642.8	1508.0	1277.5	1191.5	1285.3	1467.0
45°	2010.0	1969.0	1842.0	1791.2	1804.9	1797.1	1611.6	1326.4	1257.9	1371.3	1549.1
47.5°	2152.6	2115.5	1986.6	1951.4	1990.5	1959.3	1697.5	1365.4	1341.9	1463.0	1617.4
50°	2279.5	2191.7	2066.7	2113.5	2162.3	2109.6	1773.7	1423.9	1426.0	1560.7	1717.0
52.5°	2105.7	2095.9	2123.3	2232.7	2279.5	2220.9	1842.0	1498.2	1515.8	1685.7	1830.3
55°	1896.8	1894.7	2054.9	2267.9	2324.5	2269.8	1886.9	1588.0	1609.6	1840.1	1972.9
57.5°	1855.7	1836.2	1945.6	2193.6	2297.1	2258.1	1910.4	1672.1	1699.4	2035.4	2113.5
60°	1988.5	1951.4	1933.8	2113.5	2238.5	2219.0	1939.7	1771.6	1808.8	2258.1	2244.4
62.5°	2277.6	2226.9	2101.9	2119.3	2232.7	2217.0	2010.0	1888.9	1931.8	2480.8	2318.6
65°	2660.5	2623.4	2424.1	2281.5	2324.5	2303.0	2136.9	2037.3	2060.8	2641.0	2234.6
67.5°	3080.4	3029.7	2812.8	2617.5	2562.8	2521.8	2338.2	2213.2	2129.2	2617.5	2010.0
70°	3555.1	3500.4	3312.9	3111.7	3017.9	2973.0	2689.7	2365.5	2103.8	2359.6	1586.1
72.5°	4139.2	4064.9	3961.4	3982.9	3967.3	3842.2	3250.4	2416.3	1918.2	1756.1	947.4
75°	3709.4	3625.4	3643.0	4180.2	4922.4	4916.6	3898.9	2291.3	1429.9	828.2	410.2
77.5°	1330.2	1470.9	2170.2	3131.3	4127.4	4121.6	3017.9	1433.8	613.4	353.5	248.1
80°	334.0	339.9	539.1	1285.3	2410.5	2390.9	1711.1	541.0	255.8	214.8	169.9
82.5°	107.4	115.3	197.3	443.4	1031.3	1007.9	531.3	177.8	160.2	138.7	103.5
85°	35.2	35.2	70.3	152.3	339.9	326.2	107.4	64.4	87.9	72.3	46.9
87.5°	0.0	0.0	1.9	3.9	7.8	3.9	0.0	3.9	11.8	13.7	9.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
97.5°	2.0	2.0	2.0	3.1	4.1	5.1	9.2	13.3	7.2	5.1	4.1
100°	8.2	8.2	10.2	14.3	22.5	24.1	30.7	32.7	30.7	27.6	26.6
102.5°	28.6	28.6	32.7	38.9	46.0	47.1	51.1	52.2	51.1	49.1	50.1
105°	55.2	55.2	57.3	62.4	67.5	68.3	71.6	72.6	72.6	70.6	72.6
107.5°	79.8	78.8	81.8	85.9	90.0	90.6	93.1	95.1	94.1	93.1	94.1
110°	103.3	104.3	105.4	108.4	112.5	112.9	114.6	116.6	116.6	115.6	116.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	37°	45°	55°	65°	75°	85°
112.5°	126.8	126.8	128.9	132.0	135.0	135.4	137.1	139.1	139.1	138.1	140.1
115°	149.4	150.4	152.4	154.5	157.5	157.9	159.6	161.6	161.6	161.6	163.7
117.5°	172.9	173.9	175.9	178.0	181.1	181.5	183.1	184.1	185.2	184.1	186.2
120°	197.4	199.5	200.5	202.5	205.6	205.8	206.6	208.7	208.7	208.7	210.7
122.5°	224.0	225.0	226.1	228.1	231.2	231.4	232.2	233.2	233.2	234.3	238.3
125°	249.6	251.6	252.7	253.7	256.8	257.0	257.8	258.8	259.8	259.8	262.9
127.5°	273.1	275.2	276.2	278.2	280.3	280.7	282.3	284.4	283.4	284.4	287.4
130°	296.7	298.7	299.7	300.7	304.8	305.0	305.9	307.9	307.9	308.9	312.0
132.5°	320.2	321.2	324.3	325.3	328.4	328.6	329.4	332.5	332.5	333.5	336.6
135°	343.7	344.7	346.8	348.8	352.9	352.9	352.9	356.0	356.0	357.0	359.1
137.5°	367.2	368.3	371.3	372.4	375.4	375.4	375.4	377.5	377.5	378.5	382.6
140°	390.8	391.8	393.8	394.9	396.9	397.1	397.9	399.0	399.0	401.0	405.1
142.5°	413.3	415.3	417.4	416.3	419.4	419.4	419.4	421.5	421.5	422.5	425.5
145°	434.8	435.8	437.8	437.8	440.9	441.1	441.9	444.0	442.9	444.0	447.0
147.5°	454.2	454.2	457.3	458.3	462.4	462.6	463.4	464.4	462.4	463.4	466.5
150°	471.6	472.6	474.6	475.7	479.8	480.0	480.8	481.8	479.8	479.8	483.9
152.5°	490.0	491.0	494.1	493.1	496.1	496.3	497.2	498.2	497.2	497.2	500.2
155°	510.5	511.5	513.5	512.5	514.5	514.5	514.5	515.6	514.5	515.6	518.6
157.5°	524.8	526.8	528.9	527.8	530.9	530.9	530.9	530.9	528.9	529.9	535.0
160°	537.0	539.1	541.1	541.1	544.2	544.2	544.2	544.2	542.2	542.2	545.2
162.5°	547.3	548.3	551.4	550.3	553.4	553.4	553.4	554.4	552.4	550.3	552.4
165°	558.5	559.6	561.6	560.6	564.7	564.7	564.7	565.7	562.6	560.6	562.6
167.5°	567.7	568.8	571.8	570.8	573.9	573.7	572.9	572.9	570.8	571.8	575.9
170°	574.9	575.9	579.0	578.0	580.0	579.8	579.0	578.0	576.9	579.0	584.1
172.5°	578.0	579.0	582.1	580.0	582.1	581.9	581.0	582.1	580.0	581.0	584.1
175°	580.0	582.1	583.1	582.1	585.1	585.1	585.1	586.2	583.1	581.0	584.1
177.5°	585.1	586.2	588.2	587.2	591.3	591.1	590.2	590.2	587.2	587.2	590.2
180°	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2





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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	879.0	879.0	879.0	879.0	879.0	879.0	879.0	879.0	879.0	879.0	879.0
2.5°	879.0	877.1	884.9	890.7	892.7	898.6	904.4	908.3	906.3	904.4	904.4
5°	877.1	879.0	892.7	904.4	914.2	923.9	931.7	935.7	933.7	933.7	933.7
7.5°	865.3	873.2	888.7	908.3	922.0	927.8	929.8	923.9	920.0	914.2	914.2
10°	845.8	857.5	882.9	904.4	910.2	902.4	890.7	879.0	863.4	853.7	853.7
12.5°	830.2	843.8	875.1	892.7	884.9	865.3	839.9	820.4	804.8	793.1	791.2
15°	816.5	834.1	867.3	871.2	853.7	820.4	787.2	765.7	748.1	740.3	740.3
17.5°	806.7	830.2	859.5	847.7	812.6	769.7	738.4	720.8	707.1	699.3	697.3
20°	808.6	838.0	851.7	818.5	767.6	722.7	693.5	683.6	673.9	670.0	670.0
22.5°	830.2	857.5	849.7	793.1	726.6	675.9	656.3	654.4	650.5	646.6	644.6
25°	877.1	896.6	855.6	767.6	683.6	632.9	623.1	629.0	627.1	623.1	623.1
27.5°	941.5	945.4	865.3	742.3	636.8	591.9	591.9	601.6	597.7	591.9	595.8
30°	1019.7	998.2	869.2	701.2	582.1	552.8	558.6	564.6	560.6	552.8	552.8
32.5°	1103.7	1052.8	869.2	648.6	529.4	517.6	519.6	521.5	513.7	504.0	504.0
35°	1185.7	1105.6	859.5	586.0	488.4	482.5	480.5	488.4	482.5	468.8	468.8
37.5°	1263.9	1146.6	834.1	521.5	457.1	455.1	460.9	457.1	449.3	429.7	425.9
40°	1318.5	1173.9	783.3	468.8	431.7	443.4	439.5	418.0	406.3	392.6	392.6
42.5°	1367.4	1187.6	720.8	427.8	414.1	429.7	414.1	386.8	371.1	369.2	371.1
45°	1412.3	1199.4	660.2	394.6	392.6	414.1	394.6	365.3	347.7	347.7	349.6
47.5°	1455.2	1211.1	599.7	363.4	367.2	390.7	378.9	349.6	332.0	320.4	320.4
50°	1523.6	1238.4	511.8	330.1	337.9	371.1	367.2	334.0	314.5	296.9	293.0
52.5°	1605.6	1285.3	416.0	294.9	316.4	353.5	353.5	320.4	298.9	275.4	271.5
55°	1715.1	1336.1	334.0	269.5	294.9	334.0	339.9	314.5	283.3	261.8	257.9
57.5°	1824.4	1353.7	269.5	244.2	267.6	314.5	330.1	302.8	265.7	250.0	248.1
60°	1900.6	1297.0	226.6	222.7	248.1	291.0	316.4	289.1	253.9	238.3	238.3
62.5°	1888.9	1125.1	203.2	209.0	232.4	273.4	304.7	277.4	246.1	236.4	234.4
65°	1722.9	849.7	183.6	197.3	218.8	255.8	293.0	271.5	242.2	232.4	228.5
67.5°	1451.4	564.6	169.9	185.6	205.1	242.2	283.3	263.7	230.5	224.6	220.8
70°	1050.9	330.1	156.3	173.8	191.4	226.6	269.5	248.1	216.9	212.9	203.2
72.5°	568.5	207.0	140.7	158.3	173.8	207.0	248.1	228.5	199.3	183.6	177.8
75°	259.8	150.4	125.0	140.7	152.3	181.7	222.7	201.2	177.8	158.3	154.4
77.5°	173.8	113.3	105.5	121.1	126.9	152.3	197.3	160.2	138.7	125.0	121.1
80°	119.2	84.0	85.9	99.6	97.7	121.1	148.4	128.9	109.4	113.3	103.5
82.5°	76.2	58.6	66.4	70.3	68.3	91.8	115.3	97.7	82.0	68.3	58.6
85°	33.2	31.3	39.1	41.0	41.0	50.7	60.6	48.8	37.1	27.3	27.3
87.5°	1.9	3.9	3.9	5.8	3.9	1.9	0.0	0.0	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
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
97.5°	4.1	4.1	5.1	7.2	13.3	9.2	4.1	3.1	2.0	2.0	2.0
100°	25.6	26.6	27.6	30.7	32.7	30.7	22.5	14.3	10.2	8.2	8.2
102.5°	49.1	50.1	49.1	51.1	52.2	51.1	46.0	38.9	32.7	28.6	28.6
105°	70.6	72.6	70.6	72.6	72.6	71.6	67.5	62.4	57.3	55.2	55.2
107.5°	93.1	94.1	93.1	94.1	95.1	93.1	90.0	85.9	81.8	78.8	79.8
110°	115.6	116.6	115.6	116.6	116.6	114.6	112.5	108.4	105.4	104.3	103.3



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	138.1	140.1	138.1	139.1	139.1	137.1	135.0	132.0	128.9	126.8	126.8
115°	162.6	163.7	161.6	161.6	161.6	159.6	157.5	154.5	152.4	150.4	149.4
117.5°	184.1	186.2	184.1	185.2	184.1	183.1	181.1	178.0	175.9	173.9	172.9
120°	208.7	210.7	208.7	208.7	208.7	206.6	205.6	202.5	200.5	199.5	197.4
122.5°	237.3	238.3	234.3	233.2	233.2	232.2	231.2	228.1	226.1	225.0	224.0
125°	261.9	262.9	259.8	259.8	258.8	257.8	256.8	253.7	252.7	251.6	249.6
127.5°	284.4	287.4	284.4	283.4	284.4	282.3	280.3	278.2	276.2	275.2	273.1
130°	310.0	312.0	308.9	307.9	307.9	305.9	304.8	300.7	299.7	298.7	296.7
132.5°	334.5	336.6	333.5	332.5	332.5	329.4	328.4	325.3	324.3	321.2	320.2
135°	358.0	359.1	357.0	356.0	356.0	352.9	352.9	348.8	346.8	344.7	343.7
137.5°	380.5	382.6	378.5	377.5	377.5	375.4	375.4	372.4	371.3	368.3	367.2
140°	403.0	405.1	401.0	399.0	399.0	397.9	396.9	394.9	393.8	391.8	390.8
142.5°	424.5	425.5	422.5	421.5	421.5	419.4	419.4	416.3	417.4	415.3	413.3
145°	445.0	447.0	444.0	442.9	444.0	441.9	440.9	437.8	437.8	435.8	434.8
147.5°	463.4	466.5	463.4	462.4	464.4	463.4	462.4	458.3	457.3	454.2	454.2
150°	480.8	483.9	479.8	479.8	481.8	480.8	479.8	475.7	474.6	472.6	471.6
152.5°	497.2	500.2	497.2	497.2	498.2	497.2	496.1	493.1	494.1	491.0	490.0
155°	516.6	518.6	515.6	514.5	515.6	514.5	514.5	512.5	513.5	511.5	510.5
157.5°	531.9	535.0	529.9	528.9	530.9	530.9	530.9	527.8	528.9	526.8	524.8
160°	543.2	545.2	542.2	542.2	544.2	544.2	544.2	541.1	541.1	539.1	537.0
162.5°	549.3	552.4	550.3	552.4	554.4	553.4	553.4	550.3	551.4	548.3	547.3
165°	560.6	562.6	560.6	562.6	565.7	564.7	564.7	560.6	561.6	559.6	558.5
167.5°	573.9	575.9	571.8	570.8	572.9	572.9	573.9	570.8	571.8	568.8	567.7
170°	582.1	584.1	579.0	576.9	578.0	579.0	580.0	578.0	579.0	575.9	574.9
172.5°	581.0	584.1	581.0	580.0	582.1	581.0	582.1	580.0	582.1	579.0	578.0
175°	581.0	584.1	581.0	583.1	586.2	585.1	585.1	582.1	583.1	582.1	580.0
177.5°	587.2	590.2	587.2	587.2	590.2	590.2	591.3	587.2	588.2	586.2	585.1
180°	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2

(END OF REPORT)