

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: P226708

Luminaire Tested: **IST-AF-1200-LED-E1-T4W-7050-ULG**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P226708  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35944)-DOWNLIGHT AND  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: IST-AF-1200-LED-E1-T4W-7050-ULG  
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT  
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV WIDE, WITH UPLIGHT GLOW  
Light Source: (16) 5000K CCT, 70 CRI LEDs and (1) UPLIGHT LED  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8635.4 lumens  
Efficiency: N/A  
Efficacy: 104.4 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B1 - U5 - G2  
  
Input Watts (W): 82.7  
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

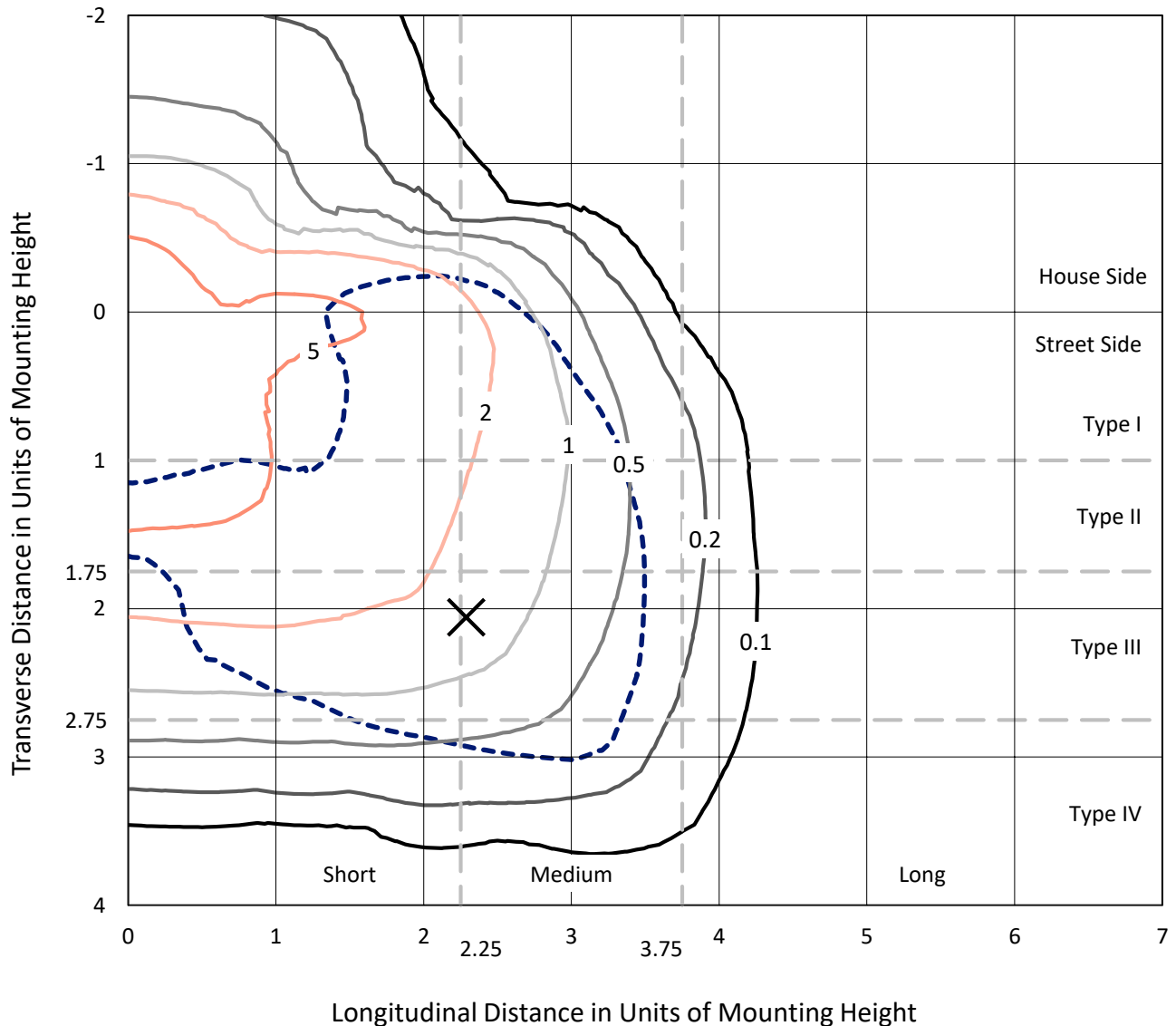


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### Iso-Footcandle Lines of Horizontal Illumination

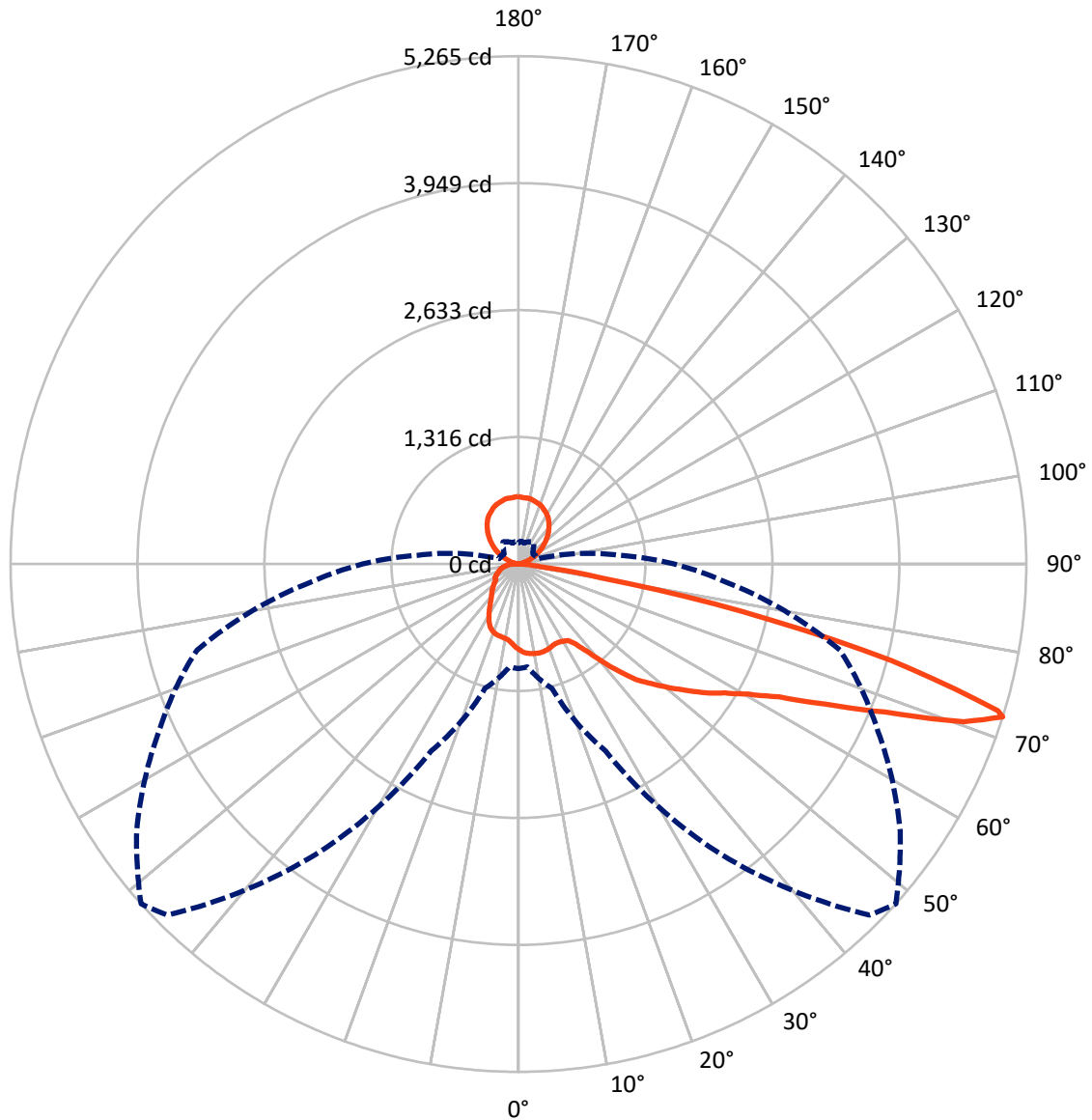
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.9 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 48-Deg Lateral    - - - Horizontal Cone Through 72-Deg Vertical

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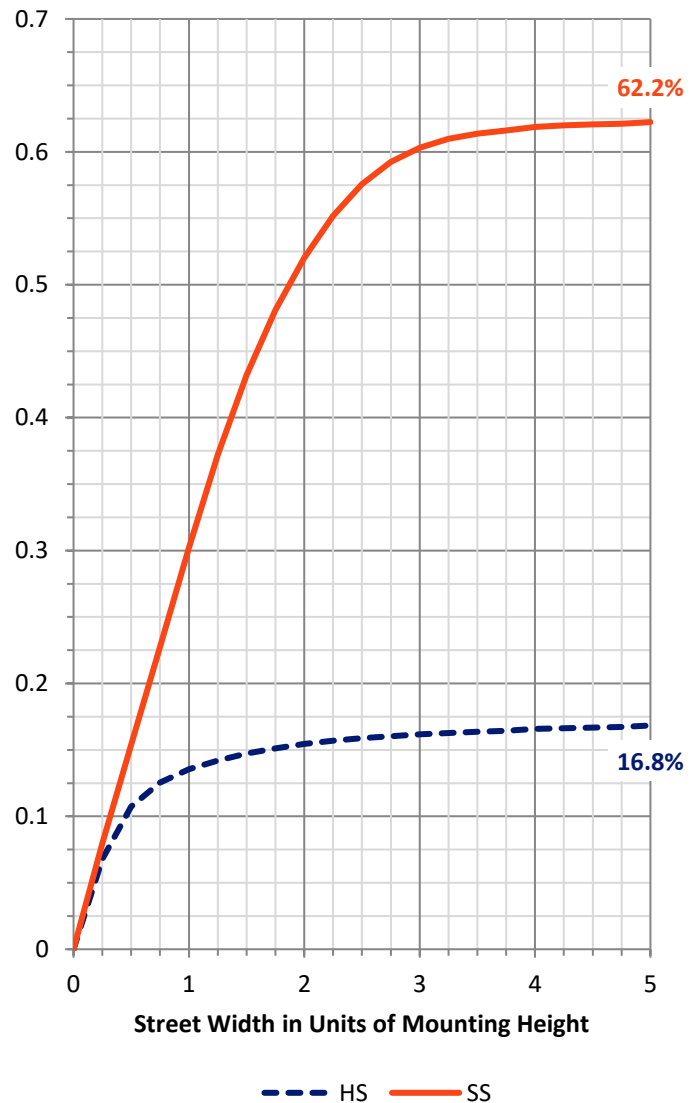
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1499.0	870.7	2369.6
	% Fixture	17.4	10.1	27.4
<b>Street Side</b>	Lumens	5397.1	868.7	6265.7
	% Fixture	62.5	10.1	72.6
<b>Total</b>	Lumens	6896.0	1739.3	8635.4
	% Fixture	79.9	20.1	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.9	1.0
10°-20°	245.2	2.8
20°-30°	378.0	4.4
30°-40°	566.6	6.6
40°-50°	943.5	10.9
50°-60°	1474.5	17.1
60°-70°	1947.6	22.6
70°-80°	1126.6	13.0
80°-90°	130.2	1.5
90°-100°	13.5	0.2
100°-110°	57.4	0.7
110°-120°	166.1	1.9
120°-130°	273.2	3.2
130°-140°	336.8	3.9
140°-150°	344.6	4.0
150°-160°	290.3	3.4
160°-170°	191.2	2.2
170°-180°	66.3	0.8
0°-90°	6896.0	79.9
0°-180°	8635.4	100.0



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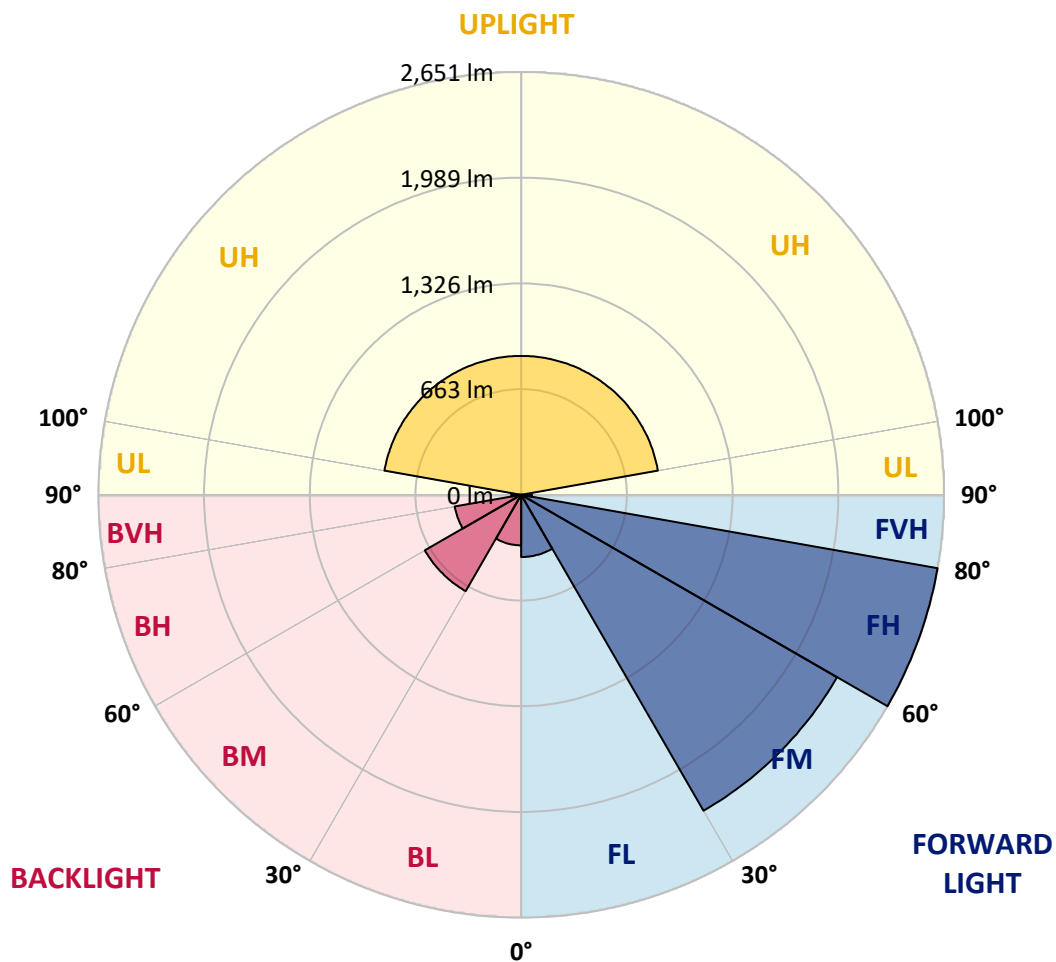
CATALOG NUMBER: IST-AF-1200-LED-E1-T4W-7050-ULG

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	390.1	4.5			
FM (30°-60°)	2287.3	26.5			
FH (60°-80°)	2651.4	30.7			G2/5000
FVH (80°-90°)	68.3	0.8			G1/100
BL (0°-30°)	317.0	3.7	B1/500		
BM (30°-60°)	697.3	8.1	B1/1000		
BH (60°-80°)	422.8	4.9	B1/500		G1/500
BVH (80°-90°)	61.9	0.7			G1/100
UL (90°-100°)	13.5	0.2		U2/50	
UH (100°-180°)	870.7	10.1		U4/1000	

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

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	48°	55°	65°	75°	85°
0°	887.5	887.5	887.5	887.5	887.5	887.5	887.5	887.5	887.5	887.5	887.5
2.5°	934.6	933.6	933.6	925.6	922.6	917.6	913.6	907.6	901.6	894.6	885.5
5°	979.6	982.6	978.6	966.6	951.6	935.6	929.6	915.6	896.6	879.5	863.5
7.5°	1022.6	1023.6	1012.6	992.6	969.6	944.6	936.6	917.6	896.6	873.5	850.5
10°	1053.7	1054.7	1038.6	1010.6	979.6	951.6	942.6	923.6	897.6	872.5	843.5
12.5°	1071.7	1072.7	1048.6	1019.6	982.6	954.6	946.6	926.6	899.6	867.5	835.5
15°	1068.7	1071.7	1051.7	1019.6	980.6	955.6	945.6	928.6	894.6	862.5	828.5
17.5°	1048.6	1052.7	1036.6	1001.6	970.6	950.6	939.6	922.6	889.6	855.5	818.5
20°	1009.6	1014.6	1007.6	973.6	952.6	936.6	929.6	913.6	882.5	847.5	809.5
22.5°	965.6	970.6	968.6	940.6	930.6	922.6	915.6	903.6	876.5	841.5	805.5
25°	933.6	937.6	934.6	910.6	913.6	913.6	909.6	900.6	875.5	843.5	805.5
27.5°	986.6	986.6	960.6	911.6	906.6	915.6	913.6	908.6	888.6	853.5	813.5
30°	1180.7	1165.7	1118.7	995.6	932.6	928.6	927.6	924.6	906.6	875.5	838.5
32.5°	1397.9	1382.9	1326.8	1172.7	1041.6	955.6	946.6	947.6	942.6	913.6	876.5
35°	1591.0	1589.0	1545.0	1377.9	1210.8	1050.7	1014.6	990.6	988.6	976.6	947.6
37.5°	1747.1	1747.1	1751.1	1561.0	1393.9	1201.7	1140.7	1064.7	1064.7	1057.7	1039.6
40°	1925.2	1933.2	1942.2	1727.1	1590.0	1381.9	1312.8	1197.7	1162.7	1173.7	1177.7
42.5°	2159.3	2169.3	2163.3	1932.2	1769.1	1597.0	1511.9	1372.9	1286.8	1304.8	1346.8
45°	2317.4	2321.4	2364.5	2146.3	1994.2	1779.1	1707.1	1515.9	1430.9	1467.9	1542.0
47.5°	2496.5	2506.6	2513.6	2389.5	2258.4	1985.2	1853.1	1655.0	1600.0	1656.0	1773.1
50°	2671.7	2658.6	2677.7	2672.7	2508.6	2168.3	2011.2	1785.1	1789.1	1865.2	2057.3
52.5°	2823.7	2779.7	2823.7	2878.8	2830.8	2356.5	2173.3	1938.2	1996.2	2089.3	2392.5
55°	2940.8	2834.8	2908.8	3064.9	3053.9	2522.6	2358.5	2142.3	2239.4	2366.5	2799.7
57.5°	2701.7	2714.7	2918.8	3190.0	3185.0	2690.7	2520.6	2397.5	2516.6	2658.6	3282.0
60°	2478.5	2536.6	2851.8	3210.0	3276.0	2873.8	2738.7	2687.7	2797.7	2970.8	3744.3
62.5°	2360.5	2415.5	2742.7	3173.0	3421.1	3144.9	3031.9	2992.9	3142.9	3337.1	4156.6
65°	2397.5	2431.5	2735.7	3229.0	3588.2	3555.2	3506.2	3441.1	3516.2	3698.3	4342.7
67.5°	2293.4	2349.5	2677.7	3328.1	3893.4	4055.5	4096.5	4026.5	3963.5	3938.4	4071.5
70°	1707.1	1761.1	2105.3	2918.8	4143.6	4924.1	4899.0	4664.9	4240.6	3886.4	3181.0
72°	1084.7	1069.7	1332.8	2138.3	3683.3	5147.2	5265.3	4832.0	4114.5	3451.1	2160.3
72.5°	788.5	859.5	1105.7	1901.2	3499.2	5025.1	5197.2	4778.0	3949.4	3260.0	1900.2
75°	192.1	203.1	265.2	681.4	2049.3	3781.3	3997.5	3691.3	2882.8	1935.2	842.5
77.5°	130.1	135.1	175.1	240.1	602.4	2156.3	2372.5	2038.3	1289.8	658.4	375.2
80°	97.1	100.1	127.1	170.1	250.2	735.5	867.5	689.4	321.2	365.2	267.2
82.5°	68.0	70.0	96.1	125.1	166.1	172.1	229.1	253.2	208.1	239.1	156.1
85°	47.0	47.0	70.0	86.1	105.1	85.1	91.1	127.1	141.1	142.1	95.1
87.5°	25.0	28.0	41.0	55.0	55.0	39.0	43.0	65.0	79.0	85.1	57.0
90°	14.0	14.0	24.0	29.0	21.0	17.0	16.0	20.0	28.0	36.0	25.0
92.5°	4.0	4.0	5.0	6.0	6.0	6.0	6.3	7.0	7.0	6.0	6.0
95°	5.0	5.0	6.0	7.0	7.0	7.0	7.0	7.0	8.0	7.0	7.0
97.5°	7.0	7.0	8.0	8.0	9.0	9.0	9.9	12.0	10.0	9.0	8.0
100°	8.0	8.0	9.0	10.0	12.0	21.0	23.4	29.0	26.0	23.0	19.0
102.5°	11.0	11.0	13.0	18.0	27.0	40.0	43.0	50.0	47.0	42.0	39.0
105°	21.0	22.0	27.0	36.0	48.0	63.0	65.7	72.0	70.0	65.0	61.0
107.5°	41.0	42.0	49.0	58.0	73.0	88.0	90.1	95.0	94.0	90.0	87.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	48°	55°	65°	75°	85°
110°	66.0	68.0	74.0	87.0	102.0	114.0	115.8	120.0	121.0	119.0	116.0
112.5°	99.0	99.0	106.0	121.0	134.0	143.0	144.5	148.0	150.0	149.0	147.0
115°	140.0	139.0	147.0	159.0	168.0	174.0	175.5	179.0	182.0	179.0	177.0
117.5°	184.0	184.0	189.0	197.0	202.0	205.0	206.8	211.0	215.0	210.0	208.0
120°	225.0	223.0	226.0	233.0	237.0	243.0	243.9	246.0	250.0	245.0	243.0
122.5°	263.0	260.0	261.0	267.0	271.0	277.0	277.6	279.0	283.0	278.0	276.0
125°	298.0	294.0	296.0	299.0	305.0	310.0	310.9	313.0	315.0	310.0	310.0
127.5°	330.0	329.0	329.0	333.0	339.0	340.0	341.5	345.0	346.0	346.0	345.0
130°	363.0	361.0	362.0	366.0	370.0	372.0	373.5	377.0	381.0	381.0	379.0
132.5°	396.0	394.0	393.0	401.0	404.0	405.0	406.8	411.0	416.0	414.0	414.0
135°	429.0	426.0	426.0	432.0	435.0	437.0	438.8	443.0	448.0	447.0	450.0
137.5°	460.0	457.0	459.0	460.0	464.0	468.0	469.5	473.0	475.0	476.0	481.0
140°	488.0	485.0	487.0	489.0	491.0	497.0	497.9	500.0	502.0	504.0	509.0
142.5°	518.0	515.0	517.0	518.0	521.0	525.0	525.6	527.0	533.0	533.0	534.0
145°	550.0	546.0	544.0	547.0	550.0	551.0	552.5	556.0	562.0	561.0	558.0
147.5°	575.0	572.0	571.0	574.0	574.0	575.0	576.5	580.0	585.0	586.0	583.0
150°	595.0	592.0	593.0	593.0	593.0	593.0	594.2	597.0	600.0	603.0	606.0
152.5°	611.0	608.0	608.0	609.0	610.0	610.0	610.3	611.0	614.0	618.0	623.0
155°	629.0	625.0	625.0	627.0	630.0	628.0	627.4	626.0	631.0	636.0	638.0
157.5°	646.0	643.0	643.0	644.0	646.0	645.0	644.7	644.0	648.0	650.0	650.0
160°	663.0	660.0	659.0	656.0	655.0	655.0	655.9	658.0	664.0	661.0	660.0
162.5°	673.0	669.0	669.0	665.0	661.0	663.0	664.2	667.0	671.0	670.0	668.0
165°	681.0	678.0	676.0	676.0	673.0	673.0	672.7	672.0	677.0	680.0	678.0
167.5°	690.0	687.0	684.0	686.0	688.0	685.0	682.9	678.0	684.0	688.0	688.0
170°	698.0	695.0	692.0	692.0	693.0	691.0	689.5	686.0	689.0	694.0	696.0
172.5°	699.0	697.0	695.0	693.0	690.0	690.0	689.7	689.0	692.0	694.0	696.0
175°	700.0	698.0	697.0	695.0	691.0	690.0	690.0	690.0	695.0	696.0	694.0
177.5°	707.0	705.0	700.0	699.0	697.0	695.0	694.7	694.0	699.0	701.0	698.0
180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0





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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	887.5	887.5	887.5	887.5	887.5	887.5	887.5	887.5	887.5	887.5	887.5
2.5°	883.5	877.5	869.5	865.5	863.5	859.5	855.5	853.5	853.5	849.5	850.5
5°	855.5	846.5	835.5	827.5	826.5	826.5	828.5	828.5	829.5	826.5	830.5
7.5°	841.5	831.5	815.5	806.5	799.5	798.5	802.5	810.5	814.5	811.5	815.5
10°	831.5	820.5	802.5	791.5	786.5	784.5	787.5	795.5	808.5	808.5	812.5
12.5°	821.5	807.5	789.5	781.5	777.5	778.5	782.5	788.5	802.5	807.5	809.5
15°	811.5	795.5	780.5	769.5	769.5	772.5	777.5	784.5	797.5	806.5	808.5
17.5°	801.5	785.5	772.5	763.5	763.5	767.5	772.5	781.5	790.5	803.5	803.5
20°	792.5	779.5	762.5	754.5	753.5	756.5	762.5	771.5	778.5	791.5	792.5
22.5°	787.5	771.5	755.5	743.5	738.5	736.5	742.5	751.5	758.5	771.5	773.5
25°	785.5	767.5	747.5	725.4	712.4	708.4	711.4	722.4	728.5	738.5	741.5
27.5°	792.5	775.5	744.5	704.4	677.4	666.4	669.4	676.4	678.4	689.4	694.4
30°	816.5	796.5	750.5	682.4	633.4	613.4	613.4	614.4	617.4	626.4	627.4
32.5°	855.5	836.5	768.5	659.4	588.4	560.3	553.3	548.3	548.3	547.3	548.3
35°	927.6	911.6	799.5	633.4	539.3	508.3	491.3	482.3	473.3	469.3	468.3
37.5°	1031.6	1017.6	843.5	603.4	496.3	465.3	444.3	426.3	416.3	415.3	420.3
40°	1186.7	1172.7	892.6	569.4	455.3	432.3	410.3	391.2	380.2	381.2	386.2
42.5°	1377.9	1334.8	945.6	523.3	422.3	410.3	386.2	370.2	359.2	353.2	352.2
45°	1601.0	1528.9	995.6	480.3	386.2	391.2	368.2	350.2	336.2	320.2	318.2
47.5°	1879.2	1723.1	1039.6	437.3	347.2	371.2	349.2	332.2	311.2	292.2	289.2
50°	2169.3	1946.2	1077.7	391.2	312.2	349.2	330.2	307.2	278.2	261.2	261.2
52.5°	2504.6	2214.4	1126.7	340.2	285.2	325.2	306.2	276.2	252.2	250.2	250.2
55°	2877.8	2495.5	1160.7	300.2	264.2	299.2	290.2	281.2	273.2	275.2	276.2
57.5°	3268.0	2788.7	1130.7	272.2	247.2	293.2	319.2	307.2	282.2	281.2	280.2
60°	3604.2	3016.9	964.6	254.2	234.1	303.2	342.2	307.2	282.2	295.2	296.2
62.5°	3824.4	3124.9	642.4	231.1	215.1	286.2	334.2	298.2	283.2	320.2	323.2
65°	3794.4	3003.9	369.2	215.1	203.1	263.2	323.2	287.2	264.2	285.2	279.2
67.5°	3347.1	2517.6	267.2	208.1	194.1	247.2	303.2	271.2	246.2	272.2	261.2
70°	2405.5	1714.1	230.1	202.1	188.1	228.1	289.2	261.2	236.1	254.2	237.1
72°	1614.0	1042.6	211.1	197.1	182.1	216.1	279.2	253.2	227.1	237.1	218.1
72.5°	1373.9	822.5	206.1	195.1	180.1	213.1	276.2	251.2	225.1	235.1	217.1
75°	513.3	322.2	183.1	180.1	166.1	198.1	264.2	242.2	215.1	212.1	204.1
77.5°	264.2	204.1	156.1	159.1	149.1	181.1	251.2	228.1	198.1	187.1	183.1
80°	192.1	148.1	126.1	135.1	127.1	163.1	233.1	207.1	180.1	168.1	163.1
82.5°	121.1	92.1	96.1	107.1	108.1	144.1	212.1	186.1	160.1	150.1	142.1
85°	58.0	55.0	68.0	79.0	87.1	122.1	194.1	165.1	140.1	120.1	121.1
87.5°	31.0	42.0	41.0	53.0	67.0	100.1	172.1	135.1	112.1	90.1	91.1
90°	14.0	18.0	21.0	30.0	34.0	50.0	119.1	85.0	82.0	37.0	33.0
92.5°	6.0	6.0	6.0	7.0	7.0	6.0	6.0	6.0	5.0	4.0	4.0
95°	7.0	7.0	7.0	8.0	7.0	7.0	7.0	7.0	6.0	5.0	5.0
97.5°	8.0	8.0	9.0	10.0	12.0	9.0	9.0	8.0	8.0	7.0	7.0
100°	19.0	19.0	23.0	26.0	29.0	21.0	12.0	10.0	9.0	8.0	8.0
102.5°	38.0	39.0	42.0	47.0	50.0	40.0	27.0	18.0	13.0	11.0	11.0
105°	61.0	61.0	65.0	70.0	72.0	63.0	48.0	36.0	27.0	22.0	21.0
107.5°	86.0	87.0	90.0	94.0	95.0	88.0	73.0	58.0	49.0	42.0	41.0



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	117.0	116.0	119.0	121.0	120.0	114.0	102.0	87.0	74.0	68.0	66.0
112.5°	147.0	147.0	149.0	150.0	148.0	143.0	134.0	121.0	106.0	99.0	99.0
115°	178.0	177.0	179.0	182.0	179.0	174.0	168.0	159.0	147.0	139.0	140.0
117.5°	209.0	208.0	210.0	215.0	211.0	205.0	202.0	197.0	189.0	184.0	184.0
120°	243.0	243.0	245.0	250.0	246.0	243.0	237.0	233.0	226.0	223.0	225.0
122.5°	277.0	276.0	278.0	283.0	279.0	277.0	271.0	267.0	261.0	260.0	263.0
125°	310.0	310.0	310.0	315.0	313.0	310.0	305.0	299.0	296.0	294.0	298.0
127.5°	347.0	345.0	346.0	346.0	345.0	340.0	339.0	333.0	329.0	329.0	330.0
130°	380.0	379.0	381.0	381.0	377.0	372.0	370.0	366.0	362.0	361.0	363.0
132.5°	415.0	414.0	414.0	416.0	411.0	405.0	404.0	401.0	393.0	394.0	396.0
135°	451.0	450.0	447.0	448.0	443.0	437.0	435.0	432.0	426.0	426.0	429.0
137.5°	482.0	481.0	476.0	475.0	473.0	468.0	464.0	460.0	459.0	457.0	460.0
140°	511.0	509.0	504.0	502.0	500.0	497.0	491.0	489.0	487.0	485.0	488.0
142.5°	536.0	534.0	533.0	533.0	527.0	525.0	521.0	518.0	517.0	515.0	518.0
145°	560.0	558.0	561.0	562.0	556.0	551.0	550.0	547.0	544.0	546.0	550.0
147.5°	585.0	583.0	586.0	585.0	580.0	575.0	574.0	574.0	571.0	572.0	575.0
150°	610.0	606.0	603.0	600.0	597.0	593.0	593.0	593.0	593.0	592.0	595.0
152.5°	628.0	623.0	618.0	614.0	611.0	610.0	610.0	609.0	608.0	608.0	611.0
155°	641.0	638.0	636.0	631.0	626.0	628.0	630.0	627.0	625.0	625.0	629.0
157.5°	655.0	650.0	650.0	648.0	644.0	645.0	646.0	644.0	643.0	643.0	646.0
160°	666.0	660.0	661.0	664.0	658.0	655.0	655.0	656.0	659.0	660.0	663.0
162.5°	674.0	668.0	670.0	671.0	667.0	663.0	661.0	665.0	669.0	669.0	673.0
165°	682.0	678.0	680.0	677.0	672.0	673.0	673.0	676.0	676.0	678.0	681.0
167.5°	694.0	688.0	688.0	684.0	678.0	685.0	688.0	686.0	684.0	687.0	690.0
170°	701.0	696.0	694.0	689.0	686.0	691.0	693.0	692.0	692.0	695.0	698.0
172.5°	701.0	696.0	694.0	692.0	689.0	690.0	690.0	693.0	695.0	697.0	699.0
175°	699.0	694.0	696.0	695.0	690.0	690.0	691.0	695.0	697.0	698.0	700.0
177.5°	702.0	698.0	701.0	699.0	694.0	695.0	697.0	699.0	700.0	705.0	707.0
180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0

(END OF REPORT)