

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: P227798

Luminaire Tested: **ISS-AF-600-LED-E1-T4FT-7050-ULG**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P227798  
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-600-LED-E1-T4FT-7050-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) 5000K CCT, 70 CRI LEDs and (1) UPLIGHT LED  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5292.2 lumens  
Efficiency: N/A  
Efficacy: 105.0 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 - G1  
  
Input Watts (W): 50.4  
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

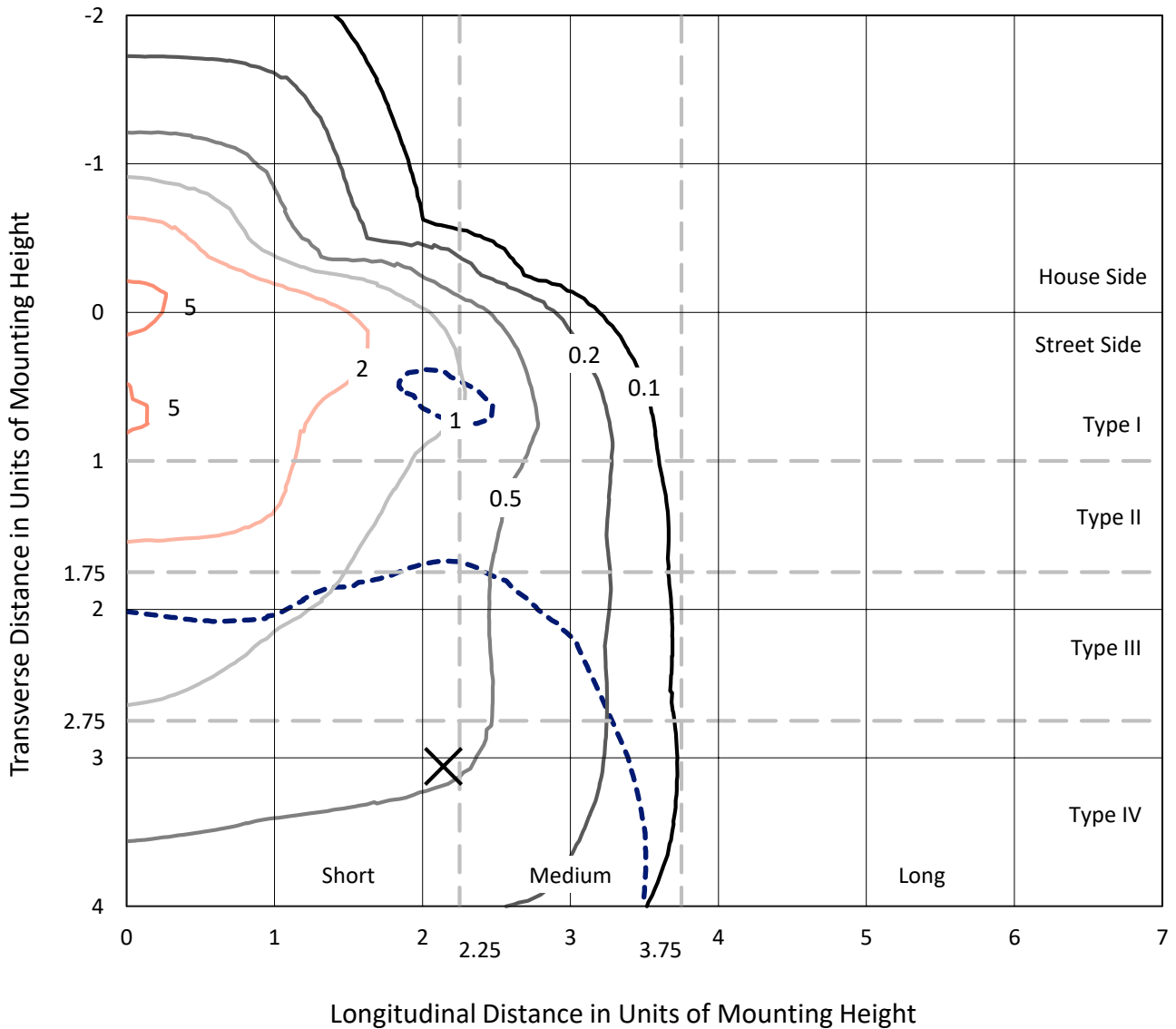


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### Iso-Footcandle Lines of Horizontal Illumination

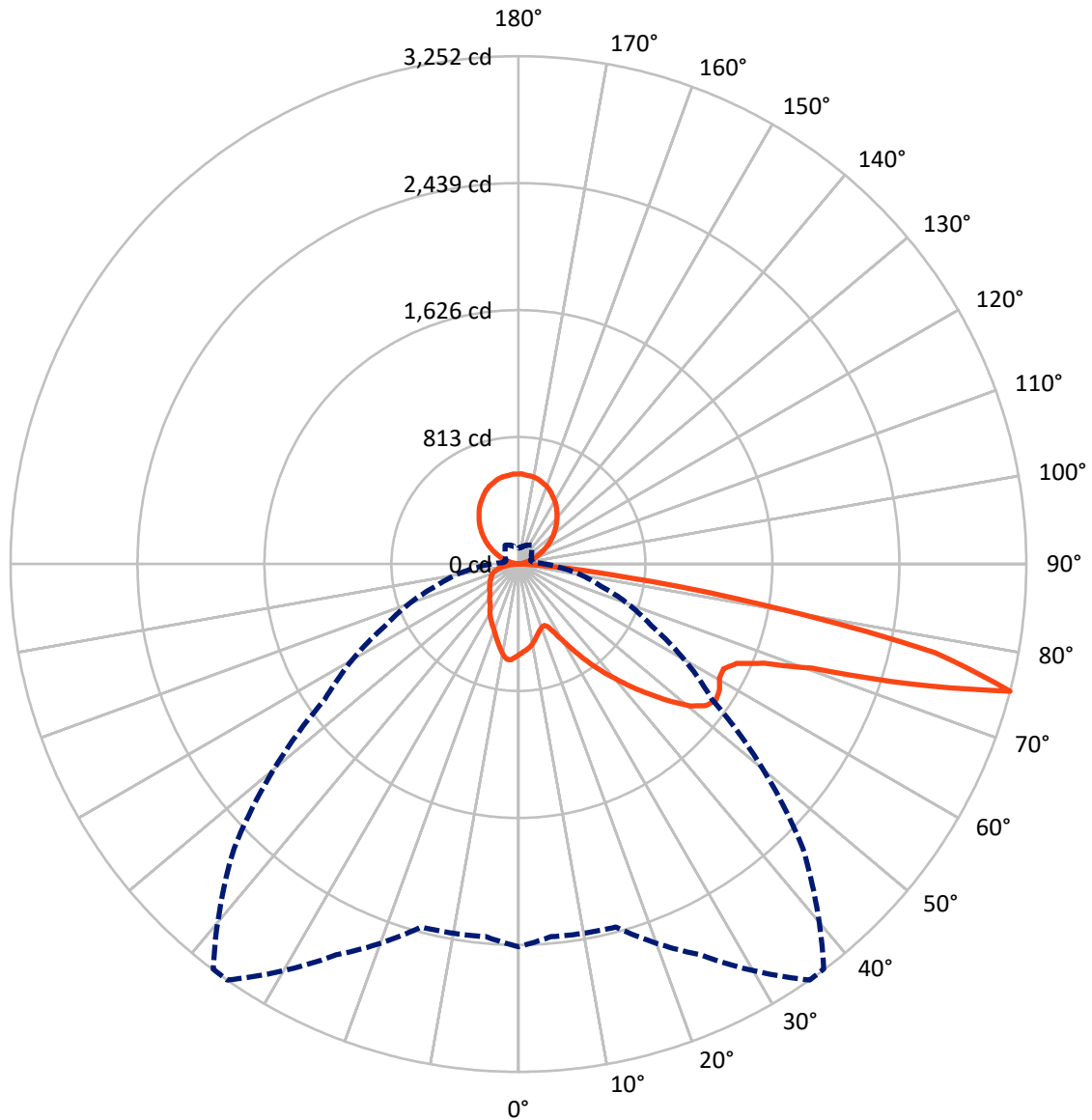
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.9 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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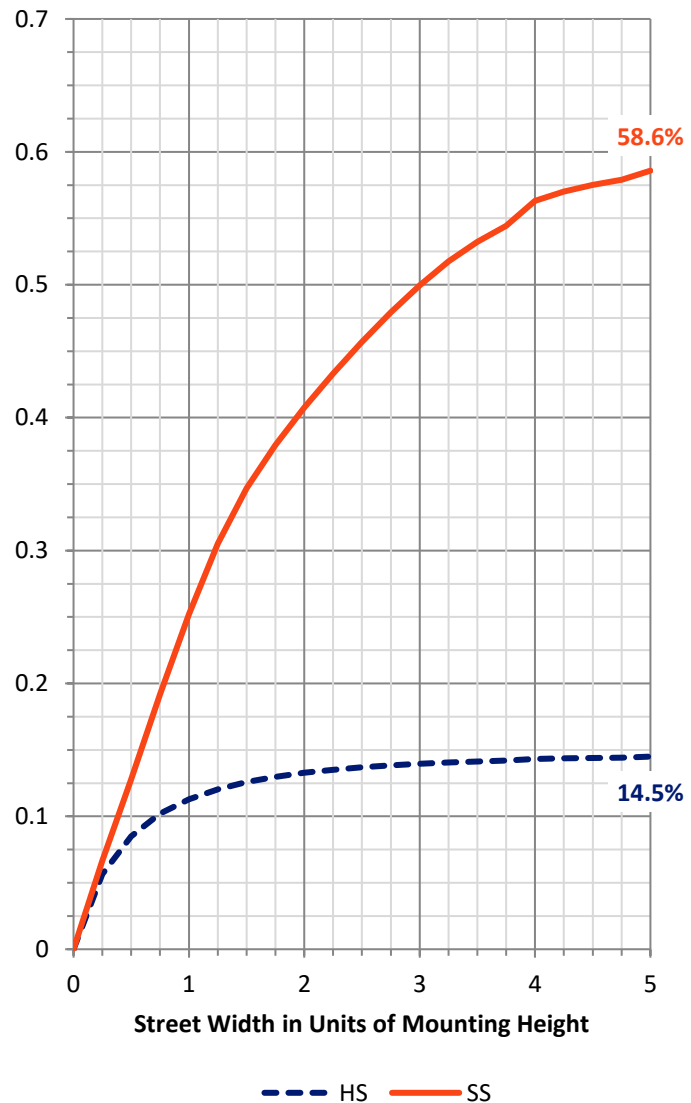
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	775.9	713.1	1489.0
	% Fixture	14.7	13.5	28.1
<b>Street Side</b>	Lumens	3090.1	713.1	3803.2
	% Fixture	58.4	13.5	71.9
<b>Total</b>	Lumens	3866.0	1426.2	5292.2
	% Fixture	73.1	26.9	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.5	1.0
10°-20°	143.9	2.7
20°-30°	227.6	4.3
30°-40°	367.4	6.9
40°-50°	543.5	10.3
50°-60°	698.8	13.2
60°-70°	865.3	16.3
70°-80°	871.9	16.5
80°-90°	93.1	1.8
90°-100°	4.7	0.1
100°-110°	69.0	1.3
110°-120°	153.0	2.9
120°-130°	223.9	4.2
130°-140°	265.6	5.0
140°-150°	269.3	5.1
150°-160°	231.1	4.4
160°-170°	155.1	2.9
170°-180°	54.3	1.0
0°-90°	3866.0	73.1
0°-180°	5292.2	100.0



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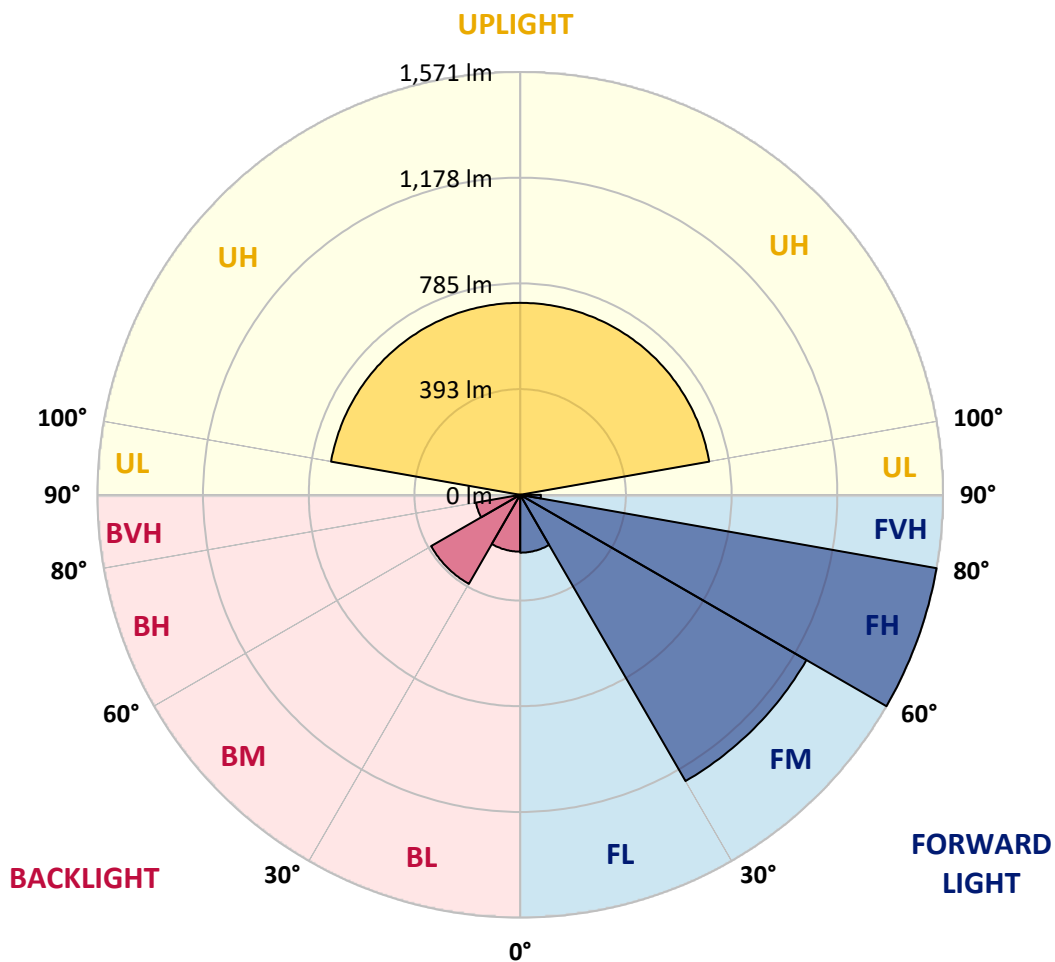
CATALOG NUMBER: ISS-AF-600-LED-E1-T4FT-7050-ULG

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	215.0	4.1			
FM (30°-60°)	1227.6	23.2			
FH (60°-80°)	1570.5	29.7			G1/1800
FVH (80°-90°)	77.0	1.5			G1/100
BL (0°-30°)	211.0	4.0	B1/500		
BM (30°-60°)	382.1	7.2	B1/1000		
BH (60°-80°)	166.7	3.1	B1/500		G1/500
BVH (80°-90°)	16.1	0.3			G1/100
UL (90°-100°)	4.7	0.1		U1/10	
UH (100°-180°)	713.1	13.5		U4/1000	

**BUG Rating: B1-U5-G1**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	37°	45°	55°	65°	75°	85°
0°	580.8	580.8	580.8	580.8	580.8	580.8	580.8	580.8	580.8	580.8	580.8
2.5°	564.0	562.7	561.4	561.4	564.0	564.0	565.3	566.6	567.9	571.7	576.9
5°	548.5	547.2	545.9	547.2	551.1	551.1	555.0	557.5	560.1	566.6	573.0
7.5°	527.9	527.9	526.6	531.7	535.6	534.3	539.5	542.1	548.5	555.0	565.3
10°	500.8	500.8	500.8	507.2	513.7	513.7	517.5	524.0	529.1	538.2	551.1
12.5°	477.5	476.2	476.2	481.4	489.1	490.4	496.9	505.9	512.4	524.0	538.2
15°	469.8	467.2	460.7	460.7	464.6	464.6	474.9	487.8	498.2	509.8	526.6
17.5°	471.1	467.2	450.4	445.3	445.3	446.5	456.9	471.1	484.0	498.2	520.1
20°	482.7	476.2	445.3	433.6	431.1	432.4	441.4	455.6	471.1	490.4	515.0
22.5°	533.0	522.7	464.6	438.8	427.2	427.2	432.4	447.8	467.2	493.0	524.0
25°	649.2	632.4	529.1	482.7	447.8	444.0	434.9	450.4	473.7	504.6	549.8
27.5°	767.9	751.1	609.2	558.8	504.6	493.0	459.5	463.3	489.1	530.4	588.5
30°	867.3	853.1	709.8	651.8	579.5	566.6	515.0	490.4	516.2	566.6	646.6
32.5°	875.0	868.6	818.2	758.9	671.1	653.0	584.6	545.9	558.8	615.6	709.8
35°	947.3	942.1	915.0	858.3	770.5	749.8	677.6	618.2	614.3	669.8	782.1
37.5°	1018.3	1011.8	993.8	955.0	873.7	857.0	800.2	704.7	677.6	733.1	853.1
40°	1085.4	1076.4	1053.1	1031.2	971.8	971.8	911.2	787.3	738.2	788.6	912.5
42.5°	1209.3	1180.9	1119.0	1102.2	1085.4	1085.4	996.3	844.1	787.3	849.2	969.2
45°	1328.0	1300.9	1217.0	1183.5	1192.5	1187.4	1064.7	876.3	831.1	906.0	1023.4
47.5°	1422.2	1397.7	1312.5	1289.3	1315.1	1294.5	1121.5	902.1	886.6	966.7	1068.6
50°	1506.1	1448.1	1365.5	1396.4	1428.7	1393.8	1171.9	940.8	942.1	1031.2	1134.4
52.5°	1391.3	1384.8	1402.9	1475.2	1506.1	1467.4	1217.0	989.9	1001.5	1113.8	1209.3
55°	1253.2	1251.9	1357.7	1498.4	1535.8	1499.7	1246.7	1049.3	1063.5	1215.7	1303.5
57.5°	1226.1	1213.2	1285.4	1449.3	1517.7	1491.9	1262.2	1104.8	1122.8	1344.8	1396.4
60°	1313.8	1289.3	1277.7	1396.4	1479.0	1466.1	1281.6	1170.6	1195.1	1491.9	1482.9
62.5°	1504.8	1471.3	1388.7	1400.3	1475.2	1464.8	1328.0	1248.0	1276.4	1639.1	1531.9
65°	1757.8	1733.3	1601.6	1507.4	1535.8	1521.6	1411.9	1346.1	1361.6	1744.9	1476.4
67.5°	2035.3	2001.7	1858.5	1729.4	1693.3	1666.2	1544.9	1462.3	1406.8	1729.4	1328.0
70°	2348.9	2312.8	2188.9	2055.9	1994.0	1964.3	1777.2	1562.9	1390.0	1559.0	1048.0
72.5°	2734.8	2685.7	2617.3	2631.5	2621.2	2538.6	2147.6	1596.5	1267.4	1160.3	625.9
75°	2450.9	2395.4	2407.0	2761.9	3252.3	3248.4	2576.0	1513.9	944.7	547.2	271.0
77.5°	878.9	971.8	1433.9	2068.8	2727.0	2723.2	1994.0	947.3	405.2	233.6	163.9
80°	220.7	224.6	356.2	849.2	1592.6	1579.7	1130.6	357.5	169.1	142.0	112.3
82.5°	71.0	76.1	130.4	293.0	681.4	666.0	351.0	117.4	105.8	91.6	68.4
85°	23.2	23.2	46.5	100.7	224.6	215.5	71.0	42.6	58.1	47.8	31.0
87.5°	0.0	0.0	1.3	2.6	5.2	2.6	0.0	2.6	7.7	9.0	6.5
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	3.0	4.0	5.0	9.0	13.0	7.0	5.0	4.0
100°	8.0	8.0	10.0	14.0	22.0	23.6	30.0	32.0	30.0	27.0	26.0
102.5°	28.0	28.0	32.0	38.0	45.0	46.0	50.0	51.0	50.0	48.0	49.0
105°	54.0	54.0	56.0	61.0	66.0	66.8	70.0	71.0	71.0	69.0	71.0
107.5°	78.0	77.0	80.0	84.0	88.0	88.6	91.0	93.0	92.0	91.0	92.0
110°	101.0	102.0	103.0	106.0	110.0	110.4	112.0	114.0	114.0	113.0	114.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	37°	45°	55°	65°	75°	85°
112.5°	124.0	124.0	126.0	129.0	132.0	132.4	134.0	136.0	136.0	135.0	137.0
115°	146.0	147.0	149.0	151.0	154.0	154.4	156.0	158.0	158.0	158.0	160.0
117.5°	169.0	170.0	172.0	174.0	177.0	177.4	179.0	180.0	181.0	180.0	182.0
120°	193.0	195.0	196.0	198.0	201.0	201.2	202.0	204.0	204.0	204.0	206.0
122.5°	219.0	220.0	221.0	223.0	226.0	226.2	227.0	228.0	228.0	229.0	233.0
125°	244.0	246.0	247.0	248.0	251.0	251.2	252.0	253.0	254.0	254.0	257.0
127.5°	267.0	269.0	270.0	272.0	274.0	274.4	276.0	278.0	277.0	278.0	281.0
130°	290.0	292.0	293.0	294.0	298.0	298.2	299.0	301.0	301.0	302.0	305.0
132.5°	313.0	314.0	317.0	318.0	321.0	321.2	322.0	325.0	325.0	326.0	329.0
135°	336.0	337.0	339.0	341.0	345.0	345.0	345.0	348.0	348.0	349.0	351.0
137.5°	359.0	360.0	363.0	364.0	367.0	367.0	367.0	369.0	369.0	370.0	374.0
140°	382.0	383.0	385.0	386.0	388.0	388.2	389.0	390.0	390.0	392.0	396.0
142.5°	404.0	406.0	408.0	407.0	410.0	410.0	410.0	412.0	412.0	413.0	416.0
145°	425.0	426.0	428.0	428.0	431.0	431.2	432.0	434.0	433.0	434.0	437.0
147.5°	444.0	444.0	447.0	448.0	452.0	452.2	453.0	454.0	452.0	453.0	456.0
150°	461.0	462.0	464.0	465.0	469.0	469.2	470.0	471.0	469.0	469.0	473.0
152.5°	479.0	480.0	483.0	482.0	485.0	485.2	486.0	487.0	486.0	486.0	489.0
155°	499.0	500.0	502.0	501.0	503.0	503.0	503.0	504.0	503.0	504.0	507.0
157.5°	513.0	515.0	517.0	516.0	519.0	519.0	519.0	519.0	517.0	518.0	523.0
160°	525.0	527.0	529.0	529.0	532.0	532.0	532.0	532.0	530.0	530.0	533.0
162.5°	535.0	536.0	539.0	538.0	541.0	541.0	541.0	542.0	540.0	538.0	540.0
165°	546.0	547.0	549.0	548.0	552.0	552.0	552.0	553.0	550.0	548.0	550.0
167.5°	555.0	556.0	559.0	558.0	561.0	560.8	560.0	560.0	558.0	559.0	563.0
170°	562.0	563.0	566.0	565.0	567.0	566.8	566.0	565.0	564.0	566.0	571.0
172.5°	565.0	566.0	569.0	567.0	569.0	568.8	568.0	569.0	567.0	568.0	571.0
175°	567.0	569.0	570.0	569.0	572.0	572.0	572.0	573.0	570.0	568.0	571.0
177.5°	572.0	573.0	575.0	574.0	578.0	577.8	577.0	577.0	574.0	574.0	577.0
180°	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0





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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	580.8	580.8	580.8	580.8	580.8	580.8	580.8	580.8	580.8	580.8	580.8
2.5°	580.8	579.5	584.6	588.5	589.8	593.7	597.5	600.1	598.8	597.5	597.5
5°	579.5	580.8	589.8	597.5	604.0	610.5	615.6	618.2	616.9	616.9	616.9
7.5°	571.7	576.9	587.2	600.1	609.2	613.0	614.3	610.5	607.9	604.0	604.0
10°	558.8	566.6	583.4	597.5	601.4	596.3	588.5	580.8	570.4	564.0	564.0
12.5°	548.5	557.5	578.2	589.8	584.6	571.7	555.0	542.1	531.7	524.0	522.7
15°	539.5	551.1	573.0	575.6	564.0	542.1	520.1	505.9	494.3	489.1	489.1
17.5°	533.0	548.5	567.9	560.1	536.9	508.5	487.8	476.2	467.2	462.0	460.7
20°	534.3	553.7	562.7	540.8	507.2	477.5	458.2	451.7	445.3	442.7	442.7
22.5°	548.5	566.6	561.4	524.0	480.1	446.5	433.6	432.4	429.8	427.2	425.9
25°	579.5	592.4	565.3	507.2	451.7	418.2	411.7	415.6	414.3	411.7	411.7
27.5°	622.1	624.7	571.7	490.4	420.7	391.1	391.1	397.5	394.9	391.1	393.6
30°	673.7	659.5	574.3	463.3	384.6	365.2	369.1	373.0	370.4	365.2	365.2
32.5°	729.2	695.6	574.3	428.5	349.8	342.0	343.3	344.6	339.4	333.0	333.0
35°	783.4	730.5	567.9	387.2	322.7	318.8	317.5	322.7	318.8	309.7	309.7
37.5°	835.0	757.6	551.1	344.6	302.0	300.7	304.6	302.0	296.8	283.9	281.4
40°	871.2	775.7	517.5	309.7	285.2	293.0	290.4	276.2	268.4	259.4	259.4
42.5°	903.4	784.7	476.2	282.6	273.6	283.9	273.6	255.5	245.2	243.9	245.2
45°	933.1	792.4	436.2	260.7	259.4	273.6	260.7	241.3	229.7	229.7	231.0
47.5°	961.5	800.2	396.2	240.1	242.6	258.1	250.4	231.0	219.4	211.7	211.7
50°	1006.7	818.2	338.1	218.1	223.3	245.2	242.6	220.7	207.8	196.2	193.6
52.5°	1060.9	849.2	274.9	194.9	209.1	233.6	233.6	211.7	197.5	182.0	179.4
55°	1133.1	882.8	220.7	178.1	194.9	220.7	224.6	207.8	187.1	172.9	170.4
57.5°	1205.4	894.4	178.1	161.3	176.8	207.8	218.1	200.0	175.5	165.2	163.9
60°	1255.8	857.0	149.7	147.1	163.9	192.3	209.1	191.0	167.8	157.5	157.5
62.5°	1248.0	743.4	134.2	138.1	153.6	180.7	201.3	183.3	162.6	156.2	154.9
65°	1138.3	561.4	121.3	130.4	144.5	169.1	193.6	179.4	160.0	153.6	151.0
67.5°	958.9	373.0	112.3	122.6	135.5	160.0	187.1	174.2	152.3	148.4	145.8
70°	694.3	218.1	103.2	114.9	126.5	149.7	178.1	163.9	143.3	140.7	134.2
72.5°	375.6	136.8	92.9	104.5	114.9	136.8	163.9	151.0	131.6	121.3	117.4
75°	171.7	99.4	82.6	92.9	100.7	120.0	147.1	132.9	117.4	104.5	102.0
77.5°	114.9	74.9	69.7	80.0	83.9	100.7	130.4	105.8	91.6	82.6	80.0
80°	78.7	55.5	56.8	65.8	64.5	80.0	98.1	85.2	72.3	74.9	68.4
82.5°	50.3	38.7	43.9	46.5	45.2	60.7	76.1	64.5	54.2	45.2	38.7
85°	21.9	20.6	25.8	27.1	27.1	33.6	40.0	32.3	24.5	18.1	18.1
87.5°	1.3	2.6	2.6	3.9	2.6	1.3	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°	4.0	4.0	5.0	7.0	13.0	9.0	4.0	3.0	2.0	2.0	2.0
100°	25.0	26.0	27.0	30.0	32.0	30.0	22.0	14.0	10.0	8.0	8.0
102.5°	48.0	49.0	48.0	50.0	51.0	50.0	45.0	38.0	32.0	28.0	28.0
105°	69.0	71.0	69.0	71.0	71.0	70.0	66.0	61.0	56.0	54.0	54.0
107.5°	91.0	92.0	91.0	92.0	93.0	91.0	88.0	84.0	80.0	77.0	78.0
110°	113.0	114.0	113.0	114.0	114.0	112.0	110.0	106.0	103.0	102.0	101.0



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	135.0	137.0	135.0	136.0	136.0	134.0	132.0	129.0	126.0	124.0	124.0
115°	159.0	160.0	158.0	158.0	158.0	156.0	154.0	151.0	149.0	147.0	146.0
117.5°	180.0	182.0	180.0	181.0	180.0	179.0	177.0	174.0	172.0	170.0	169.0
120°	204.0	206.0	204.0	204.0	204.0	202.0	201.0	198.0	196.0	195.0	193.0
122.5°	232.0	233.0	229.0	228.0	228.0	227.0	226.0	223.0	221.0	220.0	219.0
125°	256.0	257.0	254.0	254.0	253.0	252.0	251.0	248.0	247.0	246.0	244.0
127.5°	278.0	281.0	278.0	277.0	278.0	276.0	274.0	272.0	270.0	269.0	267.0
130°	303.0	305.0	302.0	301.0	301.0	299.0	298.0	294.0	293.0	292.0	290.0
132.5°	327.0	329.0	326.0	325.0	325.0	322.0	321.0	318.0	317.0	314.0	313.0
135°	350.0	351.0	349.0	348.0	348.0	345.0	345.0	341.0	339.0	337.0	336.0
137.5°	372.0	374.0	370.0	369.0	369.0	367.0	367.0	364.0	363.0	360.0	359.0
140°	394.0	396.0	392.0	390.0	390.0	389.0	388.0	386.0	385.0	383.0	382.0
142.5°	415.0	416.0	413.0	412.0	412.0	410.0	410.0	407.0	408.0	406.0	404.0
145°	435.0	437.0	434.0	433.0	434.0	432.0	431.0	428.0	428.0	426.0	425.0
147.5°	453.0	456.0	453.0	452.0	454.0	453.0	452.0	448.0	447.0	444.0	444.0
150°	470.0	473.0	469.0	469.0	471.0	470.0	469.0	465.0	464.0	462.0	461.0
152.5°	486.0	489.0	486.0	486.0	487.0	486.0	485.0	482.0	483.0	480.0	479.0
155°	505.0	507.0	504.0	503.0	504.0	503.0	503.0	501.0	502.0	500.0	499.0
157.5°	520.0	523.0	518.0	517.0	519.0	519.0	519.0	516.0	517.0	515.0	513.0
160°	531.0	533.0	530.0	530.0	532.0	532.0	532.0	529.0	529.0	527.0	525.0
162.5°	537.0	540.0	538.0	540.0	542.0	541.0	541.0	538.0	539.0	536.0	535.0
165°	548.0	550.0	548.0	550.0	553.0	552.0	552.0	548.0	549.0	547.0	546.0
167.5°	561.0	563.0	559.0	558.0	560.0	560.0	561.0	558.0	559.0	556.0	555.0
170°	569.0	571.0	566.0	564.0	565.0	566.0	567.0	565.0	566.0	563.0	562.0
172.5°	568.0	571.0	568.0	567.0	569.0	568.0	569.0	567.0	569.0	566.0	565.0
175°	568.0	571.0	568.0	570.0	573.0	572.0	572.0	569.0	570.0	569.0	567.0
177.5°	574.0	577.0	574.0	574.0	577.0	577.0	578.0	574.0	575.0	573.0	572.0
180°	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0

(END OF REPORT)