

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: P227809

Luminaire Tested: **ISS-AF-350-LED-E1-T4FT-7030-ULG**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P227809  
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-350-LED-E1-T4FT-7030-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) 3000K CCT, 70 CRI LEDs and (1) UPLIGHT LED  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

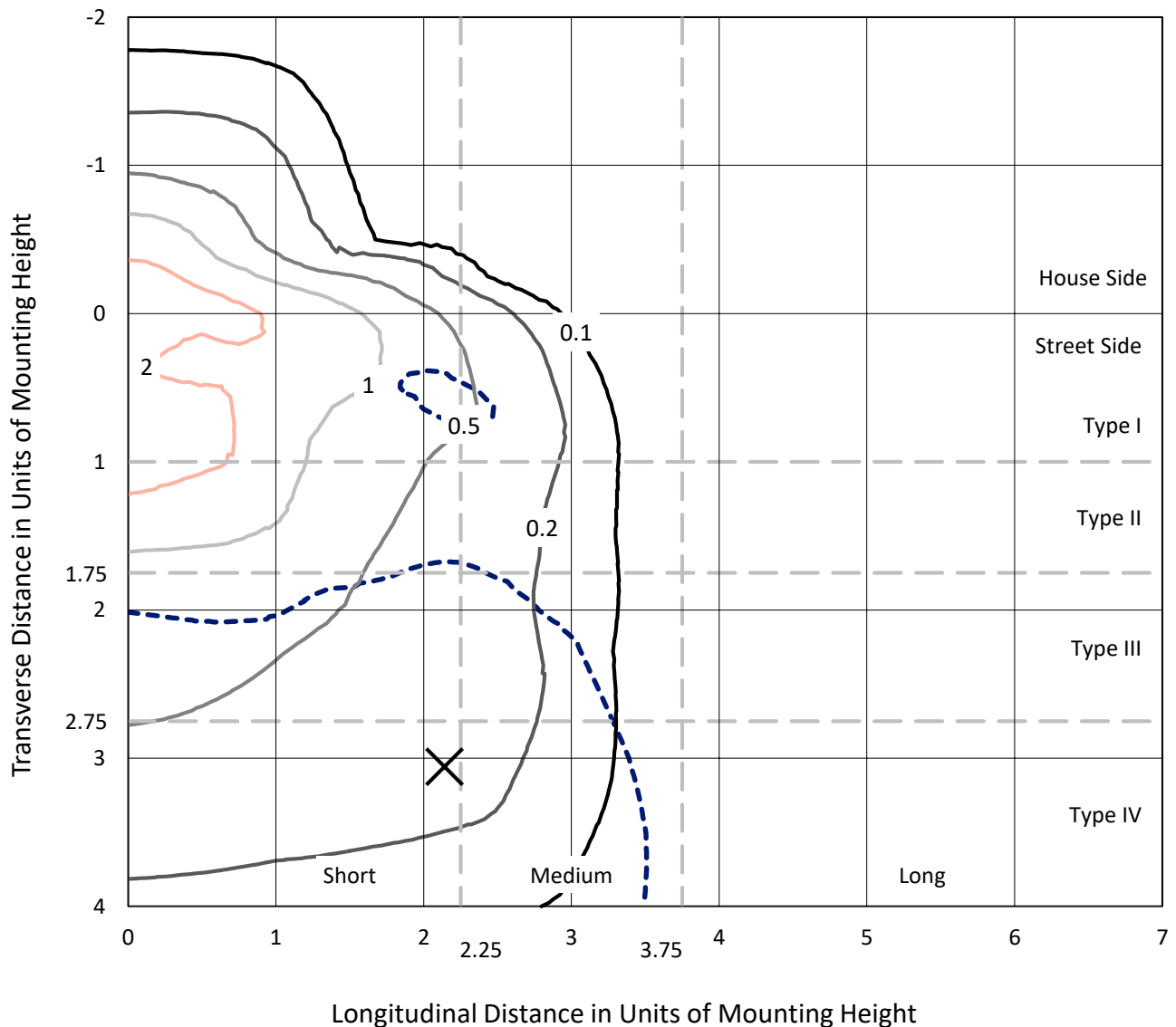
Lumens per Lamp: N/A  
Luminaire Lumens: 3515.2 lumens  
Efficiency: N/A  
Efficacy: 95.5 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B1 - U5 - G1  
  
Input Watts (W): 36.79  
Input Voltage (V): 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

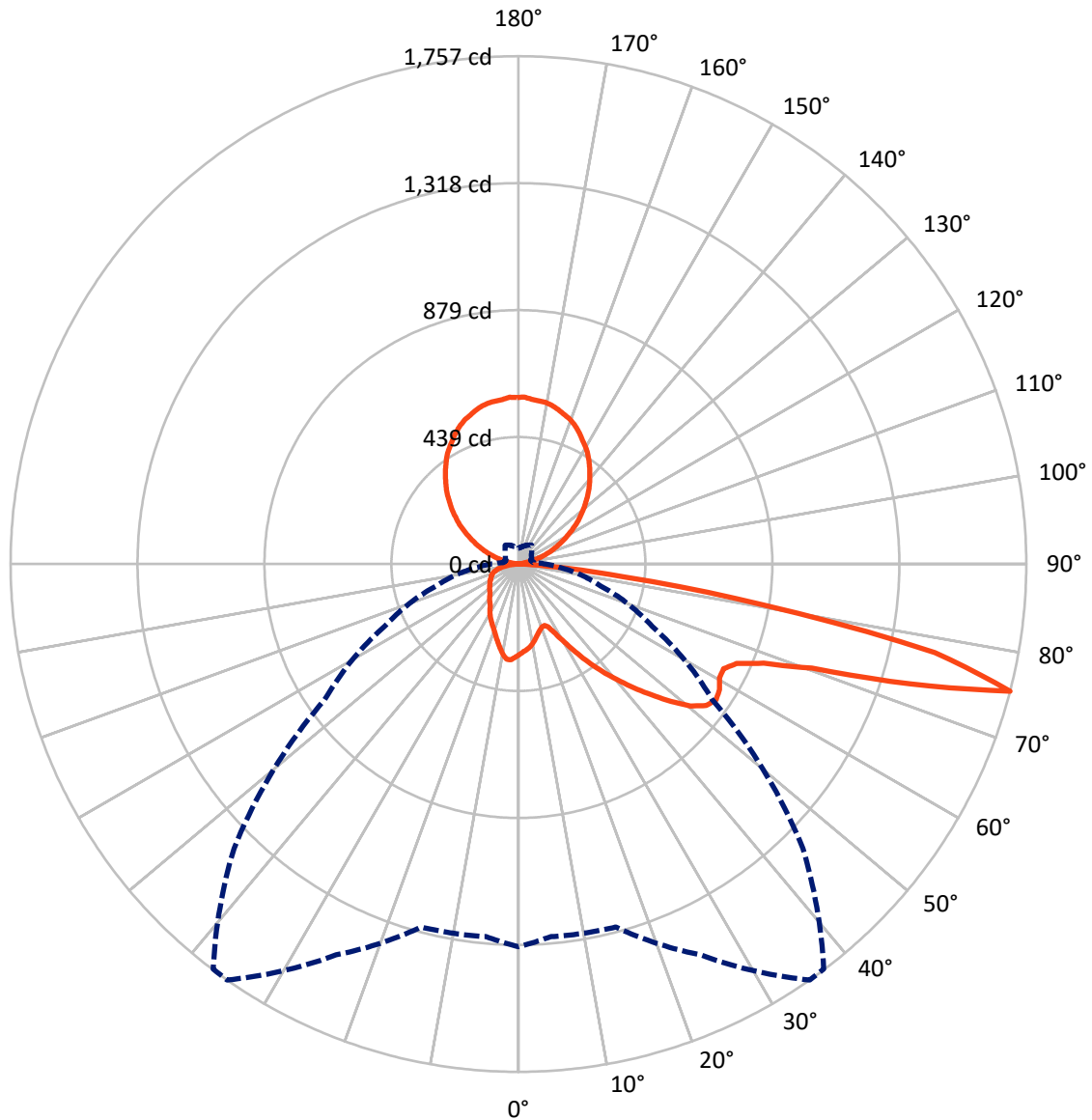
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.2 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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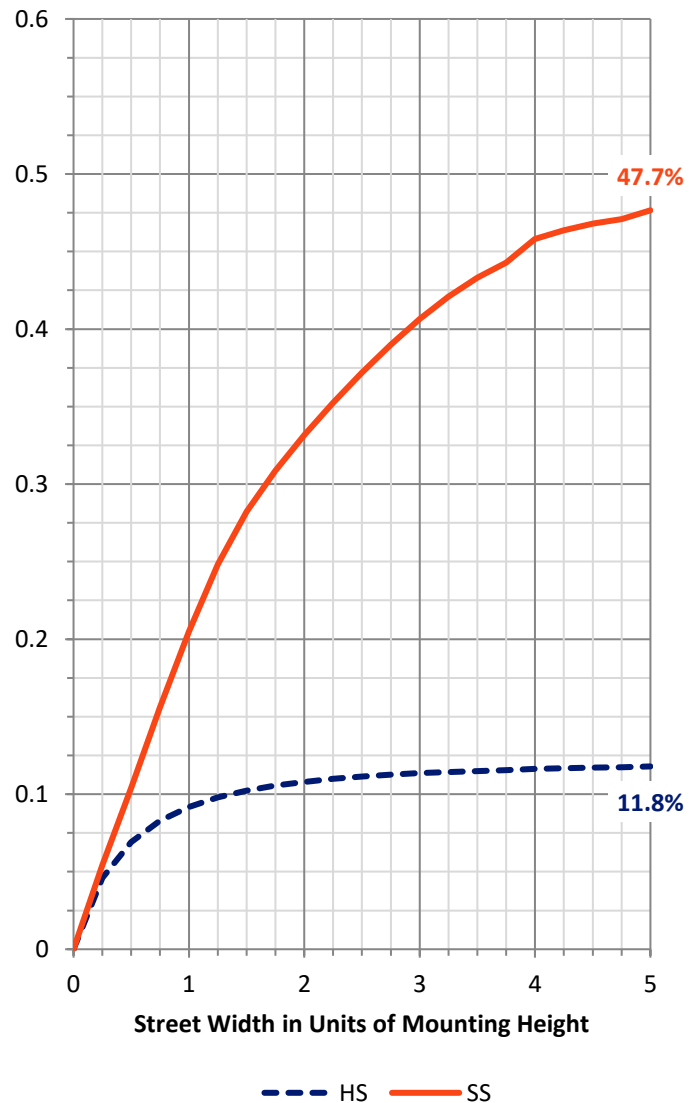
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	419.3	713.1	1132.4
	% Fixture	11.9	20.3	32.2
<b>Street Side</b>	Lumens	1669.7	713.1	2382.8
	% Fixture	47.5	20.3	67.8
<b>Total</b>	Lumens	2089.0	1426.2	3515.2
	% Fixture	59.4	40.6	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	29.4	0.8
10°-20°	77.7	2.2
20°-30°	123.0	3.5
30°-40°	198.5	5.6
40°-50°	293.7	8.4
50°-60°	377.6	10.7
60°-70°	467.6	13.3
70°-80°	471.2	13.4
80°-90°	50.3	1.4
90°-100°	4.7	0.1
100°-110°	69.0	2.0
110°-120°	153.0	4.4
120°-130°	223.9	6.4
130°-140°	265.6	7.6
140°-150°	269.3	7.7
150°-160°	231.1	6.6
160°-170°	155.1	4.4
170°-180°	54.3	1.5
0°-90°	2089.0	59.4
0°-180°	3515.2	100.0



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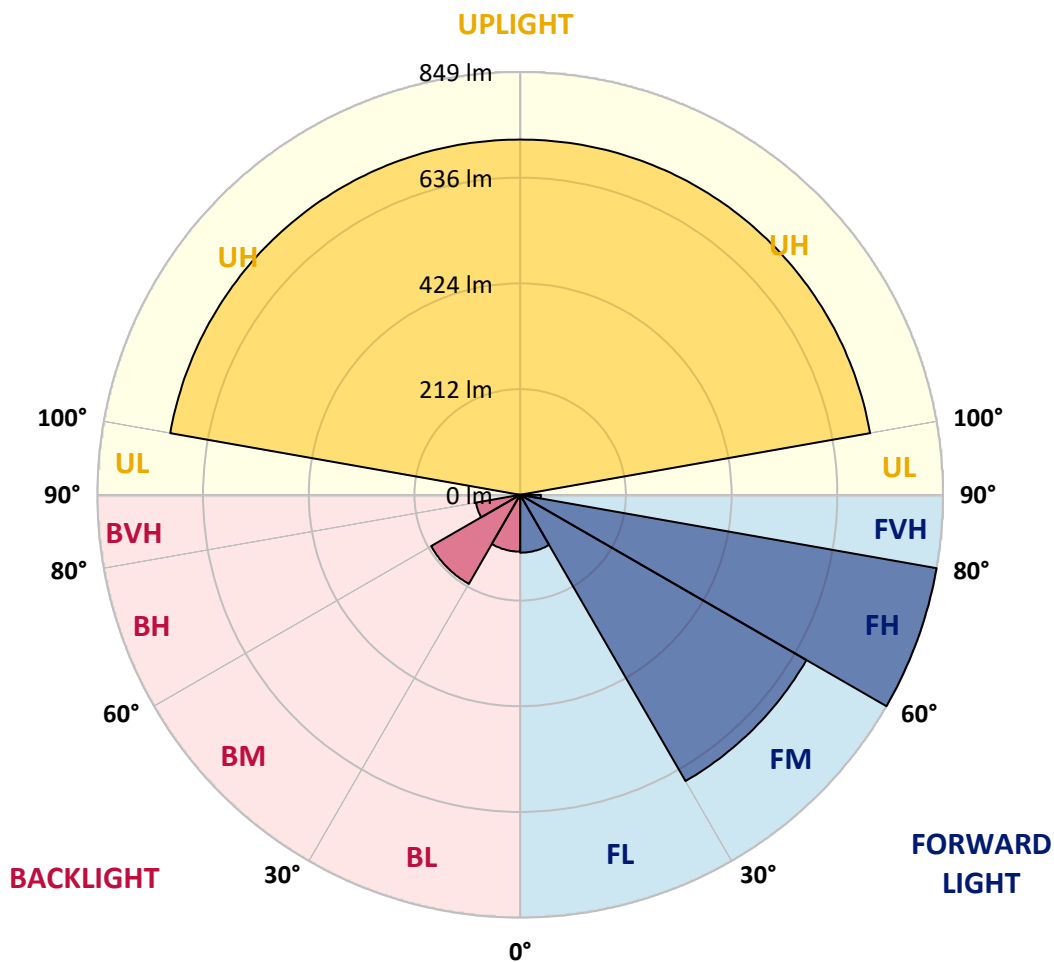
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	116.2	3.3			
FM	(30°-60°)	663.3	18.9			
FH	(60°-80°)	848.6	24.1			G1/1800
FVH	(80°-90°)	41.6	1.2			G1/100
BL	(0°-30°)	114.0	3.2	B1/500		
BM	(30°-60°)	206.5	5.9	B0/220		
BH	(60°-80°)	90.1	2.6	B0/110		G0/110
BVH	(80°-90°)	8.7	0.2			G0/10
UL	(90°-100°)	4.7	0.1		U1/10	
UH	(100°-180°)	713.1	20.3		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°	313.8	313.8	313.8	313.8	313.8	313.8	313.8	313.8	313.8	313.8	313.8
2.5°	304.8	304.1	303.4	303.4	304.8	304.8	305.5	306.1	306.8	308.9	311.7
5°	296.4	295.7	295.0	295.7	297.8	297.8	299.9	301.3	302.7	306.1	309.6
7.5°	285.2	285.2	284.5	287.3	289.4	288.7	291.5	292.9	296.4	299.9	305.5
10°	270.6	270.6	270.6	274.1	277.6	277.6	279.6	283.1	285.9	290.8	297.8
12.5°	258.0	257.3	257.3	260.1	264.3	265.0	268.5	273.4	276.9	283.1	290.8
15°	253.8	252.5	249.0	249.0	251.1	251.1	256.6	263.6	269.2	275.5	284.5
17.5°	254.5	252.5	243.4	240.6	240.6	241.3	246.9	254.5	261.5	269.2	281.0
20°	260.8	257.3	240.6	234.3	232.9	233.6	238.5	246.2	254.5	265.0	278.3
22.5°	288.0	282.4	251.1	237.1	230.8	230.8	233.6	242.0	252.5	266.4	283.1
25°	350.8	341.7	285.9	260.8	242.0	239.9	235.0	243.4	255.9	272.7	297.1
27.5°	414.9	405.9	329.2	302.0	272.7	266.4	248.3	250.4	264.3	286.6	318.0
30°	468.6	461.0	383.6	352.2	313.1	306.1	278.3	265.0	279.0	306.1	349.4
32.5°	472.8	469.3	442.1	410.1	362.6	352.9	315.9	295.0	302.0	332.6	383.6
35°	511.9	509.1	494.4	463.8	416.3	405.2	366.1	334.0	332.0	361.9	422.6
37.5°	550.2	546.7	537.0	516.1	472.1	463.1	432.4	380.8	366.1	396.1	461.0
40°	586.5	581.6	569.1	557.2	525.1	525.1	492.3	425.4	398.9	426.1	493.0
42.5°	653.4	638.1	604.6	595.6	586.5	586.5	538.4	456.1	425.4	458.9	523.7
45°	717.6	703.0	657.6	639.5	644.4	641.6	575.3	473.5	449.1	489.6	553.0
47.5°	768.5	755.3	709.2	696.7	710.6	699.5	606.0	487.5	479.1	522.3	577.4
50°	813.8	782.5	737.8	754.6	772.0	753.2	633.2	508.4	509.1	557.2	613.0
52.5°	751.8	748.3	758.1	797.1	813.8	792.9	657.6	534.9	541.2	601.8	653.4
55°	677.2	676.5	733.6	809.7	829.9	810.4	673.7	567.0	574.6	656.9	704.4
57.5°	662.5	655.5	694.6	783.2	820.1	806.2	682.0	597.0	606.7	726.7	754.6
60°	709.9	696.7	690.4	754.6	799.2	792.2	692.5	632.5	645.8	806.2	801.3
62.5°	813.1	795.0	750.4	756.7	797.1	791.5	717.6	674.4	689.7	885.7	827.8
65°	949.8	936.6	865.4	814.5	829.9	822.2	762.9	727.4	735.7	942.9	797.8
67.5°	1099.8	1081.6	1004.2	934.5	915.0	900.3	834.8	790.1	760.1	934.5	717.6
70°	1269.2	1249.7	1182.8	1110.9	1077.5	1061.4	960.3	844.5	751.1	842.4	566.3
72.5°	1477.7	1451.2	1414.3	1422.0	1416.4	1371.7	1160.4	862.7	684.8	626.9	338.2
75°	1324.3	1294.3	1300.6	1492.4	1757.4	1755.3	1392.0	818.0	510.5	295.7	146.4
77.5°	474.9	525.1	774.8	1117.9	1473.6	1471.5	1077.5	511.9	219.0	126.2	88.6
80°	119.3	121.3	192.5	458.9	860.6	853.6	610.9	193.2	91.4	76.7	60.7
82.5°	38.4	41.1	70.4	158.3	368.2	359.8	189.7	63.5	57.2	49.5	37.0
85°	12.6	12.6	25.1	54.4	121.3	116.5	38.4	23.0	31.4	25.8	16.7
87.5°	0.0	0.0	0.7	1.4	2.8	1.4	0.0	1.4	4.2	4.9	3.5
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°	313.8	313.8	313.8	313.8	313.8	313.8	313.8	313.8	313.8	313.8	313.8
2.5°	313.8	313.1	315.9	318.0	318.7	320.8	322.9	324.3	323.6	322.9	322.9
5°	313.1	313.8	318.7	322.9	326.4	329.9	332.6	334.0	333.3	333.3	333.3
7.5°	308.9	311.7	317.3	324.3	329.2	331.3	332.0	329.9	328.5	326.4	326.4
10°	302.0	306.1	315.2	322.9	325.0	322.2	318.0	313.8	308.2	304.8	304.8
12.5°	296.4	301.3	312.4	318.7	315.9	308.9	299.9	292.9	287.3	283.1	282.4
15°	291.5	297.8	309.6	311.0	304.8	292.9	281.0	273.4	267.1	264.3	264.3
17.5°	288.0	296.4	306.8	302.7	290.1	274.8	263.6	257.3	252.5	249.7	249.0
20°	288.7	299.2	304.1	292.2	274.1	258.0	247.6	244.1	240.6	239.2	239.2
22.5°	296.4	306.1	303.4	283.1	259.4	241.3	234.3	233.6	232.2	230.8	230.1
25°	313.1	320.1	305.5	274.1	244.1	226.0	222.5	224.6	223.9	222.5	222.5
27.5°	336.1	337.5	308.9	265.0	227.3	211.3	211.3	214.8	213.4	211.3	212.7
30°	364.0	356.4	310.3	250.4	207.8	197.4	199.5	201.5	200.1	197.4	197.4
32.5°	394.0	375.9	310.3	231.5	189.0	184.8	185.5	186.2	183.4	179.9	179.9
35°	423.3	394.7	306.8	209.2	174.3	172.3	171.6	174.3	172.3	167.4	167.4
37.5°	451.2	409.4	297.8	186.2	163.2	162.5	164.6	163.2	160.4	153.4	152.0
40°	470.7	419.1	279.6	167.4	154.1	158.3	156.9	149.2	145.1	140.2	140.2
42.5°	488.2	424.0	257.3	152.7	147.8	153.4	147.8	138.1	132.5	131.8	132.5
45°	504.2	428.2	235.7	140.9	140.2	147.8	140.9	130.4	124.1	124.1	124.8
47.5°	519.5	432.4	214.1	129.7	131.1	139.5	135.3	124.8	118.6	114.4	114.4
50°	544.0	442.1	182.7	117.9	120.6	132.5	131.1	119.3	112.3	106.0	104.6
52.5°	573.2	458.9	148.5	105.3	113.0	126.2	126.2	114.4	106.7	98.3	96.9
55°	612.3	477.0	119.3	96.2	105.3	119.3	121.3	112.3	101.1	93.4	92.1
57.5°	651.4	483.3	96.2	87.2	95.5	112.3	117.9	108.1	94.8	89.3	88.6
60°	678.5	463.1	80.9	79.5	88.6	103.9	113.0	103.2	90.7	85.1	85.1
62.5°	674.4	401.7	72.5	74.6	83.0	97.6	108.8	99.0	87.9	84.4	83.7
65°	615.1	303.4	65.6	70.4	78.1	91.4	104.6	96.9	86.5	83.0	81.6
67.5°	518.2	201.5	60.7	66.3	73.2	86.5	101.1	94.1	82.3	80.2	78.8
70°	375.2	117.9	55.8	62.1	68.3	80.9	96.2	88.6	77.4	76.0	72.5
72.5°	202.9	73.9	50.2	56.5	62.1	73.9	88.6	81.6	71.1	65.6	63.5
75°	92.8	53.7	44.6	50.2	54.4	64.9	79.5	71.8	63.5	56.5	55.1
77.5°	62.1	40.4	37.7	43.2	45.3	54.4	70.4	57.2	49.5	44.6	43.2
80°	42.5	30.0	30.7	35.6	34.9	43.2	53.0	46.0	39.1	40.4	37.0
82.5°	27.2	20.9	23.7	25.1	24.4	32.8	41.1	34.9	29.3	24.4	20.9
85°	11.9	11.2	13.9	14.6	14.6	18.1	21.6	17.4	13.3	9.8	9.8
87.5°	0.7	1.4	1.4	2.1	1.4	0.7	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)