

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: P228231

Luminaire Tested: **ISS-AF-350-LED-E1-SL3-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P228231  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29762)  
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-SL3-8030  
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE  
LIGHT SQUARE WITH ACCULED OPTICS-TYPE III W/SPILL CONTROL  
Light Source: (16) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

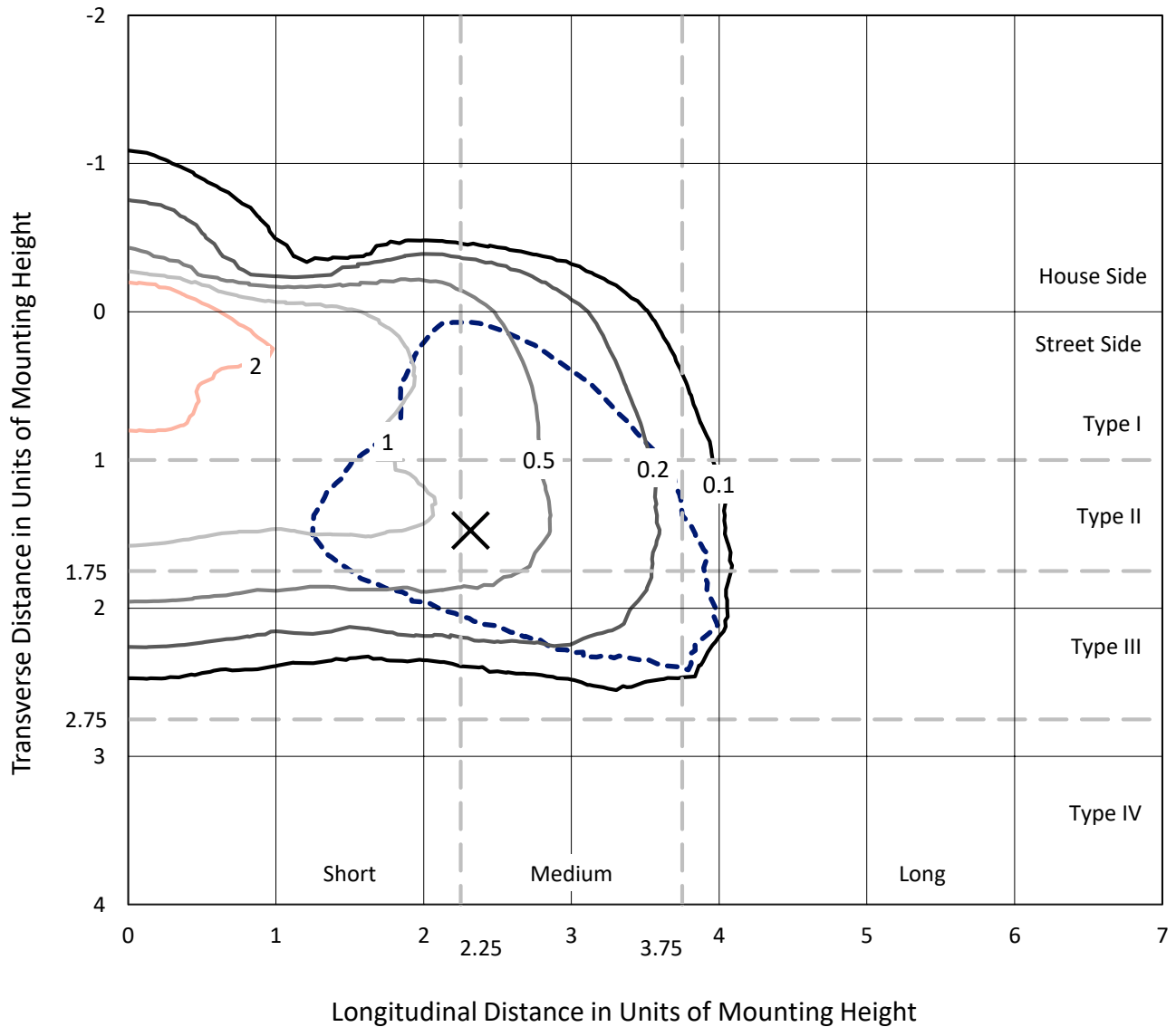
Lumens per Lamp: N/A  
Luminaire Lumens: 1811 lumens  
Efficiency: N/A  
Efficacy: 90.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B0 - U0 - G1  
  
Input Watts (W): 20.09  
Input Voltage (V): 120  
Input Current (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

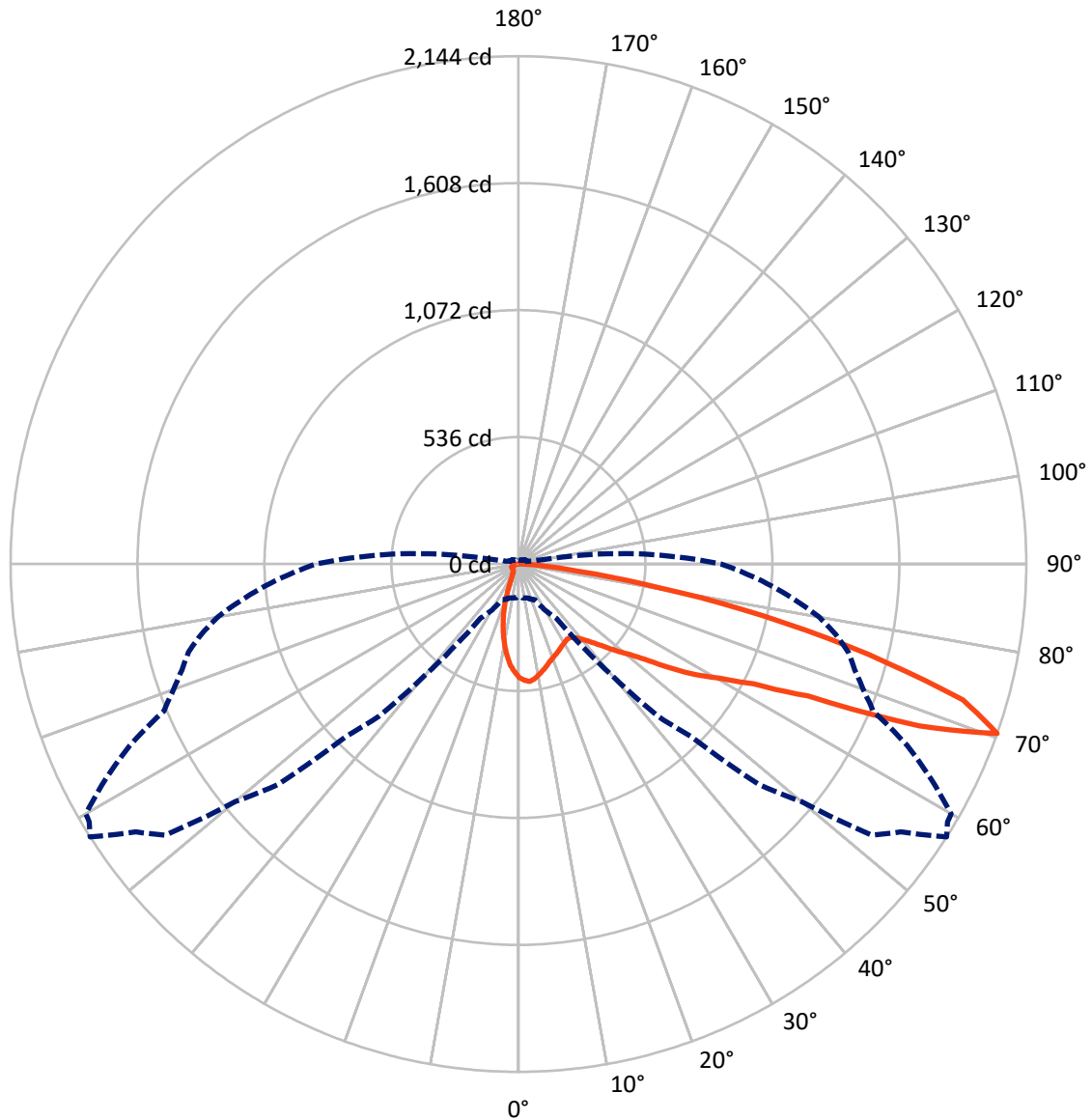
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.8 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57.5-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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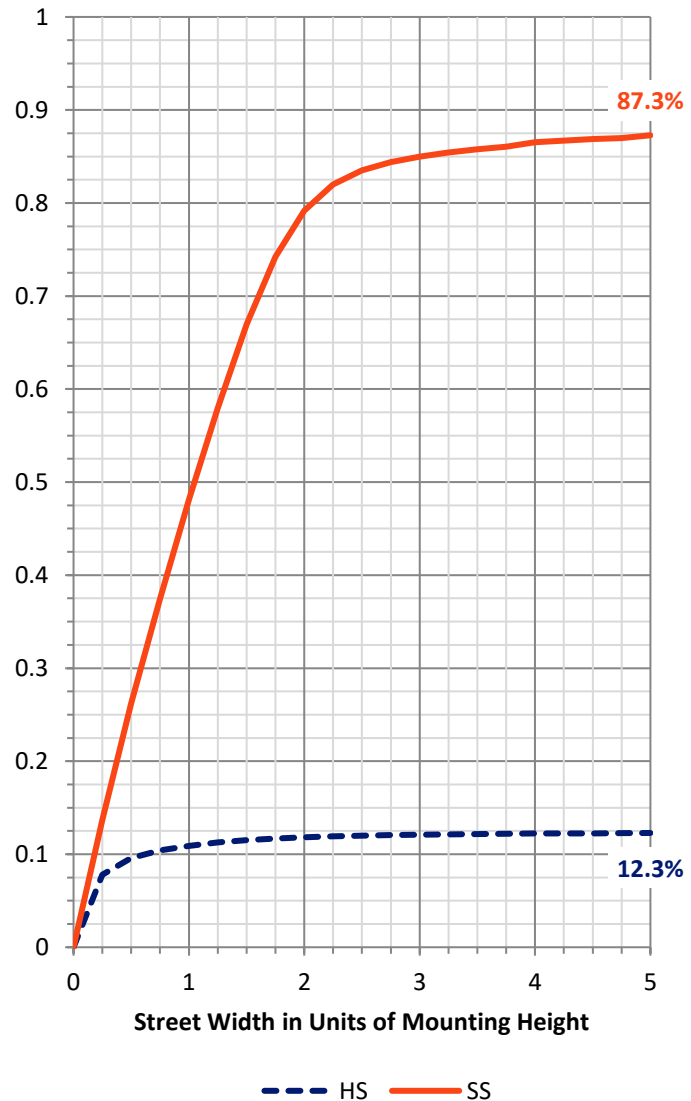
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	224.1	0.0	224.1
	% Fixture	12.4	0.0	12.4
<b>Street Side</b>	Lumens	1586.9	0.0	1586.9
	% Fixture	87.6	0.0	87.6
<b>Total</b>	Lumens	1811.0	0.0	1811.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.4	2.3
10°-20°	89.9	5.0
20°-30°	112.9	6.2
30°-40°	147.6	8.1
40°-50°	221.4	12.2
50°-60°	350.0	19.3
60°-70°	504.5	27.9
70°-80°	312.3	17.2
80°-90°	31.0	1.7
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°	1811.0	100.0
0°-180°	1811.0	100.0



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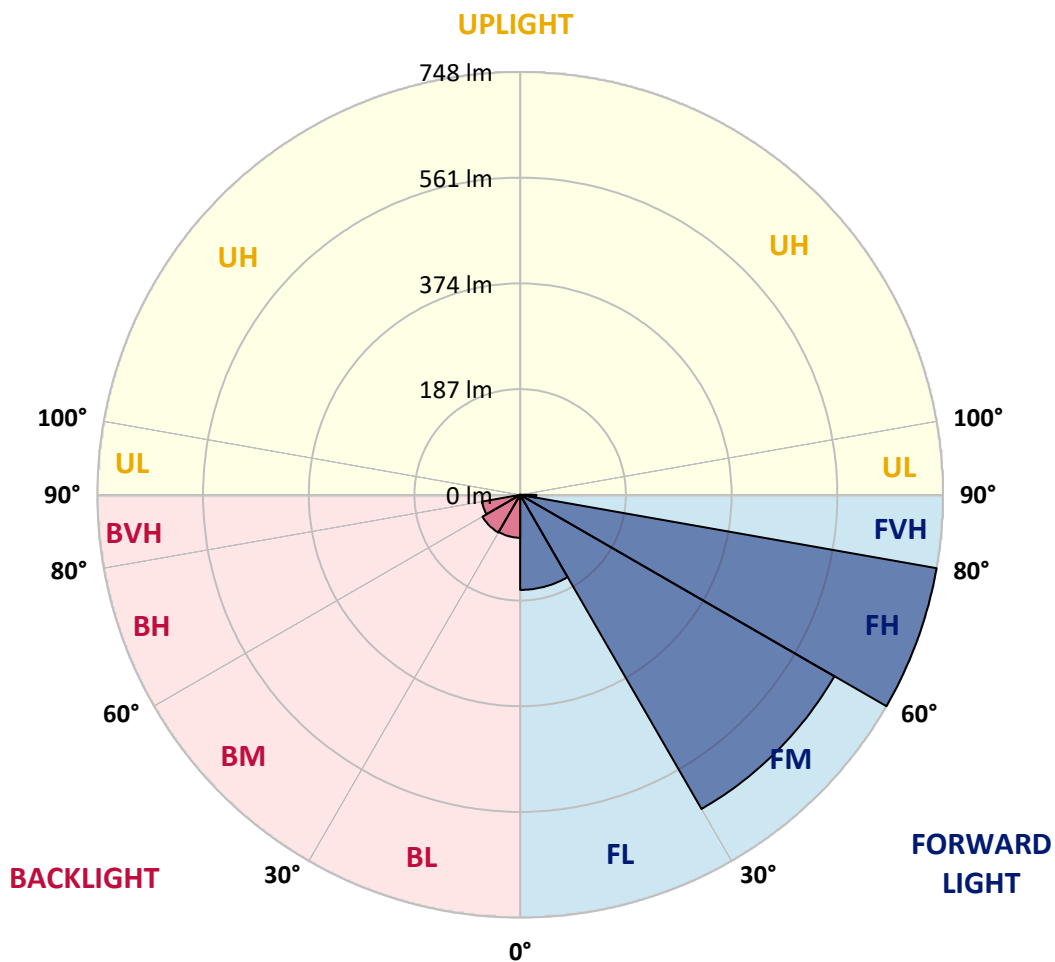
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	168.2	9.3			
FM	(30°-60°)	642.0	35.4			
FH	(60°-80°)	748.2	41.3			G1/1800
FVH	(80°-90°)	28.5	1.6			G1/100
BL	(0°-30°)	76.0	4.2	B0/110		
BM	(30°-60°)	77.1	4.3	B0/220		
BH	(60°-80°)	68.6	3.8	B0/110		G0/110
BVH	(80°-90°)	2.5	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G1**

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°	479.3	479.3	479.3	479.3	479.3	479.3	479.3	479.3	479.3	479.3	479.3
2.5°	503.1	502.5	501.2	498.6	497.3	498.6	497.3	495.4	492.8	494.8	493.5
5°	501.8	503.1	500.5	498.6	501.8	503.1	500.5	500.5	498.0	500.5	499.3
7.5°	476.8	477.4	478.1	477.4	485.8	485.8	484.5	485.8	486.4	487.7	488.3
10°	445.3	445.9	447.2	449.1	459.4	460.7	461.3	462.6	464.6	465.8	469.7
12.5°	413.8	415.1	417.7	424.1	435.0	436.3	438.2	440.1	443.4	445.3	452.4
15°	387.5	388.1	390.7	397.7	413.8	417.0	418.3	420.9	427.3	427.3	435.0
17.5°	363.0	364.3	366.3	374.6	390.7	395.8	399.7	401.0	409.3	411.2	420.2
20°	344.4	345.0	345.7	353.4	368.2	375.9	379.1	384.2	390.7	395.8	403.5
22.5°	334.1	334.8	333.5	336.7	349.5	359.2	363.0	368.2	370.8	379.7	384.2
25°	334.8	335.4	332.2	330.3	336.7	347.0	350.2	355.3	354.0	366.9	366.9
27.5°	341.2	342.5	339.3	333.5	334.1	342.5	344.4	346.3	342.5	355.3	352.8
30°	354.0	355.3	351.5	347.0	339.9	345.0	345.0	345.0	338.0	348.9	344.4
32.5°	367.5	368.8	367.5	364.3	355.3	356.6	354.0	352.8	343.1	352.1	345.0
35°	387.5	388.1	388.7	388.7	375.9	378.5	371.4	367.5	358.5	365.6	356.0
37.5°	411.2	411.2	415.7	417.7	403.5	403.5	395.8	390.7	382.3	384.9	375.2
40°	432.4	434.4	444.6	450.4	437.6	432.4	426.0	421.5	415.1	415.1	405.4
42.5°	456.9	460.7	472.9	483.8	476.8	469.1	462.6	458.1	454.9	454.3	444.0
45°	487.1	491.5	505.0	515.3	517.3	511.5	506.3	501.8	499.3	498.0	489.0
47.5°	521.1	525.6	537.8	550.0	559.0	557.7	551.9	547.5	549.4	548.1	542.3
50°	559.0	561.6	569.3	583.4	604.0	608.5	607.2	604.0	607.9	607.9	602.7
52.5°	589.2	591.1	596.9	613.6	647.7	658.0	666.3	672.7	679.2	683.0	679.8
55°	616.8	616.8	617.5	638.7	689.5	706.2	724.8	738.3	746.6	762.1	768.5
57.5°	661.8	658.6	658.0	680.5	739.6	756.9	783.9	803.2	814.8	846.2	845.6
60°	649.0	650.3	673.4	739.6	842.4	857.8	882.2	902.8	924.6	947.8	949.7
62.5°	559.7	562.9	597.6	696.5	907.9	988.2	1063.4	1120.6	1152.7	1173.3	1145.0
65°	392.0	399.7	446.6	567.4	836.0	960.0	1078.8	1211.2	1312.7	1470.2	1515.8
67.5°	195.3	201.1	208.8	297.5	624.6	798.7	962.5	1143.1	1278.0	1509.3	1638.5
70°	140.1	142.6	148.4	167.1	279.5	418.3	611.1	869.4	1028.1	1377.0	1559.5
72.5°	108.6	111.2	118.9	145.2	185.1	204.3	242.9	397.1	590.5	951.0	1197.7
75°	84.2	88.0	99.0	131.1	178.0	188.9	190.8	205.0	233.9	422.2	671.5
77.5°	59.1	59.8	70.7	113.1	172.8	194.0	190.8	190.8	194.7	215.3	287.2
80°	39.2	39.8	46.9	78.4	151.6	176.7	195.3	186.3	187.0	190.2	195.3
82.5°	20.6	21.8	27.6	47.5	88.7	119.5	162.6	169.6	167.1	170.3	169.0
85°	5.8	5.8	9.6	18.0	43.7	46.3	72.0	98.3	100.2	113.7	121.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	2.6	5.8	6.4
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°	57.5°	59°	60°	62.5°	65°	67.5°	70°	72.5°	75°
0°	479.3	479.3	479.3	479.3	479.3	479.3	479.3	479.3	479.3	479.3	479.3
2.5°	494.8	492.2	491.5	490.3	490.9	489.0	488.3	485.8	485.8	484.5	483.2
5°	498.0	495.4	498.0	493.5	494.1	492.2	489.0	489.0	486.4	484.5	480.6
7.5°	489.0	489.0	489.6	487.1	487.7	487.1	483.2	482.6	478.7	478.7	474.2
10°	472.3	472.3	474.8	472.9	473.6	472.9	471.0	470.3	469.1	469.1	462.0
12.5°	453.0	456.9	460.7	458.8	458.8	460.1	460.1	460.7	460.1	459.4	453.6
15°	436.9	442.7	446.6	445.9	446.6	449.8	451.1	451.7	453.6	453.0	447.9
17.5°	422.2	428.6	431.8	434.4	436.3	438.9	442.7	444.6	447.2	446.6	441.4
20°	408.7	414.4	420.2	423.4	424.1	429.2	433.7	439.5	440.8	442.1	435.6
22.5°	394.5	399.7	411.2	409.3	413.8	423.4	426.0	434.4	434.4	438.9	429.9
25°	382.3	383.0	401.0	397.7	401.6	418.9	420.9	435.6	431.8	438.2	427.9
27.5°	370.1	369.5	391.3	387.5	392.0	415.7	417.0	437.6	433.7	441.4	427.9
30°	361.1	359.2	384.2	376.5	383.0	412.5	413.2	439.5	436.3	446.6	432.4
32.5°	359.2	356.0	377.8	372.0	378.5	409.3	413.2	446.6	442.7	455.6	437.6
35°	367.5	362.4	381.0	375.9	381.0	410.6	416.4	457.5	453.0	467.8	449.8
37.5°	383.0	379.1	394.5	389.4	393.2	419.6	424.7	471.6	471.0	489.0	468.4
40°	409.9	406.1	418.3	411.2	414.4	438.9	441.4	491.5	493.5	515.3	494.8
42.5°	446.6	440.1	449.8	441.4	445.9	467.8	465.2	516.0	521.7	551.9	528.2
45°	493.5	485.1	490.9	481.9	485.1	503.8	496.7	548.7	554.5	591.8	570.6
47.5°	544.9	534.6	541.7	530.1	532.0	551.9	539.1	587.9	596.9	643.8	623.3
50°	606.6	593.1	595.6	584.7	586.0	605.9	591.8	636.1	647.0	699.1	681.1
52.5°	685.6	666.3	666.3	651.5	652.2	672.1	654.8	693.3	705.5	758.2	746.0
55°	789.7	774.3	771.1	755.6	750.5	754.4	729.9	756.9	770.4	819.9	810.3
57.5°	872.6	870.7	880.3	858.4	853.3	854.6	823.7	825.7	841.1	879.6	882.9
60°	973.5	976.7	978.0	960.0	958.0	940.0	908.6	903.4	922.7	949.0	959.3
62.5°	1134.1	1130.9	1114.8	1101.3	1089.1	1040.9	1023.6	995.3	1022.3	1037.1	1058.3
65°	1479.1	1445.7	1342.9	1351.9	1319.8	1215.1	1200.3	1143.1	1185.5	1186.1	1226.0
67.5°	1821.0	1886.5	1823.6	1824.8	1752.2	1562.7	1517.1	1403.3	1427.1	1399.5	1420.0
70°	1879.5	1971.3	2143.5	2112.7	2108.8	1963.0	1809.4	1619.9	1548.5	1489.4	1441.9
72.5°	1617.3	1709.2	1961.7	1891.7	1918.0	1962.3	1802.3	1660.3	1501.0	1425.8	1323.0
75°	1138.0	1270.3	1526.7	1490.1	1509.3	1582.6	1445.1	1428.4	1244.0	1193.9	1035.8
77.5°	609.8	773.6	1060.8	1015.9	1024.2	1066.0	922.7	893.1	715.2	665.7	486.4
80°	274.4	380.4	595.6	545.5	530.7	507.0	373.3	294.3	179.9	119.5	82.9
82.5°	181.8	188.9	264.1	228.7	214.0	176.7	114.4	67.5	53.3	45.0	43.1
85°	122.1	111.8	111.2	98.3	91.2	72.0	53.3	33.4	27.6	23.1	21.2
87.5°	7.1	4.5	6.4	7.1	5.1	4.5	3.2	0.0	0.6	0.0	0.6
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°	85°	90°	95°	100°	102.5°	105°	107.5°	110°	112.5°
0°	479.3	479.3	479.3	479.3	479.3	479.3	479.3	479.3	479.3	479.3	479.3
2.5°	480.0	480.0	479.3	474.8	472.3	471.0	466.5	465.8	463.9	463.3	463.3
5°	479.3	476.8	473.6	467.1	460.7	454.9	453.0	448.5	445.3	441.4	441.4
7.5°	470.3	467.8	460.7	451.1	442.7	434.4	429.9	423.4	418.3	413.2	411.9
10°	460.1	456.2	446.6	433.7	422.8	408.0	402.2	393.9	388.1	380.4	372.7
12.5°	449.1	446.6	435.0	420.2	403.5	384.9	375.9	364.3	356.6	347.6	336.1
15°	444.6	439.5	424.7	406.1	385.5	363.0	350.2	338.0	326.4	316.1	300.7
17.5°	438.9	432.4	415.7	393.9	368.2	341.2	324.5	311.0	295.6	284.6	267.3
20°	432.4	422.8	404.8	378.5	349.5	317.4	296.2	282.7	262.2	251.2	230.7
22.5°	427.3	415.1	393.2	363.7	329.0	293.0	267.9	252.5	229.4	216.5	190.8
25°	426.0	411.2	384.9	351.5	311.6	269.2	239.0	223.6	194.7	179.9	149.7
27.5°	426.7	409.3	379.7	341.2	296.2	248.0	212.0	194.0	157.4	142.0	107.3
30°	427.3	409.9	374.6	332.2	282.1	226.2	183.8	162.6	118.9	105.4	74.5
32.5°	433.7	412.5	373.3	325.1	269.2	204.3	151.6	132.4	84.2	76.5	55.3
35°	441.4	420.9	375.9	323.8	259.6	182.5	118.9	99.0	60.4	58.5	45.0
37.5°	457.5	433.7	386.2	327.1	253.8	160.0	88.7	75.8	47.5	48.8	39.2
40°	481.9	455.6	402.9	336.7	253.2	137.5	65.5	59.1	41.1	42.4	36.0
42.5°	514.7	485.8	428.6	357.3	256.4	116.3	52.7	50.8	37.9	39.2	34.7
45°	557.7	528.2	464.6	383.6	265.4	99.0	46.3	46.3	36.6	37.9	34.1
47.5°	612.3	579.6	508.9	418.9	279.5	89.3	43.7	44.3	36.0	37.9	34.1
50°	674.0	638.1	565.4	464.6	301.4	86.7	44.3	44.3	36.6	37.9	34.1
52.5°	738.3	704.9	626.5	516.6	331.6	92.5	45.6	45.0	36.6	37.9	33.4
55°	803.8	773.6	694.0	577.7	373.3	113.1	48.8	46.9	36.6	37.9	34.1
57.5°	869.4	848.2	764.6	643.2	425.4	150.4	61.7	54.6	40.5	41.1	34.7
60°	943.3	927.8	844.3	729.3	499.3	208.2	90.6	68.8	48.2	45.6	37.3
62.5°	1039.0	1035.1	969.0	853.3	618.1	291.7	128.5	83.5	52.0	47.5	39.8
65°	1208.0	1218.3	1155.3	998.5	697.2	293.6	125.3	73.3	48.8	45.0	39.2
67.5°	1377.6	1347.4	1185.5	976.7	629.1	195.3	79.7	57.2	43.1	41.8	36.6
70°	1371.2	1289.0	1075.0	853.9	496.7	106.0	57.8	47.5	38.6	38.6	34.7
72.5°	1229.8	1107.8	879.0	676.0	331.6	67.5	48.8	41.8	35.3	34.7	32.1
75°	925.9	782.0	564.8	389.4	147.8	43.7	37.3	34.1	30.8	30.8	28.3
77.5°	435.6	245.5	136.2	90.6	49.5	29.6	25.7	25.7	25.1	25.7	23.1
80°	59.1	53.3	45.6	39.8	30.2	20.6	18.6	19.3	18.6	19.3	17.3
82.5°	36.0	32.1	26.3	25.1	18.6	14.1	13.5	14.1	12.9	13.5	10.3
85°	17.3	15.4	12.2	11.6	9.6	8.4	7.1	8.4	6.4	7.1	4.5
87.5°	0.0	1.3	0.6	1.3	1.3	1.3	0.0	1.3	0.0	1.3	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):**

	115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°	155°	165°
0°	479.3	479.3	479.3	479.3	479.3	479.3	479.3	479.3	479.3	479.3	479.3
2.5°	460.1	458.1	457.5	454.9	454.3	451.7	451.1	448.5	444.0	442.1	438.9
5°	435.6	432.4	429.9	428.6	423.4	420.9	417.0	411.9	402.2	397.7	390.0
7.5°	401.6	401.0	393.2	390.7	384.2	379.7	374.0	365.6	351.5	343.1	330.9
10°	364.3	361.8	352.8	347.6	339.3	332.8	325.1	312.9	291.1	273.7	255.1
12.5°	329.6	321.9	311.6	303.9	293.6	284.6	275.7	257.0	222.3	194.0	168.3
15°	293.6	282.1	271.2	258.3	247.4	233.2	223.0	198.5	152.9	118.2	102.2
17.5°	257.0	241.0	228.7	211.4	199.2	179.9	169.0	139.4	100.2	84.8	79.7
20°	218.5	197.3	183.8	162.6	150.4	125.9	117.6	96.4	77.1	71.3	70.0
22.5°	177.3	151.6	136.9	113.7	105.4	90.6	84.2	73.9	64.9	62.3	63.6
25°	134.3	106.7	97.0	80.3	77.1	69.4	66.8	61.7	57.2	57.2	59.1
27.5°	95.7	74.5	72.0	61.7	61.0	57.2	55.3	52.7	51.4	52.7	55.3
30°	70.0	56.5	56.5	50.8	50.8	48.2	47.5	46.3	46.3	48.8	51.4
32.5°	55.3	46.3	47.5	43.1	43.7	41.8	42.4	41.8	42.4	44.3	46.3
35°	46.3	39.8	41.8	37.9	39.2	37.3	38.6	38.6	39.8	40.5	41.1
37.5°	41.1	36.6	37.9	35.3	36.6	34.7	36.6	36.6	37.3	37.3	37.3
40°	37.9	34.1	36.0	33.4	35.3	33.4	35.3	35.3	34.7	34.1	34.7
42.5°	36.0	33.4	35.3	32.8	34.7	32.8	34.1	33.4	32.1	32.1	32.1
45°	35.3	32.8	34.1	32.1	33.4	31.5	32.8	32.1	30.2	29.6	30.8
47.5°	35.3	32.1	34.1	31.5	32.8	30.8	32.1	30.2	28.3	28.3	30.2
50°	35.3	32.1	34.1	31.5	32.8	30.2	30.8	28.9	26.3	27.0	29.6
52.5°	36.0	33.4	34.7	32.1	32.8	28.9	30.2	27.6	25.7	26.3	28.3
55°	36.6	33.4	34.7	30.8	31.5	28.9	28.9	27.6	25.7	25.7	27.6
57.5°	36.6	32.8	33.4	30.2	30.8	27.6	28.3	27.0	25.1	24.4	25.7
60°	37.9	34.1	34.1	29.6	30.2	27.0	27.6	26.3	24.4	23.1	23.8
62.5°	39.2	34.7	35.3	30.8	30.8	27.6	28.3	25.7	23.1	21.8	22.5
65°	39.2	34.7	35.3	31.5	31.5	28.3	28.3	25.7	21.8	20.6	20.6
67.5°	37.3	34.1	34.7	31.5	31.5	28.3	28.3	25.1	21.2	19.3	18.6
70°	36.0	32.8	33.4	29.6	30.2	27.0	27.0	23.8	19.9	18.0	16.7
72.5°	32.8	30.2	30.2	27.6	27.0	23.8	23.8	21.8	18.6	16.1	14.8
75°	28.3	25.7	25.1	22.5	22.5	20.6	19.9	18.0	15.4	13.5	12.9
77.5°	23.1	19.9	19.9	16.7	16.7	14.8	15.4	13.5	11.6	10.9	10.3
80°	16.7	13.5	13.5	10.9	10.9	9.0	9.6	9.0	8.4	8.4	7.7
82.5°	10.3	7.1	7.7	5.8	7.1	5.1	5.8	5.1	5.1	4.5	4.5
85°	5.1	2.6	3.9	1.9	3.2	0.6	1.9	1.3	1.3	1.3	1.3
87.5°	0.6	0.0	0.6	0.0	0.0	0.0	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

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	175°	180°
0°	479.3	479.3
2.5°	435.6	437.6
5°	387.5	388.1
7.5°	329.0	327.7
10°	251.2	248.0
12.5°	161.9	157.4
15°	97.7	96.4
17.5°	78.4	78.4
20°	70.0	70.0
22.5°	64.9	64.9
25°	61.0	61.7
27.5°	57.8	57.8
30°	54.0	54.0
32.5°	47.5	47.5
35°	42.4	41.8
37.5°	37.9	38.6
40°	34.7	35.3
42.5°	33.4	33.4
45°	32.1	32.1
47.5°	32.1	32.1
50°	31.5	32.1
52.5°	30.8	30.8
55°	28.9	29.6
57.5°	27.0	27.6
60°	25.1	25.1
62.5°	22.5	22.5
65°	20.6	20.6
67.5°	18.0	18.0
70°	16.1	16.1
72.5°	14.1	14.1
75°	12.2	12.2
77.5°	10.3	9.6
80°	7.7	7.7
82.5°	4.5	4.5
85°	1.3	1.3
87.5°	0.0	0.0
90°	0.0	0.0

(END OF REPORT)