

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: P145303

Luminaire Tested: **VPL-F01-LED-E1-GL3-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P145303  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33702)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: VPL-F01-LED-E1-GL3-8030  
Description: VALET LED LUMINAIRE  
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ GLARE CONTROL  
Light Source: (7) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2068.4 lumens  
Efficiency: N/A  
Efficacy: 79.9 lumens/watt  
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G1

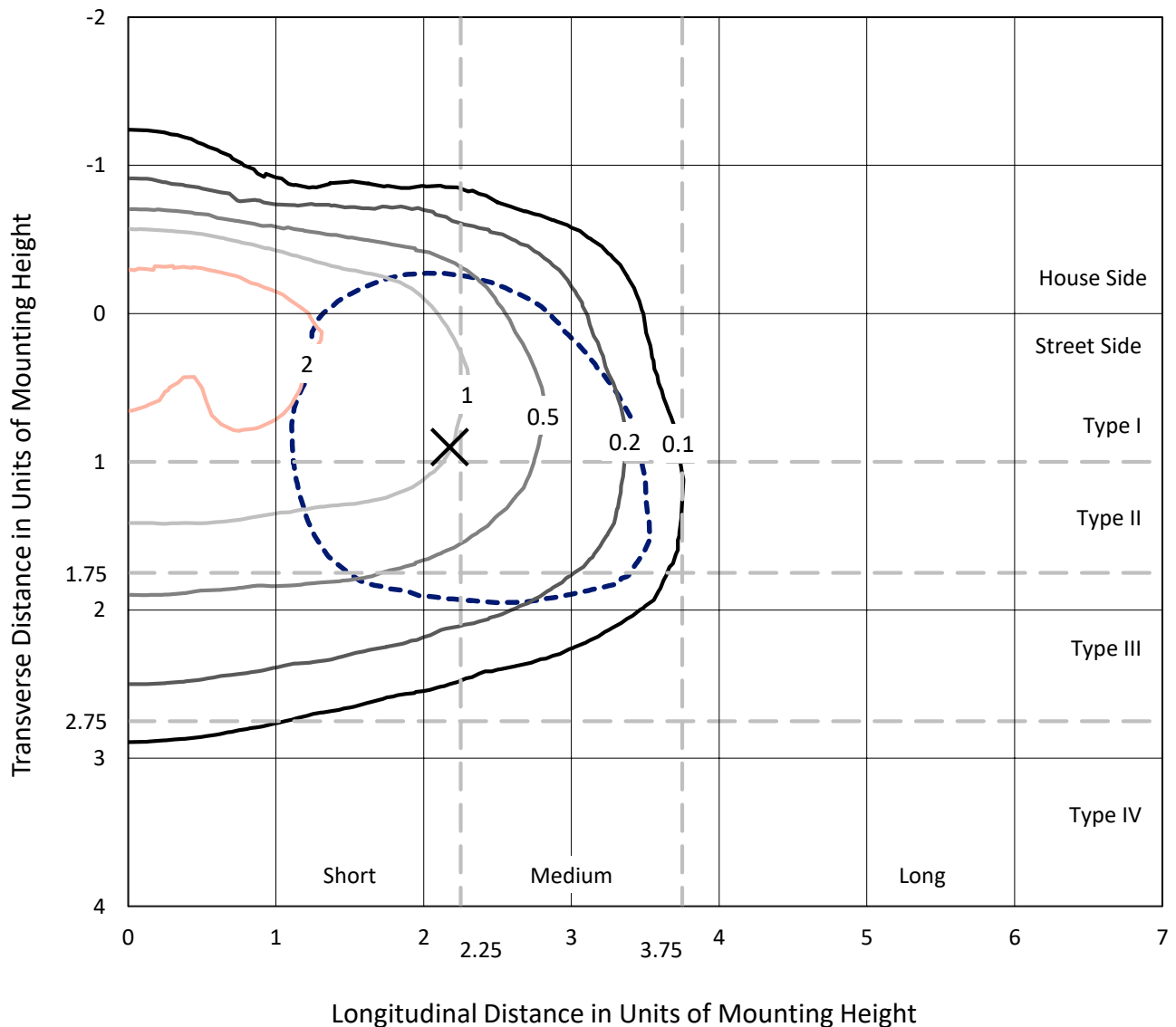
Input Watts (W): 25.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

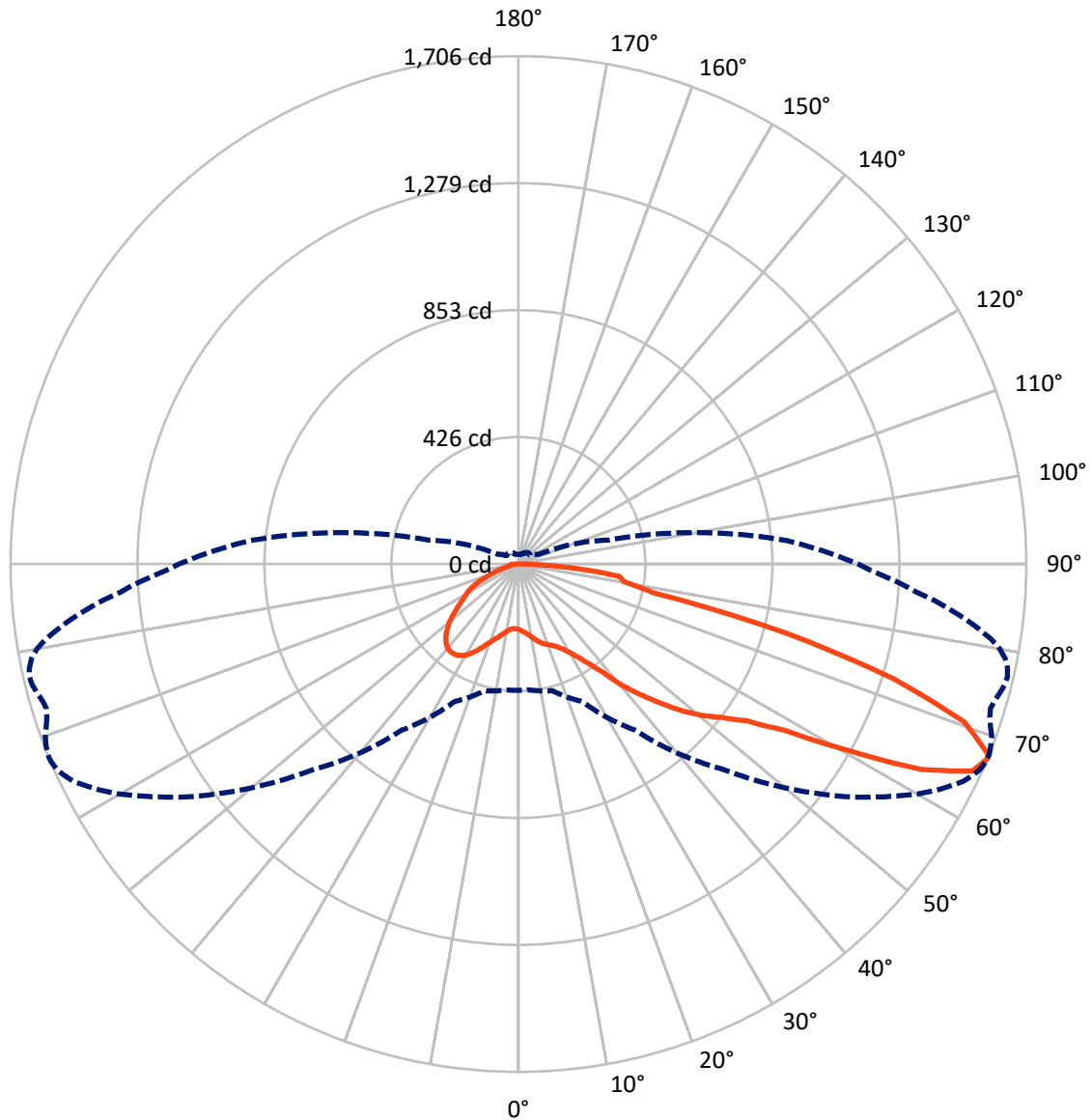
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.8 fc  
 Type III - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67.5-Deg Lateral    - - - Horizontal Cone Through 67-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	489.8	0.0	489.8
	% Fixture	23.7	0.0	23.7
<b>Street Side</b>	Lumens	1578.6	0.0	1578.6
	% Fixture	76.3	0.0	76.3
<b>Total</b>	Lumens	2068.4	0.0	2068.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	22.0	1.1
10°-20°	75.2	3.6
20°-30°	133.9	6.5
30°-40°	195.0	9.4
40°-50°	300.5	14.5
50°-60°	440.0	21.3
60°-70°	584.3	28.3
70°-80°	275.4	13.3
80°-90°	42.1	2.0
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°	2068.4	100.0
0°-180°	2068.4	100.0



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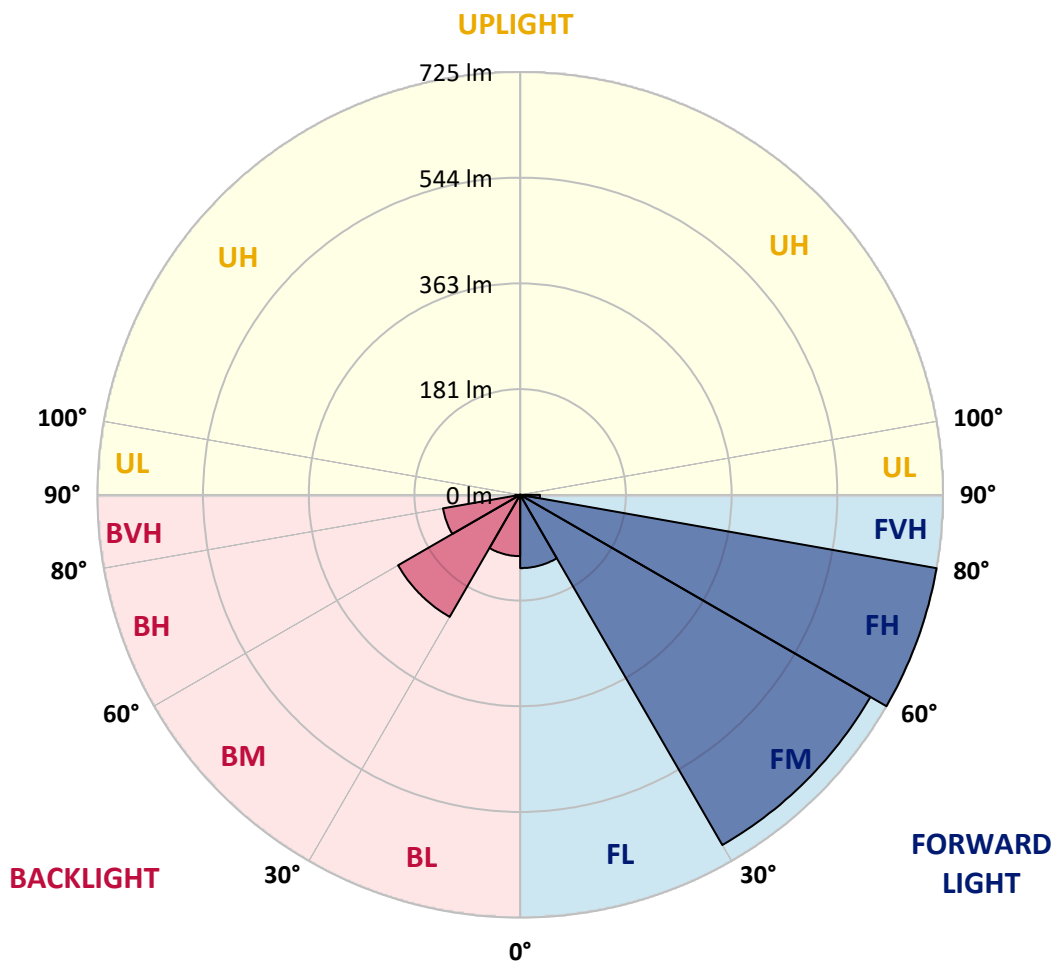
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	125.7	6.1			
FM	(30°-60°)	693.6	33.5			
FH	(60°-80°)	725.3	35.1			G1/1800
FVH	(80°-90°)	33.9	1.6			G1/100
BL	(0°-30°)	105.3	5.1	B0/110		
BM	(30°-60°)	241.9	11.7	B1/1000		
BH	(60°-80°)	134.5	6.5	B1/500		G1/500
BVH	(80°-90°)	8.2	0.4			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0
2.5°	231.0	230.1	230.2	230.6	229.2	228.5	227.0	226.0	225.9	225.7	225.2
5°	244.6	243.6	244.0	242.9	240.2	238.4	235.2	233.5	233.3	233.0	232.3
7.5°	258.6	257.4	256.0	254.7	251.8	248.9	244.7	242.2	241.9	241.5	241.1
10°	275.3	273.5	272.4	268.5	263.5	259.5	255.3	252.6	252.5	252.1	251.2
12.5°	294.2	292.2	290.1	285.0	277.2	271.2	266.3	264.8	263.5	263.6	262.8
15°	312.8	310.7	308.0	301.4	291.1	282.2	275.9	273.7	273.8	273.1	273.5
17.5°	328.6	326.8	322.7	314.4	302.4	290.1	282.2	281.2	281.5	281.3	281.8
20°	338.9	337.8	331.6	321.6	308.1	294.6	286.5	286.5	286.6	287.2	288.2
22.5°	345.2	343.5	335.4	321.3	308.0	296.7	290.4	291.8	292.6	293.0	294.6
25°	348.6	346.6	335.5	316.9	303.2	298.2	296.3	299.7	301.1	301.8	304.3
27.5°	348.6	346.1	333.7	311.3	297.8	302.8	307.4	313.4	314.4	316.5	319.4
30°	344.7	342.8	330.9	307.1	296.4	311.4	325.4	332.2	334.6	336.9	340.7
32.5°	340.6	338.9	329.6	309.4	304.2	329.6	352.8	362.2	363.6	365.5	369.4
35°	340.3	339.7	335.7	323.6	327.7	362.7	394.2	400.6	404.5	405.5	407.2
37.5°	343.2	344.3	347.8	346.6	361.6	412.0	448.4	461.2	464.3	462.6	464.2
40°	350.0	352.8	365.8	381.8	413.3	471.7	522.3	537.0	540.4	539.4	539.0
42.5°	371.6	375.4	394.5	428.8	467.1	533.4	590.8	606.7	607.8	608.4	604.8
45°	405.5	407.6	433.0	476.7	525.3	599.9	659.3	676.9	676.3	673.5	670.8
47.5°	444.0	448.3	478.7	531.6	585.5	661.3	728.5	745.8	747.3	744.8	739.9
50°	478.9	482.3	516.6	579.4	638.6	712.5	786.9	804.3	804.0	805.4	806.8
52.5°	506.5	509.6	542.2	611.3	677.6	755.4	830.9	852.4	855.7	858.0	860.7
55°	520.7	523.9	554.0	624.6	701.3	797.3	881.8	912.6	918.3	923.3	927.9
57.5°	521.0	525.2	552.8	623.6	713.6	834.8	949.1	1004.4	1012.5	1025.3	1041.1
60°	512.5	518.4	543.2	614.5	727.7	882.3	1060.0	1165.9	1181.8	1204.2	1224.4
62.5°	490.4	496.2	518.4	591.5	744.1	943.2	1220.3	1375.5	1409.4	1434.2	1474.2
65°	455.4	461.0	479.6	553.5	731.0	991.3	1339.7	1525.9	1560.4	1591.5	1638.4
67°	424.2	424.7	440.5	509.9	680.0	976.4	1363.7	1545.9	1577.8	1609.3	1663.8
67.5°	413.2	416.2	428.5	495.4	660.6	965.4	1354.2	1535.0	1566.0	1599.6	1655.2
70°	334.0	334.9	346.7	395.2	524.2	800.4	1216.4	1396.4	1417.6	1466.8	1521.4
72.5°	203.7	202.3	206.1	242.0	345.0	554.3	973.9	1149.6	1178.6	1220.5	1257.5
75°	112.2	118.9	123.5	148.4	193.8	325.9	663.2	831.8	874.3	899.2	906.6
77.5°	68.6	68.0	70.1	95.7	159.0	223.0	366.3	488.0	511.7	518.8	491.3
80°	32.6	33.9	33.4	39.4	77.1	188.1	256.1	313.4	325.4	332.2	341.1
82.5°	17.8	18.5	21.0	23.5	30.4	81.0	221.0	289.0	297.1	308.8	321.9
85°	11.1	11.7	16.2	17.0	18.7	24.9	92.1	168.9	175.7	199.0	206.4
87.5°	4.6	5.0	8.8	7.9	9.5	8.8	27.9	42.9	45.6	48.5	53.8
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):**

	65°	66°	67°	67.5°	68°	69°	70°	71°	72°	73°	74°
0°	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0
2.5°	225.3	225.2	224.6	224.5	224.8	224.8	224.5	224.1	223.9	223.8	223.5
5°	232.0	231.7	231.3	231.0	230.9	230.9	230.5	230.1	229.6	229.1	228.9
7.5°	240.0	240.0	239.8	239.4	239.0	238.4	238.0	237.6	237.2	236.9	236.5
10°	250.4	251.0	250.0	249.7	249.6	248.7	248.6	248.2	247.9	247.2	247.2
12.5°	262.8	262.3	262.1	261.6	261.6	261.1	261.0	260.9	260.6	260.0	259.9
15°	273.1	273.1	273.0	272.7	273.0	272.7	272.3	272.6	272.1	272.3	271.9
17.5°	281.5	282.0	281.9	282.0	281.9	281.9	282.2	282.2	282.5	281.9	282.0
20°	288.4	289.3	289.7	289.4	289.7	289.8	290.5	290.8	291.2	291.5	291.5
22.5°	295.7	296.8	297.6	297.6	298.2	298.8	300.0	300.3	301.3	301.1	301.8
25°	305.9	307.7	308.2	309.1	309.8	310.7	312.3	313.0	313.4	314.4	315.5
27.5°	321.5	323.7	324.1	325.1	326.9	327.5	329.1	329.8	331.4	333.5	333.9
30°	342.8	345.6	345.7	346.8	348.9	349.6	351.0	352.8	354.1	356.2	356.3
32.5°	371.8	374.6	374.1	376.2	376.1	378.2	377.8	380.6	381.7	382.8	385.9
35°	410.4	410.1	412.2	412.9	412.5	414.1	413.9	415.1	416.2	416.2	419.6
37.5°	466.0	465.6	465.3	462.4	461.7	461.8	461.2	462.4	460.5	460.5	464.2
40°	540.5	538.0	536.1	534.1	532.2	529.5	527.3	526.7	523.7	523.5	522.1
42.5°	605.3	603.0	601.6	597.8	595.8	595.4	590.0	588.5	587.6	588.2	586.8
45°	673.3	670.8	665.5	663.8	663.3	660.4	659.5	655.8	654.7	656.6	655.9
47.5°	743.4	739.8	736.9	734.9	734.2	731.7	728.1	731.2	729.6	728.5	726.4
50°	806.4	802.4	802.4	798.9	799.4	797.8	794.0	794.8	790.5	792.2	791.1
52.5°	859.2	859.5	860.9	857.0	857.7	857.7	856.4	852.4	853.5	852.9	855.6
55°	926.4	931.0	928.5	929.2	930.0	933.9	936.7	934.3	930.4	933.5	942.0
57.5°	1043.8	1048.0	1050.5	1052.5	1055.7	1057.5	1072.6	1074.6	1070.2	1079.4	1098.3
60°	1248.1	1253.1	1260.7	1270.6	1272.7	1285.3	1293.1	1302.3	1305.7	1313.6	1334.0
62.5°	1493.8	1505.1	1506.5	1519.0	1528.8	1516.9	1520.0	1531.3	1518.5	1536.0	1536.9
65°	1654.6	1671.1	1671.6	1676.2	1679.8	1668.7	1663.7	1658.6	1646.5	1645.8	1658.0
67°	1682.2	1697.2	1703.5	1705.7	1705.2	1699.5	1691.3	1676.8	1665.1	1658.4	1663.4
67.5°	1674.4	1689.2	1697.9	1700.0	1700.2	1694.6	1687.1	1671.3	1660.3	1652.8	1658.1
70°	1546.2	1580.8	1595.8	1588.0	1592.5	1592.5	1592.2	1577.7	1572.3	1565.0	1562.2
72.5°	1285.6	1309.6	1328.7	1318.5	1319.8	1329.2	1327.0	1328.5	1312.9	1311.3	1285.5
75°	920.9	928.6	922.2	929.4	890.4	876.5	852.8	818.2	809.2	794.8	751.9
77.5°	489.2	480.6	463.5	462.1	446.1	433.6	418.3	408.3	382.9	368.9	336.7
80°	345.6	349.8	356.3	360.2	363.8	366.6	360.9	344.9	323.7	300.0	277.6
82.5°	330.1	335.8	339.7	341.7	340.3	335.8	322.7	307.4	279.1	258.6	234.4
85°	208.2	212.8	204.8	203.2	206.7	178.5	163.0	150.5	121.9	113.4	100.2
87.5°	55.9	58.9	59.1	57.3	56.2	49.5	43.8	38.7	32.0	30.1	24.4
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):**

	75°	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°
0°	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0
2.5°	223.5	223.4	223.4	223.0	222.7	222.5	222.4	222.0	221.7	221.7	221.6
5°	228.8	228.5	228.1	228.0	227.4	227.1	226.6	226.3	225.9	225.6	225.5
7.5°	236.3	235.6	234.8	234.9	234.1	233.7	233.4	232.8	232.4	232.0	231.9
10°	246.4	246.2	245.4	245.7	244.1	244.8	243.4	243.6	242.7	241.9	241.8
12.5°	259.2	259.0	258.2	257.2	257.0	257.1	256.3	256.4	255.4	255.1	254.9
15°	271.4	271.2	270.8	270.1	269.6	269.5	269.2	268.9	268.1	268.1	267.1
17.5°	282.0	282.2	281.6	281.1	280.8	280.4	280.2	280.2	279.5	278.8	279.0
20°	291.4	291.7	291.7	291.2	291.4	291.1	291.0	291.2	290.5	290.3	289.8
22.5°	301.8	301.8	302.0	302.2	302.7	302.8	302.8	302.5	302.1	302.0	301.1
25°	316.3	315.8	316.5	316.7	316.7	317.4	317.2	317.3	317.4	317.0	316.6
27.5°	334.6	334.0	335.4	336.4	336.2	336.7	337.5	336.5	337.1	337.5	336.5
30°	357.0	358.4	359.4	360.1	359.8	361.0	361.5	361.3	360.9	361.6	361.6
32.5°	385.6	384.9	387.4	388.9	389.1	388.8	389.5	390.3	389.6	390.7	390.2
35°	419.6	420.0	420.5	422.2	422.9	421.8	422.9	423.9	423.6	423.8	424.3
37.5°	463.5	464.2	463.6	463.7	463.5	468.8	469.6	470.4	469.5	468.6	471.1
40°	524.4	524.4	524.2	526.0	523.0	526.3	525.3	527.7	530.2	528.8	532.6
42.5°	584.3	587.6	587.9	585.3	587.5	591.1	591.1	592.6	594.9	592.6	596.3
45°	653.0	657.2	656.5	660.9	657.6	661.8	662.5	660.5	665.4	665.9	664.5
47.5°	727.9	728.8	728.9	730.5	731.2	734.5	734.4	738.0	736.9	731.3	733.2
50°	792.2	794.3	795.4	796.4	799.9	802.2	805.4	806.0	805.1	803.5	801.9
52.5°	856.4	861.4	864.6	873.3	878.7	883.0	888.3	890.3	889.3	888.9	882.8
55°	942.4	954.4	972.9	984.9	998.0	1005.7	1011.8	1014.9	1012.6	1013.8	1001.1
57.5°	1104.3	1132.5	1148.6	1169.1	1192.3	1201.9	1204.5	1215.4	1203.4	1191.4	1181.8
60°	1345.0	1370.9	1400.3	1421.3	1429.1	1455.8	1443.2	1429.1	1416.3	1391.5	1363.5
62.5°	1562.2	1595.7	1610.7	1630.4	1625.1	1622.8	1614.5	1592.0	1564.6	1527.7	1490.3
65°	1669.4	1688.2	1697.5	1703.9	1697.9	1682.5	1654.9	1621.7	1582.4	1534.6	1485.6
67°	1673.7	1682.3	1685.4	1679.3	1665.9	1641.8	1607.0	1560.0	1511.6	1456.9	1401.7
67.5°	1666.6	1672.3	1673.8	1664.2	1648.3	1622.3	1585.1	1534.9	1483.5	1426.6	1371.2
70°	1569.6	1565.4	1551.9	1538.7	1489.1	1454.1	1389.3	1335.8	1264.4	1212.2	1153.0
72.5°	1275.2	1256.1	1243.0	1184.5	1124.5	1089.8	1020.2	956.2	891.1	841.4	805.0
75°	715.8	701.9	665.5	634.6	585.1	539.8	507.4	466.7	427.7	404.5	387.5
77.5°	323.4	283.6	256.1	221.4	178.9	143.8	106.7	98.7	84.2	80.5	72.6
80°	252.4	223.8	187.8	148.1	104.5	70.2	51.6	43.8	41.1	39.4	38.6
82.5°	210.6	173.5	146.0	103.7	66.3	44.6	33.6	30.4	28.4	27.0	25.8
85°	90.0	71.2	58.7	41.9	29.8	23.5	20.6	18.8	17.0	15.5	14.5
87.5°	21.0	16.2	14.8	12.5	11.8	11.7	11.6	11.0	10.3	9.5	8.5
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):**

	86°	87°	88°	89°	90°	95°	105°	115°	125°	135°	145°
0°	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0
2.5°	221.4	221.3	221.0	220.6	220.6	220.0	218.2	217.0	215.6	214.7	213.9
5°	225.2	225.0	224.3	223.9	223.7	222.5	219.5	217.1	214.6	212.8	211.4
7.5°	231.5	231.0	230.5	230.2	229.4	228.0	223.5	220.2	216.5	213.6	211.3
10°	241.6	240.9	240.1	239.3	239.5	237.3	232.2	227.3	222.0	217.4	214.2
12.5°	254.0	254.0	253.6	253.1	252.1	249.6	242.6	236.9	230.5	224.8	222.4
15°	267.1	266.4	265.7	264.9	264.8	261.4	255.1	248.6	241.9	237.0	234.2
17.5°	277.9	278.1	277.2	276.9	276.6	273.3	266.6	260.7	255.8	250.7	246.2
20°	289.3	288.7	288.4	288.0	287.9	285.1	279.8	276.2	271.9	264.1	252.4
22.5°	301.5	300.9	301.1	300.3	300.2	298.2	294.3	293.2	286.8	270.3	250.0
25°	317.4	316.2	316.6	316.6	316.7	314.9	314.5	312.6	296.4	268.8	240.5
27.5°	336.4	336.9	336.9	336.8	335.8	336.4	338.3	331.6	299.7	260.7	226.3
30°	361.0	361.3	361.6	362.6	360.5	364.1	366.5	345.2	297.2	249.6	208.5
32.5°	391.0	389.9	390.5	391.0	391.7	395.5	394.1	352.0	289.8	234.4	186.3
35°	424.0	426.1	426.7	427.9	429.3	435.0	419.0	353.4	278.6	214.0	158.0
37.5°	473.2	476.6	476.6	481.0	478.4	485.3	441.3	350.0	261.4	185.7	126.1
40°	535.2	536.8	538.3	538.9	537.5	536.6	455.9	341.8	237.3	150.2	92.2
42.5°	598.5	597.9	598.1	599.1	595.3	579.5	465.0	327.5	207.3	112.2	66.2
45°	666.6	664.3	663.6	661.6	658.3	625.1	470.2	307.3	167.9	78.9	52.0
47.5°	733.0	730.0	725.6	720.1	713.7	661.8	469.6	281.1	128.8	56.4	45.8
50°	801.0	795.8	786.2	780.9	770.0	698.1	466.4	251.9	92.7	46.7	42.9
52.5°	878.7	869.5	860.6	850.0	832.0	742.9	461.5	219.2	67.6	42.8	41.0
55°	994.7	979.6	965.0	943.0	925.5	802.8	453.3	183.9	53.4	41.2	39.9
57.5°	1154.5	1128.9	1110.3	1080.6	1052.8	885.7	444.5	151.9	47.7	40.8	39.3
60°	1334.4	1295.8	1261.2	1224.7	1193.0	989.2	439.9	126.8	46.4	41.2	39.4
62.5°	1447.3	1401.7	1358.5	1313.9	1268.2	1038.7	420.0	109.5	47.0	43.1	40.6
65°	1433.0	1382.7	1335.8	1281.4	1238.4	992.0	369.3	92.7	47.9	46.3	43.6
67°	1337.2	1288.4	1234.9	1181.7	1139.9	903.2	311.7	78.0	49.1	49.9	47.0
67.5°	1311.5	1256.6	1202.7	1153.8	1108.5	875.8	296.7	74.4	49.3	50.9	48.1
70°	1093.7	1050.3	987.1	950.9	918.2	710.0	221.3	57.8	50.2	55.2	53.4
72.5°	765.3	723.2	690.2	670.4	651.3	515.9	155.7	46.1	48.9	57.6	55.7
75°	386.5	376.9	365.4	359.0	359.2	299.9	93.8	39.3	46.0	55.2	50.6
77.5°	76.4	74.4	75.2	82.4	81.1	92.4	46.5	33.3	39.2	42.5	36.4
80°	36.9	35.7	34.6	34.3	33.6	32.2	29.3	27.7	31.8	28.0	24.1
82.5°	24.0	22.6	22.0	20.9	21.0	22.9	25.5	26.6	25.8	19.4	16.3
85°	13.5	13.4	13.1	13.4	13.9	18.3	27.3	24.9	20.8	13.7	12.3
87.5°	8.1	7.7	7.8	7.9	8.2	13.5	21.6	18.0	13.2	7.1	7.2
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):**

	155°	165°	175°	180°
0°	220.0	220.0	220.0	220.0
2.5°	213.8	213.2	213.2	213.1
5°	210.3	209.4	209.3	209.3
7.5°	209.7	208.6	208.5	208.0
10°	212.2	211.8	211.9	211.5
12.5°	220.2	220.7	221.3	221.3
15°	232.3	231.9	232.6	231.9
17.5°	241.2	237.6	236.8	236.3
20°	241.5	234.0	231.5	231.0
22.5°	232.8	221.7	217.5	216.8
25°	218.2	204.1	198.8	198.3
27.5°	199.8	184.1	176.3	176.0
30°	177.7	159.0	149.1	147.6
32.5°	150.6	128.5	118.0	114.7
35°	119.4	96.7	87.0	86.7
37.5°	89.2	71.5	65.2	64.9
40°	65.4	56.2	53.8	53.4
42.5°	53.4	49.6	48.6	48.2
45°	47.8	46.3	45.7	45.3
47.5°	44.5	43.5	43.1	43.1
50°	41.8	41.5	41.2	41.2
52.5°	40.0	39.9	39.6	39.4
55°	38.5	37.9	38.0	37.9
57.5°	37.5	36.6	36.6	36.6
60°	36.9	35.4	35.4	35.5
62.5°	37.1	34.7	34.6	34.6
65°	38.2	34.3	33.4	33.6
67°	39.6	33.9	32.2	32.0
67.5°	40.0	33.6	31.8	31.6
70°	41.7	32.7	29.7	29.4
72.5°	41.9	31.5	27.6	27.3
75°	39.0	29.8	25.9	25.2
77.5°	30.4	25.6	23.4	23.4
80°	21.3	19.6	16.7	16.6
82.5°	15.6	14.8	12.3	12.0
85°	11.4	10.7	9.1	9.1
87.5°	7.1	6.8	5.9	5.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)