

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: INVUE

Report Number: P95418

Luminaire Tested: **VFS-K-B20-3-LED-E1-VAT**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P95418  
REPORT SCALED FROM IESNA LM79-08 TEST DATA (P22788)  
Test Lab: INNOVATION CENTER  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: VFS-K-B20-3-LED-E1-VAT  
Description: ARCHITECTURAL FLOOD LUMINAIRE  
VERTICAL ASYMMETRIC RECTANGULAR DISTRIBUTION  
WITH 20 LED'S, 350mA DRIVE CURRENT  
Light Source: -  
Ballast/Driver: -

**Summary**

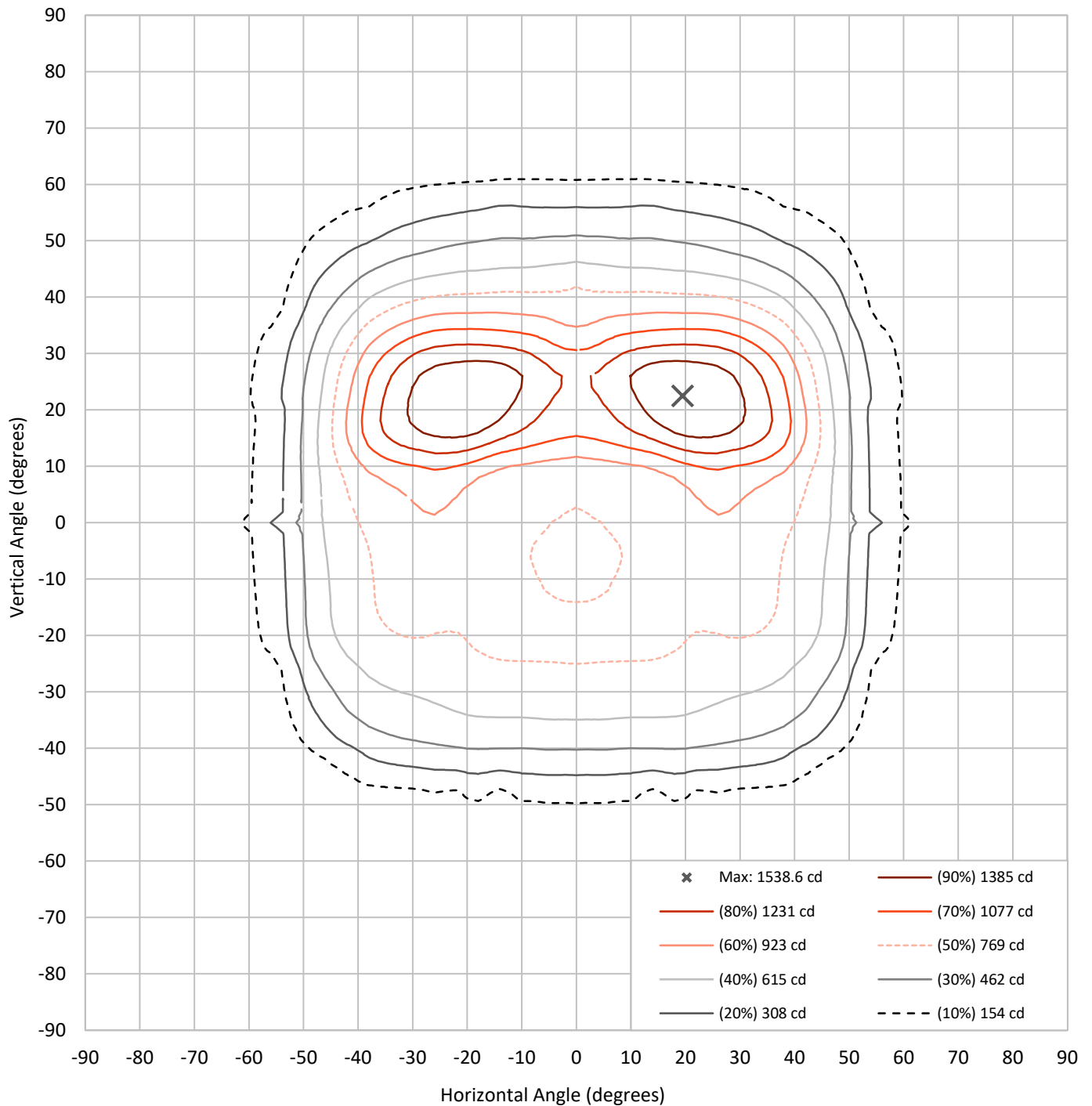
Lumens per Lamp:	N/A	NEMA Type:	6H x 6V
Luminaire Lumens:	2243.3 lumens	Max Intensity:	1538.6 candela
Efficiency:	N/A	Max Intensity Angle:	19.5°H x 22.5°V
Efficacy:	93.9 lumens/watt		
Luminous Opening:	(L: 0.83 ' x W: 0 ' x H: 0.5 ')		
Beam Angle (50%):	88.4°H x 62.2°V	Field Angle (10%):	119.7°H x 109.7°V
Beam Lumens:	1360.2 lumens	Field Lumens:	2155.2 lumens
Beam Efficiency:	60.6%	Field Efficiency:	96.1%
Input Watts (W):	23.9		
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-Candela Plot

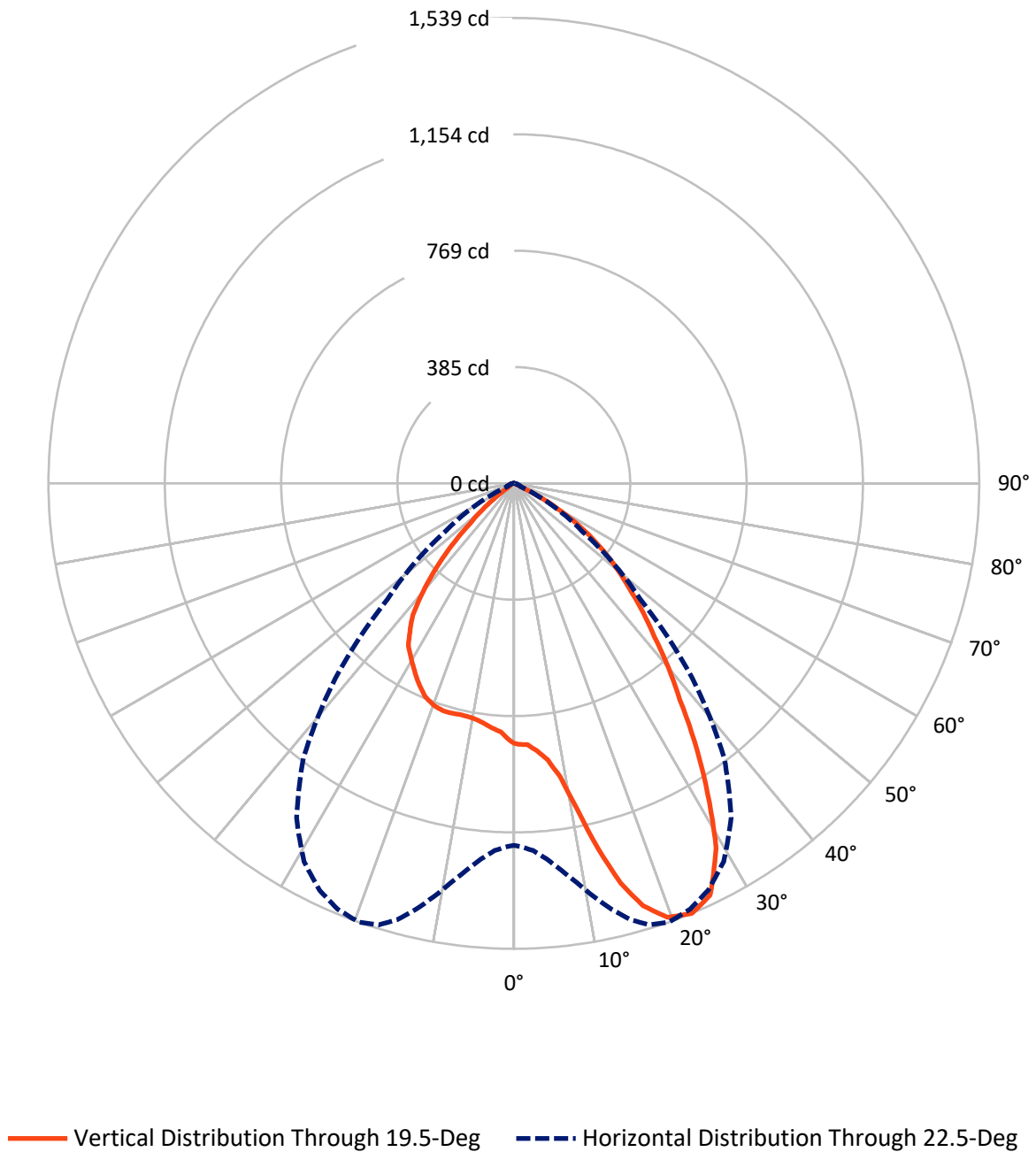




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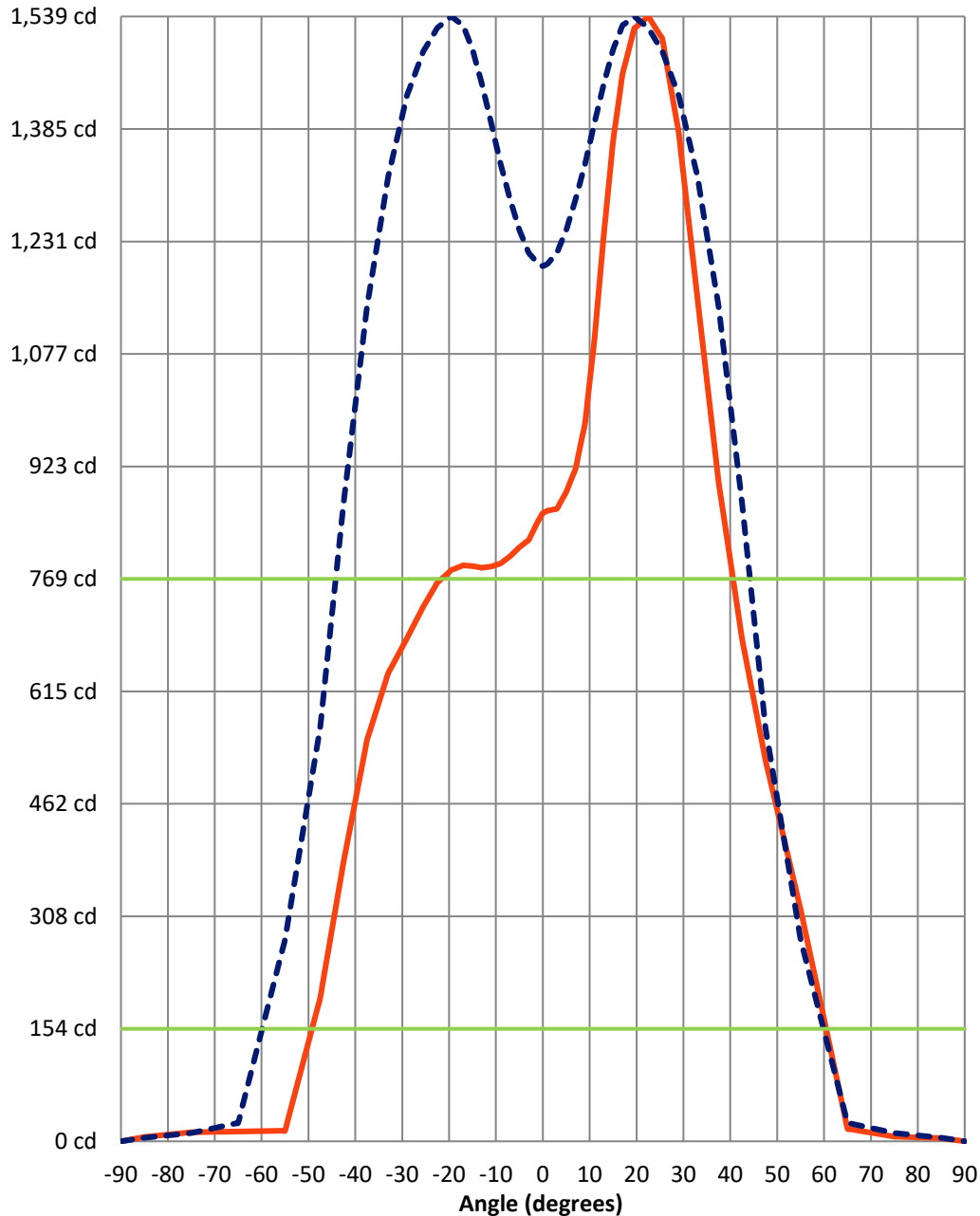
### Luminous Intensity Polar Plot



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### Luminous Intensity Plot



**Beam:**  
 H Angle: 88.4°  
 V Angle: 62.2°  
 Lumens: 1360.2  
 Efficiency: 60.6%

**Field:**  
 H Angle: 119.7°  
 V Angle: 109.7°  
 Lumens: 2155.2  
 Efficiency: 96.1%

**Spill:**  
 Lumens: 88.1  
 Efficiency: 3.9%

— Vertical Distribution through 19.5-Deg  
 - - - Horizontal Distribution through 22.5-Deg



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FIELD  
BEAM

**CANDELA DISTRIBUTION:**

	0°	1°	3°	5°	7°	9°	11°	13°	15°	17°	19.5°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	1.1	2.7	3.8	4.3	4.3	4.3	4.3	4.3	4.3
75°	4.3	4.8	6.4	5.9	3.8	3.2	4.3	4.8	5.4	5.9	6.4
65°	19.3	19.3	24.7	27.4	27.4	25.8	21.5	19.9	16.1	14.5	17.2
55°	338.9	336.7	335.1	336.2	335.6	337.8	346.4	351.8	343.7	326.5	316.9
47.5°	567.6	561.2	557.4	559.1	546.7	537.6	536.0	536.0	533.3	528.4	521.5
42.5°	758.8	753.5	734.1	721.2	712.6	712.1	710.5	710.0	701.9	689.0	687.4
37.5°	832.9	835.6	853.4	876.4	886.1	890.9	896.9	904.9	909.2	908.7	901.7
33°	980.1	980.1	999.4	1041.3	1076.8	1099.3	1114.3	1126.7	1136.9	1145.5	1152.5
29°	1142.3	1142.3	1160.5	1199.2	1244.8	1290.5	1327.0	1354.4	1373.2	1381.3	1379.1
25.5°	1222.3	1224.4	1242.7	1279.2	1324.3	1375.3	1427.4	1467.2	1497.3	1510.7	1508.0
22.5°	1197.1	1200.3	1215.3	1246.5	1288.9	1336.7	1392.5	1446.2	1493.5	1526.3	1538.6
19.5°	1167.0	1169.7	1183.1	1208.3	1243.8	1285.1	1335.6	1392.0	1445.7	1491.3	1522.0
17°	1129.4	1132.6	1145.0	1167.0	1198.7	1237.3	1277.6	1321.6	1371.1	1418.3	1459.7
15°	1069.8	1074.1	1088.6	1105.8	1128.8	1160.0	1190.6	1225.0	1269.6	1318.4	1368.9
13°	980.1	984.9	997.8	1010.2	1027.9	1055.8	1077.8	1102.0	1138.5	1185.2	1239.5
11°	888.8	894.2	904.9	913.5	924.8	943.6	955.9	973.1	1001.6	1041.8	1096.1
9°	821.7	824.4	832.4	839.4	848.0	864.1	871.6	882.9	903.3	932.8	982.2
7°	792.1	794.8	803.4	810.4	816.3	830.3	835.6	842.6	859.8	879.7	920.5
5°	778.2	779.8	791.1	795.4	801.8	815.2	819.5	824.4	836.7	851.7	888.3
3°	769.6	771.2	779.2	785.1	793.2	803.4	805.6	810.9	819.0	831.3	865.2
1°	762.6	763.1	768.0	774.4	781.4	788.9	792.7	798.0	805.0	823.8	862.5
0°	760.4	761.0	764.7	770.1	776.0	782.5	786.8	792.1	799.1	820.1	859.3
-1°	758.8	759.4	762.6	768.0	772.8	777.6	781.9	787.8	794.3	814.1	848.5
-3°	757.8	757.8	760.4	764.2	769.0	772.3	776.0	781.4	787.3	799.1	822.7
-5°	756.1	756.1	758.3	762.1	766.4	770.1	774.4	780.3	786.8	794.8	812.5
-7°	755.1	755.1	758.3	761.5	766.9	770.6	774.9	780.9	785.7	789.4	800.2
-9°	757.8	758.3	761.0	764.2	769.0	772.3	776.0	780.3	784.1	785.7	790.5
-11°	761.0	761.0	763.7	767.4	770.6	773.9	777.1	781.9	785.1	785.1	786.2
-13°	763.7	764.2	765.8	768.0	772.3	777.6	781.9	786.8	788.9	786.2	784.6
-15°	773.9	773.3	774.4	776.6	781.4	787.8	791.1	793.2	793.2	790.0	786.8
-17°	791.6	791.1	792.1	793.2	797.5	802.3	805.6	806.6	802.9	795.9	787.8
-19.5°	795.9	796.4	798.0	798.6	801.3	803.9	806.6	807.2	803.4	795.4	781.4
-22.5°	793.2	793.2	792.1	791.1	792.1	792.1	793.2	792.7	788.4	781.4	764.2
-25.5°	766.4	765.3	764.2	761.5	761.5	758.3	758.3	757.2	753.5	745.9	731.4
-29°	719.6	718.6	717.5	714.8	712.6	708.4	708.9	708.4	705.1	698.7	687.9
-33°	663.8	662.7	662.2	661.1	658.4	653.0	650.4	650.9	649.3	647.1	640.1
-37.5°	551.5	549.9	551.0	553.1	548.3	542.9	544.6	545.6	547.2	549.9	548.9
-42.5°	388.8	387.2	386.1	390.4	384.0	379.7	379.1	379.1	378.1	383.4	382.4
-47.5°	211.6	208.4	207.3	212.1	199.8	199.8	196.6	130.0	129.4	203.0	196.0
-55°	20.4	19.9	20.9	21.5	19.9	17.7	15.6	14.5	14.0	14.5	14.5
-65°	11.8	11.8	11.8	12.4	12.9	12.9	12.9	12.9	13.4	14.0	13.4
-75°	12.9	12.9	12.9	12.4	12.9	14.5	16.1	16.1	15.0	13.4	12.4
-85°	0.0	0.5	1.6	4.3	5.9	7.0	7.0	6.4	6.4	5.9	5.9
-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):**

	22.5°	25.5°	29°	33°	37.5°	42.5°	47.5°	55°	65°	75°	85°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.8	4.8
75°	7.0	7.0	7.0	6.4	7.0	5.9	5.4	5.4	6.4	5.4	4.8
65°	19.3	18.3	17.2	17.2	18.8	16.6	16.6	9.7	10.2	7.0	4.8
55°	301.3	288.4	266.9	235.2	171.9	150.4	91.3	23.6	13.4	9.7	4.8
47.5°	509.6	489.8	465.6	431.8	373.8	308.8	227.2	41.4	15.0	11.8	4.8
42.5°	679.9	664.3	643.9	604.2	533.8	422.1	316.3	79.5	16.1	11.8	4.8
37.5°	900.1	893.1	860.9	804.5	710.5	545.6	398.5	114.9	16.6	11.8	4.8
33°	1153.0	1141.2	1096.6	1011.8	890.4	678.8	471.5	203.0	19.3	11.8	4.8
29°	1367.3	1350.6	1297.5	1182.6	1028.4	780.9	522.5	234.1	21.5	11.3	4.8
25.5°	1490.3	1465.6	1401.7	1278.1	1107.4	841.5	547.8	257.2	23.1	11.3	4.8
22.5°	1523.0	1490.8	1430.1	1319.0	1141.7	873.2	566.0	276.0	25.2	11.3	4.8
19.5°	1517.7	1488.7	1433.9	1337.8	1169.1	902.2	587.5	226.6	27.9	11.3	4.8
17°	1470.4	1453.8	1409.2	1330.2	1177.7	911.9	600.9	232.5	29.5	11.3	4.8
15°	1394.1	1383.9	1342.1	1273.3	1145.0	899.0	607.9	236.3	31.1	11.3	4.8
13°	1273.3	1278.1	1236.8	1189.0	1085.3	870.5	610.6	240.6	31.7	11.3	4.8
11°	1138.5	1158.4	1126.7	1093.9	1008.0	831.3	605.8	243.8	32.2	10.7	4.8
9°	1026.8	1053.7	1026.3	990.8	931.8	792.7	599.3	247.0	33.3	10.7	4.3
7°	967.7	996.2	975.8	939.8	881.8	766.4	595.0	249.7	34.4	10.7	4.3
5°	935.0	961.8	946.8	904.4	853.4	753.5	594.0	251.3	35.4	10.7	4.3
3°	912.4	938.2	928.5	879.1	833.5	743.3	593.4	251.9	36.0	10.7	4.3
1°	894.2	920.5	912.4	857.1	814.7	733.1	590.7	250.8	36.0	10.2	4.3
0°	886.6	912.4	904.4	847.4	806.6	727.7	589.1	339.4	36.5	10.7	4.3
-1°	878.6	903.8	896.3	837.8	798.6	721.8	587.0	249.2	36.5	10.7	4.3
-3°	859.3	883.4	880.2	826.5	784.1	711.0	580.0	247.0	36.0	10.2	4.3
-5°	838.9	864.1	870.5	825.4	774.9	701.4	573.0	243.8	35.4	10.7	4.3
-7°	820.6	849.1	865.7	832.4	770.6	695.5	567.6	240.1	34.4	10.7	4.3
-9°	807.2	838.3	860.9	837.2	766.4	689.6	562.3	236.8	32.8	10.7	4.3
-11°	800.2	830.8	857.1	838.9	761.0	685.3	558.5	232.5	32.2	11.3	4.3
-13°	795.4	822.7	851.7	837.2	759.4	681.5	554.2	228.8	31.1	10.7	4.3
-15°	791.6	811.5	837.8	828.6	757.8	678.3	553.7	224.5	30.6	10.2	4.3
-17°	784.6	795.9	817.4	808.2	749.7	674.0	555.3	219.6	29.5	9.7	4.3
-19.5°	766.4	769.0	785.7	773.9	727.7	658.9	545.1	209.4	27.9	9.1	4.3
-22.5°	741.1	735.7	742.2	732.5	694.9	626.7	515.6	188.5	24.7	8.1	4.3
-25.5°	711.6	699.2	693.9	682.6	648.7	578.4	464.5	111.2	22.0	7.5	4.3
-29°	673.4	655.2	639.6	628.3	598.8	522.0	401.2	97.7	18.3	7.5	4.3
-33°	624.6	605.2	587.0	571.9	541.9	461.3	329.7	78.9	14.5	7.0	4.3
-37.5°	533.3	517.7	498.9	476.4	438.8	363.0	241.1	56.9	10.7	6.4	4.8
-42.5°	372.2	363.0	347.5	329.2	293.2	184.7	117.6	37.1	9.7	5.9	4.8
-47.5°	129.4	163.3	132.6	126.7	123.5	96.1	67.1	22.6	8.6	5.9	4.8
-55°	16.6	17.7	21.5	22.0	21.5	19.3	18.3	17.2	7.5	5.4	4.8
-65°	13.4	13.4	12.9	12.4	13.4	14.5	12.9	13.4	6.4	4.8	4.8
-75°	11.3	11.3	12.9	13.4	12.4	11.8	9.1	7.5	5.4	4.8	4.8
-85°	5.9	5.4	5.4	5.4	5.4	5.4	4.8	4.8	4.8	4.8	4.8
-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):**

	90°
90°	0.0
85°	0.0
75°	0.0
65°	0.0
55°	0.0
47.5°	0.0
42.5°	0.0
37.5°	0.0
33°	0.0
29°	0.0
25.5°	0.0
22.5°	0.0
19.5°	0.0
17°	0.0
15°	0.0
13°	0.0
11°	0.0
9°	0.0
7°	0.0
5°	0.0
3°	0.0
1°	0.0
0°	0.0
-1°	0.0
-3°	0.0
-5°	0.0
-7°	0.0
-9°	0.0
-11°	0.0
-13°	0.0
-15°	0.0
-17°	0.0
-19.5°	0.0
-22.5°	0.0
-25.5°	0.0
-29°	0.0
-33°	0.0
-37.5°	0.0
-42.5°	0.0
-47.5°	0.0
-55°	0.0
-65°	0.0
-75°	0.0
-85°	0.0
-90°	0.0

(END OF REPORT)