

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: P141088

Luminaire Tested: **ECM-E04-LED-E1-SL3-8030**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P141088  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33691)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ECM-E04-LED-E1-SL3-8030  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL  
Light Source: (84) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9769.6 lumens  
Efficiency: N/A  
Efficacy: 100.5 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G2

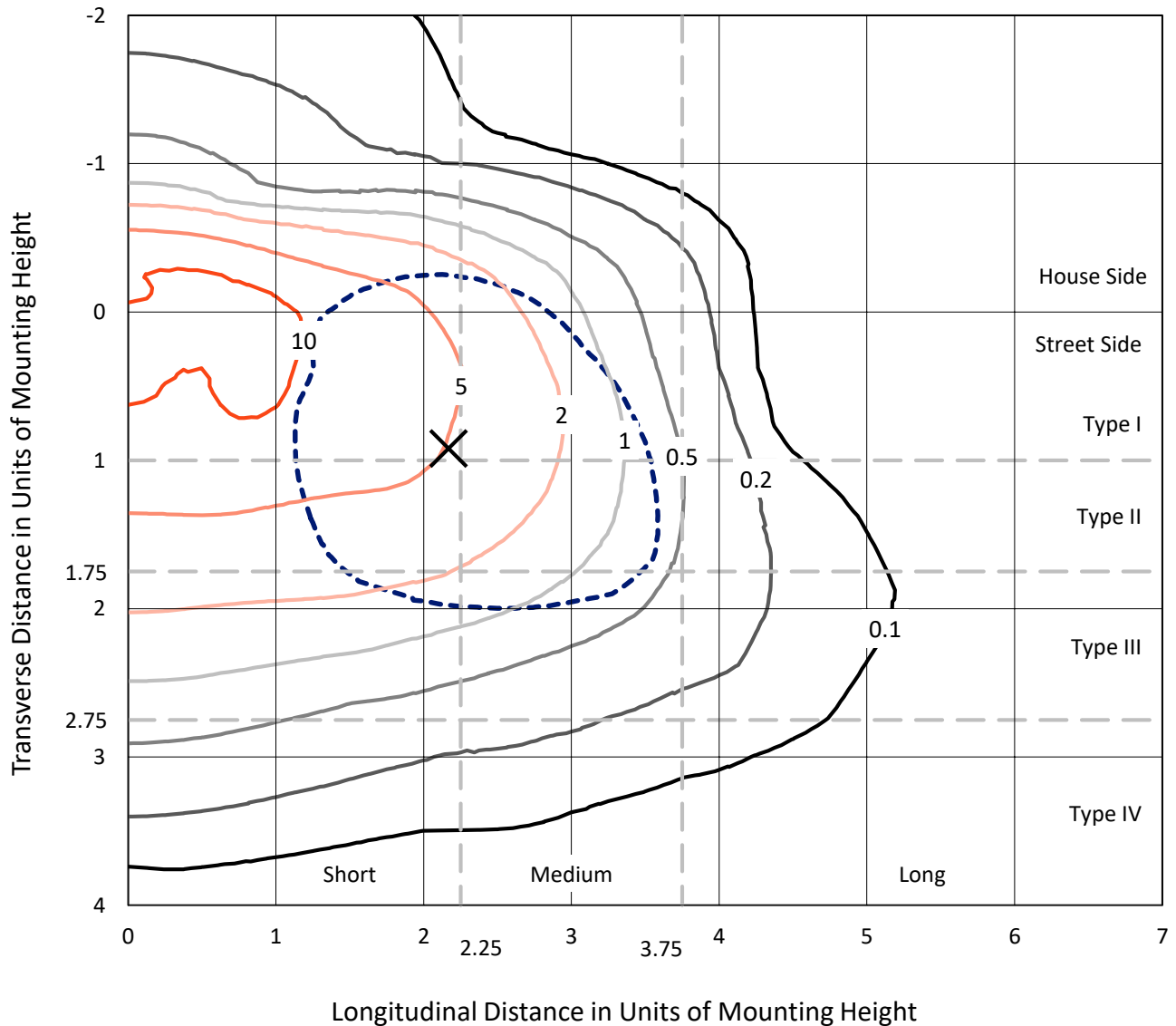
Input Watts (W): 97.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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 CATALOG NUMBER: ECM-E04-LED-E1-SL3-8030

### Iso-Footcandle Lines of Horizontal Illumination

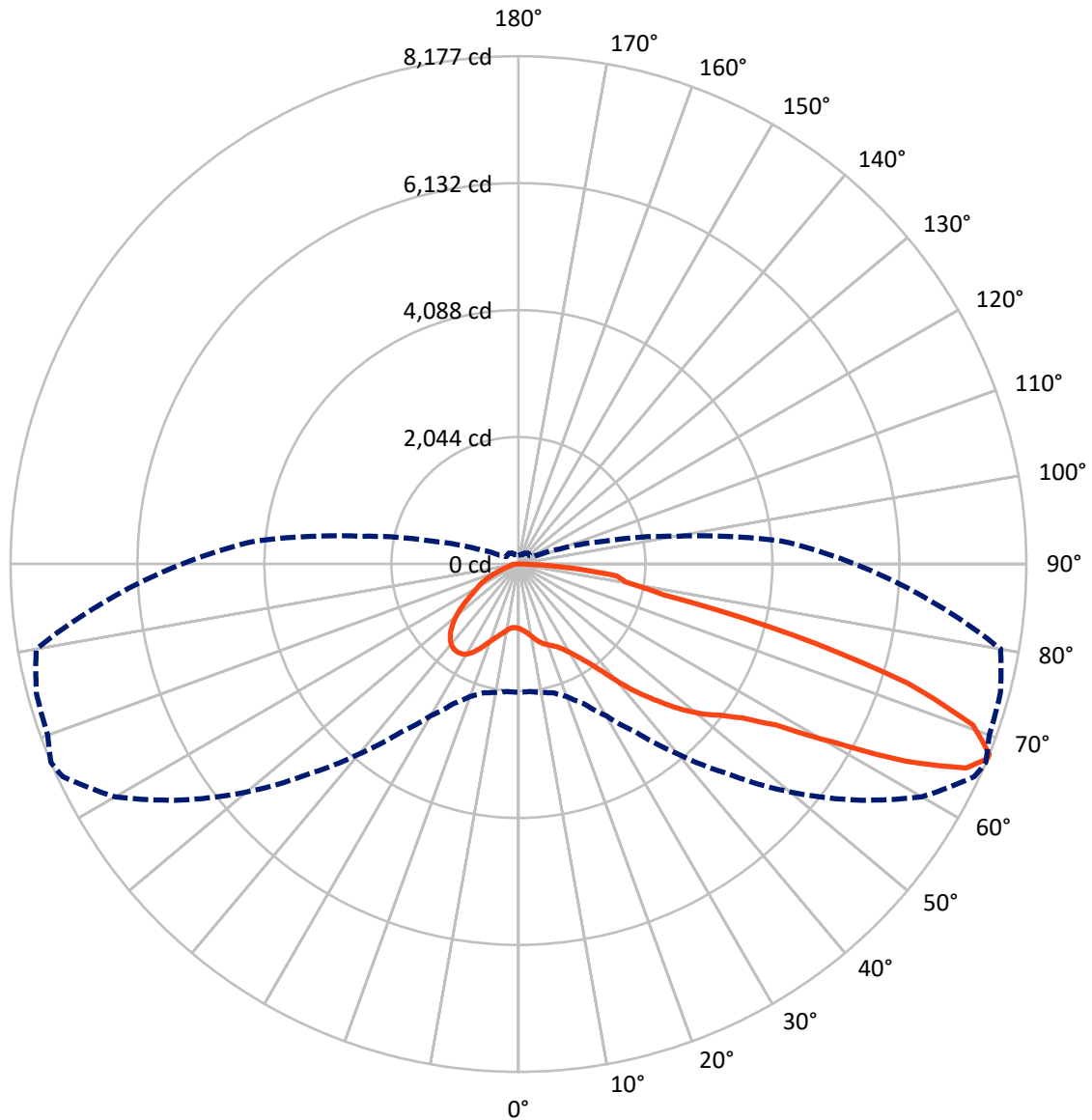
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 13.6 fc  
 Type III - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



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

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2247.5	0.0	2247.5
	% Fixture	23.0	0.0	23.0
<b>Street Side</b>	Lumens	7522.1	0.0	7522.1
	% Fixture	77.0	0.0	77.0
<b>Total</b>	Lumens	9769.6	0.0	9769.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.9	1.1
10°-20°	359.2	3.7
20°-30°	639.5	6.5
30°-40°	919.3	9.4
40°-50°	1401.1	14.3
50°-60°	2046.7	20.9
60°-70°	2757.7	28.2
70°-80°	1353.9	13.9
80°-90°	188.3	1.9
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°	9769.6	100.0
0°-180°	9769.6	100.0



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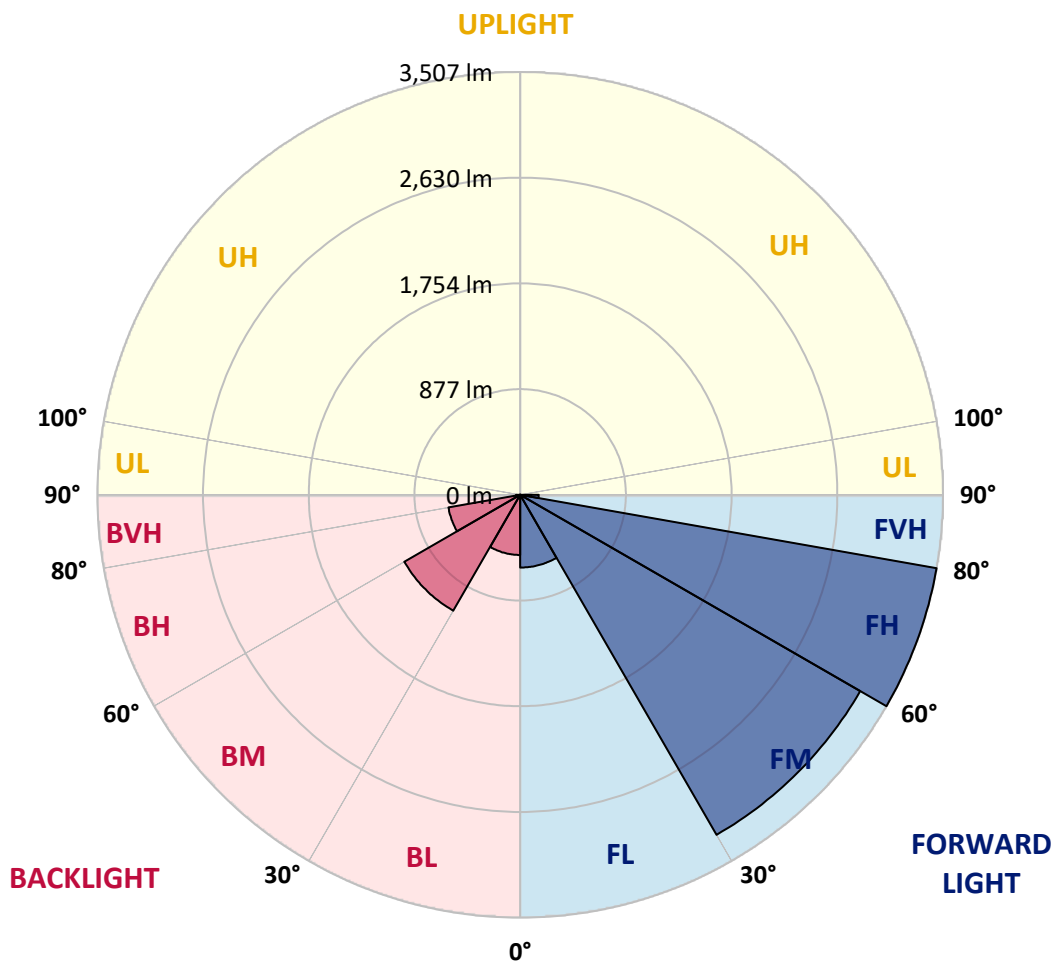
CATALOG NUMBER: ECM-E04-LED-E1-SL3-8030

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	603.5	6.2			
FM	(30°-60°)	3257.0	33.3			
FH	(60°-80°)	3507.3	35.9			G2/5000
FVH	(80°-90°)	154.3	1.6			G2/225
BL	(0°-30°)	499.1	5.1	B1/500		
BM	(30°-60°)	1110.2	11.4	B2/2500		
BH	(60°-80°)	604.3	6.2	B2/1000		G2/1000
BVH	(80°-90°)	33.9	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4
2.5°	1090.4	1084.8	1089.3	1088.2	1084.8	1080.3	1082.6	1079.2	1076.9	1073.6	1070.2
5°	1161.3	1158.0	1155.7	1152.3	1150.1	1146.7	1144.5	1138.8	1130.9	1125.3	1120.8
7.5°	1231.1	1230.0	1226.6	1222.1	1213.1	1210.8	1203.0	1197.3	1190.6	1179.3	1170.3
10°	1313.2	1312.1	1306.5	1299.7	1289.6	1279.5	1270.5	1257.0	1243.5	1233.4	1225.5
12.5°	1412.3	1406.7	1395.4	1386.4	1375.1	1359.4	1344.8	1329.0	1309.9	1294.1	1285.1
15°	1511.3	1504.6	1495.6	1483.2	1466.3	1444.9	1423.5	1399.9	1370.6	1350.4	1338.0
17.5°	1592.3	1587.8	1577.7	1560.8	1543.9	1518.1	1489.9	1457.3	1421.3	1390.9	1371.8
20°	1650.8	1646.3	1630.6	1610.3	1587.8	1558.6	1528.2	1492.2	1449.4	1412.3	1390.9
22.5°	1675.6	1668.9	1650.8	1623.8	1593.5	1557.4	1524.8	1494.4	1455.0	1426.9	1404.4
25°	1683.5	1675.6	1652.0	1618.2	1578.8	1532.7	1495.6	1471.9	1448.3	1438.2	1430.3
27.5°	1679.0	1672.2	1646.3	1604.7	1551.8	1497.8	1458.4	1441.5	1442.7	1461.8	1470.8
30°	1663.2	1655.3	1631.7	1585.6	1529.3	1470.8	1435.9	1430.3	1456.2	1504.6	1540.6
32.5°	1637.3	1631.7	1612.6	1573.2	1522.6	1471.9	1447.2	1459.5	1504.6	1580.0	1641.8
35°	1630.6	1629.5	1620.5	1599.1	1561.9	1529.3	1519.2	1554.1	1628.3	1731.9	1810.6
37.5°	1629.5	1635.1	1639.6	1639.6	1631.7	1629.5	1659.8	1708.2	1818.5	1947.9	2076.2
40°	1652.0	1662.1	1684.6	1713.9	1742.0	1782.5	1844.4	1935.6	2050.3	2207.9	2367.7
42.5°	1721.7	1744.2	1782.5	1833.1	1906.3	1981.7	2081.8	2195.5	2342.9	2501.6	2660.3
45°	1857.9	1890.5	1918.7	1998.6	2095.3	2184.2	2314.8	2464.5	2626.5	2825.7	2996.7
47.5°	2038.0	2061.6	2120.1	2204.5	2322.7	2449.8	2575.9	2706.4	2901.1	3109.3	3316.3
50°	2218.0	2236.0	2297.9	2396.9	2552.2	2691.8	2835.8	2965.2	3132.9	3353.5	3556.0
52.5°	2351.9	2376.7	2430.7	2527.5	2701.9	2860.6	3024.9	3167.8	3356.8	3554.9	3766.5
55°	2444.2	2460.0	2509.5	2604.0	2768.3	2949.5	3135.1	3310.7	3535.8	3759.7	3970.1
57.5°	2458.8	2474.6	2519.6	2602.9	2762.7	2952.8	3165.5	3380.5	3652.8	3948.8	4224.5
60°	2441.9	2454.3	2493.7	2562.4	2713.1	2921.3	3174.5	3444.6	3780.0	4161.4	4555.3
62.5°	2366.6	2378.9	2414.9	2471.2	2605.1	2830.2	3147.5	3539.1	3961.1	4440.5	5017.8
65°	2224.8	2232.6	2266.4	2311.4	2446.4	2674.9	3024.9	3520.0	4104.0	4756.7	5503.9
67°	2063.8	2060.5	2098.7	2143.7	2267.5	2478.0	2820.1	3307.3	3990.4	4781.5	5707.6
67.5°	2014.3	2023.3	2060.5	2092.0	2212.4	2416.1	2743.5	3225.2	3893.6	4725.2	5704.3
70°	1663.2	1680.1	1700.4	1720.6	1826.4	1976.1	2216.9	2682.8	3222.9	4010.6	5178.7
72.5°	1141.1	1107.3	1121.9	1115.2	1147.8	1242.4	1410.0	1819.6	2248.4	2925.8	3844.1
75°	578.4	615.6	611.0	639.2	685.3	745.0	822.6	975.7	1312.1	1710.5	2378.9
77.5°	324.1	315.1	346.6	353.4	380.4	443.4	580.7	782.1	936.3	1099.4	1344.8
80°	147.4	163.2	173.3	157.5	163.2	176.7	229.6	360.1	605.4	921.6	1060.1
82.5°	82.1	87.8	102.4	103.5	108.0	111.4	120.4	139.5	187.9	380.4	748.3
85°	51.8	54.0	68.6	75.4	78.8	78.8	78.8	83.3	95.7	112.5	193.6
87.5°	19.1	20.3	31.5	41.6	42.8	40.5	38.3	43.9	40.5	41.6	63.0
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):**

	55°	60°	65°	67°	70°	75°	80°	85°	90°	95°	100°
0°	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4
2.5°	1067.9	1063.4	1058.9	1057.8	1054.4	1052.2	1046.5	1042.0	1037.5	1034.2	1030.8
5°	1110.7	1101.7	1093.8	1090.4	1085.9	1080.3	1069.1	1061.2	1054.4	1047.7	1040.9
7.5°	1159.1	1147.8	1136.6	1132.1	1125.3	1115.2	1102.8	1093.8	1082.6	1072.4	1063.4
10°	1213.1	1200.7	1191.7	1187.2	1181.6	1167.0	1159.1	1143.3	1130.9	1117.4	1106.2
12.5°	1271.6	1266.0	1253.6	1249.1	1243.5	1233.4	1222.1	1208.6	1192.8	1178.2	1164.7
15°	1324.5	1315.5	1307.6	1306.5	1303.1	1297.5	1282.9	1268.2	1254.7	1235.6	1224.3
17.5°	1357.1	1353.8	1352.6	1351.5	1349.3	1345.9	1339.1	1323.4	1311.0	1295.2	1279.5
20°	1377.4	1380.8	1386.4	1390.9	1393.1	1395.4	1392.0	1376.3	1363.9	1350.4	1336.9
22.5°	1398.8	1407.8	1422.4	1429.2	1437.0	1448.3	1446.0	1435.9	1429.2	1413.4	1403.3
25°	1429.2	1447.2	1471.9	1480.9	1495.6	1510.2	1513.6	1507.9	1501.2	1489.9	1489.9
27.5°	1480.9	1506.8	1539.4	1558.6	1573.2	1593.5	1600.2	1596.8	1598.0	1591.2	1607.0
30°	1561.9	1598.0	1641.8	1662.1	1680.1	1703.7	1708.2	1715.0	1710.5	1722.9	1742.0
32.5°	1684.6	1729.6	1774.6	1793.8	1809.5	1834.3	1848.9	1844.4	1860.2	1868.0	1895.0
35°	1873.7	1918.7	1953.6	1956.9	1974.9	1988.4	2001.9	1997.4	2040.2	2057.1	2071.7
37.5°	2134.7	2173.0	2194.4	2186.5	2165.1	2191.0	2209.0	2236.0	2263.0	2293.4	2239.4
40°	2473.5	2534.2	2525.2	2514.0	2473.5	2479.1	2487.0	2501.6	2546.6	2536.5	2382.3
42.5°	2795.3	2857.2	2847.1	2834.7	2780.7	2752.5	2773.9	2799.8	2824.6	2728.9	2499.3
45°	3120.5	3176.8	3128.4	3145.3	3096.9	3084.5	3126.1	3140.8	3112.6	2937.1	2598.4
47.5°	3458.1	3518.9	3495.2	3478.4	3443.5	3440.1	3463.7	3486.2	3374.8	3087.9	2672.6
50°	3716.9	3807.0	3794.6	3784.5	3746.2	3741.7	3798.0	3813.7	3613.4	3247.7	2746.9
52.5°	3916.1	4033.2	4055.7	4042.2	4033.2	4035.4	4197.4	4173.8	3897.0	3441.2	2833.6
55°	4151.3	4272.8	4355.0	4371.9	4394.4	4427.0	4747.7	4712.8	4288.6	3720.3	2924.7
57.5°	4463.0	4688.1	4811.9	4888.4	4950.3	5161.8	5569.2	5435.3	4831.0	4080.4	3032.7
60°	4922.2	5368.9	5625.5	5820.2	5942.8	6311.9	6805.9	6313.1	5461.2	4512.5	3174.5
62.5°	5659.2	6388.4	6879.1	6989.4	7041.1	7392.2	7745.6	6984.9	5915.8	4798.4	3197.0
65°	6373.8	7285.3	7858.1	7922.3	7884.0	7978.5	8077.6	7005.1	5810.0	4663.3	2933.7
67°	6625.9	7496.9	8098.9	8176.6	8064.1	8033.7	7882.9	6636.0	5415.0	4249.2	2566.9
67.5°	6612.4	7472.1	8096.7	8175.5	8064.1	8015.7	7794.0	6487.5	5259.8	4147.9	2496.0
70°	6094.7	6920.7	7616.2	7763.6	7701.7	7573.4	6983.7	5494.9	4358.4	3403.0	1924.3
72.5°	4948.0	5840.4	6391.8	6555.0	6598.9	6269.2	5201.2	3846.3	3141.9	2431.8	1395.4
75°	3321.9	4208.7	4660.0	4577.8	4311.1	3749.6	2745.8	2029.0	1721.7	1414.5	863.1
77.5°	1883.8	2568.0	2533.1	2391.3	2166.2	1603.6	778.7	422.0	402.9	470.4	365.7
80°	1258.1	1583.3	1691.4	1746.5	1734.1	1186.1	321.8	163.2	140.7	140.7	138.4
82.5°	1049.9	1368.4	1549.6	1598.0	1488.8	901.4	192.4	106.9	85.5	95.7	106.9
85°	442.3	689.8	912.6	877.8	697.7	351.1	97.9	56.3	56.3	74.3	93.4
87.5°	106.9	158.7	223.9	217.2	174.4	81.0	49.5	34.9	34.9	57.4	81.0
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):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4
2.5°	1029.7	1025.2	1025.2	1020.7	1018.4	1016.2	1015.0	1016.2	1012.8	1009.4	1010.5
5°	1035.3	1028.5	1025.2	1017.3	1012.8	1008.3	1004.9	1003.8	998.2	994.8	994.8
7.5°	1054.4	1045.4	1038.7	1029.7	1020.7	1013.9	1008.3	1004.9	997.0	991.4	990.3
10°	1093.8	1081.4	1071.3	1057.8	1045.4	1036.4	1026.3	1020.7	1011.7	1006.0	1003.8
12.5°	1152.3	1134.3	1118.6	1098.3	1083.7	1070.2	1064.6	1055.6	1052.2	1048.8	1049.9
15°	1207.5	1186.1	1171.5	1155.7	1138.8	1130.9	1119.7	1118.6	1119.7	1114.1	1114.1
17.5°	1263.7	1246.9	1230.0	1224.3	1208.6	1203.0	1195.1	1190.6	1180.5	1170.3	1158.0
20°	1322.3	1313.2	1306.5	1299.7	1296.4	1282.9	1262.6	1239.0	1206.3	1177.1	1152.3
22.5°	1397.6	1392.0	1393.1	1387.5	1369.5	1335.8	1289.6	1240.1	1187.2	1140.0	1102.8
25°	1493.3	1498.9	1492.2	1464.0	1412.3	1343.6	1272.7	1203.0	1133.2	1076.9	1026.3
27.5°	1614.8	1610.3	1578.8	1506.8	1417.9	1320.0	1228.9	1145.6	1062.3	997.0	934.0
30°	1747.6	1715.0	1632.8	1520.3	1395.4	1277.2	1164.7	1067.9	971.2	894.6	823.7
32.5°	1881.5	1788.1	1655.3	1504.6	1356.0	1216.5	1090.4	976.8	865.4	779.8	697.7
35°	1982.8	1833.1	1652.0	1470.8	1296.4	1136.6	990.3	849.6	720.2	617.8	534.5
37.5°	2076.2	1857.9	1629.5	1419.0	1214.2	1030.8	848.5	696.6	566.0	463.6	391.6
40°	2133.6	1855.7	1585.6	1333.5	1100.6	875.5	677.4	521.0	406.2	330.8	291.5
42.5°	2167.4	1832.0	1510.2	1219.8	944.1	701.1	499.6	359.0	289.2	256.6	238.6
45°	2184.2	1781.4	1416.8	1067.9	755.1	500.8	344.3	258.8	230.7	221.7	217.2
47.5°	2174.1	1710.5	1282.9	896.9	562.7	343.2	246.4	218.3	209.3	204.8	203.7
50°	2150.5	1618.2	1142.2	711.2	399.5	246.4	207.1	199.2	195.8	194.7	192.4
52.5°	2116.7	1509.1	981.3	551.4	283.6	204.8	193.6	190.2	187.9	184.6	183.4
55°	2060.5	1374.0	817.0	406.2	227.3	193.6	187.9	186.8	182.3	178.9	176.7
57.5°	1992.9	1230.0	661.7	318.5	209.3	189.1	185.7	184.6	180.1	175.6	171.0
60°	1959.2	1128.7	544.7	275.7	205.9	191.3	189.1	186.8	181.2	174.4	168.8
62.5°	1875.9	1019.5	469.3	262.2	210.4	199.2	198.1	193.6	185.7	178.9	169.9
65°	1661.0	865.4	399.5	248.7	217.2	211.6	213.8	208.2	199.2	187.9	173.3
67°	1403.3	703.3	337.6	238.6	225.1	228.4	231.8	228.4	213.8	196.9	177.8
67.5°	1333.5	654.9	320.7	235.2	227.3	231.8	237.4	234.1	218.3	199.2	180.1
70°	1002.7	469.3	254.3	222.8	235.2	247.6	258.8	257.7	241.9	218.3	187.9
72.5°	693.2	320.7	205.9	208.2	228.4	250.9	265.6	272.3	256.6	228.4	192.4
75°	417.5	204.8	173.3	187.9	208.2	230.7	254.3	256.6	238.6	210.4	180.1
77.5°	204.8	147.4	142.9	148.5	167.7	186.8	196.9	184.6	173.3	154.2	142.9
80°	123.8	115.9	113.7	126.0	137.3	133.9	126.0	115.9	110.3	105.8	101.3
82.5°	103.5	104.7	106.9	109.2	106.9	94.5	81.0	74.3	69.8	69.8	70.9
85°	105.8	108.0	99.0	91.2	81.0	67.5	55.1	47.3	48.4	49.5	49.5
87.5°	82.1	78.8	69.8	57.4	46.1	33.8	27.0	22.5	24.8	23.6	25.9
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):**

	160°	165°	170°	175°	180°
0°	1036.4	1036.4	1036.4	1036.4	1036.4
2.5°	1010.5	1009.4	1010.5	1010.5	1011.7
5°	992.5	990.3	990.3	991.4	991.4
7.5°	988.0	985.8	985.8	986.9	985.8
10°	1003.8	1002.7	1004.9	1003.8	1003.8
12.5°	1051.1	1051.1	1055.6	1057.8	1055.6
15°	1115.2	1112.9	1116.3	1117.4	1118.6
17.5°	1151.2	1141.1	1137.7	1140.0	1135.4
20°	1130.9	1114.1	1107.3	1106.2	1098.3
22.5°	1073.6	1048.8	1038.7	1034.2	1025.2
25°	992.5	963.3	949.8	938.5	932.9
27.5°	895.8	859.7	840.6	831.6	828.2
30°	774.2	739.3	711.2	696.6	692.1
32.5°	639.2	588.5	559.3	541.3	528.9
35°	477.1	428.7	407.4	393.9	378.1
37.5°	346.6	317.3	299.3	290.3	287.0
40°	267.8	253.2	244.2	243.1	241.9
42.5°	231.8	225.1	223.9	221.7	219.4
45°	213.8	211.6	212.7	209.3	207.1
47.5°	201.4	200.3	200.3	198.1	196.9
50°	191.3	191.3	190.2	189.1	189.1
52.5°	182.3	183.4	183.4	181.2	181.2
55°	174.4	174.4	175.6	174.4	174.4
57.5°	168.8	167.7	168.8	168.8	168.8
60°	165.4	163.2	162.0	163.2	163.2
62.5°	162.0	158.7	157.5	157.5	158.7
65°	162.0	156.4	154.2	154.2	153.0
67°	163.2	154.2	149.7	147.4	146.3
67.5°	163.2	153.0	147.4	146.3	145.2
70°	163.2	148.5	140.7	135.0	135.0
72.5°	162.0	144.0	131.7	126.0	123.8
75°	154.2	136.2	124.9	118.2	115.9
77.5°	129.4	118.2	112.5	106.9	105.8
80°	97.9	92.3	87.8	75.4	69.8
82.5°	69.8	66.4	58.5	54.0	50.6
85°	49.5	46.1	42.8	38.3	38.3
87.5°	27.0	25.9	24.8	22.5	20.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)