

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: P141891

Luminaire Tested: **ECM-E04-LED-E1-T3-7050**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141891
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33683)
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-T3-7050
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 3
Light Source: (84) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12051.6 lumens
Efficiency: N/A
Efficacy: 124.0 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G3

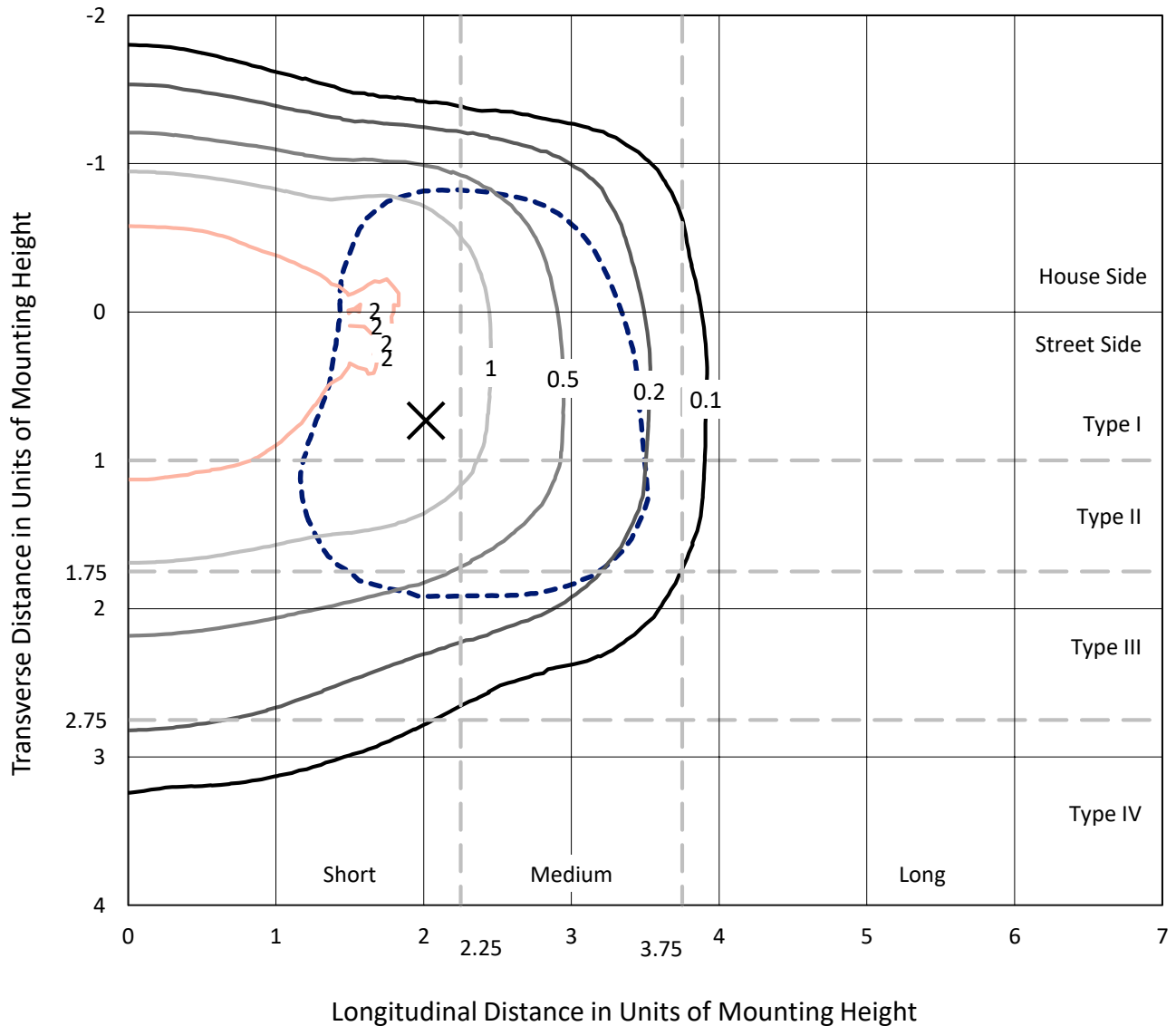
Input Watts (W): 97.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

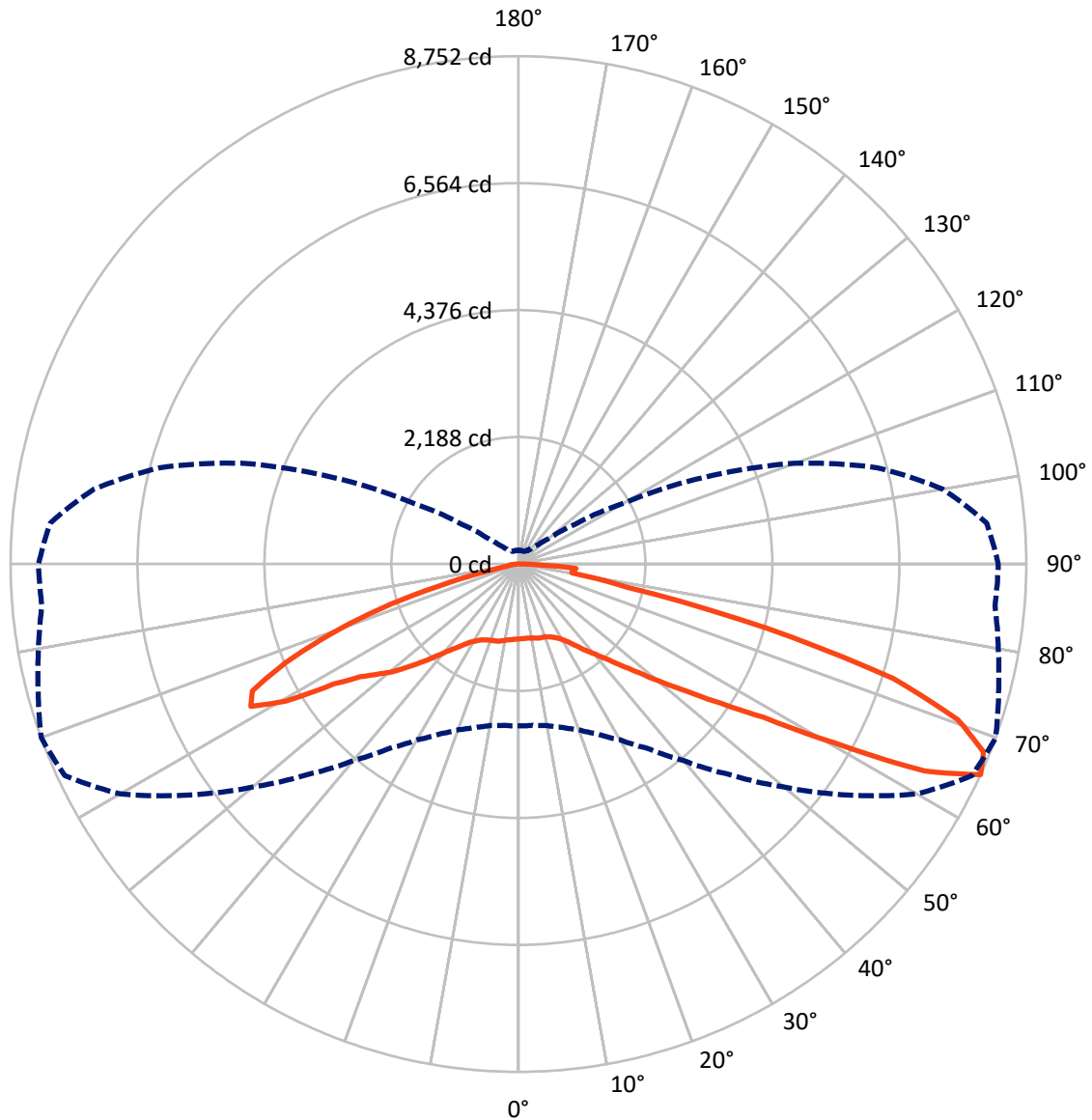
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.3 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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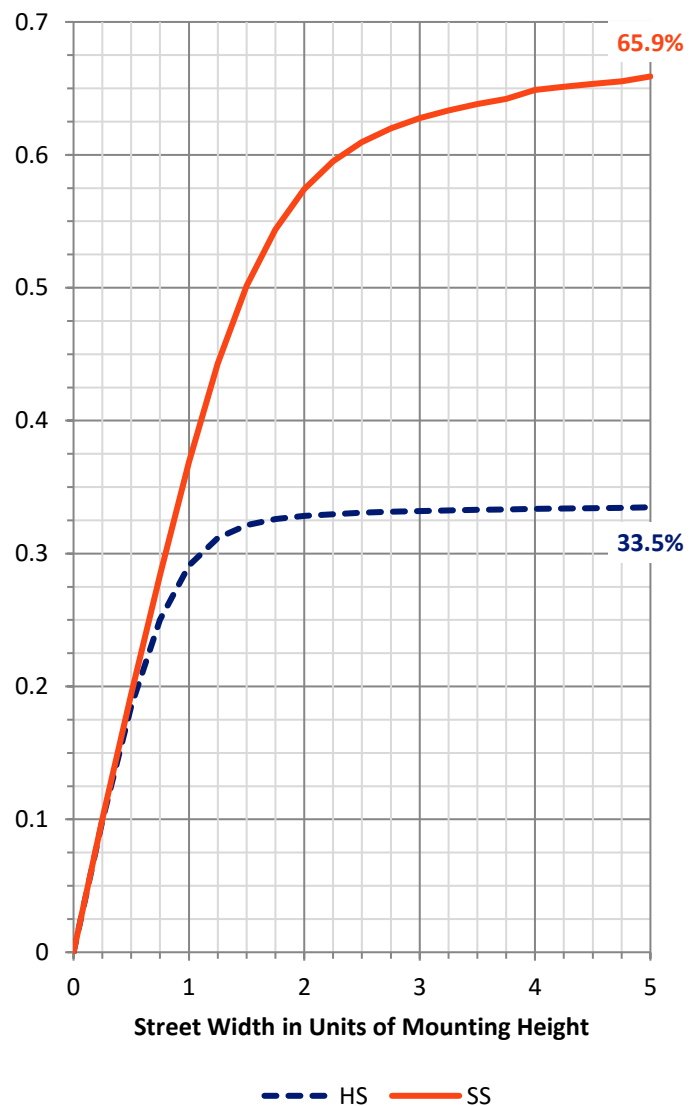
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4068.3	0.0	4068.3
	% Fixture	33.8	0.0	33.8
Street Side	Lumens	7983.3	0.0	7983.3
	% Fixture	66.2	0.0	66.2
Total	Lumens	12051.6	0.0	12051.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.3	1.0
10°-20°	368.2	3.1
20°-30°	633.0	5.3
30°-40°	1014.7	8.4
40°-50°	1661.3	13.8
50°-60°	2600.4	21.6
60°-70°	3654.5	30.3
70°-80°	1729.4	14.4
80°-90°	265.7	2.2
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°	12051.6	100.0
0°-180°	12051.6	100.0

Coefficient of Utilization



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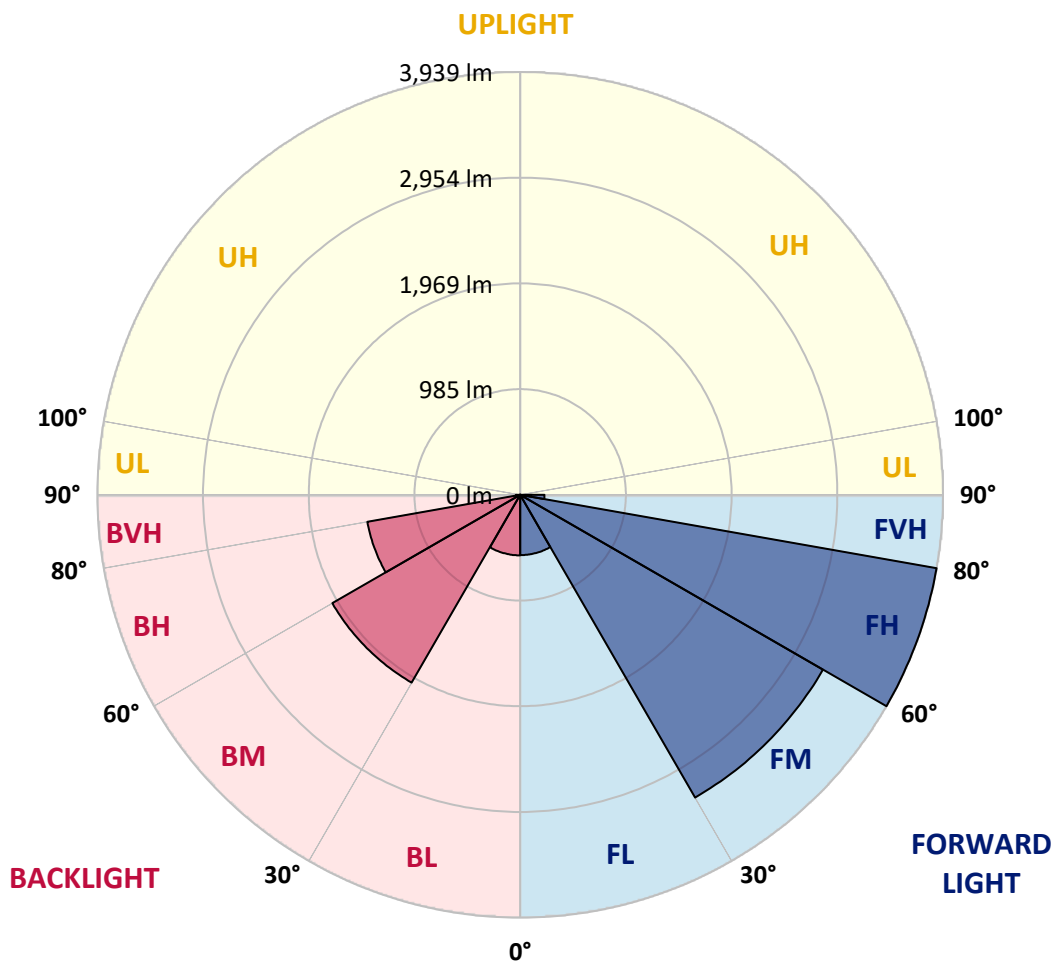
CATALOG NUMBER: ECM-E04-LED-E1-T3-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	561.5	4.7			
FM	(30°-60°)	3256.6	27.0			
FH	(60°-80°)	3938.8	32.7			G2/5000
FVH	(80°-90°)	226.5	1.9			G3/500
BL	(0°-30°)	564.1	4.7	B2/1000		
BM	(30°-60°)	2019.8	16.8	B2/2500		
BH	(60°-80°)	1445.1	12.0	B3/2500		G3/2500
BVH	(80°-90°)	39.2	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1291.5	1291.5	1291.5	1291.5	1291.5	1291.5	1291.5	1291.5	1291.5	1291.5	1291.5
2.5°	1284.7	1286.1	1286.1	1283.3	1283.3	1284.7	1284.7	1286.1	1286.1	1286.1	1287.4
5°	1284.7	1286.1	1286.1	1284.7	1283.3	1286.1	1284.7	1286.1	1286.1	1286.1	1286.1
7.5°	1281.9	1283.3	1283.3	1281.9	1283.3	1284.7	1284.7	1287.4	1288.8	1288.8	1290.2
10°	1268.3	1269.6	1271.0	1271.0	1273.7	1277.8	1279.2	1284.7	1286.1	1290.2	1292.9
12.5°	1243.6	1243.6	1246.4	1249.1	1253.2	1261.4	1265.5	1273.7	1280.6	1286.1	1295.6
15°	1221.7	1221.7	1224.5	1225.9	1234.1	1239.5	1247.7	1257.3	1269.6	1280.6	1295.6
17.5°	1232.7	1232.7	1231.3	1230.0	1231.3	1231.3	1238.2	1247.7	1258.7	1273.7	1292.9
20°	1275.1	1273.7	1268.3	1265.5	1264.2	1258.7	1254.6	1253.2	1258.7	1269.6	1288.8
22.5°	1312.0	1309.3	1307.9	1305.2	1309.3	1306.6	1301.1	1294.3	1286.1	1281.9	1292.9
25°	1333.9	1335.3	1335.3	1335.3	1343.5	1346.3	1349.0	1340.8	1331.2	1317.5	1318.9
27.5°	1364.0	1365.4	1362.7	1368.1	1377.7	1384.6	1391.4	1396.9	1391.4	1383.2	1373.6
30°	1428.3	1428.3	1424.2	1428.3	1436.5	1443.4	1453.0	1462.5	1462.5	1454.3	1444.8
32.5°	1495.4	1496.7	1496.7	1499.5	1511.8	1517.3	1530.9	1540.5	1547.4	1541.9	1547.4
35°	1576.1	1574.7	1578.8	1580.2	1599.4	1606.2	1633.6	1640.4	1651.3	1654.1	1658.2
37.5°	1710.2	1712.9	1704.7	1699.2	1715.6	1715.6	1751.2	1770.4	1767.6	1786.8	1800.5
40°	1926.3	1914.0	1909.9	1907.2	1916.8	1915.4	1914.0	1940.0	1952.3	1955.1	1961.9
42.5°	2165.8	2169.9	2165.8	2175.3	2175.3	2168.5	2163.0	2158.9	2182.2	2197.2	2200.0
45°	2446.2	2451.7	2443.5	2436.7	2454.4	2464.0	2464.0	2475.0	2494.1	2501.0	2496.9
47.5°	2670.6	2685.7	2678.8	2688.4	2717.1	2750.0	2793.7	2822.5	2843.0	2862.2	2892.2
50°	2873.1	2879.9	2896.4	2927.8	2970.2	3022.2	3093.4	3164.5	3205.6	3253.4	3289.0
52.5°	2996.2	3016.8	3041.4	3093.4	3164.5	3237.0	3346.5	3462.8	3566.7	3620.1	3662.5
55°	3070.1	3085.2	3118.0	3189.1	3289.0	3397.1	3533.9	3694.0	3832.2	3949.8	4041.5
57.5°	3067.4	3079.7	3124.8	3202.8	3321.8	3457.3	3628.3	3828.1	4031.9	4227.6	4399.9
60°	3008.5	3019.5	3064.6	3148.1	3278.1	3439.5	3644.7	3889.6	4166.0	4460.1	4762.5
62.5°	2918.2	2926.5	2966.1	3049.6	3180.9	3353.3	3594.1	3915.6	4308.3	4772.1	5359.0
65°	2791.0	2791.0	2827.9	2914.1	3040.0	3232.9	3498.3	3875.9	4419.1	5125.1	5978.8
67.5°	2603.6	2603.6	2633.7	2704.8	2803.3	2937.4	3202.8	3595.5	4168.7	5014.2	6013.0
70°	2249.2	2254.7	2254.7	2298.5	2342.3	2402.5	2528.3	2829.3	3367.0	4193.4	5175.7
72.5°	1648.6	1548.7	1626.7	1697.9	1747.1	1780.0	1852.5	1946.9	2217.8	2837.5	3726.8
75°	1038.4	1064.4	1123.2	1204.0	1325.7	1451.6	1589.8	1648.6	1624.0	1697.9	2295.7
77.5°	629.3	607.5	664.9	785.3	922.1	1093.1	1351.7	1576.1	1704.7	1696.5	1625.4
80°	272.3	265.4	303.7	361.2	428.2	582.8	819.5	1127.3	1469.4	1667.8	1637.7
82.5°	97.1	98.5	124.5	147.8	177.9	228.5	324.2	518.5	822.3	1171.1	1447.5
85°	28.7	31.5	43.8	61.6	69.8	79.4	109.5	162.8	277.7	443.3	788.0
87.5°	8.2	9.6	12.3	21.9	20.5	19.2	21.9	34.2	26.0	21.9	109.5
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1291.5	1291.5	1291.5	1291.5	1291.5	1291.5	1291.5	1291.5	1291.5	1291.5	1291.5
2.5°	1286.1	1286.1	1286.1	1287.4	1286.1	1286.1	1287.4	1287.4	1288.8	1290.2	1292.9
5°	1284.7	1284.7	1286.1	1286.1	1286.1	1287.4	1288.8	1290.2	1292.9	1297.0	1301.1
7.5°	1288.8	1288.8	1287.4	1288.8	1288.8	1290.2	1292.9	1294.3	1299.7	1303.8	1310.7
10°	1292.9	1292.9	1294.3	1295.6	1295.6	1298.4	1302.5	1303.8	1309.3	1317.5	1324.4
12.5°	1298.4	1302.5	1307.9	1310.7	1313.4	1316.2	1320.3	1323.0	1329.8	1340.8	1349.0
15°	1302.5	1312.0	1317.5	1324.4	1328.5	1329.8	1333.9	1339.4	1346.3	1357.2	1366.8
17.5°	1302.5	1314.8	1323.0	1329.8	1336.7	1340.8	1344.9	1350.4	1359.9	1370.9	1380.5
20°	1301.1	1318.9	1329.8	1340.8	1353.1	1357.2	1364.0	1369.5	1380.5	1394.1	1401.0
22.5°	1307.9	1328.5	1343.5	1362.7	1376.3	1387.3	1395.5	1405.1	1413.3	1422.9	1425.6
25°	1328.5	1349.0	1373.6	1396.9	1416.0	1432.4	1443.4	1451.6	1461.2	1465.3	1459.8
27.5°	1362.7	1377.7	1411.9	1446.1	1476.2	1496.7	1509.1	1520.0	1522.7	1530.9	1510.4
30°	1424.2	1431.1	1466.6	1515.9	1550.1	1584.3	1600.7	1611.7	1613.0	1607.6	1572.0
32.5°	1525.5	1513.2	1544.6	1610.3	1662.3	1691.0	1717.0	1723.9	1719.8	1702.0	1644.5
35°	1648.6	1629.5	1644.5	1740.3	1797.7	1840.1	1864.8	1871.6	1862.0	1830.6	1751.2
37.5°	1800.5	1793.6	1800.5	1892.1	1992.0	2031.7	2042.6	2050.8	2027.6	1970.1	1866.1
40°	1968.8	1970.1	1961.9	2045.4	2171.2	2228.7	2254.7	2236.9	2208.2	2126.1	2011.2
42.5°	2201.3	2193.1	2164.4	2239.6	2401.1	2459.9	2483.2	2469.5	2440.8	2336.8	2202.7
45°	2509.2	2481.8	2454.4	2494.1	2650.1	2726.7	2760.9	2751.3	2700.7	2574.8	2449.0
47.5°	2885.4	2856.7	2806.1	2799.2	2956.6	3046.8	3059.2	3044.1	3005.8	2879.9	2725.3
50°	3280.8	3272.6	3249.3	3194.6	3335.5	3425.8	3417.6	3406.7	3364.3	3204.2	3045.5
52.5°	3689.9	3706.3	3691.2	3652.9	3803.4	3840.4	3843.1	3810.3	3761.0	3613.3	3397.1
55°	4119.5	4181.0	4204.3	4234.4	4353.4	4348.0	4316.5	4238.5	4250.8	4082.5	3782.9
57.5°	4575.1	4763.9	4913.0	4980.0	5093.6	5126.4	5047.1	5073.1	5062.1	4888.4	4416.4
60°	5175.7	5627.2	6015.7	6255.1	6408.4	6349.5	6460.4	6465.8	6653.3	6271.6	5535.5
62.5°	6133.4	6962.5	7652.0	7858.6	7898.3	7884.6	7753.3	7884.6	7849.0	7383.9	6430.3
65°	6939.2	7925.6	8626.1	8752.0	8567.3	8397.6	8244.4	8270.4	8100.8	7427.6	6404.3
67.5°	7048.7	8031.0	8680.9	8645.3	8241.7	7927.0	7672.5	7472.8	7126.6	6517.8	5625.8
70°	6182.6	7223.8	8061.1	8033.7	7472.8	7052.8	6639.6	6338.6	5985.6	5515.0	4670.8
72.5°	4809.0	5736.6	6547.9	6758.6	6205.9	5742.1	5363.1	4980.0	4616.1	4168.7	3636.5
75°	3274.0	3971.7	4349.3	4406.8	3900.6	3553.1	3406.7	3093.4	2707.6	2611.8	2217.8
77.5°	1901.7	2169.9	2054.9	1901.7	1530.9	1124.6	859.2	734.7	737.4	846.9	811.3
80°	1546.0	1472.1	1161.6	931.7	633.4	322.9	216.2	186.1	187.4	217.5	210.7
82.5°	1593.9	1636.3	1344.9	941.3	648.5	342.0	164.2	121.8	142.3	154.6	151.9
85°	1180.7	1547.4	1387.3	998.7	696.4	363.9	106.7	67.0	94.4	114.9	123.1
87.5°	331.1	519.9	403.6	266.8	194.3	65.7	42.4	35.6	43.8	60.2	60.2
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1291.5	1291.5	1291.5	1291.5	1291.5	1291.5	1291.5	1291.5	1291.5	1291.5	1291.5
2.5°	1294.3	1299.7	1298.4	1301.1	1302.5	1306.6	1309.3	1307.9	1307.9	1310.7	1313.4
5°	1305.2	1312.0	1312.0	1316.2	1320.3	1325.7	1329.8	1327.1	1328.5	1331.2	1333.9
7.5°	1316.2	1324.4	1325.7	1329.8	1332.6	1335.3	1338.0	1333.9	1332.6	1332.6	1331.2
10°	1329.8	1338.0	1336.7	1336.7	1335.3	1332.6	1327.1	1317.5	1310.7	1306.6	1303.8
12.5°	1353.1	1358.6	1350.4	1342.1	1328.5	1318.9	1306.6	1295.6	1287.4	1280.6	1277.8
15°	1373.6	1370.9	1361.3	1346.3	1327.1	1312.0	1299.7	1284.7	1275.1	1266.9	1262.8
17.5°	1384.6	1375.0	1361.3	1347.6	1331.2	1317.5	1302.5	1284.7	1269.6	1258.7	1253.2
20°	1395.5	1380.5	1362.7	1349.0	1336.7	1325.7	1314.8	1292.9	1273.7	1257.3	1249.1
22.5°	1411.9	1391.4	1373.6	1361.3	1349.0	1338.0	1327.1	1306.6	1286.1	1264.2	1251.8
25°	1435.2	1407.8	1395.5	1383.2	1369.5	1358.6	1343.5	1324.4	1302.5	1276.5	1258.7
27.5°	1472.1	1447.5	1433.8	1421.5	1405.1	1387.3	1370.9	1344.9	1324.4	1294.3	1271.0
30°	1525.5	1499.5	1487.2	1474.9	1455.7	1432.4	1409.2	1376.3	1347.6	1313.4	1283.3
32.5°	1592.5	1578.8	1563.8	1543.3	1517.3	1488.5	1454.3	1410.6	1369.5	1327.1	1288.8
35°	1696.5	1673.2	1648.6	1628.1	1589.8	1550.1	1498.1	1433.8	1379.1	1327.1	1280.6
37.5°	1815.5	1790.9	1758.1	1721.1	1663.7	1600.7	1528.2	1447.5	1375.0	1312.0	1260.1
40°	1959.2	1927.7	1883.9	1814.2	1729.3	1634.9	1537.8	1436.5	1351.7	1279.2	1219.0
42.5°	2149.3	2085.0	2000.2	1897.6	1777.2	1648.6	1525.5	1407.8	1312.0	1232.7	1172.5
45°	2364.1	2261.5	2124.7	1971.5	1804.6	1643.1	1498.1	1361.3	1253.2	1165.7	1102.7
47.5°	2595.4	2435.3	2234.2	2018.0	1807.3	1613.0	1444.8	1291.5	1169.8	1076.7	998.7
50°	2856.7	2592.6	2310.8	2041.3	1789.5	1559.7	1368.1	1191.7	1065.8	955.0	883.8
52.5°	3081.1	2730.8	2364.1	2031.7	1726.6	1466.6	1242.3	1071.3	923.5	825.0	755.2
55°	3346.5	2864.9	2392.9	1983.8	1625.4	1321.6	1106.8	916.7	777.1	689.5	629.3
57.5°	3793.9	3092.0	2417.5	1886.7	1458.4	1139.7	919.4	741.5	632.1	555.5	513.1
60°	4657.2	3532.5	2518.7	1741.6	1246.4	920.8	710.1	580.1	485.7	435.1	405.0
62.5°	5222.2	3832.2	2473.6	1518.6	974.1	689.5	519.9	418.7	363.9	327.0	313.3
65°	5078.5	3529.8	2098.7	1204.0	678.6	458.3	348.9	287.3	262.7	243.5	235.3
67.5°	4361.6	2847.1	1521.4	778.5	429.6	279.1	228.5	203.9	192.9	184.7	183.3
70°	3475.1	2007.1	904.3	413.2	238.1	184.7	162.8	153.2	149.1	149.1	149.1
72.5°	2521.5	1156.1	444.6	223.0	160.1	140.9	131.3	128.6	127.2	127.2	128.6
75°	1440.7	500.7	228.5	153.2	131.3	121.8	116.3	116.3	116.3	116.3	117.7
77.5°	502.1	228.5	161.4	128.6	113.6	108.1	105.3	108.1	109.5	109.5	109.5
80°	183.3	161.4	138.2	112.2	101.2	95.8	95.8	99.9	102.6	99.9	98.5
82.5°	145.0	127.2	112.2	97.1	88.9	86.2	87.6	90.3	88.9	87.6	83.5
85°	110.8	83.5	78.0	72.5	71.1	71.1	76.6	78.0	72.5	69.8	65.7
87.5°	54.7	43.8	39.7	46.5	45.1	41.0	42.4	42.4	35.6	32.8	34.2
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):

	165°	170°	175°	180°
0°	1291.5	1291.5	1291.5	1291.5
2.5°	1313.4	1314.8	1318.9	1317.5
5°	1332.6	1333.9	1336.7	1336.7
7.5°	1328.5	1329.8	1329.8	1329.8
10°	1297.0	1297.0	1299.7	1299.7
12.5°	1272.4	1271.0	1271.0	1268.3
15°	1257.3	1254.6	1256.0	1251.8
17.5°	1246.4	1245.0	1245.0	1242.3
20°	1242.3	1239.5	1238.2	1235.4
22.5°	1239.5	1238.2	1235.4	1232.7
25°	1246.4	1239.5	1238.2	1235.4
27.5°	1253.2	1246.4	1240.9	1239.5
30°	1260.1	1247.7	1240.9	1238.2
32.5°	1258.7	1242.3	1232.7	1228.6
35°	1243.6	1223.1	1210.8	1206.7
37.5°	1214.9	1191.7	1172.5	1165.7
40°	1173.9	1143.8	1126.0	1116.4
42.5°	1124.6	1090.4	1075.4	1067.1
45°	1043.9	1016.5	998.7	991.9
47.5°	953.6	916.7	900.2	893.4
50°	837.3	807.2	793.5	783.9
52.5°	714.2	686.8	674.5	669.0
55°	595.1	581.5	562.3	558.2
57.5°	483.0	478.8	465.2	463.8
60°	392.7	385.8	376.2	376.2
62.5°	309.2	302.4	298.3	298.3
65°	238.1	236.7	234.0	232.6
67.5°	183.3	187.4	188.8	186.1
70°	153.2	154.6	154.6	154.6
72.5°	132.7	132.7	132.7	131.3
75°	120.4	120.4	117.7	116.3
77.5°	110.8	109.5	110.8	109.5
80°	97.1	95.8	93.0	90.3
82.5°	80.7	79.4	72.5	72.5
85°	62.9	58.8	53.4	47.9
87.5°	35.6	31.5	23.3	16.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)