

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: P401599

Luminaire Tested: **ENT-SA1E-722-U-SLL-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401599
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-8)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1E-722-U-SLL-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2200K, 1050mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT
ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3888 lumens
Efficiency: N/A
Efficacy: 68.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 57.2
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

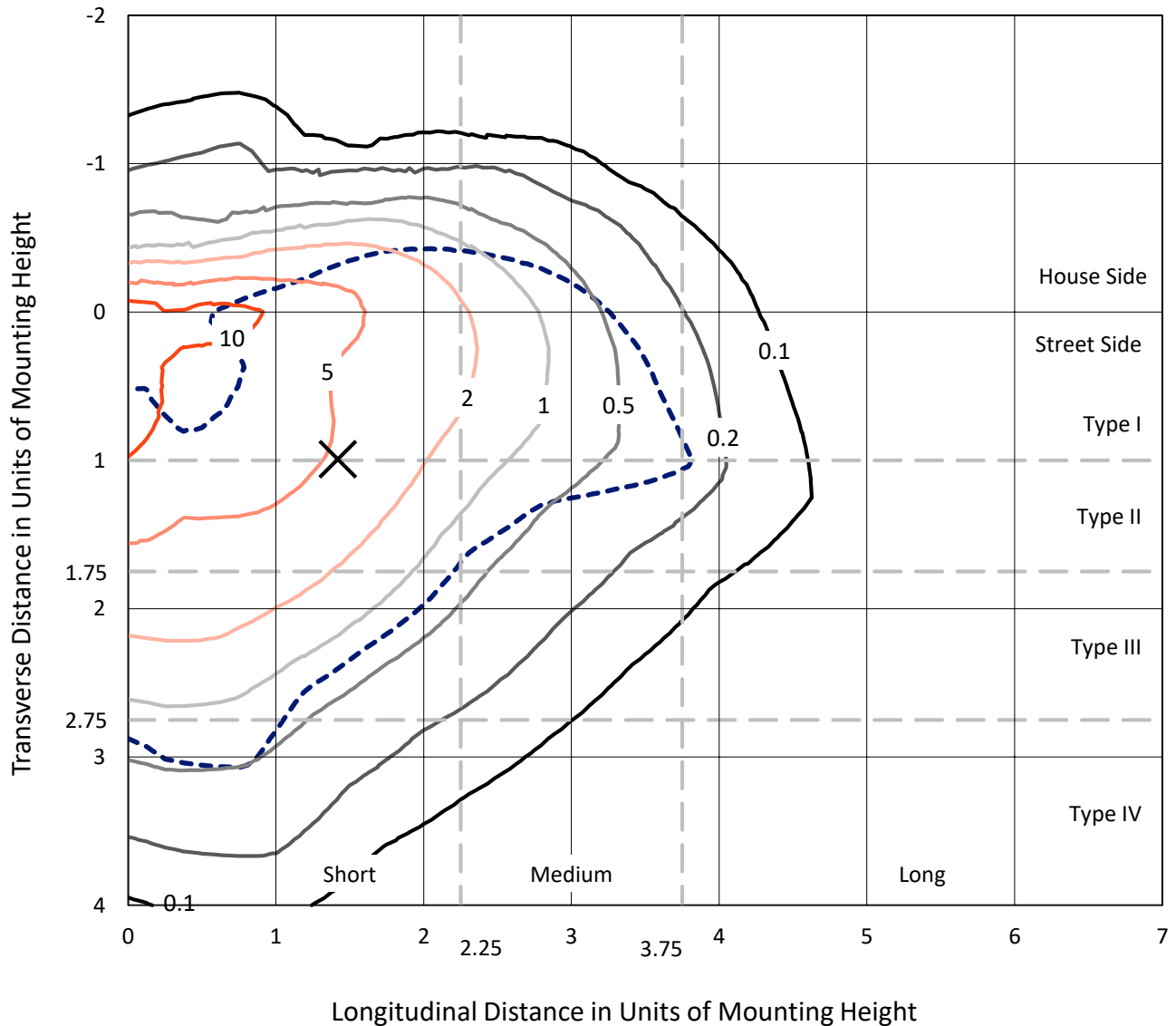


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

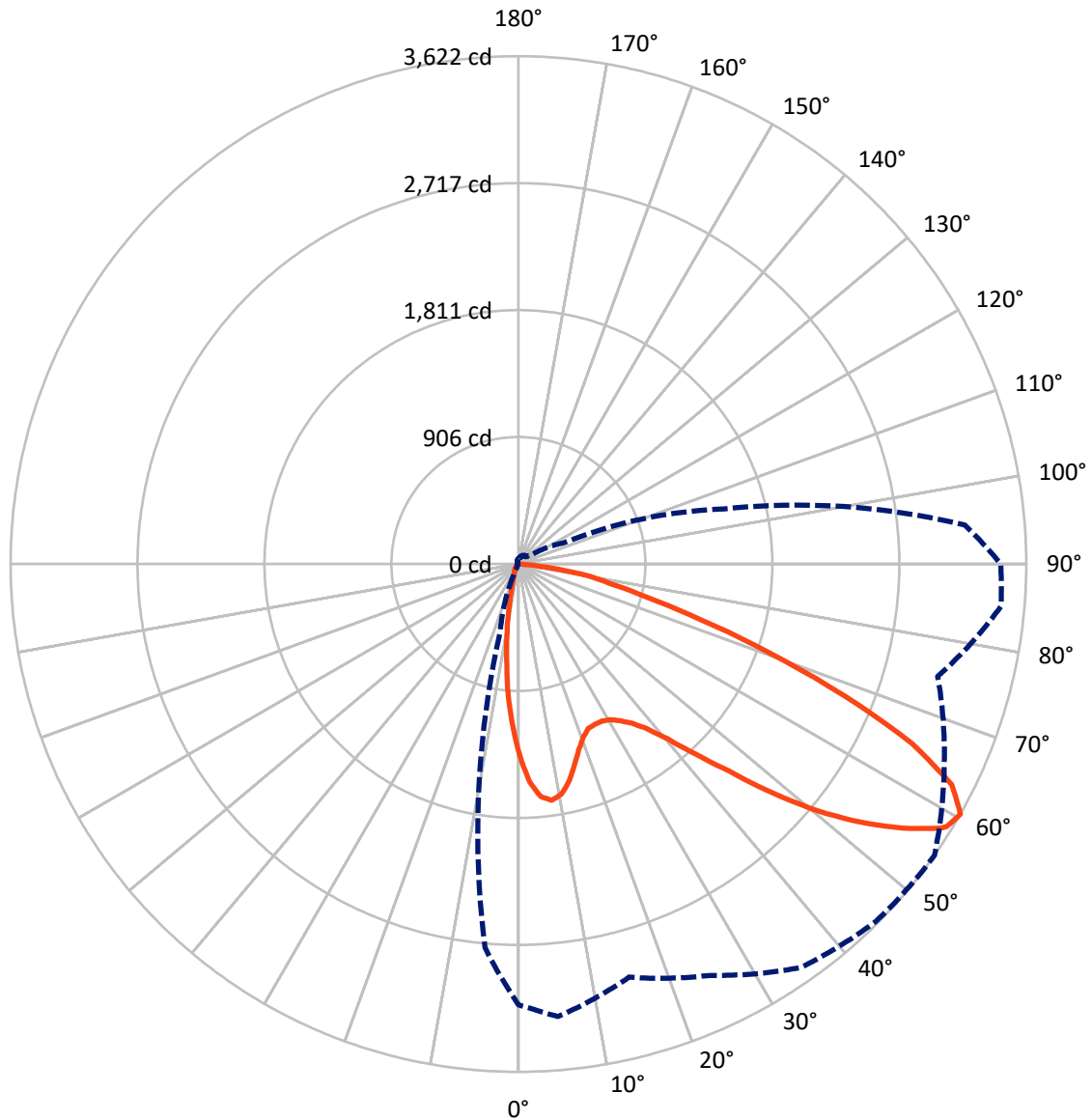


Based on 10 foot mounting height. Maximum calculated value = 16.2 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	688.5	0.0	688.5
	% Fixture	17.7	0.0	17.7
Street Side	Lumens	3199.5	0.0	3199.5
	% Fixture	82.3	0.0	82.3
Total	Lumens	3888.0	0.0	3888.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.3	2.7
10°-20°	196.5	5.1
20°-30°	280.3	7.2
30°-40°	411.2	10.6
40°-50°	606.3	15.6
50°-60°	898.1	23.1
60°-70°	957.1	24.6
70°-80°	397.0	10.2
80°-90°	38.2	1.0
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°	3888.0	100.0
0°-180°	3888.0	100.0



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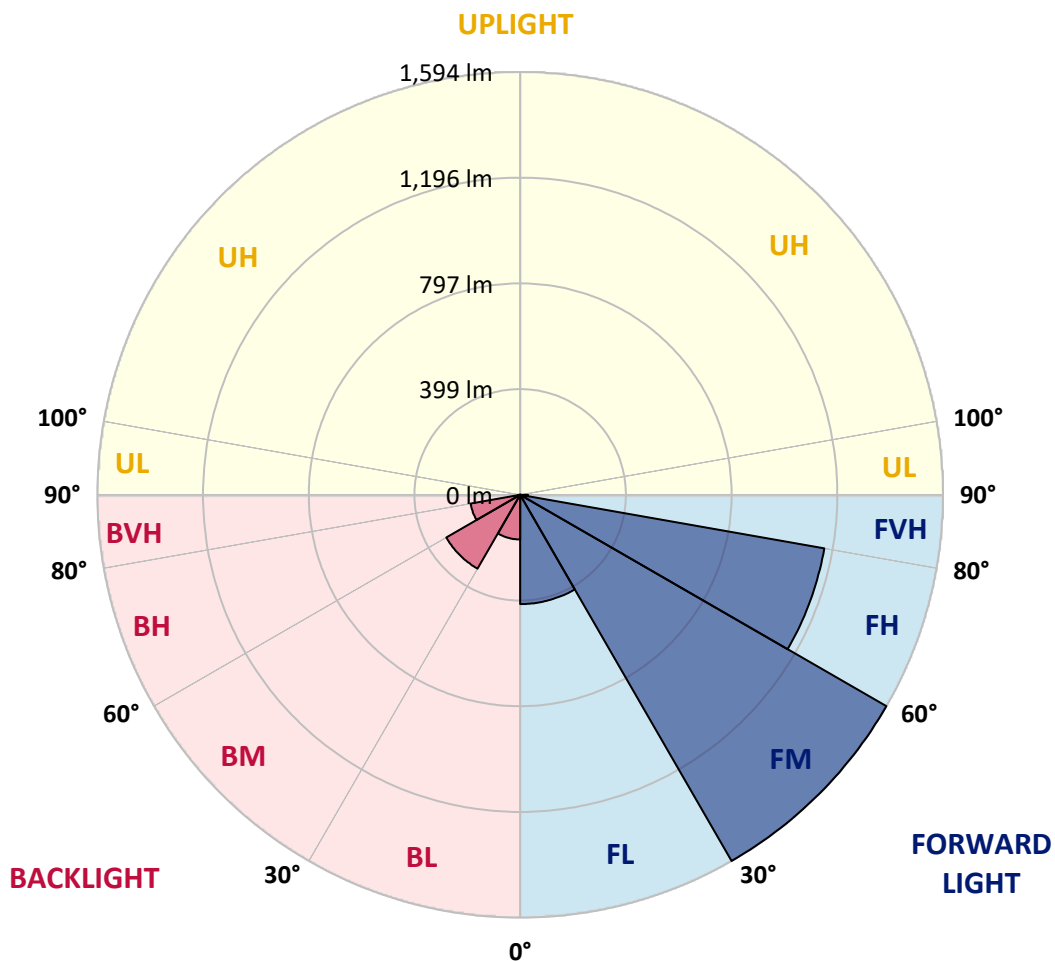
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	411.8	10.6			
FM	(30°-60°)	1594.1	41.0			
FH	(60°-80°)	1164.3	29.9			G1/1800
FVH	(80°-90°)	29.2	0.8			G1/100
BL	(0°-30°)	168.3	4.3	B1/500		
BM	(30°-60°)	321.5	8.3	B1/1000		
BH	(60°-80°)	189.8	4.9	B1/500		G1/500
BVH	(80°-90°)	8.9	0.2			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°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1373.1	1373.1	1373.1	1373.1	1373.1	1373.1	1373.1	1373.1	1373.1	1373.1	1373.1
2.5°	1434.1	1431.9	1452.5	1495.1	1521.5	1537.7	1540.7	1557.6	1540.7	1531.8	1500.2
5°	1392.2	1391.4	1431.1	1524.5	1600.9	1658.3	1686.2	1667.1	1637.7	1579.6	1509.0
7.5°	1276.0	1276.0	1351.0	1476.0	1603.9	1703.1	1736.9	1701.6	1631.8	1514.9	1388.5
10°	1181.2	1190.0	1262.1	1411.3	1553.2	1661.9	1699.4	1672.2	1581.1	1429.7	1281.2
12.5°	1124.6	1129.8	1209.9	1359.8	1492.1	1580.3	1603.1	1595.0	1528.9	1364.2	1206.9
15°	1129.8	1137.1	1229.0	1351.7	1437.7	1473.0	1481.1	1491.4	1464.2	1337.8	1182.7
17.5°	1210.6	1215.8	1308.4	1387.8	1384.1	1373.1	1376.0	1392.9	1425.3	1359.8	1231.9
20°	1340.0	1353.2	1446.6	1448.0	1356.2	1304.7	1291.5	1319.4	1406.9	1417.9	1337.0
22.5°	1506.1	1511.3	1606.1	1549.5	1359.1	1257.7	1242.2	1273.8	1412.8	1512.0	1482.6
25°	1698.7	1717.1	1768.5	1681.0	1401.7	1251.0	1240.8	1267.2	1434.1	1612.0	1632.5
27.5°	1828.8	1843.5	1892.7	1770.7	1440.0	1254.7	1235.6	1268.0	1459.8	1706.0	1792.8
30°	1944.9	1955.2	1973.6	1817.8	1483.3	1273.1	1242.2	1288.5	1473.8	1725.9	1896.4
32.5°	2054.5	2066.9	2055.9	1874.4	1531.1	1307.6	1254.7	1331.9	1503.9	1765.6	1986.8
35°	2195.6	2196.3	2158.8	1931.0	1585.5	1348.8	1291.5	1393.6	1562.7	1827.3	2083.9
37.5°	2363.2	2364.6	2269.8	1989.0	1647.2	1417.9	1378.2	1489.2	1648.0	1898.6	2222.8
40°	2509.4	2515.3	2389.6	2055.9	1722.9	1552.4	1548.7	1640.6	1757.5	1993.4	2372.0
42.5°	2636.6	2653.5	2499.9	2111.8	1830.3	1759.0	1767.8	1851.6	1890.5	2072.8	2464.6
45°	2765.2	2764.5	2590.3	2167.6	2009.6	2025.1	2108.8	2105.2	2041.2	2115.5	2537.4
47.5°	2845.4	2841.7	2645.4	2258.8	2251.4	2399.2	2488.1	2439.6	2208.1	2161.0	2628.5
50°	2876.2	2874.8	2688.8	2374.9	2497.7	2738.0	2865.2	2768.2	2412.4	2237.5	2737.3
52.5°	2963.7	2956.4	2788.8	2507.2	2720.4	3064.4	3169.5	3061.5	2616.0	2374.9	2863.7
55°	3100.4	3102.6	2960.8	2662.3	2899.0	3294.5	3423.1	3326.8	2824.0	2563.8	3037.2
57.5°	3192.3	3198.9	3151.1	2835.1	3090.1	3455.5	3580.4	3553.2	3101.2	2789.5	3240.8
58°	3201.1	3206.3	3181.3	2868.1	3118.8	3473.8	3601.7	3582.6	3162.2	2861.5	3289.3
60°	3144.5	3160.0	3240.1	3050.4	3237.1	3512.8	3605.4	3622.3	3351.1	3095.3	3455.5
62.5°	2990.9	2996.0	3141.6	3254.8	3318.0	3416.5	3425.3	3469.4	3429.0	3369.4	3603.9
65°	2802.7	2802.7	2960.0	3264.3	3108.5	3092.3	3040.9	3085.0	3201.9	3541.5	3593.6
67.5°	2475.6	2477.8	2678.5	2907.8	2577.1	2521.2	2488.1	2504.3	2753.5	3398.1	3393.7
70°	2000.8	1999.3	2205.9	2354.4	1912.6	1864.8	1904.5	1899.4	2236.7	3019.6	2963.0
72.5°	1415.0	1427.5	1639.9	1818.5	1298.8	1119.5	1294.4	1362.0	1682.5	2545.5	2292.6
75°	796.8	813.7	987.2	1263.5	819.6	757.1	846.8	943.1	1216.5	2026.5	1539.9
77.5°	399.9	406.5	505.7	607.9	496.9	577.0	571.9	663.7	834.3	1367.2	880.6
80°	230.8	244.0	277.8	313.9	277.8	366.1	424.9	499.8	513.8	707.1	491.0
82.5°	92.6	103.6	130.1	147.7	115.4	108.8	74.2	233.7	309.5	341.8	188.2
85°	0.0	0.0	0.7	1.5	2.2	2.2	3.7	41.2	75.7	16.9	30.9
87.5°	0.0	0.0	0.7	0.7	1.5	2.2	2.9	5.1	6.6	8.1	27.9
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1373.1	1373.1	1373.1	1373.1	1373.1	1373.1	1373.1	1373.1	1373.1	1373.1	1373.1
2.5°	1488.5	1480.4	1453.2	1412.0	1386.3	1346.6	1330.4	1292.9	1273.8	1242.2	1242.2
5°	1473.8	1440.7	1372.3	1283.4	1220.2	1154.0	1132.7	1088.6	1057.0	1019.5	1004.1
7.5°	1340.0	1293.7	1187.1	1083.5	982.8	915.9	849.7	804.9	762.2	731.4	735.8
10°	1217.2	1151.1	1034.2	902.6	798.3	728.4	668.9	616.7	572.6	529.2	522.6
12.5°	1137.1	1061.4	921.7	780.6	702.7	651.3	596.1	538.8	484.4	436.6	417.5
15°	1103.3	1021.0	865.1	732.1	660.8	594.7	530.7	460.1	397.7	340.3	324.9
17.5°	1140.1	1041.6	860.0	699.8	600.5	517.5	428.5	351.4	277.8	236.7	224.2
20°	1240.0	1112.1	876.9	667.4	533.6	426.3	317.5	230.1	188.9	163.9	155.8
22.5°	1384.8	1229.0	905.6	635.8	466.0	317.5	219.0	166.1	141.9	128.6	125.0
25°	1542.1	1379.7	958.5	609.4	398.4	235.9	162.4	136.0	121.3	111.7	108.1
27.5°	1719.3	1528.9	1023.2	589.5	335.9	188.9	139.7	119.8	108.1	101.4	98.5
30°	1830.3	1636.2	1072.4	554.2	293.3	172.0	133.0	113.2	100.7	95.6	93.4
32.5°	1932.4	1720.7	1119.5	513.8	260.9	152.2	129.4	119.1	104.4	94.1	89.7
35°	2044.9	1807.5	1142.3	489.5	239.6	132.3	106.6	92.6	84.5	83.1	80.9
37.5°	2212.5	1910.4	1157.0	476.3	226.4	120.5	99.2	83.8	74.2	65.4	61.7
40°	2371.3	2017.0	1164.3	463.8	219.8	113.2	94.8	79.4	69.1	61.0	57.3
42.5°	2495.5	2114.0	1168.7	455.0	208.0	108.8	91.1	76.4	65.4	57.3	53.7
45°	2596.9	2226.5	1165.0	452.1	198.5	111.7	89.7	74.2	62.5	54.4	50.7
47.5°	2696.1	2348.5	1179.0	448.4	188.9	107.3	90.4	73.5	60.3	52.2	48.5
50°	2826.3	2496.2	1229.7	438.1	182.3	100.7	97.8	74.2	59.5	50.7	47.8
52.5°	2994.6	2700.6	1321.6	427.1	174.2	94.8	102.2	74.2	58.1	49.2	45.6
55°	3198.9	2929.9	1423.0	410.9	160.2	87.5	97.8	74.2	56.6	48.5	44.1
57.5°	3365.8	3134.2	1503.2	391.8	134.5	78.6	89.7	71.3	52.9	45.6	41.9
58°	3380.5	3157.8	1514.2	386.6	131.6	77.2	87.5	70.6	51.5	44.8	41.2
60°	3440.0	3196.0	1518.6	358.7	109.5	73.5	75.7	68.4	48.5	41.9	39.0
62.5°	3419.4	3069.6	1425.3	309.5	97.8	66.9	63.2	69.8	44.8	38.2	35.3
65°	3317.3	2821.1	1248.8	277.1	98.5	59.5	54.4	61.0	41.2	34.5	31.6
67.5°	3074.0	2444.0	1014.4	259.5	102.9	52.9	47.0	45.6	36.8	30.9	28.7
70°	2621.9	2003.0	768.9	244.0	108.8	47.0	43.4	40.4	33.8	28.7	25.7
72.5°	1931.0	1483.3	559.4	228.6	105.8	41.9	40.4	36.8	30.9	25.7	24.3
75°	1204.7	861.5	383.0	186.7	94.8	36.8	37.5	34.5	27.9	24.3	22.1
77.5°	703.4	604.9	188.9	138.9	65.4	32.3	33.1	31.6	28.7	22.8	21.3
80°	421.2	376.3	80.9	59.5	36.0	28.7	27.9	29.4	27.2	21.3	19.8
82.5°	182.3	163.2	39.0	33.1	29.4	25.0	24.3	25.0	23.5	17.6	16.9
85°	10.3	27.2	18.4	24.3	22.1	18.4	18.4	19.1	16.9	14.0	14.0
87.5°	9.6	20.6	11.8	14.7	16.2	14.0	14.7	14.7	14.0	12.5	11.8
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1373.1	1373.1	1373.1	1373.1	1373.1	1373.1	1373.1	1373.1	1373.1	1373.1	1373.1
2.5°	1225.3	1217.2	1193.0	1184.2	1145.9	1155.5	1158.4	1154.8	1156.2	1159.2	1170.2
5°	1015.1	1001.9	970.3	949.7	938.7	931.3	896.8	897.5	902.6	882.8	908.5
7.5°	721.1	735.8	738.7	719.6	707.8	682.9	651.3	633.6	603.5	620.4	624.1
10°	516.0	508.7	522.6	516.0	497.6	488.1	454.3	451.3	448.4	446.2	467.5
12.5°	393.2	371.2	355.0	358.7	344.7	321.2	315.3	316.1	319.0	319.0	324.9
15°	311.7	277.8	252.1	236.7	238.9	215.4	208.8	186.7	183.8	177.1	178.6
17.5°	218.3	204.3	188.9	171.3	163.9	142.6	116.9	105.1	96.3	97.8	102.2
20°	150.7	144.8	140.4	131.6	124.2	99.2	83.1	77.9	77.2	78.6	80.1
22.5°	121.3	115.4	111.0	108.1	98.5	80.1	71.3	67.6	67.6	67.6	68.4
25°	104.4	98.5	92.6	92.6	83.8	69.8	63.2	60.3	59.5	58.8	60.3
27.5°	97.0	88.9	83.1	79.4	72.8	61.7	55.9	52.9	52.2	52.2	52.9
30°	89.7	81.6	75.7	70.6	63.2	55.1	49.2	47.0	45.6	45.6	46.3
32.5°	85.3	77.2	69.8	63.2	55.1	48.5	43.4	40.4	39.0	39.7	40.4
35°	75.7	69.1	62.5	55.9	48.5	42.6	37.5	34.5	33.8	33.8	34.5
37.5°	59.5	54.4	52.9	49.2	42.6	36.8	31.6	28.7	27.9	27.9	28.7
40°	53.7	47.0	44.1	42.6	39.0	31.6	25.7	22.8	22.8	22.1	23.5
42.5°	49.2	42.6	37.5	36.0	33.8	27.2	20.6	18.4	17.6	17.6	18.4
45°	46.3	39.0	32.3	28.7	28.7	22.1	16.9	14.0	13.2	13.2	14.0
47.5°	44.8	36.8	28.7	23.5	22.8	18.4	13.2	10.3	9.6	9.6	9.6
50°	43.4	33.8	25.7	19.8	17.6	15.4	10.3	8.1	7.4	7.4	7.4
52.5°	41.2	32.3	23.5	17.6	14.0	11.8	8.1	5.9	5.1	4.4	5.1
55°	39.7	30.1	22.8	16.2	11.8	8.8	5.9	4.4	3.7	3.7	3.7
57.5°	37.5	27.9	20.6	15.4	11.0	6.6	4.4	2.9	2.2	2.2	2.9
58°	36.8	27.9	19.8	14.7	10.3	6.6	4.4	2.9	2.2	2.2	2.9
60°	34.5	25.7	19.1	13.2	9.6	5.9	3.7	2.2	1.5	1.5	2.2
62.5°	32.3	23.5	16.9	11.8	8.1	5.1	2.9	1.5	0.7	0.7	0.7
65°	28.7	21.3	14.7	11.0	6.6	3.7	2.2	0.7	0.0	0.0	0.0
67.5°	25.7	19.8	13.2	9.6	5.9	2.9	1.5	0.0	0.0	0.0	0.0
70°	23.5	18.4	11.8	8.1	5.1	2.2	0.7	0.0	0.0	0.0	0.0
72.5°	22.1	16.9	11.0	7.4	3.7	2.2	0.7	0.0	0.0	0.0	0.0
75°	21.3	16.2	11.0	6.6	3.7	2.2	1.5	0.7	0.0	0.0	0.7
77.5°	20.6	16.2	11.0	6.6	4.4	2.2	2.2	1.5	1.5	0.7	2.2
80°	19.1	14.7	9.6	5.9	3.7	2.9	2.2	1.5	0.0	0.0	0.0
82.5°	16.2	11.8	8.1	5.9	3.7	2.2	0.7	0.0	0.0	0.0	0.0
85°	13.2	9.6	6.6	3.7	2.2	0.7	0.0	0.0	0.0	0.0	0.0
87.5°	11.8	7.4	5.1	2.9	1.5	0.7	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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CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1373.1	1373.1	1373.1	1373.1	1373.1	1373.1	1373.1	1373.1	1373.1	1373.1
2.5°	1179.7	1213.6	1227.5	1274.6	1295.2	1337.8	1374.5	1406.1	1421.6	1434.1
5°	915.1	947.5	982.0	1051.9	1112.1	1176.8	1257.7	1341.5	1365.7	1392.2
7.5°	638.8	686.5	744.6	807.1	893.1	990.8	1107.0	1210.6	1262.8	1276.0
10°	496.2	552.8	614.5	676.2	747.5	851.9	968.8	1102.6	1158.4	1181.2
12.5°	372.7	448.4	521.9	594.7	656.4	746.8	874.0	1033.5	1095.2	1124.6
15°	224.2	309.5	399.9	497.6	583.6	689.5	832.8	1018.8	1096.7	1129.8
17.5°	111.7	152.9	235.9	383.0	510.1	641.7	832.1	1071.7	1168.0	1210.6
20°	83.1	94.1	125.7	238.9	424.1	602.0	840.9	1162.1	1304.0	1340.0
22.5°	71.3	79.4	90.4	139.7	317.5	565.3	871.8	1281.9	1458.3	1506.1
25°	62.5	69.1	77.9	96.3	217.6	521.9	929.8	1451.0	1633.3	1698.7
27.5°	55.1	61.0	68.4	80.9	145.5	440.3	962.9	1592.8	1774.4	1828.8
30°	48.5	52.9	60.3	69.1	107.3	340.3	993.8	1717.8	1902.3	1944.9
32.5°	42.6	46.3	52.2	58.8	81.6	258.0	995.3	1825.1	2014.0	2054.5
35°	36.0	40.4	44.8	50.7	64.7	201.4	965.1	1931.7	2146.3	2195.6
37.5°	30.1	33.8	39.0	44.1	58.8	155.8	902.6	2056.7	2307.3	2363.2
40°	25.7	29.4	33.8	39.7	52.2	113.2	802.7	2169.9	2458.0	2509.4
42.5°	20.6	24.3	29.4	39.0	43.4	81.6	702.0	2278.6	2588.8	2636.6
45°	16.2	20.6	27.2	37.5	36.0	57.3	615.2	2374.9	2701.3	2765.2
47.5°	11.8	16.9	27.2	33.8	29.4	41.2	571.1	2467.5	2802.0	2845.4
50°	8.8	14.0	29.4	28.7	25.0	35.3	577.7	2570.5	2848.3	2876.2
52.5°	6.6	11.8	22.8	20.6	21.3	30.9	603.5	2706.4	2943.9	2963.7
55°	5.9	8.8	14.0	15.4	19.1	29.4	596.9	2835.1	3065.9	3100.4
57.5°	5.1	7.4	11.0	12.5	16.9	27.9	559.4	2891.7	3144.5	3192.3
58°	4.4	7.4	10.3	12.5	16.9	27.2	549.8	2876.2	3140.9	3201.1
60°	3.7	6.6	9.6	11.0	14.7	24.3	503.5	2745.4	3060.0	3144.5
62.5°	2.9	4.4	7.4	8.1	11.8	19.8	414.6	2533.7	2886.5	2990.9
65°	1.5	2.9	4.4	5.9	8.1	14.7	294.8	2283.1	2700.6	2802.7
67.5°	0.0	1.5	2.9	3.7	5.1	11.0	169.8	1937.6	2394.8	2475.6
70°	0.0	0.7	1.5	2.2	2.9	7.4	89.7	1422.3	1855.3	2000.8
72.5°	0.7	0.7	0.7	0.0	1.5	5.9	39.7	843.8	1265.0	1415.0
75°	0.7	0.7	0.0	0.0	0.0	2.9	16.9	444.7	725.5	796.8
77.5°	2.9	1.5	0.0	0.0	0.0	0.7	8.1	239.6	376.3	399.9
80°	0.7	0.0	0.0	0.0	0.0	0.0	2.9	80.1	225.7	230.8
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	97.0	92.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	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

(END OF REPORT)