

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:

Luminaire Tested: **ENT-SA1E-740-U-SL2-ULG**

Issue Date: 3/30/2022

Test Information

Test Method: LM-79-08
Report Number: REPORT IS A COMBINATION OF REPORTS P401668 AND P226775
Test Lab: INNOVATION CENTER
Issue Date: 3/30/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1E-740-U-SL2-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 1050mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8721.9 lumens
Efficiency: N/A
Efficacy: 118.0 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.1')
IES Classification: Type III - Medium
BUG Rating: B2 - U5 - G2

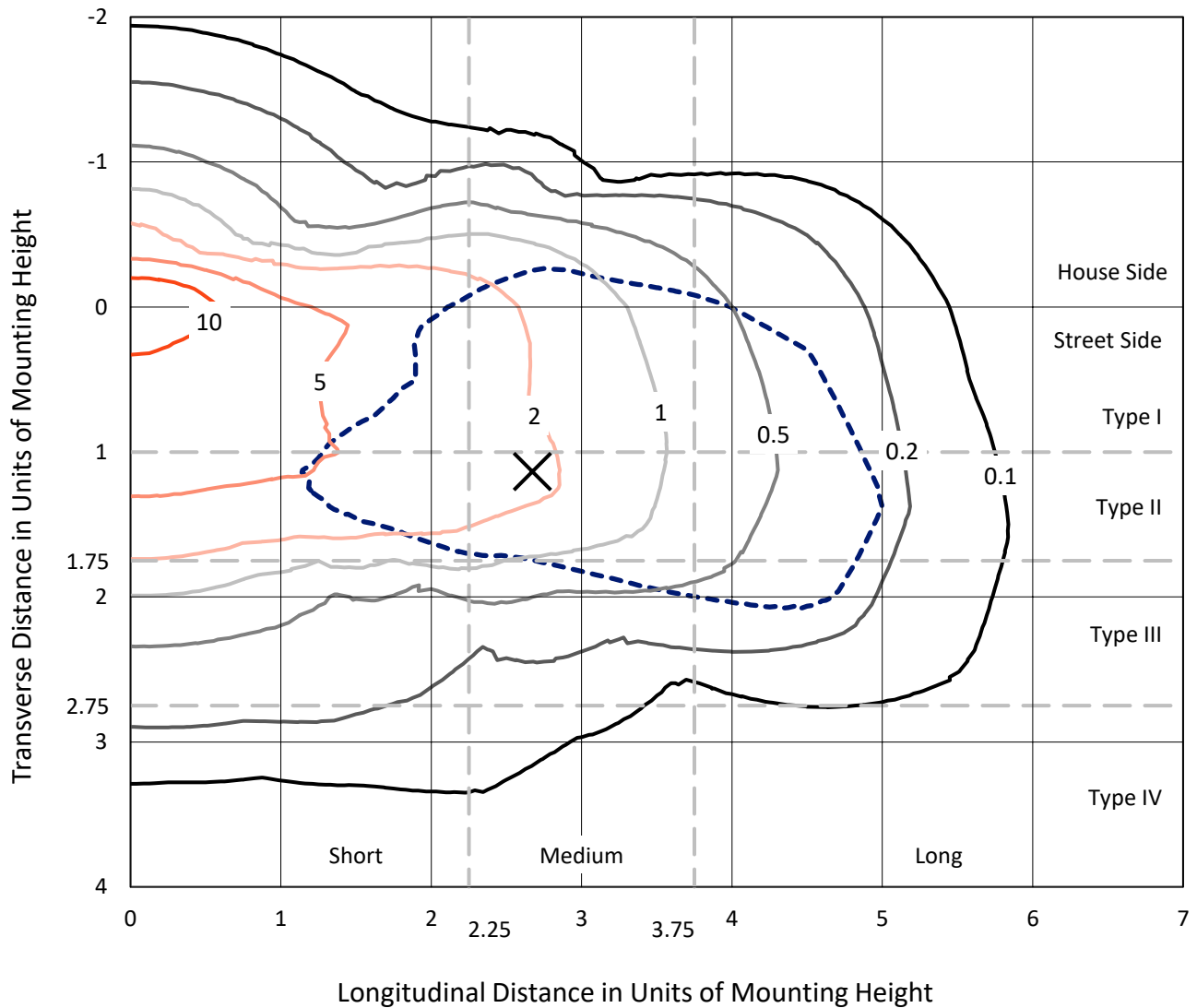
Input Watts (W): 73.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

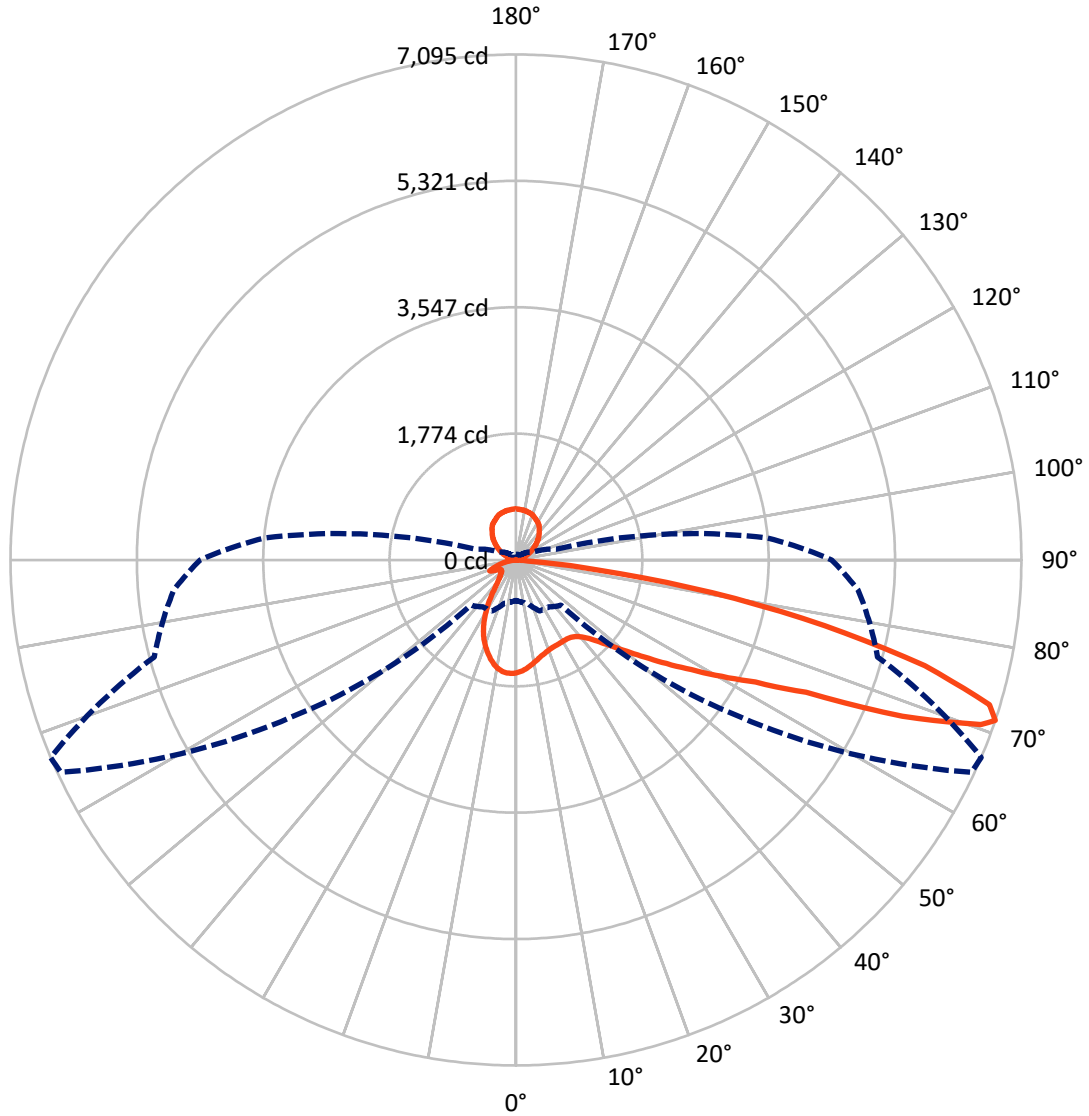
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 15.8 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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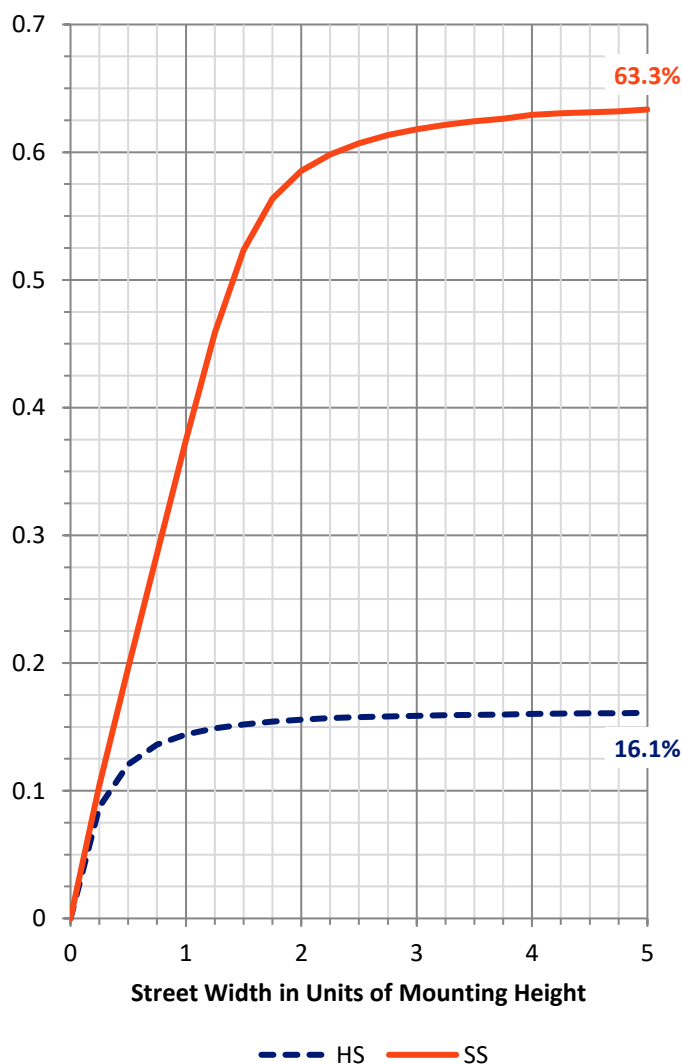
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1423.4	887.0	2310.4
	% Fixture	16.3	10.2	26.5
Street Side	Lumens	5524.6	887.0	6411.5
	% Fixture	63.3	10.2	73.5
Total	Lumens	6948.0	1773.9	8721.9
	% Fixture	79.7	20.3	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.4	1.6
10°-20°	345.0	4.0
20°-30°	465.8	5.3
30°-40°	613.5	7.0
40°-50°	873.8	10.0
50°-60°	1334.9	15.3
60°-70°	1666.8	19.1
70°-80°	1345.5	15.4
80°-90°	162.2	1.9
90°-100°	8.4	0.1
100°-110°	58.7	0.7
110°-120°	169.9	1.9
120°-130°	279.4	3.2
130°-140°	344.6	4.0
140°-150°	352.5	4.0
150°-160°	297.0	3.4
160°-170°	195.5	2.2
170°-180°	67.8	0.8
0°-90°	6948.0	79.7
0°-180°	8721.9	100.0

Coefficient of Utilization

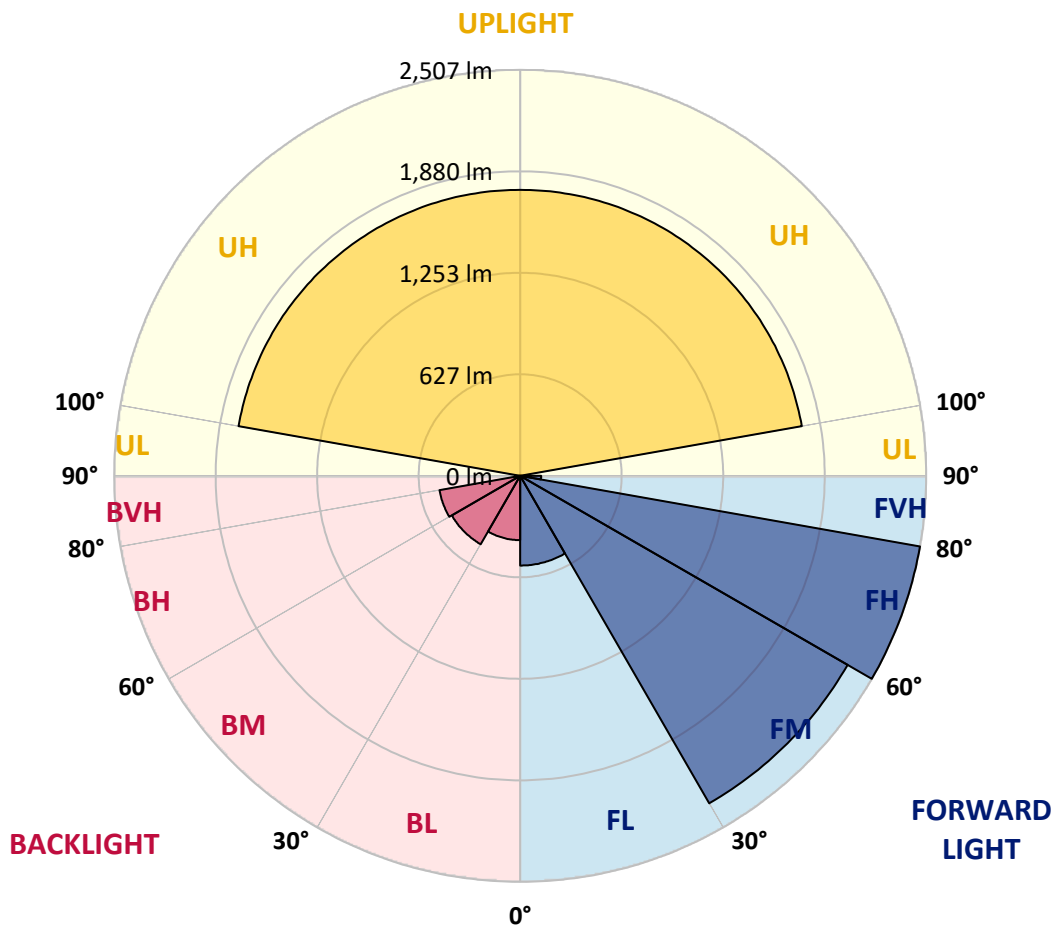


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	554.1	6.4			
FM (30°-60°)	2334.6	26.8			
FH (60°-80°)	2506.5	28.7			G2/5000
FVH (80°-90°)	129.3	1.5			G2/225
BL (0°-30°)	397.1	4.6	B1/500		
BM (30°-60°)	487.6	5.6	B1/1000		
BH (60°-80°)	505.8	5.8	B2/1000		G2/1000
BVH (80°-90°)	32.8	0.4			G1/100
UL (90°-100°)	8.4	0.1		U1/10	
UH (100°-180°)	1765.5	20.2		U5	

BUG Rating: B2-U5-G2
 Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	1584.3	1584.3	1584.3	1584.3	1584.3	1584.3	1584.3	1584.3	1584.3	1584.3	1584.3
2.5°	1494.3	1501.3	1502.3	1516.3	1521.3	1537.3	1546.3	1561.3	1563.3	1572.3	1578.3
5°	1397.3	1398.3	1404.3	1416.3	1435.3	1464.3	1486.3	1523.3	1530.3	1556.3	1579.3
7.5°	1310.3	1315.3	1325.3	1343.3	1365.3	1399.3	1433.3	1484.3	1494.3	1536.3	1580.3
10°	1251.3	1256.3	1264.3	1284.3	1306.3	1344.3	1385.3	1444.3	1455.3	1513.3	1577.3
12.5°	1204.2	1209.3	1215.3	1237.3	1261.3	1299.3	1341.3	1407.3	1418.3	1485.3	1570.3
15°	1173.2	1174.2	1182.2	1200.2	1227.3	1264.3	1306.3	1374.3	1387.3	1463.3	1568.3
17.5°	1154.2	1156.2	1163.2	1177.2	1201.2	1237.3	1278.3	1347.3	1362.3	1445.3	1569.3
20°	1155.2	1157.2	1161.2	1166.2	1183.2	1214.3	1257.3	1327.3	1342.3	1434.3	1576.3
22.5°	1176.2	1177.2	1178.2	1171.2	1177.2	1199.2	1241.3	1313.3	1329.3	1429.3	1584.3
25°	1216.3	1216.3	1214.3	1198.2	1185.2	1194.2	1232.3	1308.3	1324.3	1425.3	1592.3
27.5°	1271.3	1275.3	1265.3	1246.3	1216.3	1201.2	1230.3	1304.3	1320.3	1425.3	1596.3
30°	1346.3	1348.3	1344.3	1319.3	1270.3	1229.3	1236.3	1301.3	1317.3	1423.3	1597.3
32.5°	1422.3	1428.3	1433.3	1411.3	1352.3	1279.3	1260.3	1305.3	1319.3	1422.3	1594.3
35°	1499.3	1503.3	1527.3	1523.3	1459.3	1354.3	1299.3	1321.3	1333.3	1427.3	1596.3
37.5°	1565.3	1574.3	1609.3	1636.3	1586.3	1456.3	1366.3	1356.3	1363.3	1452.3	1607.3
40°	1636.3	1649.3	1701.4	1752.4	1730.4	1584.3	1461.3	1419.3	1417.3	1498.3	1634.3
42.5°	1716.4	1731.4	1798.4	1872.4	1879.4	1747.4	1588.3	1508.3	1506.3	1577.3	1693.4
45°	1810.4	1824.4	1915.4	2003.4	2046.4	1929.4	1744.4	1634.3	1635.3	1687.3	1787.4
47.5°	1926.4	1948.4	2036.4	2148.4	2225.5	2134.4	1933.4	1810.4	1802.4	1853.4	1941.4
50°	2089.4	2107.4	2180.5	2289.5	2424.5	2382.5	2171.4	2022.4	2016.4	2040.4	2147.4
52.5°	2260.5	2266.5	2301.5	2414.5	2641.5	2683.6	2464.5	2285.5	2262.5	2275.5	2403.5
55°	2270.5	2283.5	2306.5	2449.5	2836.6	3044.6	2787.6	2595.5	2565.5	2556.5	2694.6
57.5°	2062.4	2083.4	2113.4	2298.5	2844.6	3461.7	3246.7	2957.6	2903.6	2858.6	3005.6
60°	1621.3	1648.3	1703.4	1930.4	2641.5	3699.8	4012.8	3363.7	3315.7	3162.7	3309.7
62.5°	1172.2	1183.2	1236.3	1338.3	2096.4	3713.8	4811.0	3893.8	3774.8	3458.7	3571.7
65°	944.2	962.2	978.2	977.2	1241.3	3293.7	5341.1	4837.0	4477.9	3789.8	3859.8
67.5°	778.2	784.2	823.2	891.2	844.2	2034.4	5394.1	6215.3	5851.2	4235.9	4201.9
70°	650.1	652.1	691.1	813.2	808.2	1050.2	4522.9	7008.5	6920.4	4968.0	4737.0
71°	569.1	586.1	629.1	787.2	804.2	897.2	3842.8	7050.5	7094.5	5255.1	4820.0
72.5°	448.1	448.1	509.1	722.1	811.2	828.2	2831.6	6821.4	6948.4	5581.2	4676.0
75°	263.1	261.1	294.1	503.1	829.2	825.2	1546.3	5669.2	5926.2	5640.2	4327.9
77.5°	148.0	151.0	169.0	280.1	658.1	792.2	888.2	4127.9	4430.9	4718.0	3659.8
80°	68.0	72.0	85.0	136.0	388.1	684.1	634.1	2680.6	2795.6	2835.6	1729.4
82.5°	18.0	20.0	26.0	52.0	150.0	466.1	469.1	1122.2	1159.2	670.1	371.1
85°	0.0	0.0	0.0	0.0	2.0	57.0	133.0	202.0	168.0	89.0	76.0
87.5°	0.0	0.0	0.0	0.0	0.0	2.0	3.0	4.0	4.0	4.0	5.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	4.1	4.1	5.1	6.1	6.1	6.1	7.2	7.2	7.0	6.1	6.1
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	8.2	8.0	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	12.3	10.2	10.0	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	29.7	26.6	26.0	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	51.1	48.1	47.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	73.7	71.6	70.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	97.2	96.2	95.3	92.1	89.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
110°	67.5	69.6	75.7	89.0	104.3	116.6	122.8	123.8	123.4	121.7	118.7
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	151.4	153.4	153.2	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	183.1	186.2	185.6	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	215.8	219.9	218.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	251.6	255.7	254.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	285.4	289.5	288.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	320.2	322.2	321.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	352.9	353.9	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	380.5	385.7	389.7	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	420.4	425.5	425.1	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	453.2	458.3	458.1	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	483.9	485.9	486.1	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	511.5	513.5	513.9	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	539.1	545.2	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.6	568.8	574.9	574.7	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	593.3	598.4	598.6	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	610.7	613.8	614.4	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	625.0	628.1	628.9	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	640.4	645.5	646.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	658.8	662.9	663.3	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	673.1	679.2	678.6	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	682.3	686.4	686.2	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	687.4	692.5	693.2	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	693.6	699.7	700.5	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	701.7	704.8	705.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	704.8	707.9	708.3	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	711.0	711.2	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	709.9	715.0	715.5	717.1	714.0
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1584.3	1584.3	1584.3	1584.3	1584.3	1584.3	1584.3	1584.3	1584.3	1584.3	1584.3
2.5°	1583.3	1587.3	1594.3	1593.3	1591.3	1579.3	1586.3	1579.3	1578.3	1575.3	1576.3
5°	1587.3	1593.3	1597.3	1588.3	1573.3	1547.3	1538.3	1515.3	1500.3	1492.3	1488.3
7.5°	1593.3	1597.3	1595.3	1570.3	1531.3	1482.3	1440.3	1407.3	1372.3	1366.3	1364.3
10°	1593.3	1597.3	1581.3	1533.3	1466.3	1389.3	1325.3	1271.3	1217.3	1197.2	1200.2
12.5°	1589.3	1591.3	1554.3	1477.3	1380.3	1275.3	1185.2	1096.2	1027.2	985.2	977.2
15°	1586.3	1583.3	1518.3	1407.3	1278.3	1148.2	1012.2	892.2	810.2	755.2	748.2
17.5°	1586.3	1575.3	1475.3	1327.3	1167.2	988.2	808.2	678.1	587.1	555.1	554.1
20°	1588.3	1564.3	1429.3	1244.3	1029.2	798.2	603.1	492.1	458.1	453.1	454.1
22.5°	1590.3	1549.3	1379.3	1150.2	875.2	595.1	431.1	391.1	394.1	406.1	405.1
25°	1588.3	1529.3	1320.3	1045.2	707.1	429.1	348.1	338.1	356.1	370.1	374.1
27.5°	1583.3	1503.3	1257.3	920.2	539.1	338.1	304.1	303.1	321.1	334.1	333.1
30°	1568.3	1472.3	1184.2	788.2	389.1	288.1	274.1	277.1	289.1	301.1	301.1
32.5°	1552.3	1437.3	1107.2	644.1	299.1	261.1	256.1	257.1	265.1	274.1	273.1
35°	1535.3	1403.3	1028.2	494.1	262.1	245.1	243.1	242.1	245.1	247.1	247.1
37.5°	1525.3	1373.3	941.2	372.1	242.1	235.0	231.0	227.0	226.0	224.0	222.0
40°	1529.3	1353.3	857.2	288.1	230.0	224.0	218.0	212.0	208.0	206.0	205.0
42.5°	1557.3	1347.3	764.2	248.1	219.0	214.0	206.0	196.0	192.0	192.0	191.0
45°	1622.3	1365.3	677.1	228.0	209.0	203.0	190.0	183.0	180.0	181.0	181.0
47.5°	1724.4	1416.3	599.1	218.0	202.0	193.0	178.0	171.0	169.0	170.0	170.0
50°	1877.4	1512.3	519.1	209.0	194.0	182.0	169.0	161.0	158.0	158.0	158.0
52.5°	2101.4	1670.3	461.1	203.0	187.0	173.0	160.0	151.0	147.0	147.0	146.0
55°	2374.5	1876.4	439.1	199.0	178.0	165.0	151.0	142.0	136.0	134.0	135.0
57.5°	2673.6	2143.4	471.1	198.0	168.0	156.0	142.0	131.0	125.0	124.0	123.0
60°	2981.6	2408.5	563.1	193.0	160.0	145.0	132.0	122.0	116.0	114.0	113.0
62.5°	3247.7	2672.6	715.1	189.0	154.0	135.0	121.0	112.0	107.0	104.0	104.0
65°	3568.7	2975.6	947.2	194.0	151.0	125.0	111.0	103.0	99.0	96.0	96.0
67.5°	4006.8	3424.7	1123.2	218.0	158.0	117.0	100.0	94.0	91.0	89.0	89.0
70°	4437.9	3676.8	781.2	256.1	176.0	110.0	90.0	86.0	84.0	82.0	82.0
71°	4431.9	3541.7	587.1	265.1	182.0	108.0	86.0	83.0	81.0	80.0	79.0
72.5°	4209.9	3219.7	421.1	257.1	179.0	102.0	81.0	78.0	76.0	76.0	75.0
75°	3775.8	2837.6	329.1	215.0	150.0	91.0	72.0	70.0	68.0	67.0	68.0
77.5°	3093.6	2270.5	259.1	170.0	114.0	75.0	64.0	61.0	60.0	59.0	60.0
80°	1421.3	989.2	189.0	132.0	85.0	60.0	54.0	53.0	52.0	51.0	51.0
82.5°	342.1	277.1	101.0	88.0	58.0	46.0	43.0	43.0	43.0	42.0	42.0
85°	75.0	75.0	41.0	41.0	35.0	32.0	34.0	34.0	34.0	32.0	32.0
87.5°	4.0	12.0	13.0	19.0	20.0	19.0	23.0	24.0	23.0	22.0	21.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	6.1	6.1	6.1	7.2	7.2	6.1	6.1	6.1	5.1	4.1	4.1
95°	7.2	7.2	7.2	8.2	7.2	7.2	7.2	7.2	6.1	5.1	5.1
97.5°	8.2	8.2	9.2	10.2	12.3	9.2	9.2	8.2	8.2	7.2	7.2
100°	19.4	19.4	23.5	26.6	29.7	21.5	12.3	10.2	9.2	8.2	8.2
102.5°	38.9	39.9	43.0	48.1	51.1	40.9	27.6	18.4	13.3	11.3	11.3
105°	62.4	62.4	66.5	71.6	73.7	64.4	49.1	36.8	27.6	22.5	21.5
107.5°	88.0	89.0	92.1	96.2	97.2	90.0	74.7	59.3	50.1	43.0	41.9



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	119.7	118.7	121.7	123.8	122.8	116.6	104.3	89.0	75.7	69.6	67.5
112.5°	150.4	150.4	152.4	153.4	151.4	146.3	137.1	123.8	108.4	101.3	101.3
115°	182.1	181.1	183.1	186.2	183.1	178.0	171.9	162.6	150.4	142.2	143.2
117.5°	213.8	212.8	214.8	219.9	215.8	209.7	206.6	201.5	193.3	188.2	188.2
120°	248.6	248.6	250.6	255.7	251.6	248.6	242.4	238.3	231.2	228.1	230.2
122.5°	283.4	282.3	284.4	289.5	285.4	283.4	277.2	273.1	267.0	266.0	269.0
125°	317.1	317.1	317.1	322.2	320.2	317.1	312.0	305.9	302.8	300.7	304.8
127.5°	355.0	352.9	353.9	353.9	352.9	347.8	346.8	340.6	336.6	336.6	337.6
130°	388.7	387.7	389.7	389.7	385.7	380.5	378.5	374.4	370.3	369.3	371.3
132.5°	424.5	423.5	423.5	425.5	420.4	414.3	413.3	410.2	402.0	403.0	405.1
135°	461.4	460.3	457.3	458.3	453.2	447.0	445.0	441.9	435.8	435.8	438.8
137.5°	493.1	492.0	486.9	485.9	483.9	478.7	474.6	470.6	469.5	467.5	470.6
140°	522.7	520.7	515.6	513.5	511.5	508.4	502.3	500.2	498.2	496.1	499.2
142.5°	548.3	546.3	545.2	545.2	539.1	537.0	533.0	529.9	528.9	526.8	529.9
145°	572.9	570.8	573.9	574.9	568.8	563.6	562.6	559.6	556.5	558.5	562.6
147.5°	598.4	596.4	599.4	598.4	593.3	588.2	587.2	587.2	584.1	585.1	588.2
150°	624.0	619.9	616.8	613.8	610.7	606.6	606.6	606.6	606.6	605.6	608.7
152.5°	642.4	637.3	632.2	628.1	625.0	624.0	624.0	623.0	622.0	622.0	625.0
155°	655.7	652.6	650.6	645.5	640.4	642.4	644.5	641.4	639.3	639.3	643.4
157.5°	670.0	664.9	664.9	662.9	658.8	659.8	660.8	658.8	657.8	657.8	660.8
160°	681.3	675.1	676.2	679.2	673.1	670.0	670.0	671.1	674.1	675.1	678.2
162.5°	689.5	683.3	685.4	686.4	682.3	678.2	676.2	680.3	684.4	684.4	688.4
165°	697.7	693.6	695.6	692.5	687.4	688.4	688.4	691.5	691.5	693.6	696.6
167.5°	709.9	703.8	703.8	699.7	693.6	700.7	703.8	701.7	699.7	702.8	705.8
170°	717.1	712.0	709.9	704.8	701.7	706.9	708.9	707.9	707.9	711.0	714.0
172.5°	717.1	712.0	709.9	707.9	704.8	705.8	705.8	708.9	711.0	713.0	715.0
175°	715.0	709.9	712.0	711.0	705.8	705.8	706.9	711.0	713.0	714.0	716.1
177.5°	718.1	714.0	717.1	715.0	709.9	711.0	713.0	715.0	716.1	721.2	723.2
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1

(END OF REPORT)