

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-HSS-ULG**

Issue Date: 3/30/2022

Test Information

Test Method: LM-79-08
Report Number: REPORT IS A COMBINATION OF REPORTS P401666 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-HSS-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 1050mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7459.9 lumens
Efficiency: N/A
Efficacy: 100.9 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: B1 - U5 - G2

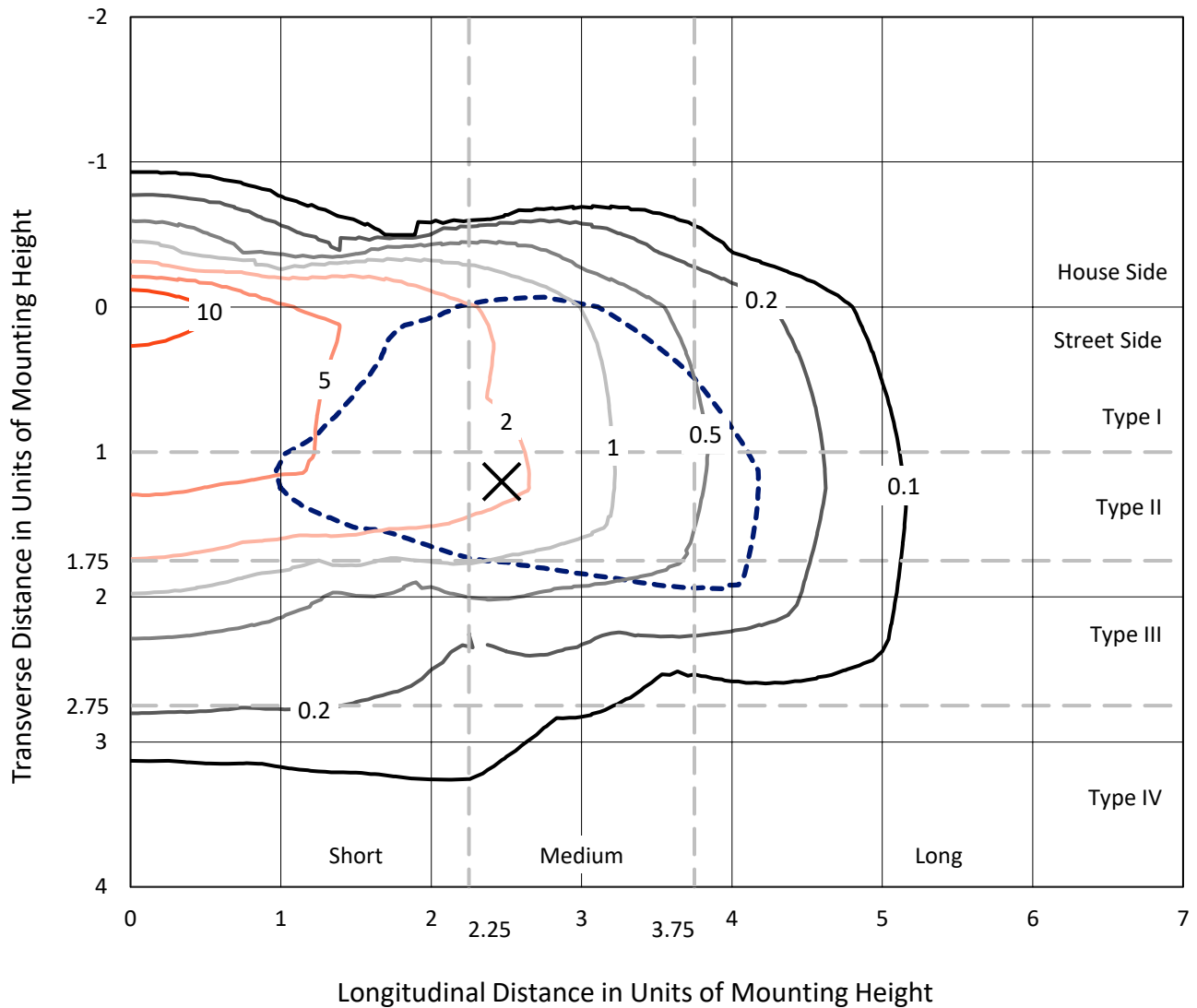
Input Watts (W): 73.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

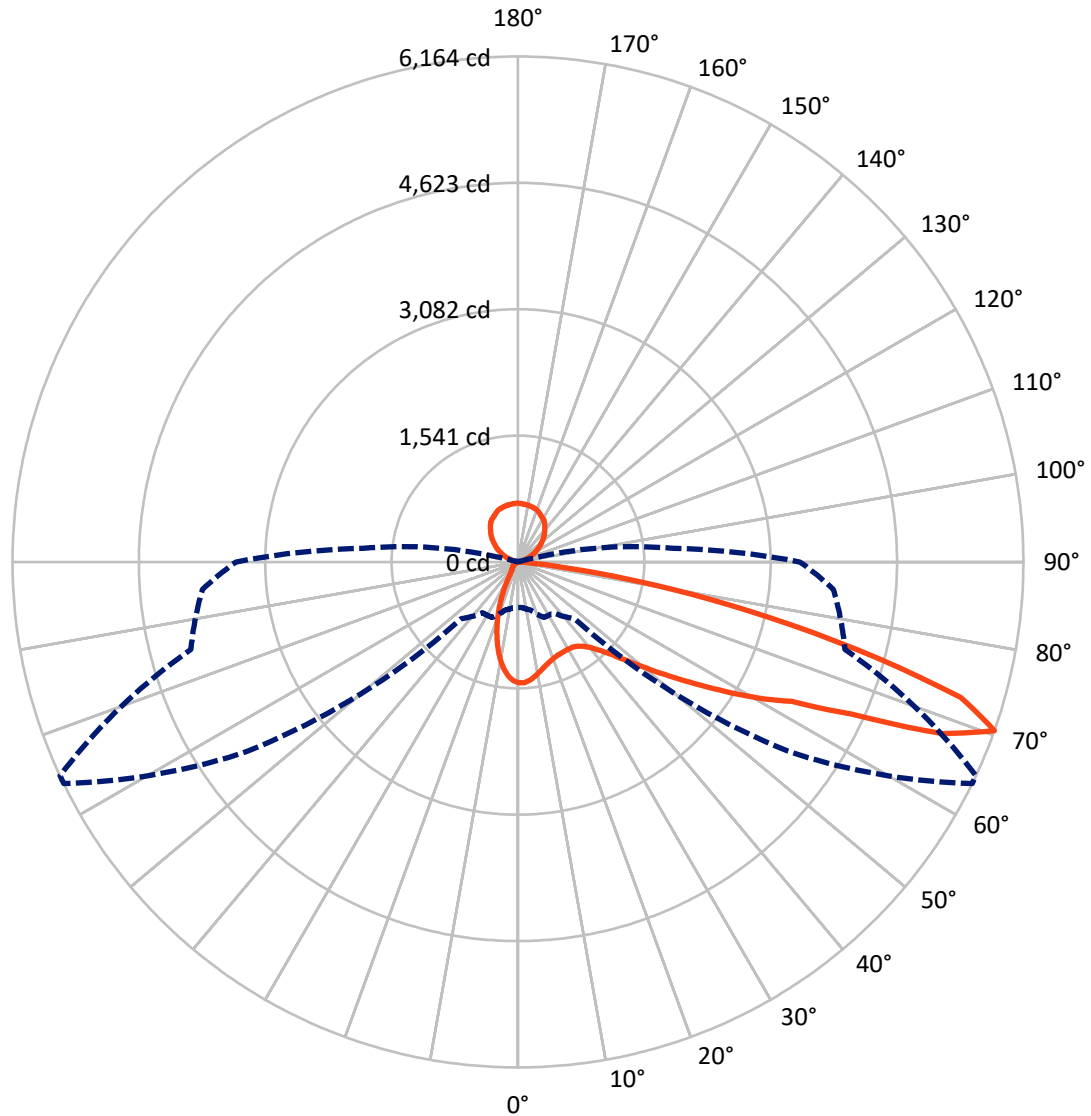
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14.7 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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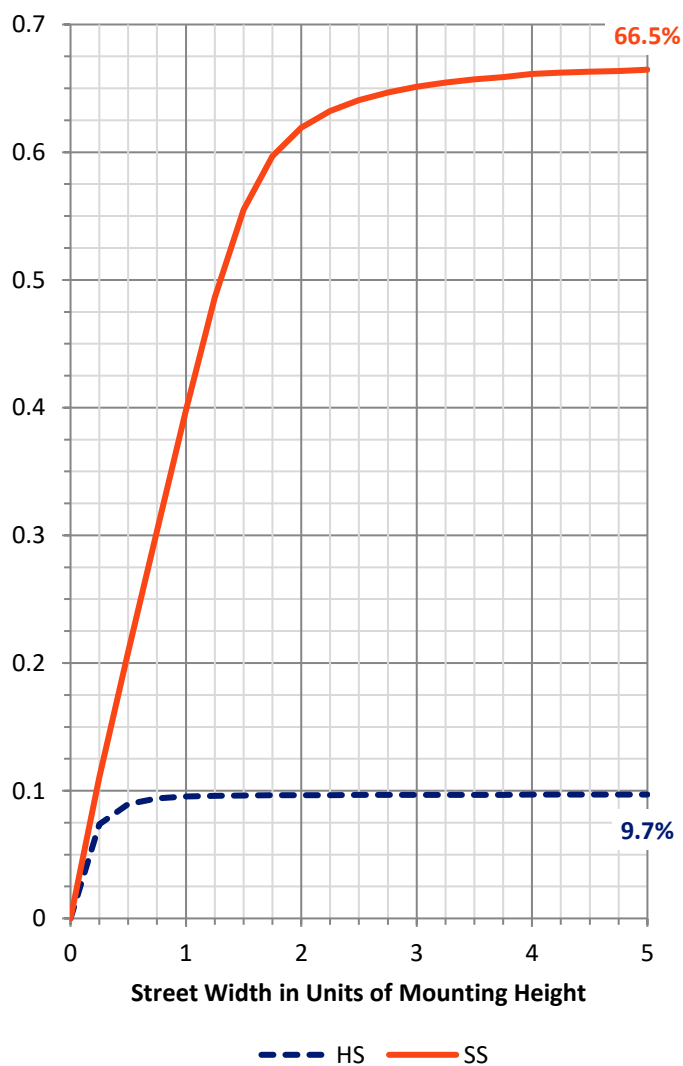
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	730.5	887.0	1617.4
	% Fixture	9.8	11.9	21.7
Street Side	Lumens	4955.5	887.0	5842.5
	% Fixture	66.4	11.9	78.3
Total	Lumens	5686.0	1773.9	7459.9
	% Fixture	76.2	23.8	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.0	1.7
10°-20°	275.2	3.7
20°-30°	379.1	5.1
30°-40°	522.0	7.0
40°-50°	778.0	10.4
50°-60°	1229.0	16.5
60°-70°	1392.6	18.7
70°-80°	914.4	12.3
80°-90°	71.7	1.0
90°-100°	8.4	0.1
100°-110°	58.7	0.8
110°-120°	169.9	2.3
120°-130°	279.4	3.7
130°-140°	344.6	4.6
140°-150°	352.5	4.7
150°-160°	297.0	4.0
160°-170°	195.5	2.6
170°-180°	67.8	0.9
0°-90°	5686.0	76.2
0°-180°	7459.9	100.0

Coefficient of Utilization



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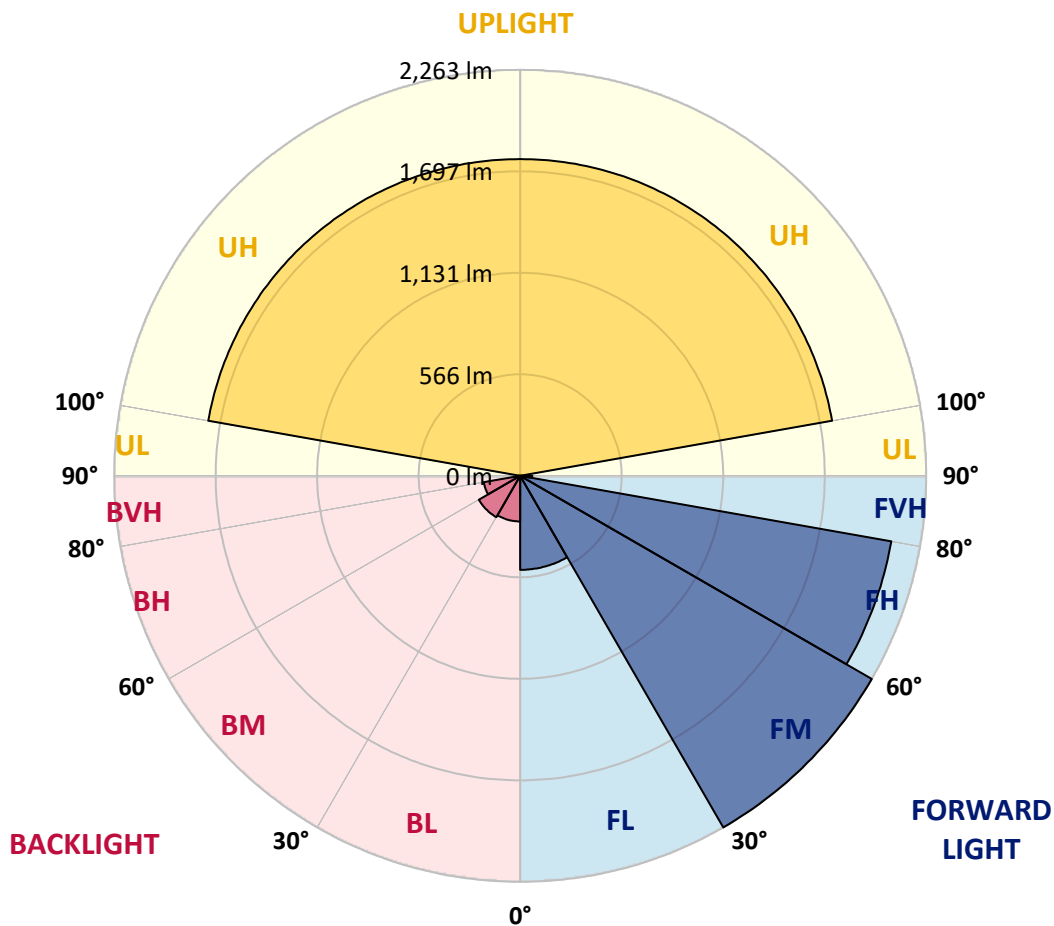
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	524.1	7.0			
FM (30°-60°)	2262.9	30.3			
FH (60°-80°)	2100.8	28.2			G2/5000
FVH (80°-90°)	67.7	0.9			G1/100
BL (0°-30°)	254.2	3.4	B1/500		
BM (30°-60°)	266.0	3.6	B1/1000		
BH (60°-80°)	206.2	2.8	B1/500		G1/500
BVH (80°-90°)	4.0	0.1			G0/10
UL (90°-100°)	8.4	0.1		U1/10	
UH (100°-180°)	1765.5	23.7		U5	

BUG Rating: B1-U5-G2

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1471.9	1471.9	1471.9	1471.9	1471.9	1471.9	1471.9	1471.9	1471.9	1471.9	1471.9
2.5°	1430.9	1430.9	1437.9	1444.9	1448.9	1459.9	1467.9	1473.9	1473.9	1477.9	1470.9
5°	1335.9	1335.9	1341.9	1358.9	1376.9	1399.9	1425.9	1451.9	1456.9	1475.9	1474.9
7.5°	1247.9	1255.9	1265.9	1282.9	1301.9	1335.9	1371.9	1416.9	1421.9	1467.9	1477.9
10°	1186.9	1191.9	1197.9	1216.9	1244.9	1283.9	1322.9	1375.9	1384.9	1453.9	1477.9
12.5°	1137.9	1138.9	1147.9	1168.9	1195.9	1233.9	1277.9	1335.9	1346.9	1428.9	1473.9
15°	1102.9	1101.9	1111.9	1131.9	1157.9	1196.9	1239.9	1300.9	1312.9	1407.9	1472.9
17.5°	1081.9	1082.9	1090.9	1105.9	1130.9	1167.9	1211.9	1271.9	1283.9	1390.9	1477.9
20°	1081.9	1081.9	1086.9	1093.9	1112.9	1145.9	1188.9	1250.9	1262.9	1379.9	1484.9
22.5°	1102.9	1100.9	1104.9	1098.9	1107.9	1130.9	1174.9	1236.9	1249.9	1374.9	1495.9
25°	1140.9	1136.9	1139.9	1126.9	1116.9	1126.9	1165.9	1230.9	1244.9	1375.9	1505.9
27.5°	1193.9	1193.9	1187.9	1169.9	1144.9	1133.9	1164.9	1226.9	1240.9	1375.9	1512.9
30°	1267.9	1264.9	1255.9	1237.9	1198.9	1161.9	1174.9	1226.9	1240.9	1376.9	1514.9
32.5°	1341.9	1343.9	1348.9	1330.9	1277.9	1209.9	1198.9	1235.9	1247.9	1375.9	1511.9
35°	1416.9	1417.9	1439.9	1441.9	1373.9	1286.9	1239.9	1259.9	1267.9	1385.9	1513.9
37.5°	1482.9	1487.9	1530.9	1551.9	1495.9	1385.9	1304.9	1304.9	1308.9	1412.9	1525.9
40°	1556.9	1569.9	1621.9	1668.9	1646.9	1512.9	1399.9	1370.9	1372.9	1461.9	1552.9
42.5°	1642.9	1658.9	1726.9	1794.9	1793.9	1668.9	1519.9	1475.9	1477.9	1546.9	1607.9
45°	1751.9	1762.9	1848.9	1933.9	1951.9	1840.9	1670.9	1612.9	1614.9	1675.9	1714.9
47.5°	1884.9	1897.9	1980.9	2082.8	2128.8	2047.8	1866.9	1803.9	1797.9	1840.9	1868.9
50°	2058.8	2083.8	2132.8	2230.8	2341.8	2287.8	2096.8	2033.8	2025.8	2059.8	2068.8
52.5°	2224.8	2247.8	2267.8	2357.8	2572.8	2585.8	2378.8	2309.8	2301.8	2309.8	2320.8
55°	2249.8	2262.8	2277.8	2399.8	2759.8	2964.8	2699.8	2617.8	2594.8	2579.8	2616.8
57.5°	2050.8	2042.8	2092.8	2258.8	2790.8	3383.7	3133.8	2974.8	2952.8	2869.8	2832.8
60°	1623.9	1612.9	1659.9	1886.9	2616.8	3591.7	3735.7	3369.7	3315.8	3037.8	3001.8
62.5°	1140.9	1127.9	1188.9	1322.9	2029.8	3550.7	4414.7	3743.7	3636.7	3186.8	3137.8
65°	878.9	872.9	905.9	935.9	1238.9	3075.8	4788.6	4473.7	4252.7	3348.8	3285.8
67.5°	688.9	696.9	737.9	824.9	799.9	1916.9	4753.6	5587.6	5366.6	3646.7	3606.7
70°	554.0	556.0	607.0	745.9	754.9	975.9	4024.7	6163.5	6160.5	4127.7	3861.7
72.5°	335.0	344.0	427.0	645.0	761.9	746.9	2705.8	5647.6	5725.6	4239.7	3482.7
75°	161.0	170.0	221.0	433.0	756.9	726.9	1463.9	4275.7	4375.7	3801.7	2823.8
77.5°	60.0	68.0	102.0	212.0	561.0	666.0	769.9	2882.8	2961.8	2782.8	1912.9
80°	19.0	22.0	40.0	97.0	285.0	550.0	496.0	1625.9	1678.9	1217.9	643.0
82.5°	2.0	3.0	11.0	33.0	110.0	280.0	291.0	612.0	639.0	238.0	130.0
85°	0.0	0.0	0.0	0.0	2.0	2.0	72.0	117.0	96.0	23.0	38.0
87.5°	0.0	0.0	0.0	0.0	0.0	1.0	2.0	3.0	3.0	3.0	4.0
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	7.2	6.1	6.1
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	8.1	8.2	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	12.3	10.4	10.2	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	29.7	26.9	26.6	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	51.1	48.4	48.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	73.7	71.8	71.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	97.2	96.3	96.2	92.1	89.0
110°	67.5	69.6	75.7	89.0	104.3	116.6	122.8	123.7	123.8	121.7	118.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	151.4	153.2	153.4	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	183.1	185.9	186.2	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	215.8	219.5	219.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	251.6	255.3	255.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	285.4	289.1	289.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	320.2	322.0	322.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	352.9	353.8	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	380.5	385.7	389.3	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	420.4	425.0	425.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	453.2	457.8	458.3	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	483.9	485.7	485.9	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	511.5	513.3	513.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	539.1	544.6	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.6	568.8	574.3	574.9	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	593.3	597.9	598.4	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	610.7	613.5	613.8	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	625.0	627.8	628.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	640.4	645.0	645.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	658.8	662.5	662.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	673.1	678.6	679.2	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	682.3	686.0	686.4	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	687.4	692.0	692.5	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	693.6	699.1	699.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	701.7	704.5	704.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	704.8	707.6	707.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	710.4	711.0	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	709.9	714.5	715.0	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°	1471.9	1471.9	1471.9	1471.9	1471.9	1471.9	1471.9	1471.9	1471.9	1471.9	1471.9
2.5°	1469.9	1469.9	1462.9	1451.9	1437.9	1417.9	1412.9	1396.9	1396.9	1383.9	1381.9
5°	1471.9	1465.9	1442.9	1408.9	1361.9	1310.9	1278.9	1243.9	1213.9	1194.9	1196.9
7.5°	1471.9	1458.9	1412.9	1337.9	1249.9	1161.9	1094.9	1016.9	980.9	956.9	967.9
10°	1467.9	1445.9	1365.9	1251.9	1112.9	990.9	880.9	790.9	728.9	702.9	680.9
12.5°	1458.9	1426.9	1306.9	1144.9	966.9	806.9	655.0	537.0	455.0	414.0	409.0
15°	1450.9	1406.9	1237.9	1027.9	801.9	593.0	423.0	310.0	240.0	224.0	226.0
17.5°	1448.9	1387.9	1171.9	903.9	641.0	395.0	244.0	197.0	187.0	183.0	182.0
20°	1449.9	1370.9	1099.9	780.9	454.0	246.0	185.0	174.0	170.0	168.0	167.0
22.5°	1453.9	1351.9	1028.9	652.0	310.0	180.0	165.0	158.0	153.0	150.0	149.0
25°	1453.9	1330.9	949.9	515.0	203.0	158.0	148.0	139.0	132.0	128.0	128.0
27.5°	1450.9	1306.9	867.9	391.0	161.0	141.0	130.0	118.0	109.0	104.0	104.0
30°	1441.9	1277.9	788.9	273.0	141.0	126.0	112.0	97.0	86.0	81.0	79.0
32.5°	1428.9	1246.9	697.9	192.0	127.0	110.0	94.0	78.0	68.0	62.0	62.0
35°	1414.9	1215.9	600.0	147.0	115.0	97.0	79.0	63.0	54.0	50.0	49.0
37.5°	1407.9	1182.9	504.0	127.0	103.0	83.0	64.0	51.0	44.0	41.0	40.0
40°	1412.9	1157.9	410.0	114.0	92.0	70.0	53.0	43.0	37.0	33.0	33.0
42.5°	1442.9	1143.9	321.0	104.0	82.0	59.0	44.0	35.0	29.0	26.0	26.0
45°	1503.9	1153.9	244.0	95.0	70.0	49.0	37.0	28.0	22.0	19.0	19.0
47.5°	1605.9	1193.9	185.0	87.0	60.0	40.0	30.0	22.0	17.0	15.0	14.0
50°	1754.9	1272.9	145.0	79.0	50.0	34.0	25.0	17.0	13.0	11.0	11.0
52.5°	1969.9	1409.9	124.0	70.0	41.0	28.0	20.0	13.0	10.0	8.0	8.0
55°	2233.8	1583.9	112.0	62.0	33.0	23.0	16.0	10.0	7.0	6.0	5.0
57.5°	2447.8	1721.9	105.0	54.0	28.0	20.0	12.0	8.0	6.0	4.0	4.0
60°	2636.8	1810.9	93.0	45.0	24.0	16.0	10.0	6.0	4.0	3.0	3.0
62.5°	2789.8	1868.9	77.0	36.0	20.0	13.0	8.0	5.0	4.0	3.0	3.0
65°	2963.8	1915.9	63.0	28.0	17.0	11.0	7.0	4.0	3.0	3.0	3.0
67.5°	3304.8	2020.8	47.0	22.0	13.0	9.0	6.0	4.0	3.0	2.0	2.0
70°	3437.7	1897.9	37.0	18.0	10.0	8.0	6.0	4.0	2.0	2.0	2.0
72.5°	2925.8	1420.9	29.0	15.0	9.0	7.0	6.0	4.0	3.0	3.0	2.0
75°	2320.8	959.9	23.0	12.0	9.0	8.0	6.0	6.0	5.0	4.0	4.0
77.5°	1481.9	425.0	18.0	10.0	9.0	10.0	9.0	6.0	6.0	5.0	5.0
80°	442.0	102.0	13.0	8.0	7.0	8.0	9.0	6.0	4.0	3.0	3.0
82.5°	96.0	24.0	8.0	4.0	5.0	4.0	6.0	6.0	4.0	3.0	3.0
85°	32.0	9.0	5.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0
87.5°	2.0	3.0	3.0	2.0	2.0	2.0	2.0	1.0	1.0	2.0	2.0
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
110°	119.7	118.7	121.7	123.8	122.8	116.6	104.3	89.0	75.7	69.6	67.5



REPORT NUMBER:

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
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)