

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: P139888

Luminaire Tested: **ENC-E02-LED-E1-GZW-8030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P139888
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33649)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENC-E02-LED-E1-GZW-8030
Description: ENTRI LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - WALL GRAZER WIDE
Light Source: (42) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4700.7 lumens
Efficiency: N/A
Efficacy: 100.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')
IES Classification: Type I - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

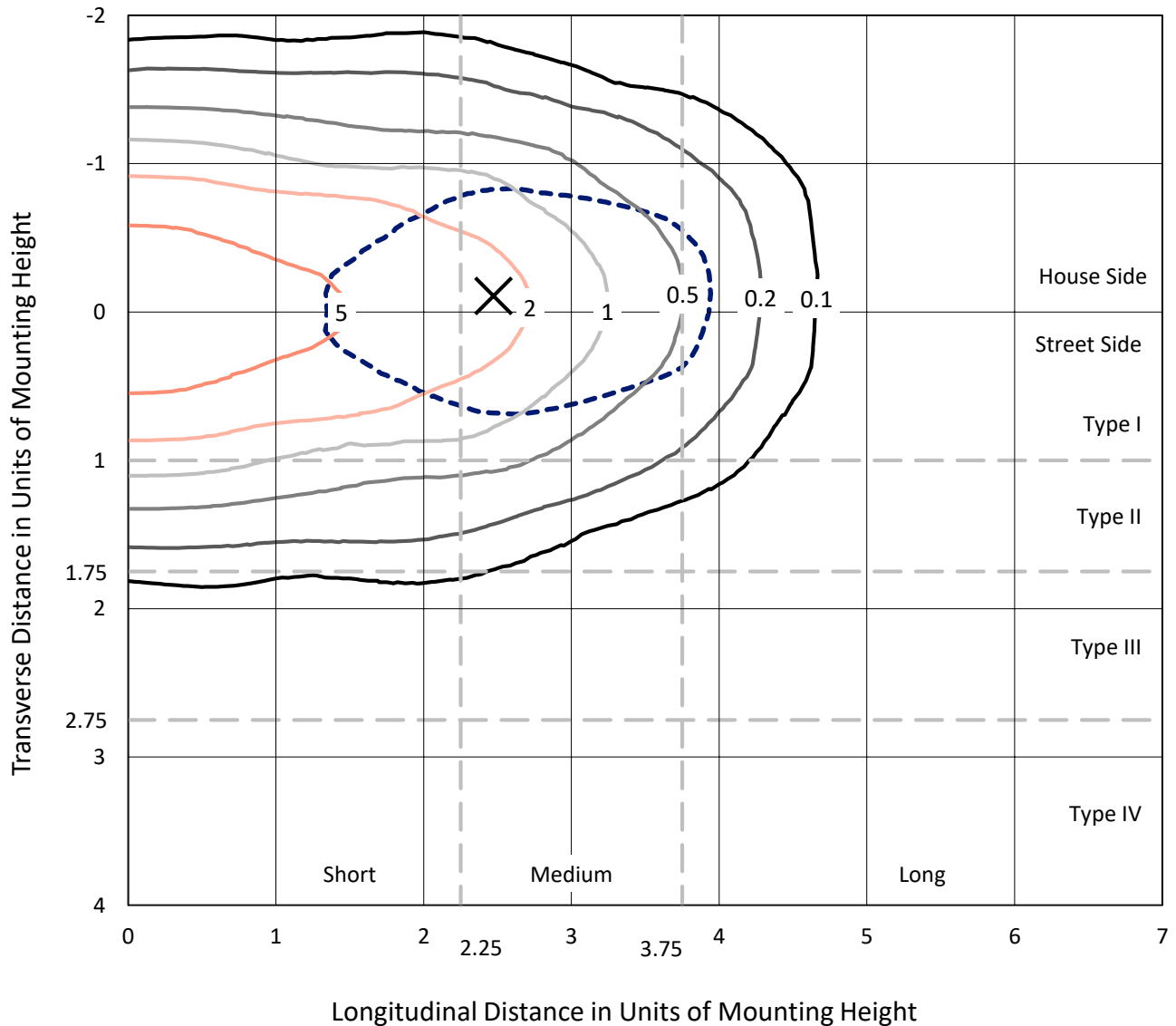
Input Watts (W): 46.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

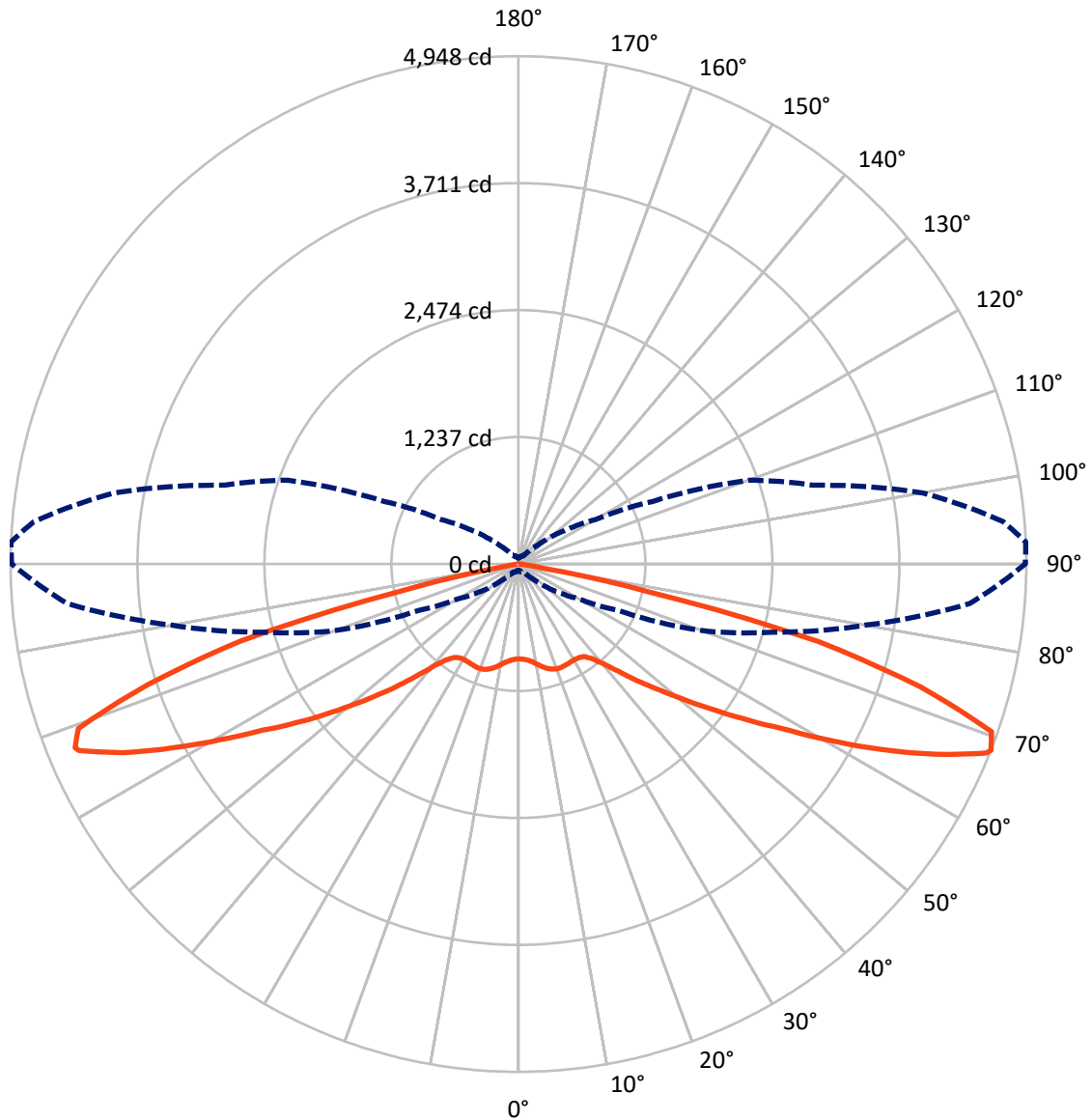
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.5 fc
 Type I - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 92.5-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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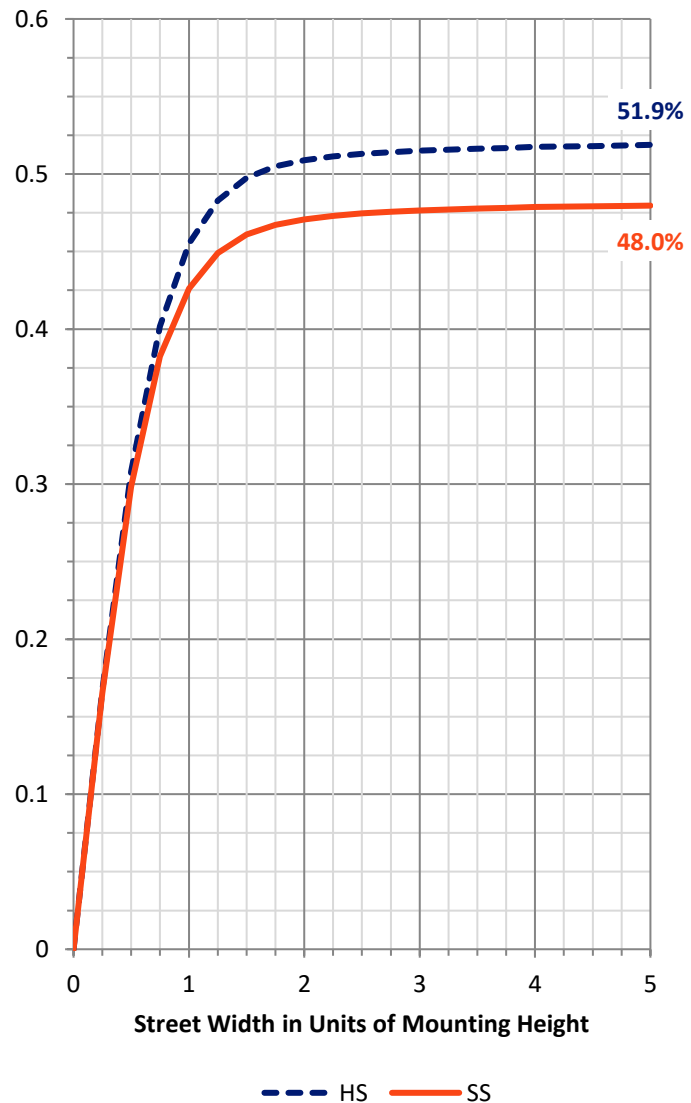
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2455.6	0.0	2455.6
	% Fixture	52.2	0.0	52.2
Street Side	Lumens	2245.1	0.0	2245.1
	% Fixture	47.8	0.0	47.8
Total	Lumens	4700.7	0.0	4700.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.8	1.9
10°-20°	287.4	6.1
20°-30°	466.1	9.9
30°-40°	579.5	12.3
40°-50°	720.4	15.3
50°-60°	886.2	18.9
60°-70°	1047.8	22.3
70°-80°	586.8	12.5
80°-90°	35.6	0.8
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°	4700.7	100.0
0°-180°	4700.7	100.0



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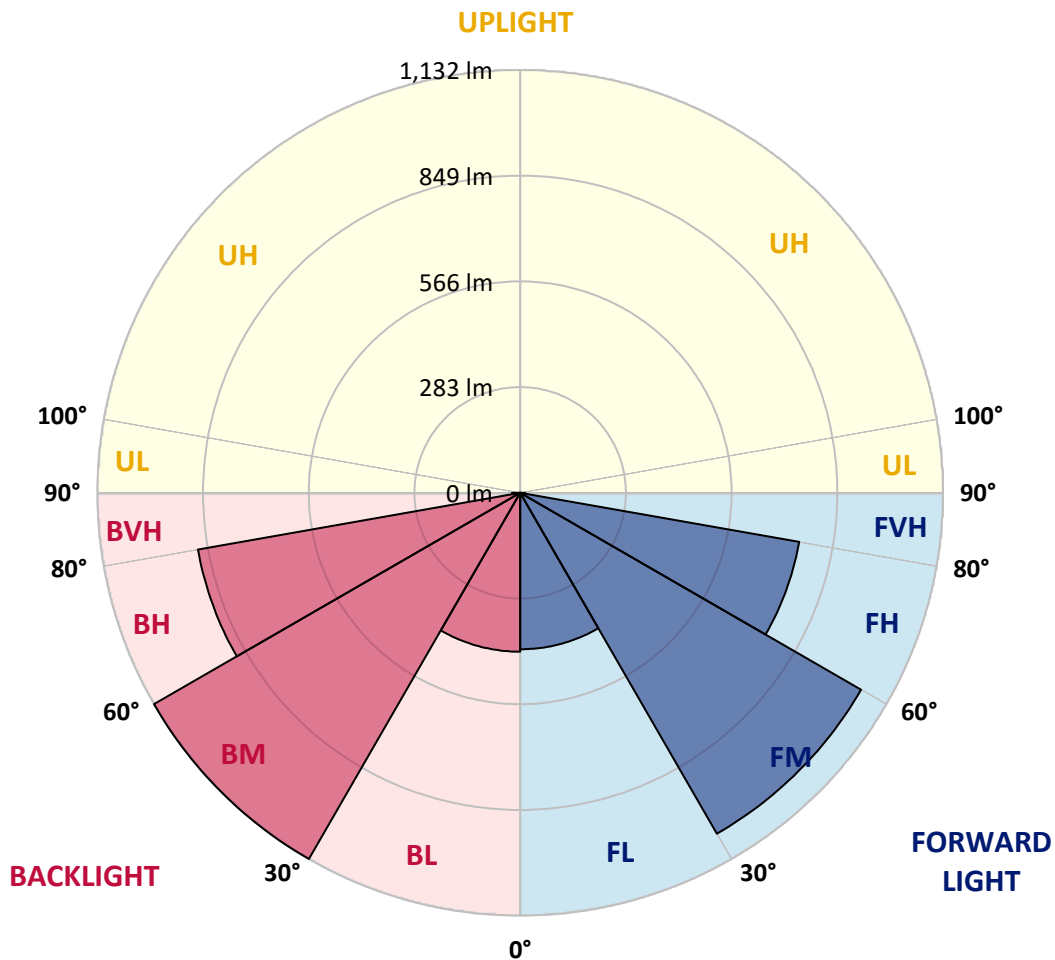
CATALOG NUMBER: ENC-E02-LED-E1-GZW-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	418.9	8.9			
FM	(30°-60°)	1054.0	22.4			
FH	(60°-80°)	758.6	16.1			G1/1800
FVH	(80°-90°)	13.6	0.3			G1/100
BL	(0°-30°)	425.5	9.1	B1/500		
BM	(30°-60°)	1132.2	24.1	B2/2500		
BH	(60°-80°)	875.9	18.6	B2/1000		G2/1000
BVH	(80°-90°)	22.1	0.5			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 I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	924.2	924.2	924.2	924.2	924.2	924.2	924.2	924.2	924.2	924.2	924.2
2.5°	928.4	928.4	928.4	929.2	930.1	931.8	930.9	932.6	930.1	933.5	933.5
5°	939.4	940.2	941.0	941.0	942.7	943.6	942.7	945.3	942.7	946.1	947.0
7.5°	949.5	949.5	950.3	951.2	952.9	954.6	955.4	957.9	957.1	960.5	963.8
10°	957.1	956.2	957.1	958.8	963.0	965.5	968.9	972.3	974.0	977.3	982.4
12.5°	960.5	959.6	962.1	966.4	970.6	975.7	980.7	988.3	993.4	998.4	1006.0
15°	958.8	958.8	962.1	967.2	975.7	984.9	994.2	1004.3	1013.6	1024.6	1032.2
17.5°	942.7	944.4	949.5	957.9	970.6	984.9	1000.1	1017.0	1032.2	1047.4	1057.5
20°	914.0	915.7	925.0	935.1	952.0	973.1	996.8	1021.2	1044.9	1065.1	1079.5
22.5°	878.6	876.9	885.3	898.9	921.6	947.0	977.3	1013.6	1045.7	1074.4	1094.7
25°	823.7	823.7	833.0	849.9	874.4	905.6	942.7	989.2	1032.2	1069.3	1098.0
27.5°	765.5	766.3	778.2	792.5	820.4	849.9	892.9	947.0	999.3	1048.2	1090.4
30°	707.3	709.8	719.9	734.3	763.8	795.0	838.9	892.1	948.6	1009.4	1066.8
32.5°	647.3	650.7	659.2	676.0	708.1	742.7	787.4	834.7	888.7	955.4	1029.7
35°	590.8	593.3	600.1	620.3	653.2	690.4	740.2	785.8	840.6	902.2	984.1
37.5°	537.6	540.2	547.8	568.8	601.8	638.9	687.9	739.3	795.9	856.7	937.7
40°	480.2	486.1	496.3	516.5	546.9	589.1	638.9	692.9	752.8	822.0	904.8
42.5°	427.9	433.0	442.3	460.0	490.4	535.1	587.4	643.1	708.1	786.6	880.3
45°	379.8	384.0	393.3	409.3	441.4	476.9	524.1	582.4	649.9	740.2	854.1
47.5°	333.4	337.6	347.7	367.1	393.3	427.9	470.1	521.6	584.0	676.0	804.3
50°	287.0	291.2	301.3	320.7	346.0	379.8	418.6	465.0	526.7	606.0	731.7
52.5°	236.3	240.5	250.7	270.1	294.6	326.6	366.3	414.4	471.8	546.9	650.7
55°	181.5	187.4	196.6	212.7	238.8	270.9	310.6	362.9	421.2	494.6	590.8
57.5°	130.8	135.0	146.0	158.7	180.6	214.4	249.8	303.8	368.8	443.9	539.3
60°	95.4	99.6	107.2	117.3	132.5	157.0	188.2	238.8	310.6	395.0	492.9
62.5°	79.3	82.7	90.3	100.4	108.9	120.7	139.3	178.1	248.1	341.8	444.8
65°	70.1	72.6	79.3	89.5	96.2	101.3	108.9	135.0	192.4	284.4	397.5
67.5°	62.5	65.0	70.1	78.5	86.1	88.6	92.8	110.6	151.1	231.3	347.7
68°	61.6	64.1	68.4	76.0	83.6	86.1	90.3	108.0	146.9	220.3	334.2
70°	57.4	59.1	63.3	69.2	75.1	76.8	81.9	99.6	137.6	192.4	270.9
72.5°	52.3	53.2	55.7	60.8	66.7	67.5	72.6	86.9	108.0	141.8	201.7
75°	43.9	44.7	48.1	52.3	55.7	57.4	59.1	65.8	73.4	87.8	119.0
77.5°	33.8	35.4	38.0	40.5	45.6	47.3	45.6	50.6	54.0	59.9	72.6
80°	20.3	20.3	22.8	25.3	27.9	32.1	30.4	35.4	38.0	41.4	49.0
82.5°	3.4	4.2	4.2	5.9	7.6	9.3	10.1	12.7	16.0	19.4	26.2
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	2.5
87.5°	0.0	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	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	92.5°	95°	100°
0°	924.2	924.2	924.2	924.2	924.2	924.2	924.2	924.2	924.2	924.2	924.2
2.5°	928.4	930.9	930.9	930.1	930.1	930.1	927.5	928.4	929.2	931.8	928.4
5°	941.9	944.4	943.6	942.7	942.7	942.7	939.4	940.2	941.0	942.7	939.4
7.5°	959.6	962.1	963.0	963.0	963.0	964.7	959.6	959.6	961.3	963.0	957.9
10°	985.8	985.8	988.3	990.0	991.7	993.4	990.0	988.3	991.7	991.7	985.8
12.5°	1010.3	1011.9	1016.2	1019.5	1020.4	1023.8	1023.8	1022.9	1025.4	1024.6	1017.9
15°	1038.1	1039.8	1043.2	1047.4	1048.2	1051.6	1051.6	1052.5	1055.0	1056.7	1046.5
17.5°	1064.3	1066.8	1066.8	1067.6	1069.3	1071.9	1073.6	1074.4	1076.9	1078.6	1068.5
20°	1086.2	1088.7	1084.5	1081.2	1077.8	1079.5	1082.8	1086.2	1087.9	1088.7	1076.1
22.5°	1103.1	1103.9	1097.2	1087.9	1078.6	1077.8	1082.0	1087.9	1089.6	1088.7	1071.0
25°	1112.4	1114.9	1108.2	1093.8	1076.9	1071.0	1075.2	1082.8	1086.2	1082.8	1061.7
27.5°	1112.4	1121.7	1118.3	1103.1	1080.3	1064.3	1066.8	1078.6	1081.2	1076.9	1052.5
30°	1103.9	1123.4	1127.6	1118.3	1094.7	1066.8	1063.4	1076.9	1080.3	1072.7	1048.2
32.5°	1087.1	1122.5	1139.4	1140.2	1121.7	1087.1	1070.2	1083.7	1086.2	1076.9	1056.7
35°	1063.4	1121.7	1154.6	1170.6	1164.7	1130.1	1100.6	1109.0	1107.3	1097.2	1089.6
37.5°	1037.3	1121.7	1176.5	1213.7	1227.2	1209.4	1170.6	1166.4	1170.6	1155.4	1151.2
40°	1008.6	1124.2	1207.8	1273.6	1314.1	1320.0	1285.4	1273.6	1278.6	1264.3	1270.2
42.5°	991.7	1127.6	1249.1	1343.6	1422.1	1482.0	1466.9	1431.4	1428.9	1430.6	1443.2
45°	983.2	1136.0	1290.5	1423.0	1532.7	1666.0	1680.4	1617.1	1620.5	1629.7	1649.2
47.5°	974.0	1152.0	1338.6	1505.7	1653.4	1840.7	1910.8	1825.6	1818.8	1853.4	1859.3
50°	940.2	1171.5	1393.4	1598.5	1780.0	2037.4	2148.0	2061.0	2062.7	2094.8	2083.0
52.5°	862.6	1172.3	1451.7	1691.4	1906.6	2231.5	2399.5	2342.1	2337.9	2369.1	2306.6
55°	755.4	1119.1	1498.9	1782.5	2026.4	2412.1	2659.4	2672.1	2663.6	2668.7	2533.7
57.5°	669.3	988.3	1504.0	1859.3	2127.7	2583.5	2926.1	3017.3	3018.1	2996.2	2756.5
60°	613.6	841.5	1438.2	1922.6	2245.9	2802.0	3273.8	3478.1	3489.9	3400.4	3054.4
62.5°	567.2	767.2	1302.3	1987.6	2381.7	3023.2	3648.6	3984.5	3985.3	3835.9	3382.7
65°	530.9	726.7	1152.9	1963.1	2486.4	3237.5	4045.2	4494.3	4472.3	4307.7	3694.1
67.5°	490.4	690.4	1083.7	1925.1	2575.9	3435.9	4394.7	4910.3	4916.2	4713.7	3982.8
68°	481.9	676.9	1066.0	1893.1	2565.7	3429.1	4413.2	4938.2	4948.3	4739.9	3995.5
70°	415.2	590.8	927.5	1653.4	2383.4	3246.0	4295.1	4859.7	4890.9	4658.0	3854.5
72.5°	276.8	408.5	619.5	1168.1	1836.5	2579.2	3516.1	4070.6	4096.7	3939.7	3201.3
75°	175.6	248.1	329.2	673.5	1233.9	1850.9	2651.0	2974.2	3017.3	2965.8	2396.9
77.5°	106.3	173.9	202.6	326.6	649.9	865.9	1197.6	1218.7	1267.7	1237.3	1242.4
80°	70.1	120.7	147.7	222.0	225.3	186.5	211.8	213.5	226.2	240.5	250.7
82.5°	39.7	73.4	103.0	151.9	134.2	69.2	59.1	61.6	63.3	65.0	76.8
85°	5.9	13.5	28.7	47.3	48.1	22.8	21.1	19.4	20.3	21.9	27.9
87.5°	0.0	0.0	0.0	0.0	0.8	1.7	2.5	2.5	2.5	5.1	5.1
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°	924.2	924.2	924.2	924.2	924.2	924.2	924.2	924.2	924.2	924.2	924.2
2.5°	927.5	926.7	927.5	925.0	927.5	926.7	926.7	926.7	925.9	926.7	926.7
5°	937.7	937.7	937.7	936.0	937.7	937.7	937.7	937.7	936.8	937.7	938.5
7.5°	957.1	957.1	956.2	953.7	955.4	955.4	954.6	952.9	951.2	952.0	951.2
10°	983.2	984.9	979.9	979.9	977.3	974.0	971.4	968.9	968.1	966.4	963.0
12.5°	1015.3	1014.5	1007.7	1005.2	1003.5	996.8	991.7	989.2	985.8	981.6	976.5
15°	1044.0	1040.6	1035.6	1033.0	1030.5	1022.9	1016.2	1010.3	1006.0	1000.1	992.5
17.5°	1063.4	1060.1	1057.5	1056.7	1056.7	1049.9	1044.0	1036.4	1027.1	1016.2	1003.5
20°	1067.6	1067.6	1068.5	1073.6	1078.6	1076.1	1069.3	1060.1	1046.5	1028.8	1009.4
22.5°	1061.7	1065.1	1072.7	1085.4	1096.3	1097.2	1090.4	1076.9	1054.1	1028.8	1000.1
25°	1051.6	1060.9	1076.9	1094.7	1109.8	1109.8	1098.0	1078.6	1047.4	1011.1	973.1
27.5°	1046.5	1065.1	1087.9	1106.5	1116.6	1110.7	1089.6	1061.7	1018.7	972.3	928.4
30°	1052.5	1081.2	1105.6	1118.3	1120.0	1100.6	1064.3	1022.9	972.3	916.6	871.8
32.5°	1074.4	1109.0	1127.6	1130.1	1118.3	1082.0	1025.4	968.1	911.5	860.0	814.5
35°	1119.1	1148.7	1155.4	1145.3	1115.8	1055.0	974.0	906.4	855.8	806.9	759.6
37.5°	1191.7	1205.2	1192.6	1163.0	1107.3	1022.1	926.7	860.9	806.9	758.7	706.4
40°	1294.7	1279.5	1243.2	1185.0	1098.0	985.8	889.6	823.7	763.8	710.6	658.3
42.5°	1423.0	1369.8	1294.7	1210.3	1087.9	962.1	862.6	786.6	720.8	661.7	606.8
45°	1566.4	1467.7	1365.6	1239.0	1084.5	947.8	830.5	741.0	664.2	605.1	551.1
47.5°	1712.5	1571.5	1437.3	1270.2	1088.7	922.5	781.5	681.1	600.9	543.5	492.9
50°	1860.2	1688.0	1520.9	1310.7	1086.2	871.0	714.9	612.7	538.5	487.0	441.4
52.5°	2008.7	1812.0	1607.0	1347.0	1052.5	790.0	641.4	554.5	482.8	433.0	388.2
55°	2154.7	1932.7	1691.4	1358.0	954.6	704.7	579.8	496.3	425.4	374.7	325.8
57.5°	2293.1	2041.6	1750.4	1293.8	833.9	638.1	525.0	443.1	368.0	309.7	261.6
60°	2465.3	2145.4	1767.3	1138.5	737.6	582.4	475.2	381.5	297.1	235.5	191.6
62.5°	2653.5	2286.4	1741.2	990.0	681.1	533.4	413.6	308.9	227.0	167.1	134.2
65°	2791.9	2344.6	1608.6	910.7	645.7	485.3	347.7	239.7	157.0	114.8	102.1
67.5°	2975.9	2402.0	1471.9	871.8	606.8	422.8	268.4	173.0	121.5	95.4	87.8
68°	2963.3	2386.0	1443.2	861.7	595.0	400.9	253.2	169.6	118.2	92.8	85.2
70°	2791.9	2189.3	1253.3	763.8	492.9	312.3	217.7	154.5	108.9	84.4	77.6
72.5°	2290.6	1698.1	898.9	503.0	320.7	228.7	161.2	116.5	90.3	74.3	69.2
75°	1621.3	1061.7	450.7	289.5	201.7	132.5	91.2	75.1	66.7	59.1	59.1
77.5°	911.5	555.3	238.0	198.3	113.9	76.8	60.8	56.5	52.3	48.1	53.2
80°	297.1	289.5	175.6	135.9	79.3	56.5	47.3	44.7	42.2	38.0	47.3
82.5°	160.4	198.3	126.6	97.1	58.2	40.5	35.4	36.3	32.9	29.5	35.4
85°	71.7	94.5	84.4	67.5	36.3	22.8	18.6	21.9	19.4	17.7	16.9
87.5°	27.9	46.4	33.8	19.4	8.4	5.1	5.1	4.2	3.4	3.4	2.5
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):

	160°	165°	170°	175°	180°
0°	924.2	924.2	924.2	924.2	924.2
2.5°	924.2	924.2	923.3	922.5	920.8
5°	936.0	936.0	935.1	934.3	932.6
7.5°	948.6	947.8	947.0	946.1	944.4
10°	962.1	960.5	960.5	961.3	960.5
12.5°	975.7	973.1	970.6	969.7	972.3
15°	989.2	984.1	979.9	979.0	979.0
17.5°	996.8	988.3	980.7	978.2	978.2
20°	995.1	979.9	969.7	964.7	965.5
22.5°	979.0	957.9	944.4	937.7	935.1
25°	945.3	920.0	903.1	893.8	894.6
27.5°	894.6	867.6	849.1	844.0	838.9
30°	834.7	807.7	789.1	778.2	779.0
32.5°	775.6	746.1	729.2	716.5	714.9
35°	719.1	687.0	666.8	657.5	655.8
37.5°	663.4	629.6	611.0	602.6	596.7
40°	611.9	581.5	559.6	546.9	544.4
42.5°	561.3	526.7	504.7	495.4	492.9
45°	503.9	470.9	451.5	443.9	442.3
47.5°	452.4	421.2	405.1	395.0	391.6
50°	402.6	373.0	354.5	345.2	343.5
52.5°	350.3	320.7	301.3	293.7	287.0
55°	292.9	261.6	242.2	228.7	223.7
57.5°	226.2	198.3	178.1	168.8	159.5
60°	162.0	137.6	121.5	113.9	107.2
62.5°	114.8	98.7	88.6	81.0	76.8
65°	94.5	86.9	76.0	69.2	65.8
67.5°	83.6	76.0	67.5	61.6	59.1
68°	81.9	74.3	65.8	59.9	58.2
70°	75.1	67.5	59.9	55.7	54.0
72.5°	66.7	60.8	54.0	49.8	48.1
75°	57.4	51.5	47.3	43.9	41.4
77.5°	50.6	42.2	40.5	37.1	35.4
80°	42.2	38.0	34.6	32.1	30.4
82.5°	34.6	28.7	24.5	21.9	21.1
85°	19.4	17.7	14.3	11.0	10.1
87.5°	1.7	0.8	0.8	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)