

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: P139889

Luminaire Tested: **ENC-E02-LED-E1-GZW-7030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P139889
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-7030
Description: ENTRI LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - WALL GRAZER WIDE
Light Source: (42) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5087 lumens
Efficiency: N/A
Efficacy: 108.5 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

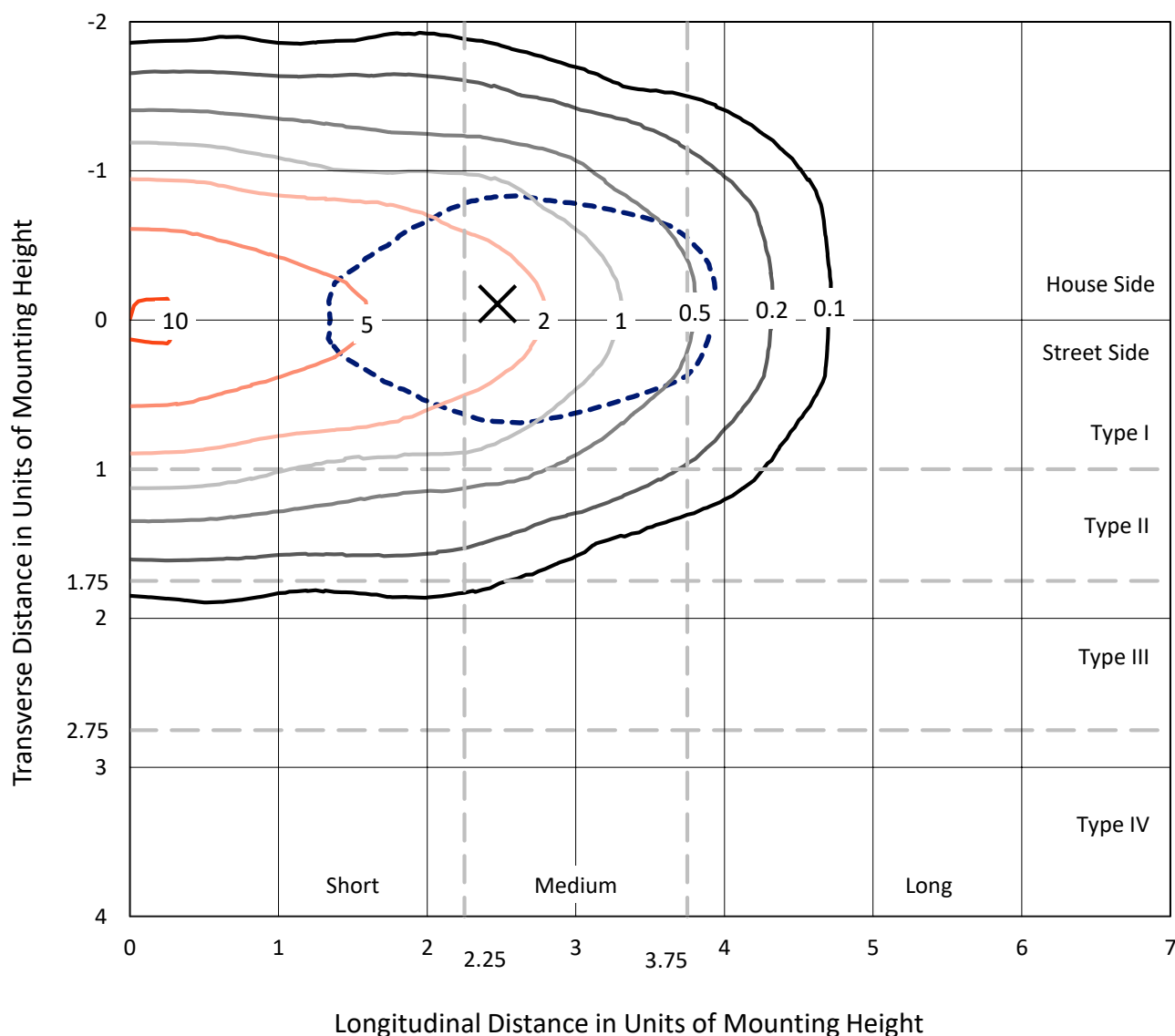


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

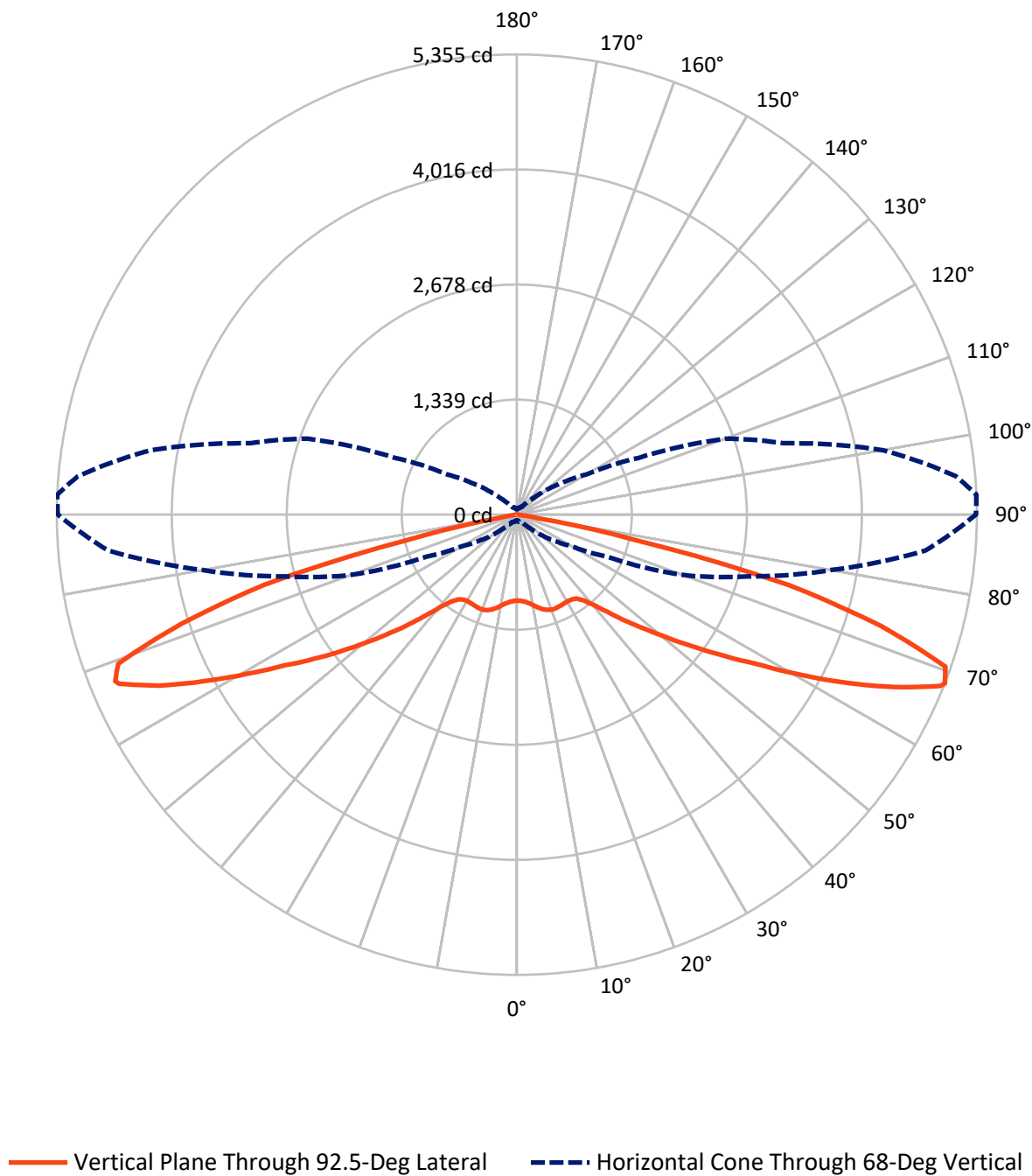


Based on 10 foot mounting height. Maximum calculated value = 10.3 fc
 Type I - Short - Full Cutoff

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Luminous Intensity Polar Plot



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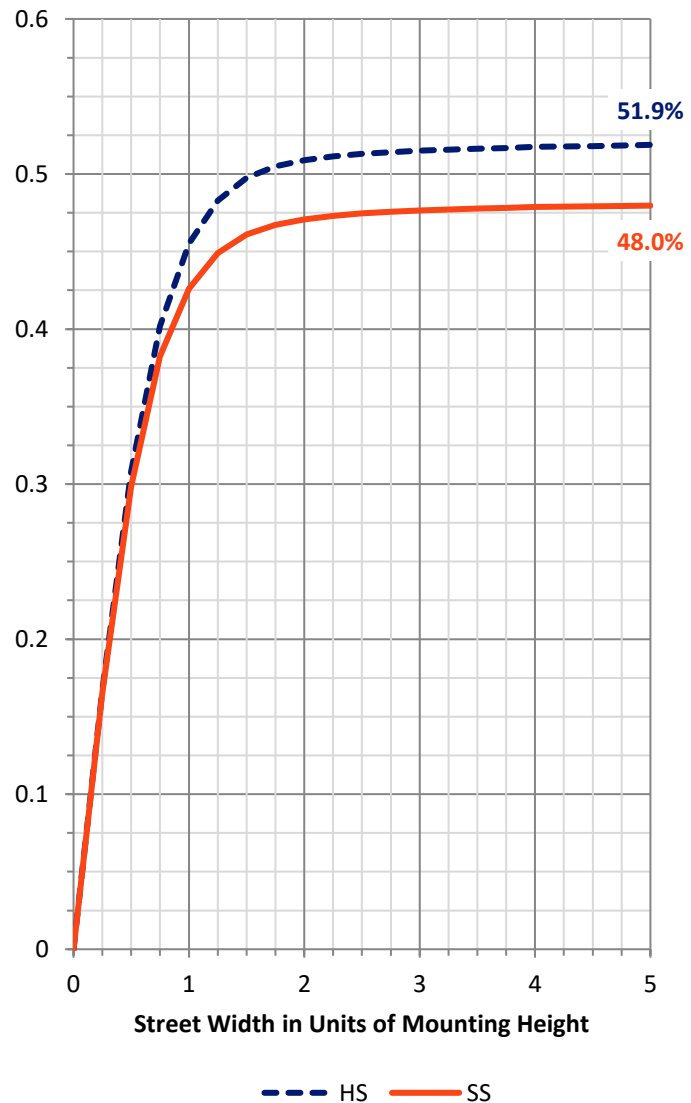
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2657.5	0.0	2657.5
	% Fixture	52.2	0.0	52.2
Street Side	Lumens	2429.6	0.0	2429.6
	% Fixture	47.8	0.0	47.8
Total	Lumens	5087.0	0.0	5087.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.3	1.9
10°-20°	311.0	6.1
20°-30°	504.5	9.9
30°-40°	627.1	12.3
40°-50°	779.6	15.3
50°-60°	959.1	18.9
60°-70°	1133.9	22.3
70°-80°	635.0	12.5
80°-90°	38.6	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°	5087.0	100.0
0°-180°	5087.0	100.0

Coefficient of Utilization



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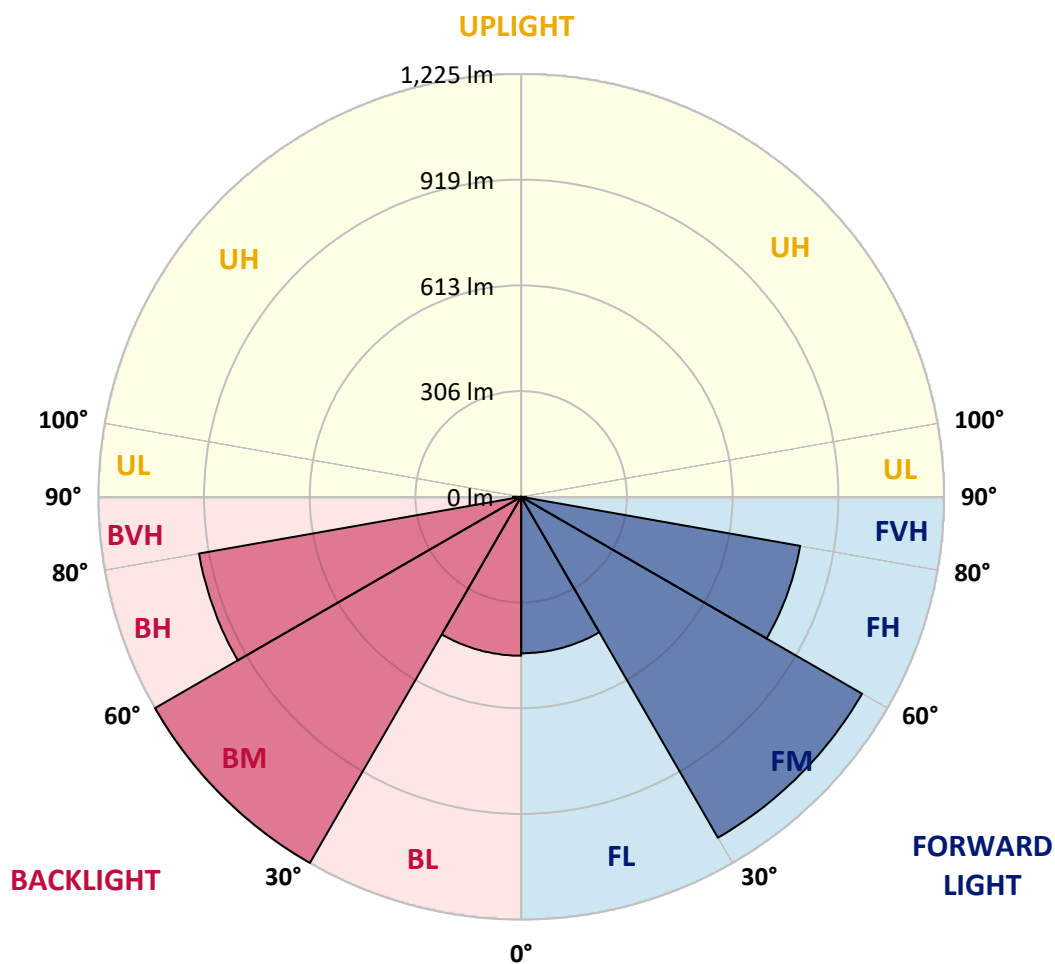
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	453.3	8.9			
FM	(30°-60°)	1140.6	22.4			
FH	(60°-80°)	821.0	16.1			G1/1800
FVH	(80°-90°)	14.7	0.3			G1/100
BL	(0°-30°)	460.4	9.1	B1/500		
BM	(30°-60°)	1225.2	24.1	B2/2500		
BH	(60°-80°)	947.9	18.6	B2/1000		G2/1000
BVH	(80°-90°)	23.9	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°	1000.1	1000.1	1000.1	1000.1	1000.1	1000.1	1000.1	1000.1	1000.1	1000.1	1000.1
2.5°	1004.7	1004.7	1004.7	1005.6	1006.5	1008.3	1007.4	1009.3	1006.5	1010.2	1010.2
5°	1016.6	1017.5	1018.4	1018.4	1020.2	1021.1	1020.2	1023.0	1020.2	1023.9	1024.8
7.5°	1027.5	1027.5	1028.4	1029.3	1031.2	1033.0	1033.9	1036.7	1035.7	1039.4	1043.0
10°	1035.7	1034.8	1035.7	1037.6	1042.1	1044.9	1048.5	1052.2	1054.0	1057.7	1063.1
12.5°	1039.4	1038.5	1041.2	1045.8	1050.4	1055.8	1061.3	1069.5	1075.0	1080.5	1088.7
15°	1037.6	1037.6	1041.2	1046.7	1055.8	1065.9	1075.9	1086.9	1096.9	1108.8	1117.0
17.5°	1020.2	1022.0	1027.5	1036.7	1050.4	1065.9	1082.3	1100.6	1117.0	1133.5	1144.4
20°	989.2	991.0	1001.0	1012.0	1030.3	1053.1	1078.7	1105.2	1130.7	1152.6	1168.2
22.5°	950.8	949.0	958.1	972.7	997.4	1024.8	1057.7	1096.9	1131.6	1162.7	1184.6
25°	891.4	891.4	901.5	919.7	946.2	980.0	1020.2	1070.4	1117.0	1157.2	1188.3
27.5°	828.4	829.3	842.1	857.6	887.8	919.7	966.3	1024.8	1081.4	1134.4	1180.0
30°	765.4	768.1	779.1	794.6	826.6	860.4	907.9	965.4	1026.6	1092.4	1154.5
32.5°	700.5	704.2	713.3	731.6	766.3	803.7	852.2	903.3	961.8	1033.9	1114.3
35°	639.3	642.1	649.4	671.3	706.9	747.1	801.0	850.3	909.7	976.4	1065.0
37.5°	581.8	584.5	592.8	615.6	651.2	691.4	744.4	800.1	861.3	927.1	1014.7
40°	519.7	526.1	537.0	559.0	591.9	637.5	691.4	749.9	814.7	889.6	979.1
42.5°	463.1	468.5	478.6	497.8	530.7	579.1	635.7	696.0	766.3	851.2	952.6
45°	411.0	415.6	425.6	443.0	477.7	516.0	567.2	630.2	703.3	801.0	924.3
47.5°	360.8	365.3	376.3	397.3	425.6	463.1	508.7	564.5	632.0	731.6	870.4
50°	310.5	315.1	326.1	347.1	374.5	411.0	453.0	503.3	569.9	655.8	791.9
52.5°	255.7	260.3	271.3	292.3	318.8	353.5	396.4	448.5	510.6	591.9	704.2
55°	196.4	202.8	212.8	230.2	258.5	293.2	336.1	392.7	455.8	535.2	639.3
57.5°	141.6	146.1	158.0	171.7	195.5	232.0	270.4	328.8	399.1	480.4	583.6
60°	103.2	107.8	116.0	127.0	143.4	169.9	203.7	258.5	336.1	427.4	533.4
62.5°	85.9	89.5	97.7	108.7	117.8	130.6	150.7	192.7	268.5	369.9	481.3
65°	75.8	78.5	85.9	96.8	104.1	109.6	117.8	146.1	208.2	307.8	430.2
67.5°	67.6	70.3	75.8	84.9	93.2	95.9	100.5	119.6	163.5	250.3	376.3
68°	66.7	69.4	74.0	82.2	90.4	93.2	97.7	116.9	158.9	238.4	361.7
70°	62.1	63.9	68.5	74.9	81.3	83.1	88.6	107.8	148.9	208.2	293.2
72.5°	56.6	57.5	60.3	65.8	72.2	73.1	78.5	94.1	116.9	153.4	218.3
75°	47.5	48.4	52.1	56.6	60.3	62.1	63.9	71.2	79.5	95.0	128.8
77.5°	36.5	38.4	41.1	43.8	49.3	51.1	49.3	54.8	58.5	64.8	78.5
80°	21.9	21.9	24.7	27.4	30.1	34.7	32.9	38.4	41.1	44.8	53.0
82.5°	3.7	4.6	4.6	6.4	8.2	10.0	11.0	13.7	17.4	21.0	28.3
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	2.7
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°	1000.1	1000.1	1000.1	1000.1	1000.1	1000.1	1000.1	1000.1	1000.1	1000.1	1000.1
2.5°	1004.7	1007.4	1007.4	1006.5	1006.5	1006.5	1003.8	1004.7	1005.6	1008.3	1004.7
5°	1019.3	1022.0	1021.1	1020.2	1020.2	1020.2	1016.6	1017.5	1018.4	1020.2	1016.6
7.5°	1038.5	1041.2	1042.1	1042.1	1042.1	1044.0	1038.5	1038.5	1040.3	1042.1	1036.7
10°	1066.8	1066.8	1069.5	1071.4	1073.2	1075.0	1071.4	1069.5	1073.2	1073.2	1066.8
12.5°	1093.3	1095.1	1099.7	1103.3	1104.2	1107.9	1107.9	1107.0	1109.7	1108.8	1101.5
15°	1123.4	1125.2	1128.9	1133.5	1134.4	1138.0	1138.0	1138.9	1141.7	1143.5	1132.6
17.5°	1151.7	1154.5	1154.5	1155.4	1157.2	1160.0	1161.8	1162.7	1165.4	1167.3	1156.3
20°	1175.5	1178.2	1173.7	1170.0	1166.3	1168.2	1171.8	1175.5	1177.3	1178.2	1164.5
22.5°	1193.7	1194.7	1187.4	1177.3	1167.3	1166.3	1170.9	1177.3	1179.1	1178.2	1159.0
25°	1203.8	1206.5	1199.2	1183.7	1165.4	1159.0	1163.6	1171.8	1175.5	1171.8	1149.0
27.5°	1203.8	1213.8	1210.2	1193.7	1169.1	1151.7	1154.5	1167.3	1170.0	1165.4	1138.9
30°	1194.7	1215.7	1220.2	1210.2	1184.6	1154.5	1150.8	1165.4	1169.1	1160.9	1134.4
32.5°	1176.4	1214.8	1233.0	1233.9	1213.8	1176.4	1158.1	1172.7	1175.5	1165.4	1143.5
35°	1150.8	1213.8	1249.5	1266.8	1260.4	1223.0	1191.0	1200.1	1198.3	1187.4	1179.1
37.5°	1122.5	1213.8	1273.2	1313.4	1328.0	1308.8	1266.8	1262.3	1266.8	1250.4	1245.8
40°	1091.5	1216.6	1307.0	1378.2	1422.1	1428.5	1391.0	1378.2	1383.7	1368.2	1374.6
42.5°	1073.2	1220.2	1351.8	1454.1	1539.0	1603.8	1587.4	1549.0	1546.3	1548.1	1561.8
45°	1064.1	1229.4	1396.5	1539.9	1658.6	1803.0	1818.5	1750.0	1753.6	1763.7	1784.7
47.5°	1054.0	1246.7	1448.6	1629.4	1789.3	1992.0	2067.8	1975.6	1968.3	2005.7	2012.1
50°	1017.5	1267.7	1507.9	1729.9	1926.3	2204.8	2324.5	2230.4	2232.2	2266.9	2254.1
52.5°	933.4	1268.6	1571.0	1830.4	2063.3	2414.9	2596.7	2534.5	2530.0	2563.8	2496.2
55°	817.4	1211.1	1622.1	1929.0	2193.0	2610.4	2878.0	2891.7	2882.5	2888.0	2741.9
57.5°	724.3	1069.5	1627.6	2012.1	2302.6	2795.8	3166.6	3265.2	3266.1	3242.4	2983.0
60°	664.0	910.6	1556.3	2080.6	2430.4	3032.3	3542.9	3763.9	3776.7	3679.9	3305.4
62.5°	613.8	830.2	1409.3	2150.9	2577.5	3271.6	3948.4	4311.9	4312.8	4151.2	3660.7
65°	574.5	786.4	1247.6	2124.5	2690.7	3503.6	4377.7	4863.6	4839.8	4661.7	3997.7
67.5°	530.7	747.1	1172.7	2083.4	2787.5	3718.2	4755.8	5313.9	5320.3	5101.1	4310.1
68°	521.5	732.5	1153.6	2048.6	2776.6	3710.9	4775.9	5344.0	5355.0	5129.4	4323.8
70°	449.4	639.3	1003.8	1789.3	2579.3	3512.7	4648.0	5259.1	5292.9	5040.8	4171.3
72.5°	299.6	442.1	670.4	1264.1	1987.5	2791.2	3805.0	4405.1	4433.4	4263.5	3464.3
75°	190.0	268.5	356.2	728.9	1335.3	2003.0	2868.8	3218.6	3265.2	3209.5	2593.9
77.5°	115.1	188.2	219.2	353.5	703.3	937.1	1296.0	1318.9	1371.9	1339.0	1344.5
80°	75.8	130.6	159.8	240.2	243.9	201.9	229.3	231.1	244.8	260.3	271.3
82.5°	42.9	79.5	111.4	164.4	145.2	74.9	63.9	66.7	68.5	70.3	83.1
85°	6.4	14.6	31.1	51.1	52.1	24.7	22.8	21.0	21.9	23.7	30.1
87.5°	0.0	0.0	0.0	0.0	0.9	1.8	2.7	2.7	2.7	5.5	5.5
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1000.1	1000.1	1000.1	1000.1	1000.1	1000.1	1000.1	1000.1	1000.1	1000.1	1000.1
2.5°	1003.8	1002.9	1003.8	1001.0	1003.8	1002.9	1002.9	1002.9	1001.9	1002.9	1002.9
5°	1014.7	1014.7	1014.7	1012.9	1014.7	1014.7	1014.7	1014.7	1013.8	1014.7	1015.6
7.5°	1035.7	1035.7	1034.8	1032.1	1033.9	1033.9	1033.0	1031.2	1029.3	1030.3	1029.3
10°	1064.1	1065.9	1060.4	1060.4	1057.7	1054.0	1051.3	1048.5	1047.6	1045.8	1042.1
12.5°	1098.8	1097.8	1090.5	1087.8	1086.0	1078.7	1073.2	1070.4	1066.8	1062.2	1056.7
15°	1129.8	1126.2	1120.7	1117.9	1115.2	1107.0	1099.7	1093.3	1088.7	1082.3	1074.1
17.5°	1150.8	1147.2	1144.4	1143.5	1143.5	1136.2	1129.8	1121.6	1111.5	1099.7	1086.0
20°	1155.4	1155.4	1156.3	1161.8	1167.3	1164.5	1157.2	1147.2	1132.6	1113.4	1092.4
22.5°	1149.0	1152.6	1160.9	1174.6	1186.4	1187.4	1180.0	1165.4	1140.8	1113.4	1082.3
25°	1138.0	1148.1	1165.4	1184.6	1201.1	1201.1	1188.3	1167.3	1133.5	1094.2	1053.1
27.5°	1132.6	1152.6	1177.3	1197.4	1208.4	1202.0	1179.1	1149.0	1102.4	1052.2	1004.7
30°	1138.9	1170.0	1196.5	1210.2	1212.0	1191.0	1151.7	1107.0	1052.2	991.9	943.5
32.5°	1162.7	1200.1	1220.2	1223.0	1210.2	1170.9	1109.7	1047.6	986.4	930.7	881.4
35°	1211.1	1243.1	1250.4	1239.4	1207.4	1141.7	1054.0	980.9	926.1	873.2	822.0
37.5°	1289.7	1304.3	1290.6	1258.6	1198.3	1106.1	1002.9	931.6	873.2	821.1	764.5
40°	1401.1	1384.6	1345.4	1282.3	1188.3	1066.8	962.7	891.4	826.6	769.0	712.4
42.5°	1539.9	1482.4	1401.1	1309.7	1177.3	1041.2	933.4	851.2	780.0	716.1	656.7
45°	1695.2	1588.3	1477.8	1340.8	1173.7	1025.7	898.7	801.9	718.8	654.9	596.4
47.5°	1853.2	1700.7	1555.4	1374.6	1178.2	998.3	845.8	737.1	650.3	588.2	533.4
50°	2013.0	1826.7	1645.9	1418.4	1175.5	942.6	773.6	663.1	582.7	527.0	477.7
52.5°	2173.8	1961.0	1739.0	1457.7	1138.9	854.9	694.1	600.1	522.4	468.5	420.1
55°	2331.8	2091.6	1830.4	1469.6	1033.0	762.6	627.5	537.0	460.3	405.5	352.6
57.5°	2481.6	2209.4	1894.3	1400.2	902.4	690.5	568.1	479.5	398.2	335.2	283.1
60°	2667.9	2321.7	1912.6	1232.1	798.3	630.2	514.2	412.8	321.5	254.8	207.3
62.5°	2871.6	2474.3	1884.2	1071.4	737.1	577.2	447.5	334.3	245.7	180.8	145.2
65°	3021.4	2537.3	1740.8	985.5	698.7	525.2	376.3	259.4	169.9	124.2	110.5
67.5°	3220.5	2599.4	1592.9	943.5	656.7	457.6	290.4	187.2	131.5	103.2	95.0
68°	3206.8	2582.0	1561.8	932.5	643.9	433.8	274.0	183.6	127.9	100.5	92.2
70°	3021.4	2369.2	1356.3	826.6	533.4	337.9	235.6	167.1	117.8	91.3	84.0
72.5°	2478.8	1837.7	972.7	544.4	347.1	247.5	174.4	126.0	97.7	80.4	74.9
75°	1754.5	1149.0	487.7	313.3	218.3	143.4	98.6	81.3	72.2	63.9	63.9
77.5°	986.4	601.0	257.6	214.6	123.3	83.1	65.8	61.2	56.6	52.1	57.5
80°	321.5	313.3	190.0	147.0	85.9	61.2	51.1	48.4	45.7	41.1	51.1
82.5°	173.5	214.6	137.0	105.0	63.0	43.8	38.4	39.3	35.6	32.0	38.4
85°	77.6	102.3	91.3	73.1	39.3	24.7	20.1	23.7	21.0	19.2	18.3
87.5°	30.1	50.2	36.5	21.0	9.1	5.5	5.5	4.6	3.7	3.7	2.7
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°	1000.1	1000.1	1000.1	1000.1	1000.1
2.5°	1000.1	1000.1	999.2	998.3	996.5
5°	1012.9	1012.9	1012.0	1011.1	1009.3
7.5°	1026.6	1025.7	1024.8	1023.9	1022.0
10°	1041.2	1039.4	1039.4	1040.3	1039.4
12.5°	1055.8	1053.1	1050.4	1049.4	1052.2
15°	1070.4	1065.0	1060.4	1059.5	1059.5
17.5°	1078.7	1069.5	1061.3	1058.6	1058.6
20°	1076.8	1060.4	1049.4	1044.0	1044.9
22.5°	1059.5	1036.7	1022.0	1014.7	1012.0
25°	1023.0	995.6	977.3	967.2	968.2
27.5°	968.2	938.9	918.8	913.4	907.9
30°	903.3	874.1	854.0	842.1	843.0
32.5°	839.4	807.4	789.1	775.4	773.6
35°	778.2	743.5	721.5	711.5	709.7
37.5°	717.9	681.4	661.3	652.1	645.7
40°	662.2	629.3	605.6	591.9	589.1
42.5°	607.4	569.9	546.2	536.1	533.4
45°	545.3	509.6	488.6	480.4	478.6
47.5°	489.6	455.8	438.4	427.4	423.8
50°	435.7	403.7	383.6	373.6	371.7
52.5°	379.0	347.1	326.1	317.8	310.5
55°	316.9	283.1	262.1	247.5	242.0
57.5°	244.8	214.6	192.7	182.7	172.6
60°	175.4	148.9	131.5	123.3	116.0
62.5°	124.2	106.9	95.9	87.7	83.1
65°	102.3	94.1	82.2	74.9	71.2
67.5°	90.4	82.2	73.1	66.7	63.9
68°	88.6	80.4	71.2	64.8	63.0
70°	81.3	73.1	64.8	60.3	58.5
72.5°	72.2	65.8	58.5	53.9	52.1
75°	62.1	55.7	51.1	47.5	44.8
77.5°	54.8	45.7	43.8	40.2	38.4
80°	45.7	41.1	37.4	34.7	32.9
82.5°	37.4	31.1	26.5	23.7	22.8
85°	21.0	19.2	15.5	11.9	11.0
87.5°	1.8	0.9	0.9	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)