

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-SA1C-740-U-SL3-ULG**

Issue Date: 3/30/2022

Test Information

Test Method: LM-79-08
Report Number:
REPORT IS A COMBINATION OF REPORTS P401312 AND P226775
Test Lab: INNOVATION CENTER
Issue Date: 3/30/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1C-740-U-SL3-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 615mA LIGHTSQUARE WITH 16 LEDS AND TYPE III SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6198.9 lumens
Efficiency: N/A
Efficacy: 124.0 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: B1 - U5 - G1

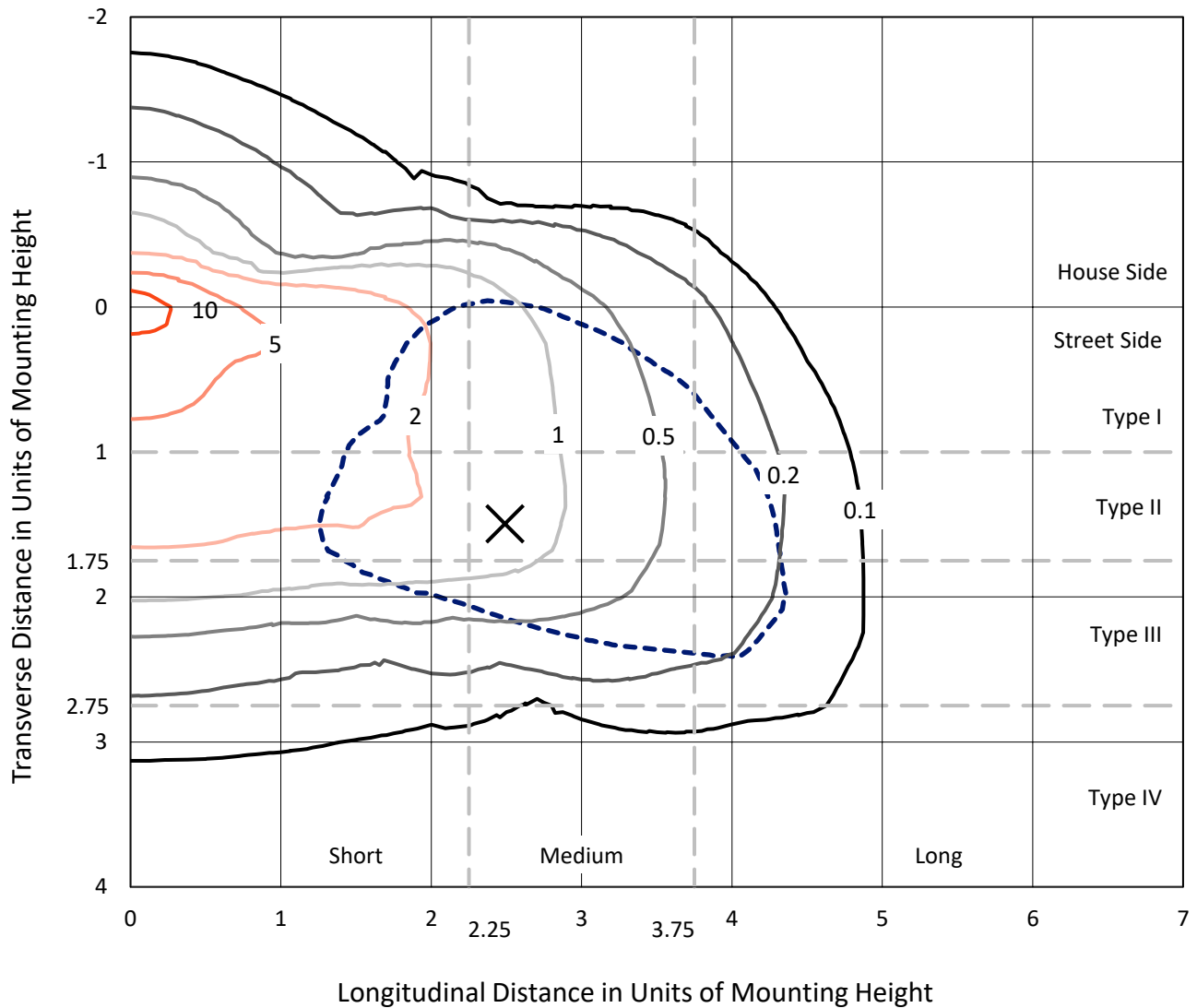
Input Watts (W): 50
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

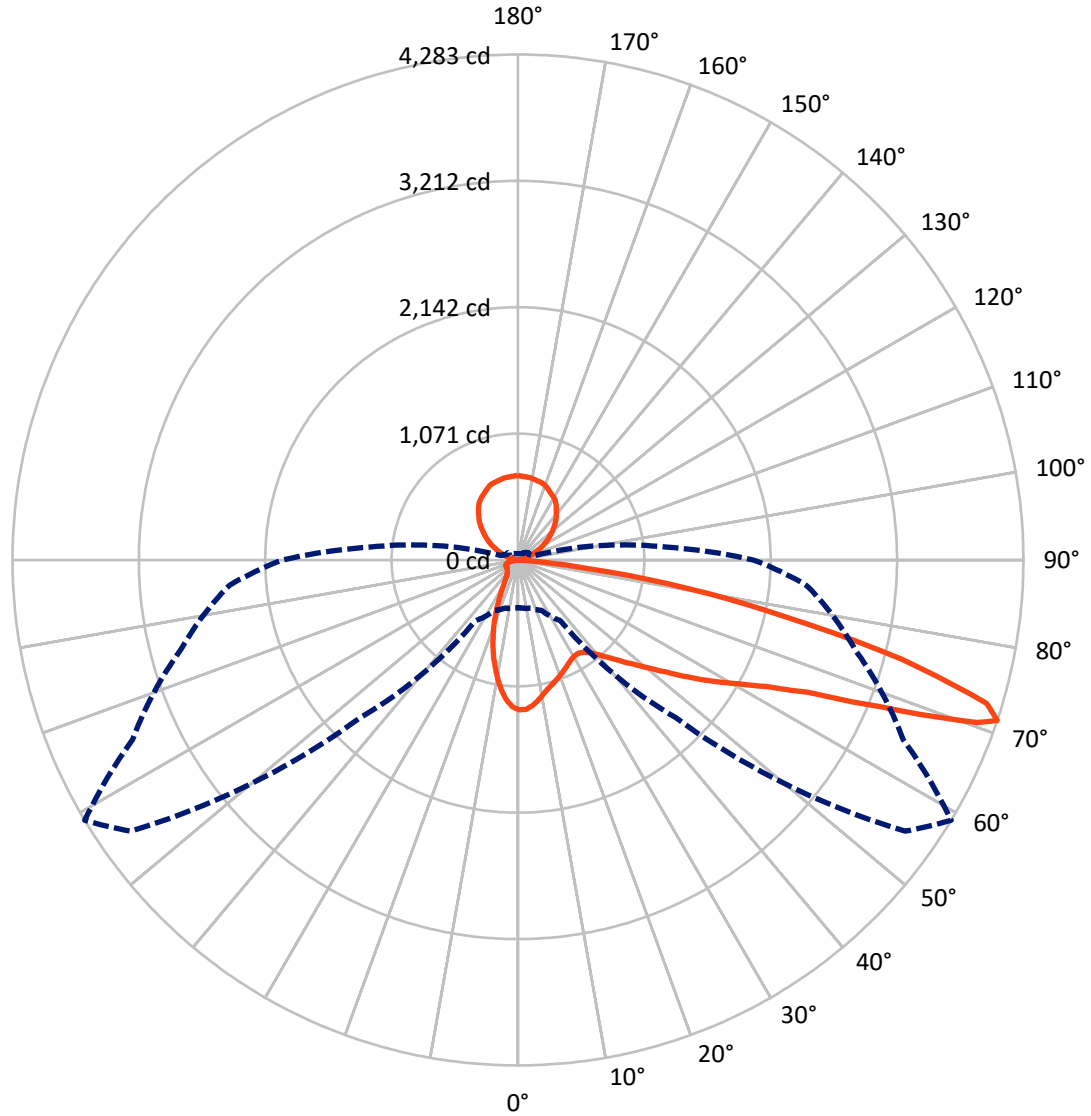
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.7 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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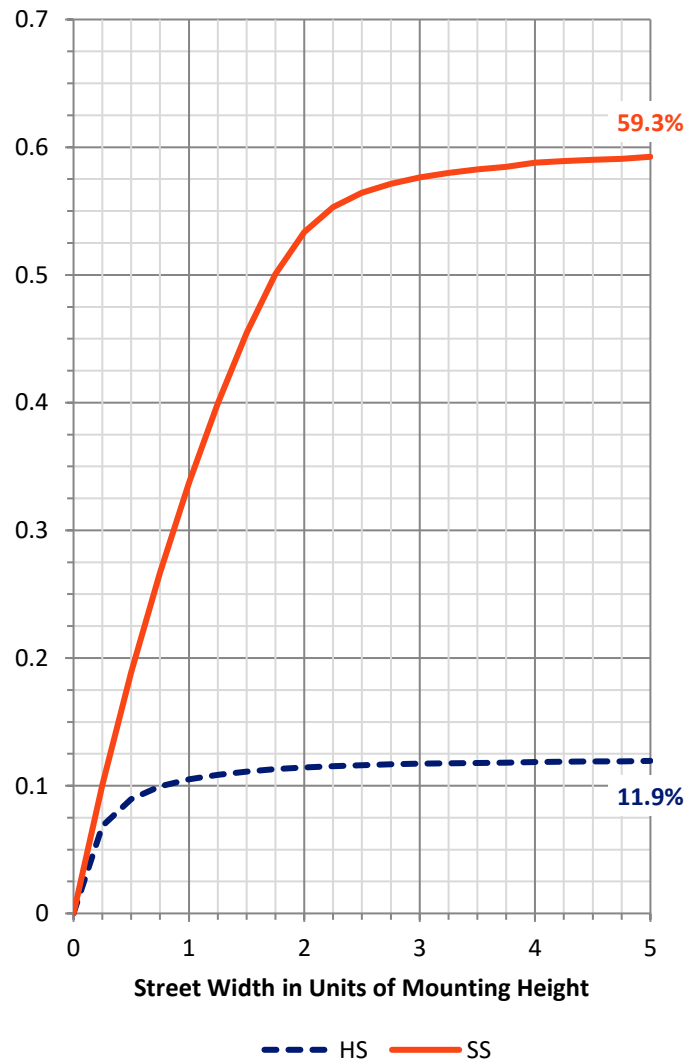
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	751.0	887.0	1638.0
	% Fixture	12.1	14.3	26.4
Street Side	Lumens	3674.0	887.0	4560.9
	% Fixture	59.3	14.3	73.6
Total	Lumens	4425.0	1773.9	6198.9
	% Fixture	71.4	28.6	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.7	1.8
10°-20°	246.4	4.0
20°-30°	313.2	5.1
30°-40°	400.4	6.5
40°-50°	555.6	9.0
50°-60°	822.7	13.3
60°-70°	1111.9	17.9
70°-80°	788.5	12.7
80°-90°	76.6	1.2
90°-100°	8.4	0.1
100°-110°	58.7	0.9
110°-120°	169.9	2.7
120°-130°	279.4	4.5
130°-140°	344.6	5.6
140°-150°	352.5	5.7
150°-160°	297.0	4.8
160°-170°	195.5	3.2
170°-180°	67.8	1.1
0°-90°	4425.0	71.4
0°-180°	6198.9	100.0

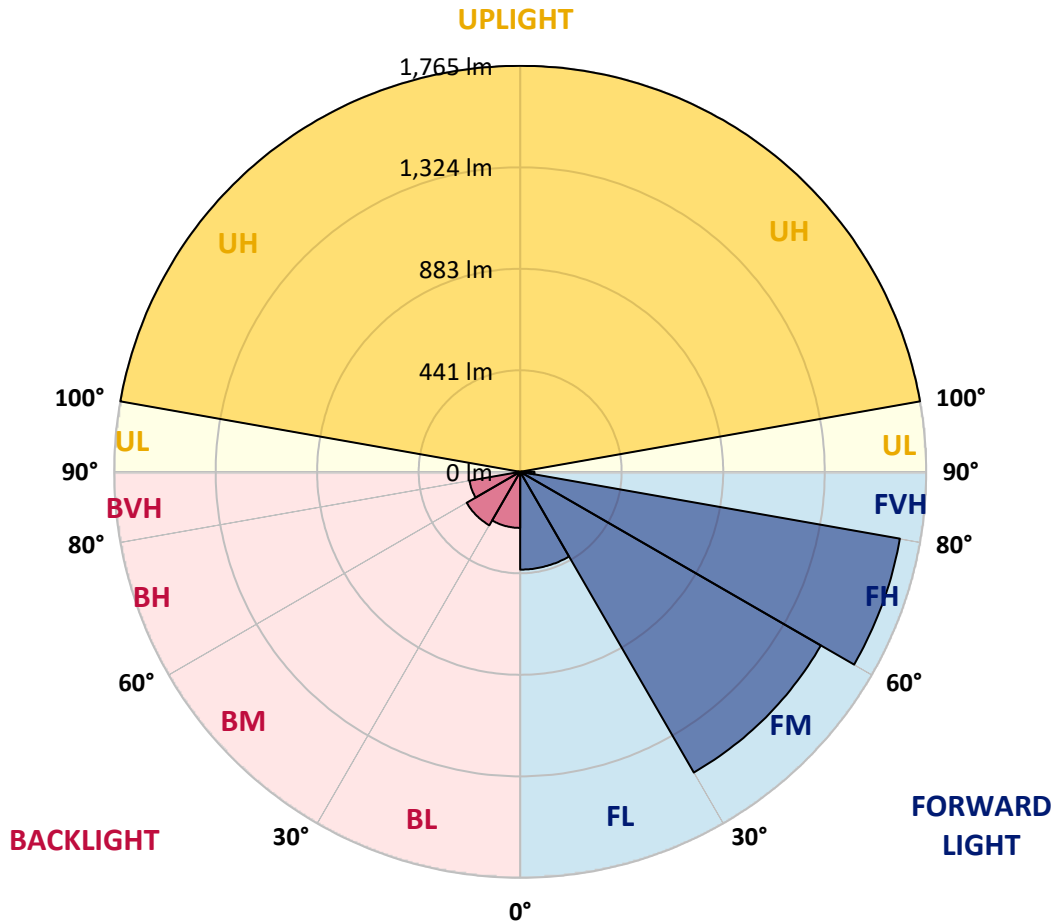


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	425.3	6.9			
FM (30°-60°)	1510.1	24.4			
FH (60°-80°)	1676.6	27.0			G1/1800
FVH (80°-90°)	62.0	1.0			G1/100
BL (0°-30°)	244.0	3.9	B1/500		
BM (30°-60°)	268.6	4.3	B1/1000		
BH (60°-80°)	223.8	3.6	B1/500		G1/500
BVH (80°-90°)	14.6	0.2			G1/100
UL (90°-100°)	8.4	0.1		U1/10	
UH (100°-180°)	1765.5	28.5		U5	

BUG Rating: B1-U5-G1
 Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5
2.5°	1258.6	1263.1	1265.0	1268.2	1268.2	1269.5	1268.2	1267.6	1270.2	1267.6	1260.5
5°	1202.8	1204.8	1210.5	1216.9	1223.4	1236.8	1240.7	1243.2	1249.0	1250.3	1243.2
7.5°	1127.2	1134.2	1141.9	1150.3	1163.7	1182.3	1198.4	1204.8	1215.7	1222.1	1211.8
10°	1063.1	1066.9	1070.8	1085.5	1106.7	1132.3	1149.0	1161.2	1178.5	1186.8	1177.2
12.5°	998.9	1002.2	1009.8	1029.7	1051.5	1082.3	1112.4	1122.1	1142.6	1159.2	1151.5
15°	949.6	949.6	955.3	977.1	1000.2	1041.3	1076.5	1091.3	1116.9	1140.6	1131.0
17.5°	906.0	907.9	911.7	925.9	957.9	1000.9	1045.8	1064.3	1096.4	1127.2	1114.4
20°	881.6	880.3	882.9	889.9	915.6	961.1	1015.0	1036.8	1076.5	1118.8	1098.3
22.5°	873.3	872.0	870.1	869.4	886.1	924.6	982.3	1009.2	1058.6	1114.4	1083.6
25°	879.7	879.7	873.9	863.0	870.7	897.0	952.8	981.6	1038.7	1111.2	1070.1
27.5°	897.0	897.0	888.7	874.6	871.4	882.9	927.1	957.9	1022.0	1113.1	1059.2
30°	920.7	920.1	911.7	899.6	889.9	886.1	915.0	943.2	1010.5	1121.4	1054.1
32.5°	947.7	946.4	942.5	934.2	922.6	906.0	916.2	941.2	1007.9	1136.2	1054.7
35°	979.7	977.8	979.7	975.2	964.3	946.4	940.0	959.8	1020.7	1163.7	1065.6
37.5°	1007.9	1006.6	1016.3	1018.8	1016.3	992.5	984.2	997.0	1050.9	1207.3	1088.1
40°	1031.6	1032.9	1050.2	1068.8	1072.7	1052.2	1046.4	1057.3	1099.6	1260.5	1128.5
42.5°	1057.9	1061.8	1087.4	1120.8	1133.6	1120.1	1123.3	1131.0	1161.2	1333.0	1186.8
45°	1083.6	1091.9	1127.2	1170.1	1202.8	1202.8	1213.7	1221.4	1240.7	1424.0	1272.1
47.5°	1128.5	1134.2	1172.7	1224.6	1274.7	1290.7	1320.8	1318.3	1333.0	1524.1	1372.1
50°	1186.8	1196.4	1235.5	1289.4	1352.9	1398.4	1433.0	1438.2	1443.9	1626.7	1490.7
52.5°	1267.6	1279.1	1311.2	1361.2	1436.2	1510.6	1583.7	1580.5	1572.8	1738.2	1626.7
55°	1349.0	1361.2	1391.3	1431.7	1520.2	1634.3	1753.6	1749.1	1713.9	1852.3	1752.3
57.5°	1431.7	1442.0	1473.4	1508.7	1613.2	1780.5	1933.1	1936.3	1863.9	1979.3	1876.7
60°	1466.4	1481.8	1559.3	1627.3	1758.1	1942.8	2116.5	2124.8	2019.7	2107.5	2013.9
62.5°	1309.9	1328.5	1456.7	1640.1	1956.9	2255.6	2355.0	2360.2	2207.6	2249.2	2164.0
65°	969.5	968.8	1101.5	1376.0	1917.1	2675.6	2780.1	2699.3	2440.9	2437.1	2362.1
67.5°	555.3	571.9	614.2	820.7	1460.6	2753.2	3536.7	3325.8	2854.5	2729.5	2626.2
70°	447.5	443.7	456.5	511.7	796.3	2264.0	4029.8	4125.9	3441.8	2968.0	2566.6
71°	403.3	409.1	421.9	471.9	628.3	1888.9	4005.4	4283.0	3602.1	2961.6	2453.1
72.5°	346.9	348.2	377.7	436.6	516.1	1332.4	3703.4	4153.5	3770.1	2877.6	2286.4
75°	236.0	239.2	285.3	351.4	471.3	632.8	2650.0	3359.7	3431.6	2689.1	1888.3
77.5°	135.3	137.9	171.2	257.1	401.4	446.3	1626.7	2321.7	2467.2	1966.5	1012.4
80°	69.9	73.1	94.9	162.2	306.5	361.0	932.9	1460.0	1403.5	679.6	234.7
82.5°	18.6	21.2	27.6	58.3	148.1	235.3	413.6	604.0	431.5	141.1	85.3
85°	0.0	0.0	0.0	0.6	1.3	32.7	87.2	108.4	60.3	27.6	23.1
87.5°	0.0	0.0	0.0	0.0	0.6	1.3	1.3	1.3	1.3	1.9	2.6
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	7.6	8.2	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	12.3	11.5	10.2	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	29.7	28.4	26.6	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	51.1	49.9	48.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	73.7	72.8	71.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	97.2	96.8	96.2	92.1	89.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
110°	67.5	69.6	75.7	89.0	104.3	116.6	122.8	123.2	123.8	121.7	118.7
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	151.4	152.2	153.4	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	183.1	184.3	186.2	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	215.8	217.5	219.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	251.6	253.3	255.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	285.4	287.0	289.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	320.2	321.0	322.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	352.9	353.3	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	380.5	385.7	387.3	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	420.4	422.5	425.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	453.2	455.2	458.3	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	483.9	484.7	485.9	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	511.5	512.3	513.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	539.1	541.6	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.6	568.8	571.2	574.9	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	593.3	595.4	598.4	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	610.7	611.9	613.8	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	625.0	626.3	628.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	640.4	642.4	645.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	658.8	660.4	662.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	673.1	675.6	679.2	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	682.3	684.0	686.4	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	687.4	689.5	692.5	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	693.6	696.0	699.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	701.7	703.0	704.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	704.8	706.0	707.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	707.9	711.0	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	709.9	712.0	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°	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5	1269.5
2.5°	1259.3	1259.3	1255.4	1249.6	1243.2	1228.5	1231.1	1219.5	1220.8	1219.5	1219.5
5°	1237.5	1233.6	1224.0	1206.0	1186.2	1159.9	1156.0	1134.9	1122.7	1118.8	1123.3
7.5°	1207.3	1196.4	1172.1	1140.6	1102.8	1068.8	1037.4	1009.2	988.0	979.1	975.2
10°	1167.6	1154.1	1114.4	1059.2	1007.3	954.1	904.7	872.6	830.3	817.5	813.6
12.5°	1134.9	1111.8	1052.2	975.2	894.4	823.9	757.2	689.9	649.5	620.7	616.2
15°	1106.7	1074.0	988.7	889.3	788.6	691.2	600.8	510.4	453.3	428.9	411.6
17.5°	1081.7	1039.3	925.2	796.3	671.9	543.1	432.8	346.2	310.3	291.7	292.4
20°	1056.0	1002.2	859.2	703.4	556.5	413.6	305.8	265.4	247.5	243.6	241.7
22.5°	1031.6	959.8	789.3	611.7	438.6	303.9	246.2	226.3	221.8	221.8	221.8
25°	1004.1	916.9	718.8	518.1	332.1	239.8	211.6	204.5	205.8	208.4	209.0
27.5°	981.6	879.7	648.9	409.7	257.8	203.9	189.1	187.9	193.0	198.8	198.8
30°	961.8	845.7	573.2	319.9	205.2	178.9	173.8	175.7	180.8	185.9	187.9
32.5°	948.3	814.9	505.2	248.8	175.0	161.6	160.3	162.9	168.0	170.6	172.5
35°	942.5	792.5	432.2	200.7	155.8	148.8	148.1	150.0	152.6	153.2	152.6
37.5°	948.9	777.1	357.1	169.9	143.6	139.8	139.1	139.1	139.1	139.8	139.1
40°	967.5	771.3	289.8	150.0	135.9	132.7	130.8	128.9	127.6	127.6	127.0
42.5°	1006.6	780.3	232.7	138.5	130.2	126.3	122.5	119.9	118.0	117.3	117.3
45°	1069.5	805.3	193.6	130.8	125.0	119.3	114.8	112.2	110.3	110.9	110.3
47.5°	1156.0	847.0	171.2	125.7	119.9	112.2	107.7	105.2	104.5	106.4	107.1
50°	1254.1	906.0	157.7	121.8	116.1	106.4	101.3	99.4	100.0	103.9	104.5
52.5°	1369.5	982.3	152.0	119.3	112.8	101.3	96.8	94.9	96.2	100.7	101.3
55°	1493.9	1069.5	160.3	120.5	109.6	98.1	93.0	90.4	92.3	96.2	96.8
57.5°	1620.2	1177.2	188.5	121.2	105.8	95.5	89.1	85.3	86.6	89.8	90.4
60°	1747.8	1284.3	237.2	121.8	104.5	93.0	85.9	80.1	80.8	82.7	83.4
62.5°	1897.9	1420.2	301.4	124.4	105.8	91.0	80.1	73.7	73.7	75.0	75.0
65°	2125.5	1622.8	343.7	123.1	109.0	89.1	74.4	68.0	67.3	68.0	68.0
67.5°	2289.0	1649.7	239.8	116.1	110.9	89.8	71.2	62.8	61.6	60.9	60.9
70°	2115.9	1388.1	158.4	109.6	107.7	91.0	68.6	59.6	57.1	55.1	54.5
71°	1996.0	1250.9	146.8	107.1	105.2	89.8	67.3	57.7	55.1	53.9	53.2
72.5°	1818.4	1116.3	135.3	103.2	99.4	87.2	65.4	55.8	52.6	50.7	50.0
75°	1436.9	856.0	118.6	94.9	85.9	71.8	60.3	51.9	48.7	46.2	45.5
77.5°	649.5	340.5	91.0	82.1	69.9	57.1	52.6	48.1	44.2	42.3	41.7
80°	181.5	129.5	66.7	64.8	52.6	44.2	42.3	41.0	39.8	37.2	37.2
82.5°	84.0	75.7	47.4	45.5	35.9	31.4	33.3	34.0	34.0	31.4	30.8
85°	23.1	25.0	21.8	24.4	23.1	21.2	24.4	26.3	27.6	25.0	23.1
87.5°	1.9	4.5	5.8	9.6	11.5	12.2	15.4	18.6	19.2	15.4	16.0
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)