

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: P401147

Luminaire Tested: **ENV-SA1B-740-U-T2-ULG**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401147  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P#####)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1B-740-U-T2-ULG  
Description: ENTRI LED LUMINAIRE WITH UPLIGHT  
(1) 70 CRI, 4000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5190 lumens  
Efficiency: N/A  
Efficacy: 123.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B1 - U5 - G1

Input Watts (W): 42.1  
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

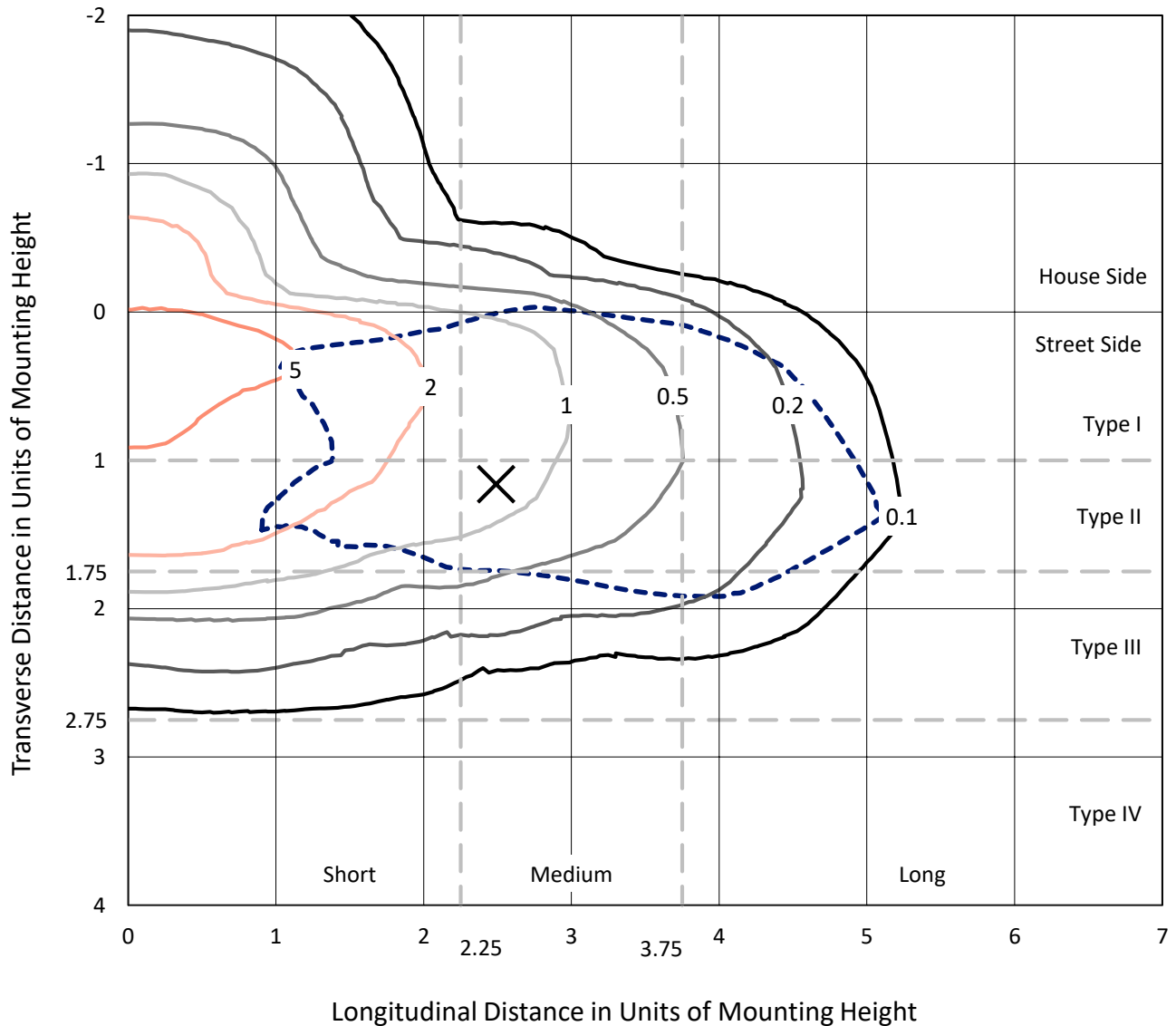


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

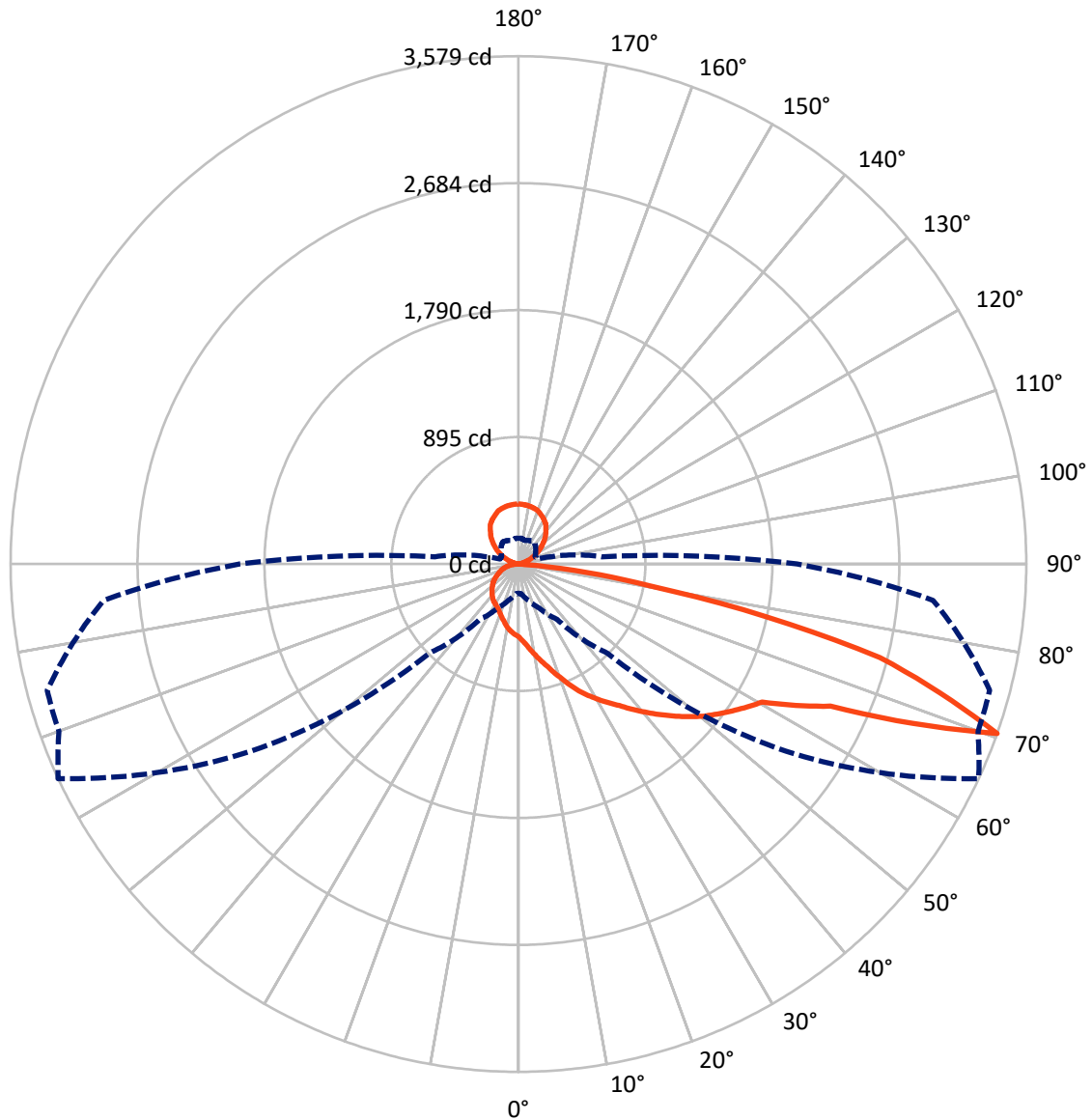


Based on 10 foot mounting height. Maximum calculated value = 7.1 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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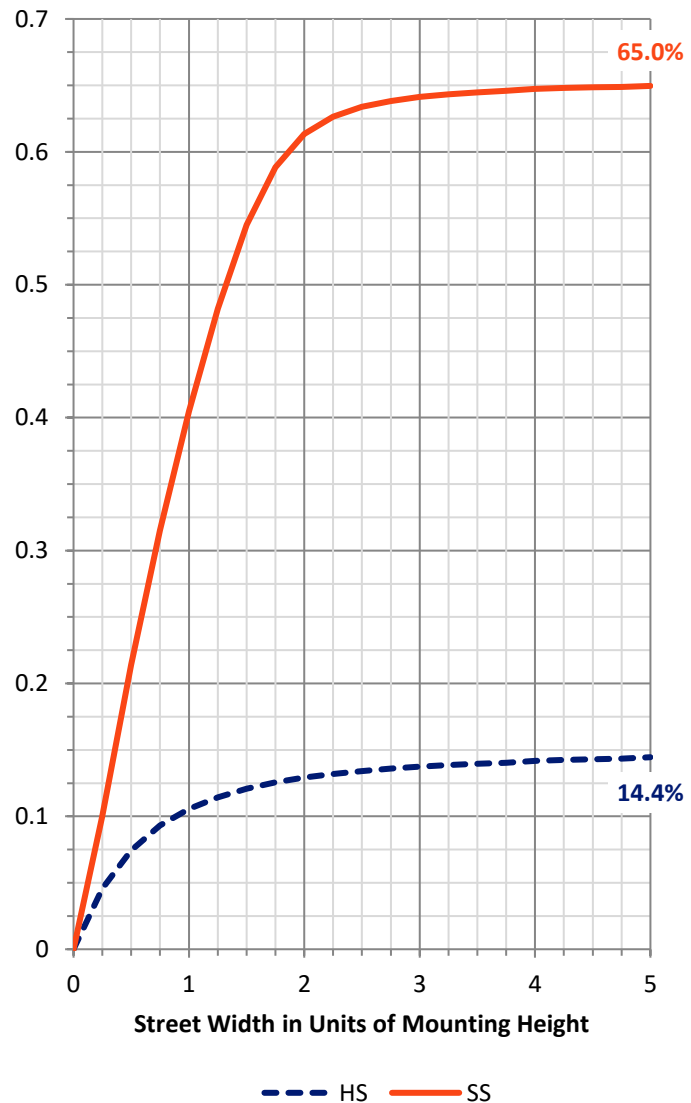
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	768.3	525.6	1293.9
	% Fixture	14.8	10.1	24.9
<b>Street Side</b>	Lumens	3370.4	525.6	3896.1
	% Fixture	64.9	10.1	75.1
<b>Total</b>	Lumens	4138.7	1051.3	5190.0
	% Fixture	79.7	20.3	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.5	1.0
10°-20°	165.3	3.2
20°-30°	293.0	5.6
30°-40°	436.2	8.4
40°-50°	631.9	12.2
50°-60°	861.4	16.6
60°-70°	943.5	18.2
70°-80°	660.3	12.7
80°-90°	95.6	1.8
90°-100°	5.1	0.1
100°-110°	35.5	0.7
110°-120°	101.0	1.9
120°-130°	165.5	3.2
130°-140°	203.9	3.9
140°-150°	208.5	4.0
150°-160°	175.8	3.4
160°-170°	115.8	2.2
170°-180°	40.1	0.8
0°-90°	4138.7	79.7
0°-180°	5190.0	100.0

**Coefficient of Utilization**



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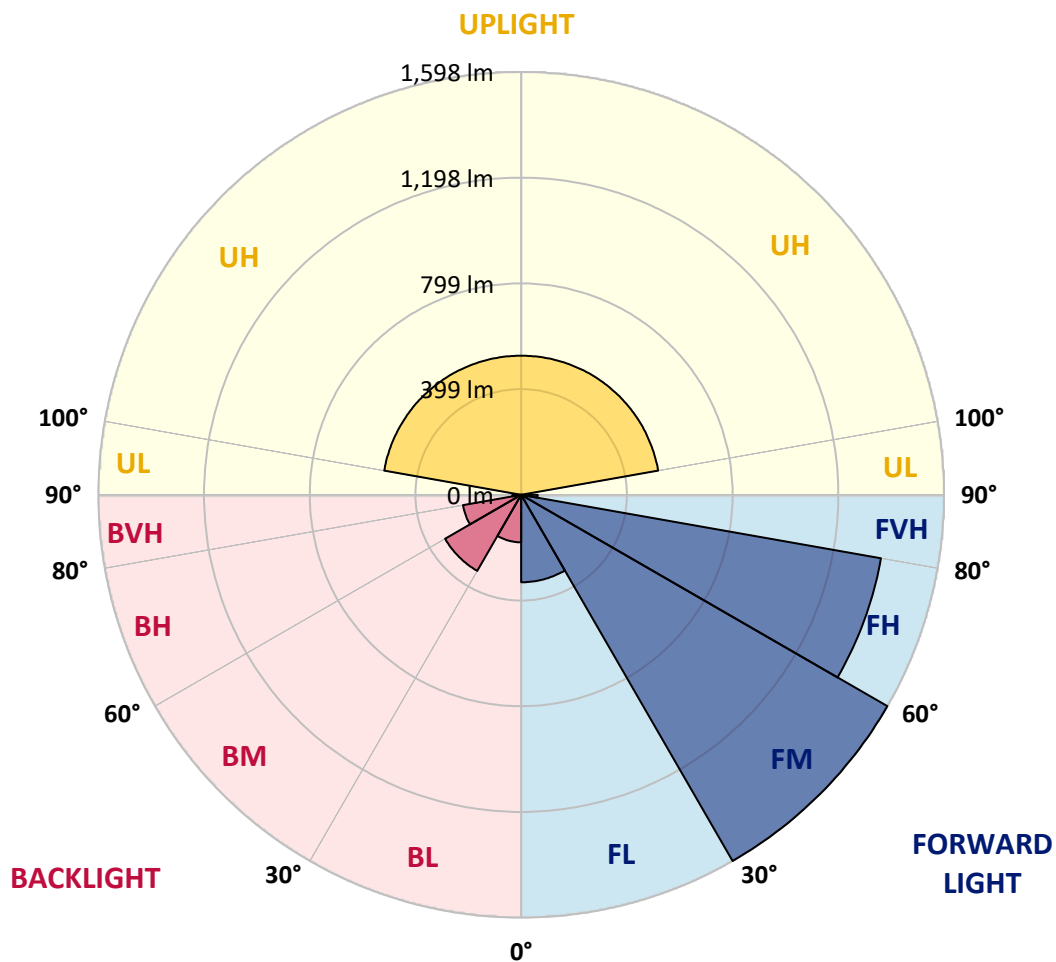
CATALOG NUMBER: ENV-SA1B-740-U-T2-ULG

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	330.4	6.4			
FM	(30°-60°)	1597.6	30.8			
FH	(60°-80°)	1380.3	26.6			G1/1800
FVH	(80°-90°)	62.1	1.2			G1/100
BL	(0°-30°)	179.4	3.5	B1/500		
BM	(30°-60°)	331.9	6.4	B1/1000		
BH	(60°-80°)	223.5	4.3	B1/500		G1/500
BVH	(80°-90°)	33.5	0.6			G1/100
UL	(90°-100°)	5.1	0.1		U1/10	
UH	(100°-180°)	525.6	10.1		U4/1000	

**BUG Rating: B1-U5-G1**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	513.2	513.2	513.2	513.2	513.2	513.2	513.2	513.2	513.2	513.2	513.2
5°	626.2	626.2	627.4	628.6	626.5	624.4	618.8	613.2	607.3	601.4	594.5
10°	696.1	699.0	700.2	701.4	702.3	703.2	702.6	702.0	698.1	694.3	684.2
15°	720.9	720.9	723.0	725.1	730.7	736.3	743.1	749.9	757.9	765.9	765.0
20°	724.5	726.2	733.9	741.6	753.2	764.7	776.8	789.0	806.1	823.3	840.5
25°	767.7	766.5	770.9	775.4	779.8	784.2	798.5	812.7	840.2	867.7	904.4
30°	874.8	876.0	875.4	874.8	874.5	874.2	873.3	872.4	891.1	909.7	957.4
35°	1032.2	1037.0	1028.1	1019.2	1010.6	1002.1	993.2	984.3	989.0	993.8	1026.9
40°	1193.8	1200.3	1202.1	1203.9	1182.9	1161.9	1144.7	1127.5	1126.9	1126.4	1147.4
45°	1296.2	1301.0	1304.2	1307.5	1300.4	1293.3	1285.0	1276.7	1298.0	1319.3	1324.3
50°	1415.8	1417.6	1419.3	1421.1	1418.5	1415.8	1416.7	1417.6	1449.8	1482.1	1486.2
55°	1608.7	1617.0	1635.7	1654.3	1646.0	1637.7	1627.1	1616.4	1591.3	1566.1	1581.8
60°	1335.9	1363.7	1431.2	1498.7	1580.0	1661.4	1758.2	1855.0	1879.2	1903.5	1838.1
65°	443.9	472.9	549.9	626.8	763.8	900.8	1138.8	1376.7	1664.1	1951.4	2211.3
70°	206.6	210.1	236.2	262.2	301.0	339.7	407.5	475.3	681.6	887.8	1594.5
75°	104.8	108.3	116.9	125.5	153.9	182.3	219.6	256.9	260.4	264.0	541.6
80°	43.8	45.0	47.6	50.3	55.6	61.0	86.4	111.9	108.9	105.9	124.6
85°	0.0	0.0	0.3	0.6	0.6	0.6	0.9	1.2	3.3	5.3	6.8
90°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	3.0	3.0	3.3	3.6	4.0	4.3	4.3	4.3	4.3	4.3	4.3
100°	4.9	4.9	5.1	5.4	5.7	6.0	6.7	7.3	10.0	12.7	15.2
105°	12.7	13.3	14.9	16.3	19.1	21.8	25.5	29.1	33.6	38.1	40.9
110°	40.0	41.2	43.0	44.8	48.8	52.7	57.2	61.7	65.4	69.0	70.8
115°	84.8	84.2	86.6	89.0	92.6	96.2	99.0	101.7	103.6	105.4	106.9
120°	136.3	135.0	136.0	136.8	139.0	141.0	142.3	143.5	145.3	147.1	148.0
125°	180.4	178.0	178.6	179.2	180.2	181.1	182.9	184.7	186.2	187.7	188.6
130°	219.8	218.6	218.9	219.2	220.4	221.6	222.8	224.0	224.6	225.2	226.8
135°	259.7	257.9	257.9	257.9	259.8	261.6	262.5	263.4	264.0	264.6	266.4
140°	295.5	293.6	294.3	294.9	295.5	296.1	296.7	297.3	299.1	300.9	301.9
145°	333.0	330.6	330.0	329.4	330.3	331.2	332.1	333.0	333.3	333.6	335.1
150°	360.3	358.4	358.7	359.0	359.0	359.0	359.0	359.0	359.0	359.0	360.3
155°	380.8	378.4	378.4	378.4	379.0	379.6	380.6	381.5	380.9	380.2	379.6
160°	401.4	399.6	399.3	399.0	398.1	397.2	396.9	396.6	396.6	396.6	397.5
165°	412.3	410.5	409.9	409.3	409.3	409.3	408.4	407.5	407.5	407.5	407.2
170°	422.6	420.8	419.9	419.0	419.0	419.0	419.3	419.6	419.0	418.4	416.9
175°	423.8	422.6	422.3	422.0	421.4	420.8	419.6	418.4	418.1	417.8	417.8
180°	423.8	423.8	423.8	423.8	423.8	423.8	423.8	423.8	423.8	423.8	423.8



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CATALOG NUMBER: ENV-SA1B-740-U-T2-ULG

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	513.2	513.2	513.2	513.2	513.2	513.2	513.2	513.2	513.2	513.2	513.2
5°	587.7	578.6	569.4	561.7	551.0	541.0	530.9	523.2	515.5	508.4	501.3
10°	674.2	662.6	651.1	633.9	613.8	592.8	571.8	548.7	528.6	508.7	488.9
15°	764.1	753.5	742.8	724.5	694.3	660.0	625.6	582.4	537.4	496.3	455.2
20°	857.6	857.6	857.6	835.1	798.5	746.4	694.3	619.1	536.8	473.5	410.2
25°	941.1	966.3	991.4	973.6	929.3	853.2	777.1	660.0	522.6	442.7	362.8
30°	1005.0	1055.9	1106.8	1099.1	1046.5	944.1	841.7	672.4	474.1	398.0	322.0
35°	1060.1	1142.6	1225.2	1248.9	1177.9	1043.2	908.5	666.5	409.6	352.5	295.4
40°	1168.4	1269.9	1371.4	1444.2	1373.8	1198.0	1022.2	682.4	356.3	316.1	275.8
45°	1329.4	1428.5	1527.7	1676.2	1638.9	1412.8	1186.7	737.5	333.8	296.5	259.2
50°	1490.4	1588.0	1685.7	1886.3	1929.0	1646.0	1363.1	822.7	348.6	298.6	248.6
55°	1597.5	1712.6	1827.7	2026.0	2166.9	1846.1	1525.3	931.0	389.5	313.7	237.9
60°	1772.7	1873.3	1973.9	2165.7	2368.7	2047.0	1725.3	1074.9	425.6	322.0	218.4
65°	2471.1	2443.6	2416.1	2437.4	2607.8	2333.5	2059.2	1363.1	531.5	353.4	175.2
70°	2301.2	2940.2	3579.1	3446.5	3438.3	3185.5	2932.8	1963.9	590.7	362.8	134.9
75°	819.2	1725.6	2632.1	3119.8	3467.9	3025.7	2583.6	1500.4	331.5	217.8	104.2
80°	143.2	541.3	939.3	1174.9	1507.5	1214.5	921.6	582.4	155.7	113.9	72.2
85°	8.3	23.1	37.9	57.4	68.7	58.3	47.9	31.4	24.3	27.2	30.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	4.3	4.6	4.9	4.6	4.3	4.3	4.3	4.3	4.3	4.3	4.3
100°	17.6	16.6	15.7	14.9	13.9	12.7	11.5	11.5	11.5	12.7	13.9
105°	43.6	43.0	42.4	40.8	39.4	38.1	36.9	36.9	36.9	38.2	39.4
110°	72.7	73.0	73.3	72.7	72.0	71.1	70.3	70.8	70.3	71.1	72.0
115°	108.4	109.3	110.2	109.3	108.4	107.8	107.2	107.8	107.2	107.8	108.4
120°	148.9	150.2	151.3	149.9	148.3	147.7	147.1	147.1	147.1	147.7	148.3
125°	189.5	190.1	190.7	189.2	187.7	187.7	187.7	187.7	187.7	187.7	187.7
130°	228.3	229.5	230.7	230.7	230.7	230.1	229.5	230.1	229.5	230.1	230.7
135°	268.2	269.7	271.3	271.0	270.7	271.6	272.4	273.1	272.4	271.6	270.7
140°	302.7	303.3	303.9	304.5	305.2	306.7	308.2	309.4	308.2	306.7	305.2
145°	336.7	338.4	340.3	340.0	339.7	338.7	337.8	339.1	337.8	338.8	339.7
150°	361.5	362.4	363.3	364.2	365.1	366.0	366.9	369.3	366.9	366.0	365.1
155°	379.0	380.5	382.1	383.5	385.1	385.7	386.3	388.1	386.3	385.7	385.1
160°	398.4	400.2	402.0	401.1	400.2	399.9	399.6	403.3	399.6	399.9	400.2
165°	406.9	408.4	409.9	410.8	411.7	411.1	410.5	413.0	410.5	411.1	411.7
170°	415.3	416.3	417.2	418.7	420.2	420.8	421.4	424.4	421.4	420.8	420.2
175°	417.8	419.3	420.8	421.1	421.4	420.8	420.2	423.2	420.2	420.8	421.4
180°	423.8	423.8	423.8	423.8	423.8	423.8	423.8	423.8	423.8	423.8	423.8





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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	513.2	513.2	513.2	513.2	513.2	513.2	513.2	513.2	513.2	513.2	513.2
5°	494.8	488.3	483.6	478.8	473.2	467.6	464.9	462.3	459.0	455.8	453.7
10°	472.3	455.8	444.5	433.3	427.9	422.6	420.5	418.5	418.2	417.9	418.2
15°	433.9	412.5	407.2	401.9	404.0	406.0	410.2	414.3	419.4	424.4	428.2
20°	393.3	376.4	377.3	378.2	387.1	396.0	406.3	416.7	427.6	438.6	446.9
25°	353.9	345.1	353.1	361.0	373.8	386.5	398.0	409.6	420.5	431.5	440.1
30°	324.1	326.1	338.0	349.8	359.6	369.3	374.1	378.8	380.0	381.2	380.3
35°	303.6	311.9	319.9	327.9	332.6	337.4	335.3	333.2	327.6	322.0	311.9
40°	282.6	289.4	292.1	294.8	296.2	297.7	294.2	290.6	284.1	277.6	274.0
45°	261.6	264.0	265.2	266.3	268.7	271.1	269.0	266.9	263.1	259.2	262.8
50°	245.0	241.5	245.9	250.4	256.0	261.6	258.7	255.7	248.3	240.9	233.8
55°	227.6	217.2	222.8	228.5	241.2	253.9	253.3	252.7	242.4	232.0	222.3
60°	201.8	185.3	194.4	203.6	221.1	238.5	237.9	237.3	228.5	219.6	212.2
65°	165.4	155.7	165.7	175.8	189.7	203.6	209.5	215.4	208.6	201.8	195.9
70°	132.6	130.2	138.8	147.4	159.8	172.2	181.7	191.2	186.7	182.3	177.6
75°	103.6	103.0	110.1	117.2	129.3	141.5	151.5	161.6	159.8	158.0	152.7
80°	73.1	74.0	79.0	84.0	95.9	107.7	116.6	125.5	124.3	123.1	118.4
85°	32.8	35.5	42.3	49.1	61.3	73.4	85.8	98.3	97.1	95.9	90.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	4.6	4.9	4.6	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.0
100°	14.9	15.7	16.7	17.6	15.2	12.7	10.0	7.3	6.7	6.0	5.7
105°	40.9	42.4	43.0	43.6	40.9	38.1	33.6	29.1	25.5	21.8	19.1
110°	72.7	73.3	73.0	72.7	70.8	69.0	65.4	61.7	57.2	52.7	48.8
115°	109.3	110.2	109.3	108.4	106.9	105.4	103.6	101.7	99.0	96.2	92.6
120°	149.9	151.3	150.2	148.9	148.0	147.1	145.3	143.5	142.3	141.0	139.0
125°	189.2	190.7	190.1	189.5	188.6	187.7	186.2	184.7	182.9	181.1	180.2
130°	230.7	230.7	229.5	228.3	226.8	225.2	224.6	224.0	222.8	221.6	220.4
135°	271.0	271.3	269.8	268.2	266.4	264.6	264.0	263.4	262.5	261.6	259.8
140°	304.6	303.9	303.3	302.7	301.9	300.9	299.1	297.3	296.7	296.1	295.5
145°	340.0	340.3	338.5	336.7	335.1	333.6	333.3	333.0	332.1	331.2	330.3
150°	364.2	363.3	362.4	361.5	360.3	359.0	359.0	359.0	359.0	359.0	359.0
155°	383.6	382.1	380.6	379.0	379.6	380.2	380.9	381.5	380.6	379.6	379.0
160°	401.1	402.0	400.2	398.4	397.5	396.6	396.6	396.6	396.9	397.2	398.1
165°	410.8	409.9	408.4	406.9	407.2	407.5	407.5	407.5	408.4	409.3	409.3
170°	418.7	417.2	416.3	415.3	416.9	418.4	419.0	419.6	419.3	419.0	419.0
175°	421.1	420.8	419.3	417.8	417.8	417.8	418.1	418.4	419.6	420.8	421.4
180°	423.8	423.8	423.8	423.8	423.8	423.8	423.8	423.8	423.8	423.8	423.8



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**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	513.2	513.2	513.2	513.2
5°	451.6	450.4	449.2	449.8
10°	418.5	418.8	419.1	419.6
15°	432.1	434.4	436.8	438.0
20°	455.2	460.2	465.2	466.4
25°	448.6	454.3	459.9	462.9
30°	379.4	380.6	381.8	378.8
35°	301.9	293.0	284.1	282.9
40°	270.5	264.9	259.2	257.5
45°	266.3	259.5	252.7	250.4
50°	226.7	220.5	214.3	211.9
55°	212.5	210.4	208.3	207.2
60°	204.8	203.3	201.8	200.6
65°	190.0	191.5	193.0	193.0
70°	172.8	177.9	182.9	181.7
75°	147.4	149.7	152.1	148.6
80°	113.6	113.0	112.5	110.7
85°	85.2	81.4	77.5	71.6
90°	0.0	0.0	0.0	0.0
95°	3.6	3.3	3.0	3.0
100°	5.4	5.1	4.9	4.9
105°	16.3	14.9	13.3	12.7
110°	44.8	43.0	41.2	40.0
115°	89.0	86.6	84.2	84.8
120°	136.8	136.0	135.0	136.3
125°	179.2	178.6	178.0	180.4
130°	219.2	218.9	218.6	219.8
135°	257.9	257.9	257.9	259.7
140°	294.9	294.3	293.6	295.5
145°	329.4	330.0	330.6	333.0
150°	359.0	358.7	358.4	360.3
155°	378.4	378.4	378.4	380.8
160°	399.0	399.3	399.6	401.4
165°	409.3	409.9	410.5	412.3
170°	419.0	419.9	420.8	422.6
175°	422.0	422.3	422.6	423.8
180°	423.8	423.8	423.8	423.8

(END OF REPORT)