

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: P139719

Luminaire Tested: **ENT-E01-LED-E1-BL4-7030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P139719
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33646)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-E01-LED-E1-BL4-7030
Description: ENTRI LED LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (21) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2386.1 lumens
Efficiency: N/A
Efficacy: 96.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.17' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B1 - U0 - G1

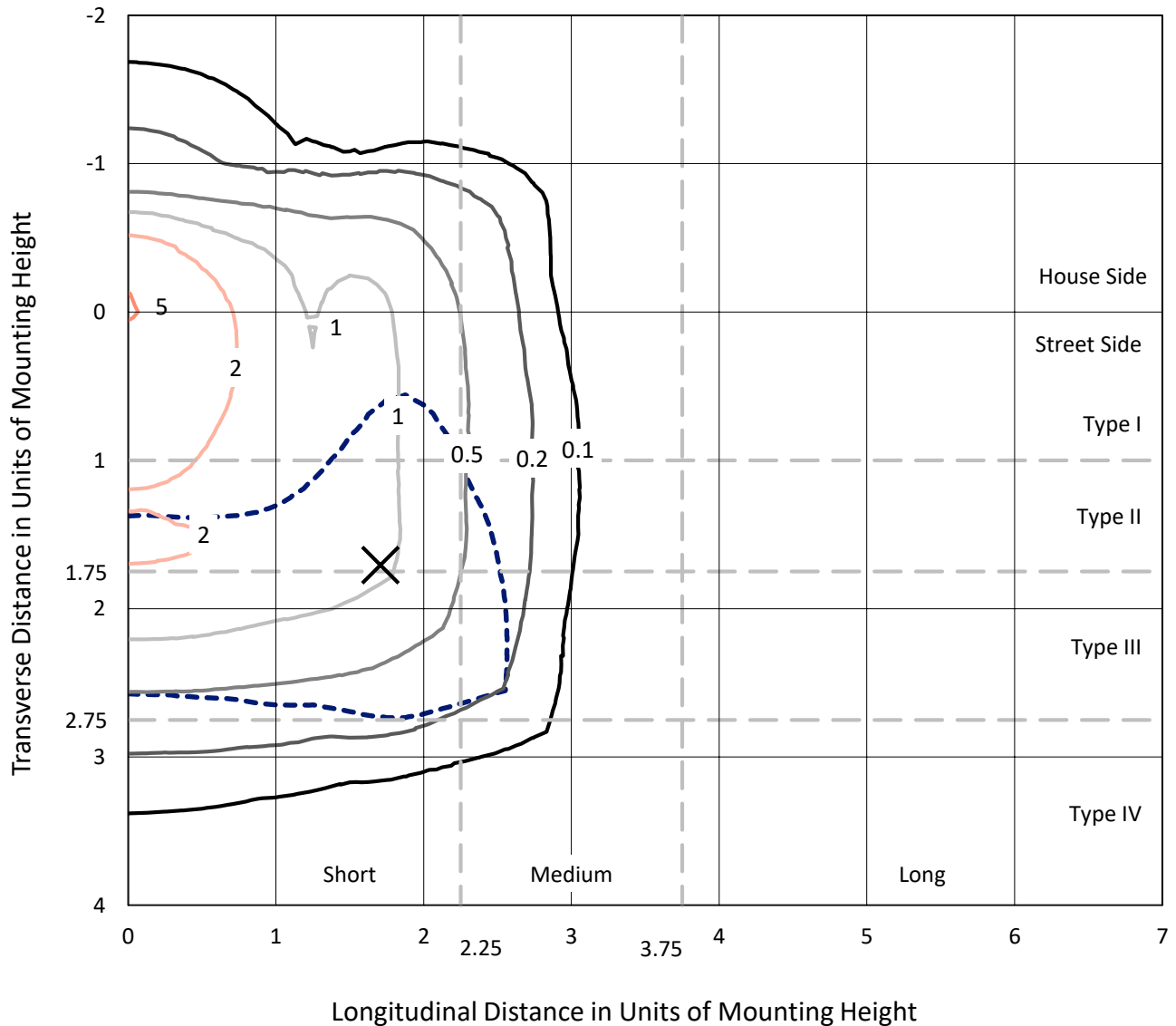
Input Watts (W): 24.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

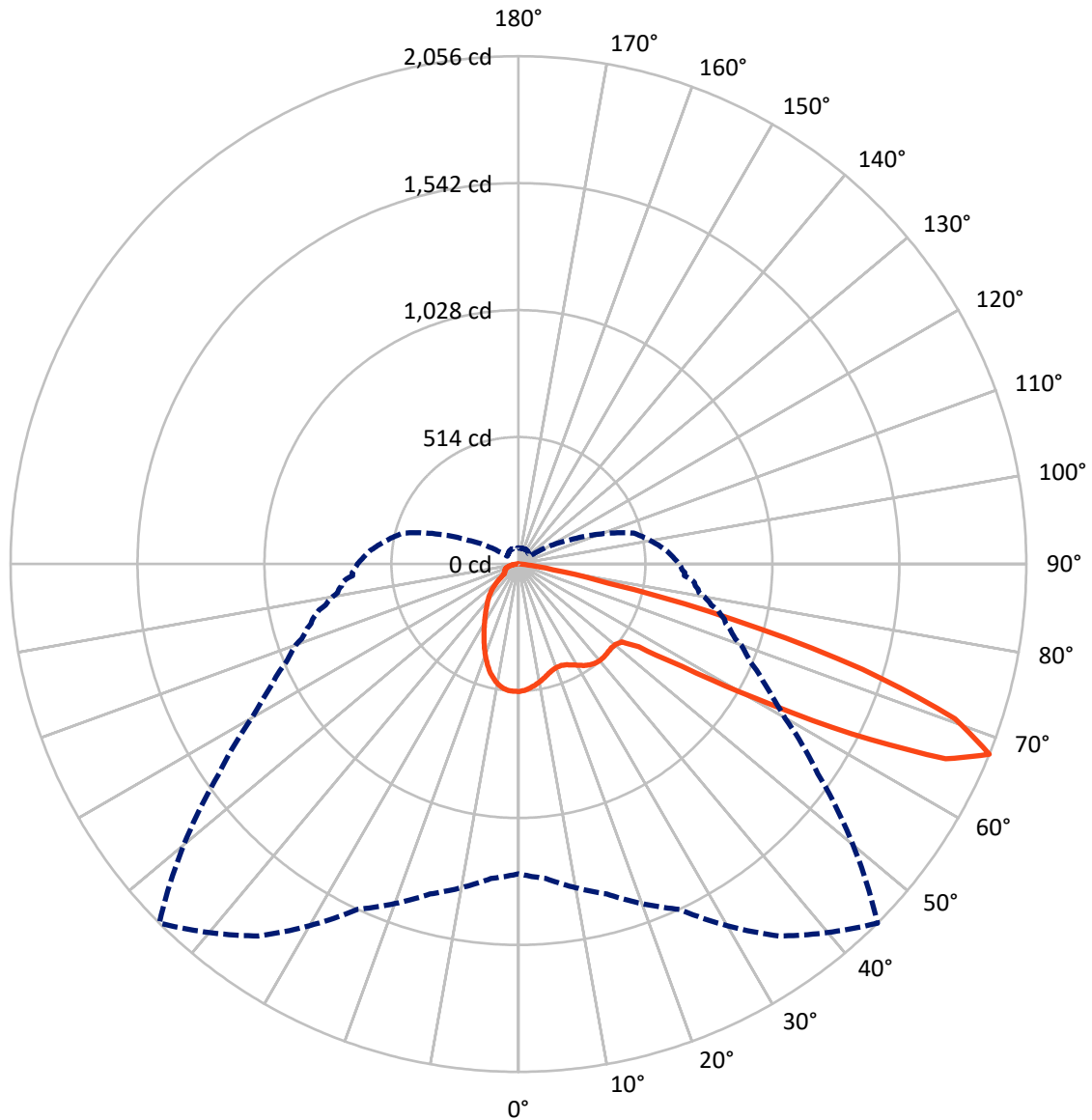
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.2 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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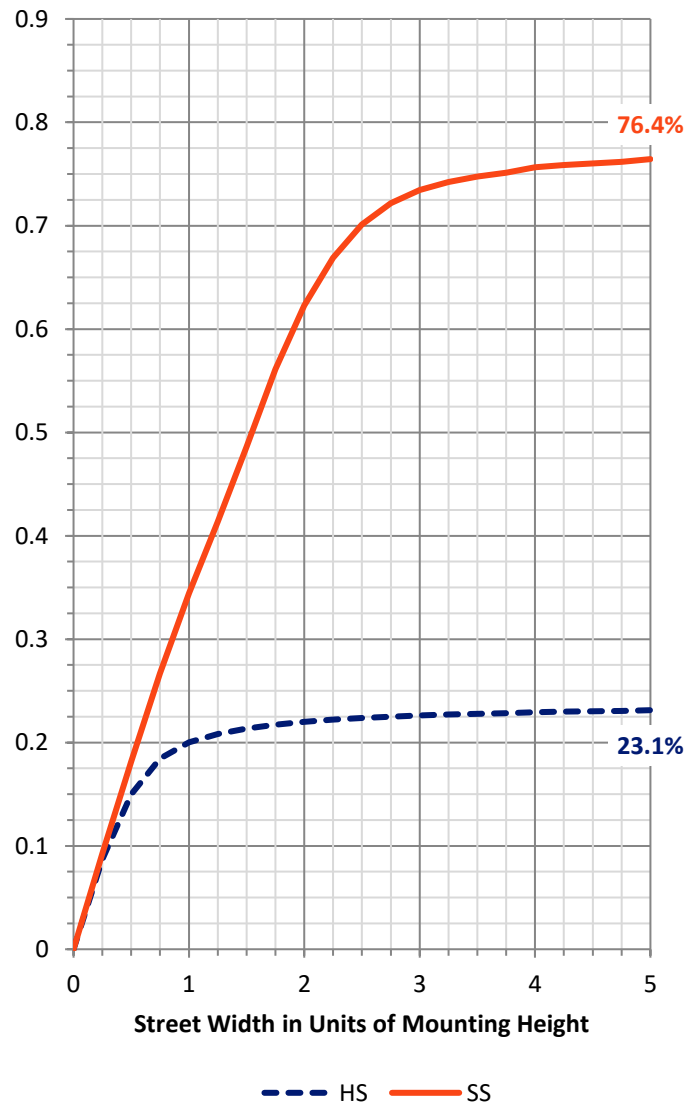
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	559.1	0.0	559.1
	% Fixture	23.4	0.0	23.4
Street Side	Lumens	1827.0	0.0	1827.0
	% Fixture	76.6	0.0	76.6
Total	Lumens	2386.1	0.0	2386.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.9	2.0
10°-20°	128.9	5.4
20°-30°	185.8	7.8
30°-40°	237.1	9.9
40°-50°	279.9	11.7
50°-60°	448.8	18.8
60°-70°	755.4	31.7
70°-80°	280.9	11.8
80°-90°	21.4	0.9
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°	2386.1	100.0
0°-180°	2386.1	100.0



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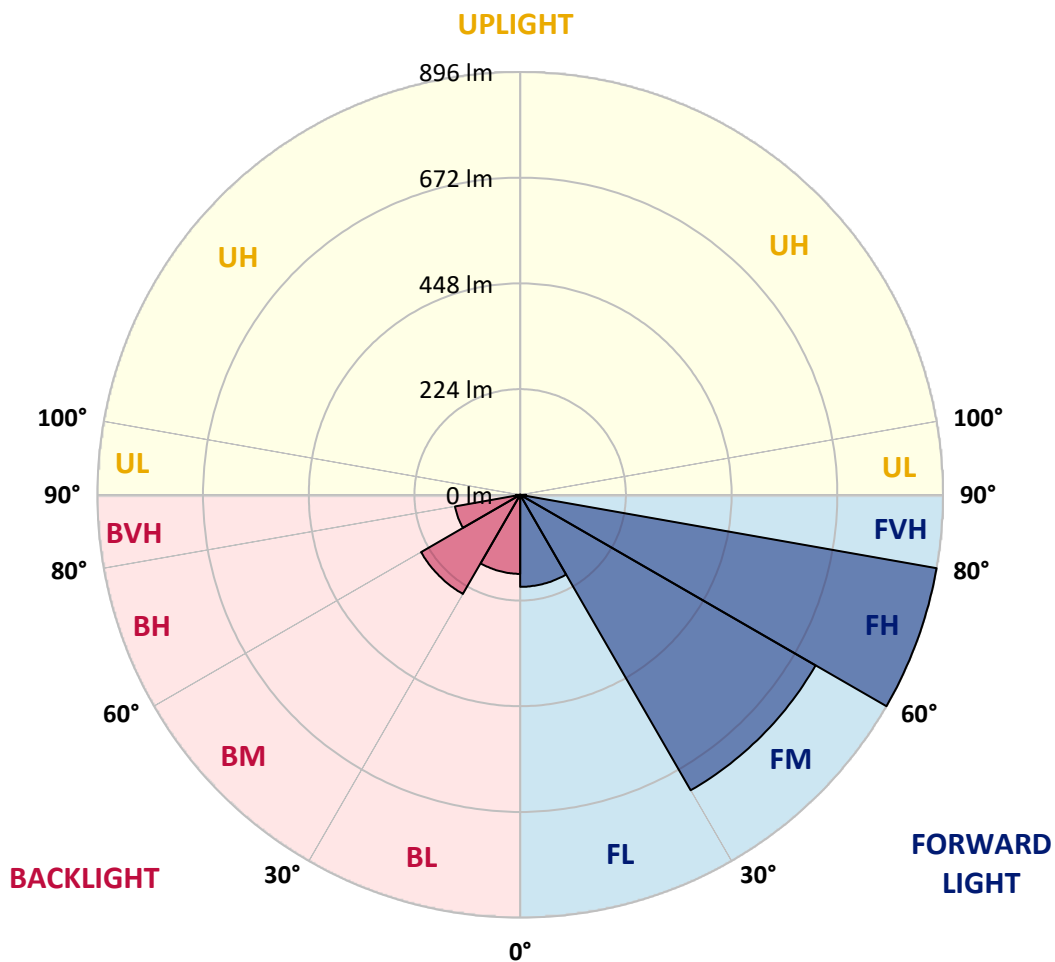
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	195.0	8.2			
FM (30°-60°)	723.1	30.3			
FH (60°-80°)	896.2	37.6			G1/1800
FVH (80°-90°)	12.7	0.5			G1/100
BL (0°-30°)	167.6	7.0	B1/500		
BM (30°-60°)	242.7	10.2	B1/1000		
BH (60°-80°)	140.1	5.9	B1/500		G1/500
BVH (80°-90°)	8.7	0.4			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6
2.5°	508.3	508.3	509.2	509.2	510.6	511.5	510.6	512.4	512.4	511.9	512.8
5°	501.0	501.0	501.4	501.4	502.3	503.7	502.8	504.6	504.2	504.6	504.6
7.5°	492.3	492.3	493.2	492.8	493.2	494.1	491.8	493.2	493.2	493.7	493.2
10°	481.3	482.2	483.2	482.7	482.7	483.2	479.5	480.9	480.4	480.4	480.0
12.5°	471.3	470.4	471.3	472.2	471.7	471.7	468.1	467.2	467.2	467.2	467.6
15°	460.8	461.7	463.1	461.7	460.8	459.0	455.3	454.4	454.4	454.4	454.8
17.5°	458.5	458.5	459.4	458.0	454.4	450.7	443.4	442.1	442.1	441.6	441.6
20°	464.9	464.4	465.8	463.1	454.8	445.3	433.8	431.6	431.6	431.6	431.1
22.5°	478.1	478.1	480.4	477.2	464.0	445.7	428.8	425.2	424.7	424.3	423.3
25°	503.7	503.3	504.6	496.4	477.2	451.7	427.4	422.0	421.5	420.6	419.7
27.5°	533.4	534.3	537.0	524.7	496.4	462.2	433.4	424.3	423.3	422.0	420.1
30°	562.6	565.4	570.4	557.1	518.3	475.4	442.5	432.0	430.2	428.4	425.2
32.5°	599.6	598.7	606.9	586.8	537.5	489.6	452.1	439.3	437.0	434.3	430.2
35°	638.9	640.7	642.5	610.1	553.5	501.0	458.0	443.4	440.7	438.0	432.0
37.5°	678.2	678.6	674.5	628.8	563.1	507.8	461.2	444.3	440.7	436.6	429.7
40°	714.2	712.9	700.5	643.0	568.6	511.5	462.6	442.5	438.0	433.8	426.1
42.5°	734.8	733.4	717.9	649.4	569.0	511.0	462.6	440.7	435.7	430.6	422.0
45°	743.5	742.6	724.7	650.3	565.8	508.3	459.9	438.9	433.8	429.3	420.1
47.5°	744.4	744.4	726.1	648.9	563.1	506.5	459.9	441.1	437.0	433.4	426.5
50°	740.3	740.7	726.6	652.6	565.4	510.6	464.4	446.6	442.5	438.9	431.1
52.5°	788.7	784.1	752.6	669.0	580.4	523.8	480.0	464.0	462.6	460.3	454.4
55°	1158.6	1162.2	990.1	771.8	643.9	591.9	573.6	570.4	580.4	584.1	584.1
57.5°	1471.0	1459.1	1394.2	1126.2	842.1	779.5	786.9	794.6	809.2	815.6	820.2
60°	1547.2	1548.1	1546.3	1470.0	1243.1	1100.6	1065.0	1031.2	1029.8	1017.9	1008.8
62.5°	1538.1	1545.4	1579.6	1597.0	1619.4	1514.8	1297.4	1203.8	1185.5	1163.2	1131.2
65°	1471.9	1482.8	1537.6	1622.1	1814.8	1900.7	1454.1	1286.5	1258.1	1231.2	1177.3
67.5°	1254.0	1277.8	1382.8	1542.2	1838.1	2055.5	1479.6	1246.3	1208.8	1173.7	1109.7
70°	774.1	786.4	948.5	1244.4	1665.5	1874.2	1343.5	1057.7	1010.2	965.4	878.2
72.5°	499.6	495.5	522.9	701.0	1223.9	1456.3	923.9	703.3	664.5	628.8	572.7
75°	349.8	350.3	337.9	334.3	567.6	901.9	418.3	300.5	283.1	275.8	264.0
77.5°	227.9	230.6	227.4	236.1	227.4	374.9	192.3	141.1	134.3	129.7	122.4
80°	137.5	146.6	149.3	151.2	153.4	141.6	114.2	83.1	74.9	67.1	55.3
82.5°	24.2	23.7	32.9	44.3	58.0	66.2	48.0	30.1	28.3	27.4	25.1
85°	0.0	0.0	0.5	0.5	0.9	3.2	5.0	5.9	5.5	5.9	6.4
87.5°	0.0	0.0	0.0	0.5	0.5	0.9	0.9	0.9	0.9	0.9	0.9
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):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6
2.5°	512.8	512.4	511.9	511.9	512.8	512.8	512.4	512.4	512.8	512.4	513.3
5°	505.1	504.6	504.6	504.2	504.6	505.1	504.6	504.6	505.1	504.6	505.5
7.5°	492.8	493.2	492.8	492.8	493.2	493.7	493.2	493.2	493.2	493.2	492.8
10°	480.0	480.0	479.5	479.5	480.4	480.0	479.5	479.5	480.0	480.4	479.5
12.5°	467.2	468.1	468.1	466.3	466.7	467.2	467.2	466.7	466.7	468.1	466.7
15°	454.4	454.8	454.4	454.8	453.9	453.5	453.9	453.9	453.0	452.6	452.6
17.5°	441.6	441.1	441.1	440.2	439.8	439.8	439.3	439.8	438.9	439.3	438.0
20°	430.2	429.7	429.3	429.3	427.9	427.9	427.9	427.4	426.5	426.5	426.1
22.5°	423.3	422.9	422.4	421.5	421.1	420.6	420.6	420.1	419.2	418.8	418.3
25°	419.7	419.2	418.3	417.4	416.9	416.5	416.5	416.0	415.1	414.2	413.7
27.5°	420.1	419.2	418.3	417.4	416.9	416.0	415.6	415.1	414.2	413.3	412.4
30°	424.3	422.4	420.6	419.2	417.9	416.5	415.6	415.1	413.7	412.4	411.0
32.5°	428.4	426.1	423.3	420.6	418.3	416.0	414.7	413.3	411.5	409.2	407.8
35°	429.7	427.0	422.9	420.6	417.4	414.7	412.4	410.6	407.4	404.6	402.3
37.5°	426.5	423.3	419.2	416.0	412.8	409.2	406.4	403.7	401.4	398.2	395.9
40°	421.5	417.9	413.7	409.2	406.0	402.3	399.6	397.3	394.1	391.4	389.5
42.5°	417.4	413.3	408.7	405.1	401.4	397.8	394.6	392.3	389.1	385.9	383.6
45°	416.0	411.9	408.3	403.7	400.0	397.3	394.6	391.4	388.6	385.9	383.2
47.5°	423.3	419.7	416.0	412.4	409.2	406.0	403.2	400.0	396.9	393.2	390.5
50°	427.4	423.3	420.1	416.0	412.4	409.2	406.4	403.2	401.0	397.3	394.6
52.5°	457.1	451.7	452.6	448.9	448.9	445.3	448.0	443.9	446.2	443.4	447.5
55°	582.7	584.5	596.0	597.8	602.4	601.9	604.6	616.5	611.9	606.0	607.8
57.5°	807.9	812.0	817.9	812.4	816.5	817.4	825.2	822.0	819.3	817.4	811.5
60°	1003.3	997.8	989.2	978.7	974.5	970.0	962.2	962.2	952.2	949.0	941.2
62.5°	1117.9	1102.0	1091.0	1074.1	1062.2	1054.0	1040.3	1029.8	1016.1	1005.6	993.3
65°	1155.4	1128.4	1109.3	1088.3	1069.5	1051.7	1032.1	1017.0	1000.1	988.7	969.1
67.5°	1082.8	1055.4	1023.0	1000.6	980.9	958.6	928.0	909.2	894.6	872.7	863.1
70°	843.0	814.3	773.6	762.6	732.5	697.8	666.7	648.0	626.6	611.5	595.5
72.5°	534.8	502.3	484.5	471.3	451.7	422.9	395.9	385.0	366.3	362.1	351.6
75°	251.2	229.3	224.7	221.5	200.0	195.9	187.7	184.0	175.4	170.8	169.0
77.5°	112.3	107.3	99.1	96.8	90.0	83.1	74.9	71.2	66.7	63.9	60.3
80°	51.1	46.1	42.9	40.6	39.7	37.4	35.6	34.3	32.9	32.9	30.6
82.5°	24.7	23.7	22.8	22.8	21.5	21.5	20.1	19.6	19.2	18.7	18.7
85°	6.9	6.9	6.9	7.3	7.3	7.3	7.3	7.3	7.3	7.8	7.8
87.5°	0.9	0.9	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
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):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6
2.5°	512.8	512.8	512.8	513.8	513.3	514.7	514.7	514.7	515.6	516.0	515.6
5°	505.5	505.5	505.5	506.0	506.0	506.9	506.9	507.8	507.8	508.3	508.3
7.5°	493.7	494.1	494.1	495.0	494.6	495.0	495.0	496.4	496.4	496.9	496.9
10°	480.0	480.4	480.4	480.4	480.9	481.3	481.3	482.2	482.7	482.7	483.6
12.5°	467.2	466.7	467.2	466.7	468.1	468.1	468.5	468.1	468.5	469.0	469.5
15°	453.0	453.0	452.6	453.0	453.0	452.6	452.1	452.6	453.5	453.5	453.5
17.5°	438.9	437.5	437.5	437.5	437.0	436.1	437.0	436.6	436.6	437.0	436.6
20°	425.6	425.2	424.7	424.3	423.8	422.4	422.4	422.4	422.0	422.0	422.0
22.5°	417.4	416.9	416.5	416.0	414.2	413.3	412.8	412.4	411.5	411.0	410.6
25°	412.8	411.9	411.0	410.1	408.7	407.4	406.0	405.5	404.6	403.7	402.3
27.5°	411.5	410.6	408.7	407.8	406.0	404.6	403.2	401.9	400.5	399.1	397.8
30°	409.2	407.8	406.0	404.6	403.2	401.0	399.1	397.8	395.5	394.1	392.3
32.5°	406.0	404.2	402.3	400.5	398.7	396.4	394.1	392.3	390.5	388.6	386.3
35°	400.5	398.2	395.5	393.7	391.4	389.1	387.3	384.1	382.7	380.4	378.1
37.5°	393.2	390.9	388.6	386.3	383.6	381.8	379.0	376.3	374.9	373.6	370.4
40°	386.8	384.1	381.8	380.0	376.8	375.4	372.6	369.9	368.1	366.7	364.0
42.5°	380.9	378.1	375.8	373.1	370.8	369.0	366.7	364.0	362.1	361.2	358.9
45°	380.9	377.7	374.9	372.6	370.4	368.1	366.3	363.5	362.1	360.3	358.9
47.5°	387.3	383.6	380.4	377.2	374.0	371.7	369.0	366.3	364.0	362.6	360.8
50°	391.8	388.2	386.3	382.7	380.9	377.7	374.5	373.1	370.8	369.5	369.0
52.5°	447.5	445.3	445.7	436.6	434.8	439.3	432.0	438.4	436.6	431.1	431.1
55°	618.3	617.4	621.5	610.1	605.1	614.2	617.9	604.6	607.8	607.8	606.9
57.5°	817.4	811.5	805.6	806.9	799.6	805.1	798.3	790.0	793.2	790.5	780.9
60°	936.2	932.5	923.9	915.6	907.9	900.6	894.2	886.9	883.2	876.8	870.0
62.5°	984.1	974.5	964.0	953.1	940.8	928.9	921.6	912.0	901.9	895.5	888.2
65°	958.6	944.4	933.0	917.0	903.8	889.1	879.6	868.6	859.5	848.5	839.4
67.5°	844.4	828.0	797.8	783.2	763.6	740.7	734.3	721.1	716.1	699.6	672.7
70°	575.0	558.5	540.2	510.6	491.4	471.7	450.3	434.8	432.5	419.2	399.6
72.5°	337.9	326.5	314.6	297.8	283.6	275.8	260.8	245.2	244.8	229.7	221.9
75°	159.8	153.9	142.0	137.9	125.1	124.2	114.6	112.8	114.6	110.1	109.1
77.5°	54.3	53.0	50.2	46.6	43.8	42.9	40.6	39.3	38.4	37.4	36.5
80°	29.7	28.8	28.3	26.9	26.0	25.6	24.2	23.7	23.3	22.8	22.4
82.5°	17.8	18.3	17.4	16.4	16.4	15.5	15.1	14.6	14.2	14.2	14.2
85°	7.3	7.8	7.3	6.9	6.4	6.9	6.9	6.4	5.9	6.4	6.4
87.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
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):

	87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	155°
0°	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6	515.6
2.5°	514.7	514.2	514.2	513.8	513.3	514.2	515.1	516.5	515.6	516.5	517.0
5°	507.4	507.4	507.4	507.8	507.4	508.7	510.6	513.3	513.8	515.6	517.0
7.5°	495.5	495.5	495.9	496.4	495.9	497.8	501.0	504.2	506.5	509.6	512.4
10°	481.8	481.8	481.8	481.8	482.2	484.5	486.8	490.5	494.1	499.1	503.3
12.5°	469.5	468.1	468.5	469.5	468.5	468.5	470.8	473.6	475.9	482.2	489.6
15°	453.0	453.0	452.1	452.6	450.3	449.8	450.7	452.6	454.4	459.9	467.6
17.5°	435.7	435.7	435.7	434.3	432.5	427.9	427.4	427.4	427.4	431.6	440.7
20°	420.1	420.1	419.2	418.3	414.2	406.4	400.0	397.3	396.4	403.2	407.4
22.5°	409.2	408.7	406.9	406.0	399.6	387.3	377.2	369.5	367.2	369.5	370.8
25°	400.5	399.6	397.8	395.9	387.3	370.4	354.4	341.1	334.7	332.9	328.3
27.5°	395.5	394.1	391.4	389.5	378.1	356.7	335.7	318.3	306.4	297.8	289.5
30°	390.0	387.7	385.0	382.2	369.5	345.7	321.5	300.0	279.0	264.0	252.1
32.5°	383.6	381.3	378.6	375.8	361.7	335.7	310.1	283.6	254.4	233.8	216.0
35°	375.8	373.6	370.8	367.6	353.5	327.4	302.3	267.6	232.4	206.0	182.7
37.5°	368.1	365.8	363.1	359.9	345.7	323.3	297.8	252.5	212.4	179.9	149.3
40°	362.1	359.9	357.1	354.4	341.6	321.5	295.5	239.8	194.5	154.4	119.2
42.5°	357.1	354.8	352.6	349.8	338.9	322.4	290.4	228.8	177.2	128.8	93.6
45°	356.7	355.3	352.6	350.3	339.8	326.5	286.3	219.2	159.4	104.1	79.0
47.5°	359.9	358.0	356.2	354.4	346.2	337.0	283.6	209.2	139.3	84.0	75.4
50°	367.6	365.8	364.9	364.0	358.9	351.2	283.6	198.7	116.0	74.0	74.9
52.5°	430.2	425.2	423.8	427.4	413.7	374.9	285.4	185.9	90.9	70.8	75.4
55°	605.1	610.1	597.3	590.9	567.2	433.8	286.8	166.7	74.0	70.3	74.4
57.5°	781.8	781.8	777.3	767.2	738.0	534.3	293.2	136.1	67.6	69.4	73.5
60°	868.1	862.7	858.1	852.2	807.9	604.2	302.8	100.5	64.8	69.0	72.6
62.5°	883.7	875.0	869.1	861.3	802.4	607.8	306.9	75.4	62.1	69.0	70.3
65°	832.5	823.4	815.6	802.8	731.1	550.3	286.3	61.7	60.3	67.1	68.0
67.5°	674.5	663.5	657.6	651.2	603.7	483.2	231.5	55.3	58.0	63.9	65.8
70°	385.9	374.0	367.2	368.5	339.8	382.2	185.0	50.7	54.8	60.3	63.0
72.5°	207.8	195.0	190.9	177.6	151.6	192.7	142.5	46.6	50.7	54.8	57.5
75°	102.8	98.2	99.6	93.2	79.0	59.4	91.8	41.6	45.2	49.3	51.1
77.5°	35.6	34.7	34.3	33.8	32.9	31.5	42.0	35.6	38.8	42.0	43.8
80°	21.9	21.5	21.9	21.5	21.0	24.2	26.9	28.3	31.1	35.2	35.6
82.5°	13.2	13.2	13.2	13.2	13.2	16.9	19.2	21.9	24.2	26.9	29.2
85°	6.4	6.4	6.4	6.4	6.9	11.4	12.8	16.0	16.9	19.2	21.0
87.5°	1.4	1.4	1.4	1.4	1.8	5.9	7.8	9.6	10.0	10.0	11.4
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):

	165°	175°	180°
0°	515.6	515.6	515.6
2.5°	516.5	515.6	515.1
5°	517.9	517.0	516.5
7.5°	514.2	514.7	514.2
10°	506.5	507.8	508.3
12.5°	494.1	496.9	498.7
15°	473.6	477.7	476.8
17.5°	446.2	451.2	451.2
20°	411.9	414.2	412.8
22.5°	369.9	370.8	369.5
25°	325.6	325.6	323.8
27.5°	284.5	282.2	280.9
30°	245.2	239.3	237.5
32.5°	203.7	193.6	193.6
35°	161.7	153.4	151.2
37.5°	125.6	116.5	113.7
40°	96.4	89.5	89.1
42.5°	81.3	79.9	80.4
45°	77.6	79.5	79.5
47.5°	78.1	80.4	80.8
50°	78.5	80.8	81.3
52.5°	78.5	79.9	79.9
55°	77.6	77.6	77.6
57.5°	75.8	75.4	76.3
60°	74.4	74.4	74.4
62.5°	72.2	72.2	72.2
65°	68.5	69.0	69.0
67.5°	64.8	64.8	64.8
70°	60.3	60.3	61.2
72.5°	55.7	57.5	58.5
75°	52.5	55.7	57.1
77.5°	46.1	49.3	51.1
80°	37.9	38.4	38.4
82.5°	30.1	29.2	27.9
85°	21.5	20.1	20.1
87.5°	11.4	11.0	11.4
90°	0.0	0.0	0.0

(END OF REPORT)