

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: P162428

Luminaire Tested: **ECM-E01-LED-E1-SL3-HSS-7050**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P162428
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33727)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-E01-LED-E1-SL3-HSS-7050
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (21) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1691.4 lumens
Efficiency: N/A
Efficacy: 68.5 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 1' x H: 0.1')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B0 - U0 - G1

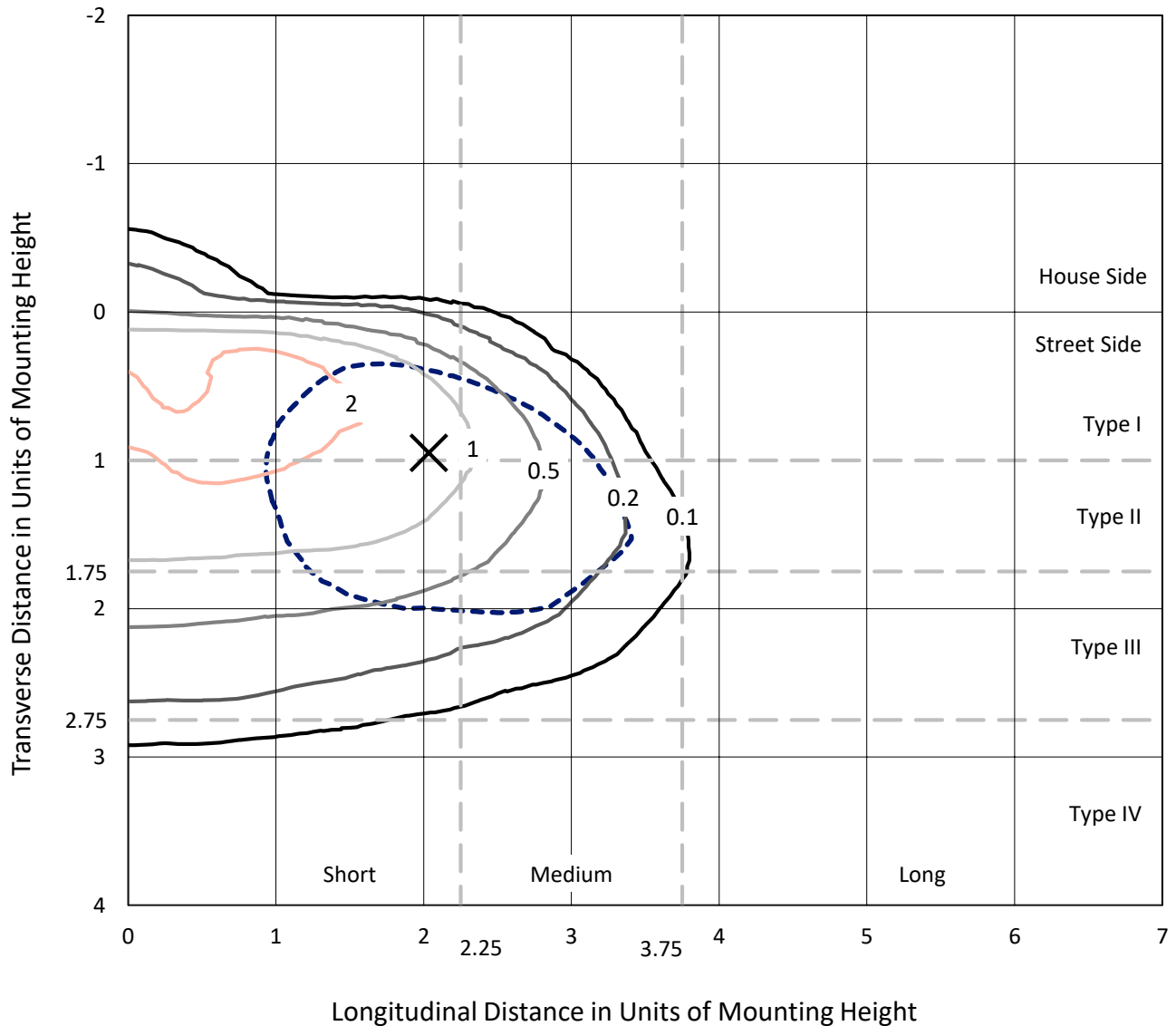
Input Watts (W): 24.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

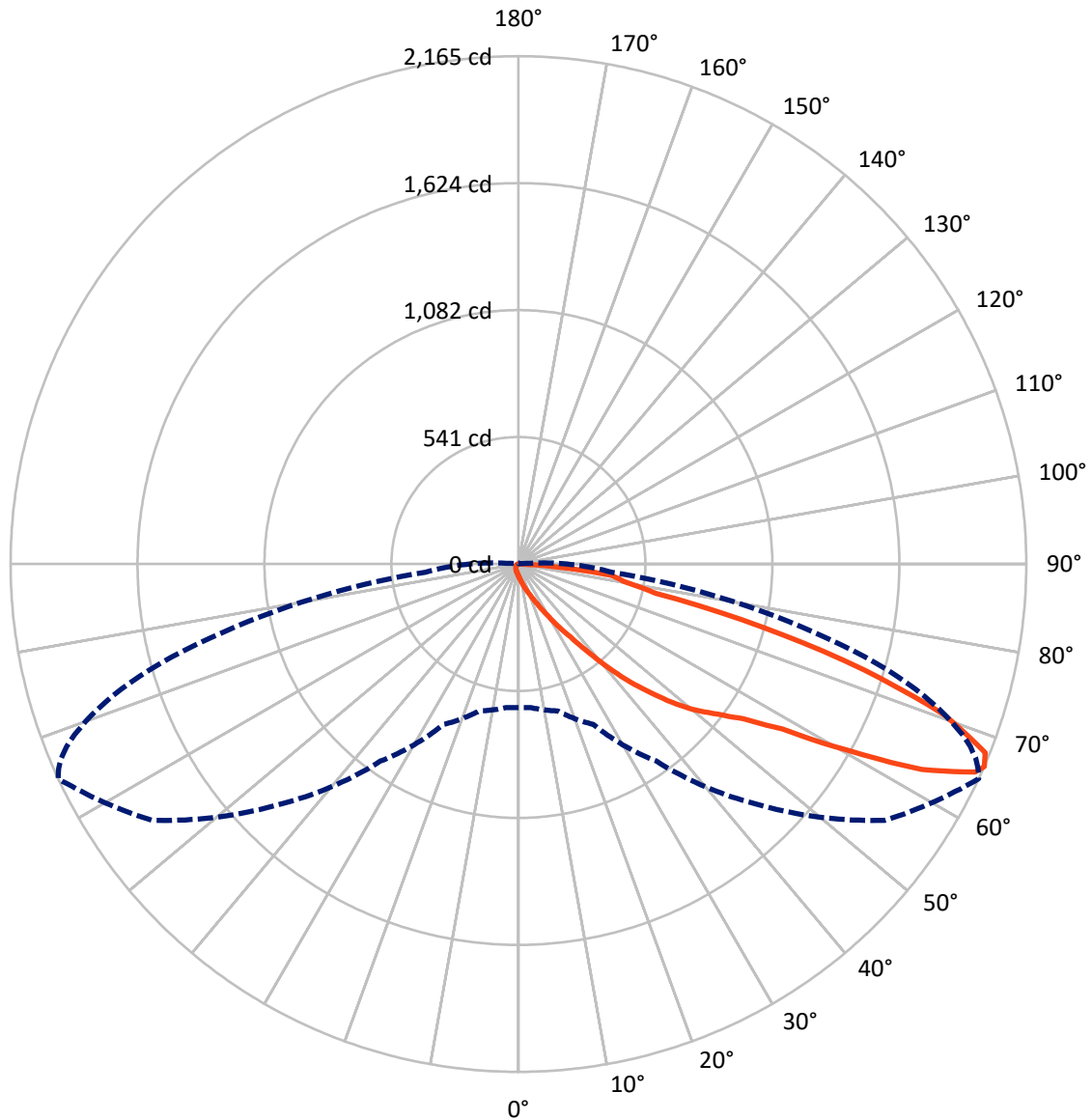
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.8 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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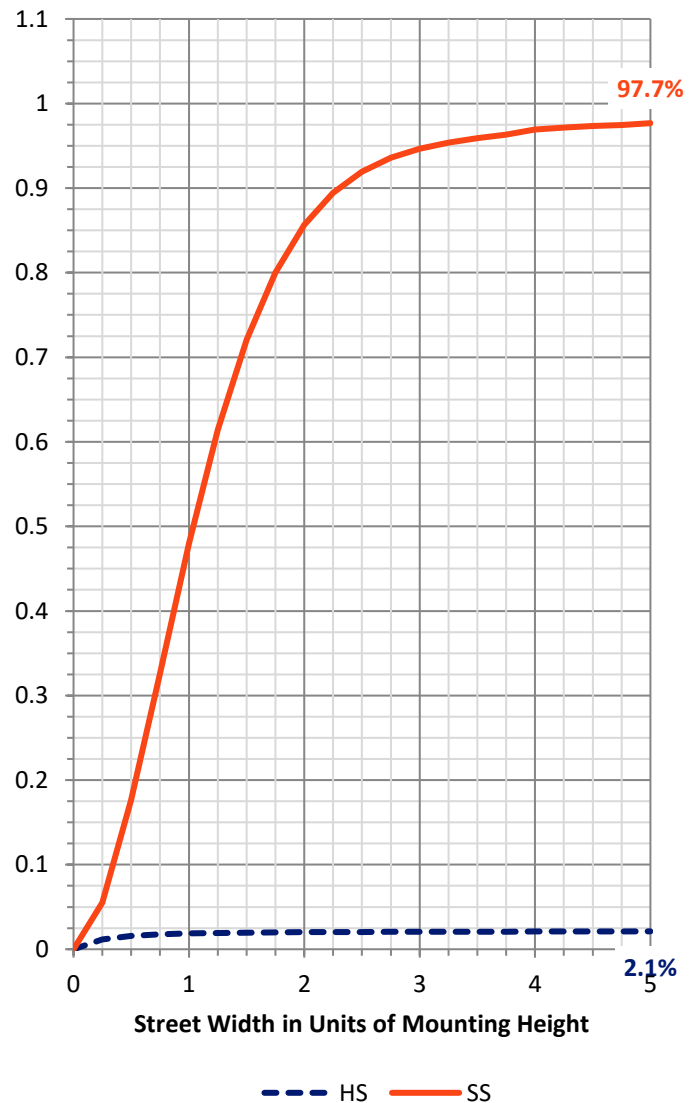
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	36.6	0.0	36.6
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	1654.8	0.0	1654.8
	% Fixture	97.8	0.0	97.8
Total	Lumens	1691.4	0.0	1691.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.7	0.3
10°-20°	24.2	1.4
20°-30°	52.3	3.1
30°-40°	111.6	6.6
40°-50°	246.8	14.6
50°-60°	418.3	24.7
60°-70°	558.2	33.0
70°-80°	245.9	14.5
80°-90°	28.3	1.7
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°	1691.4	100.0
0°-180°	1691.4	100.0



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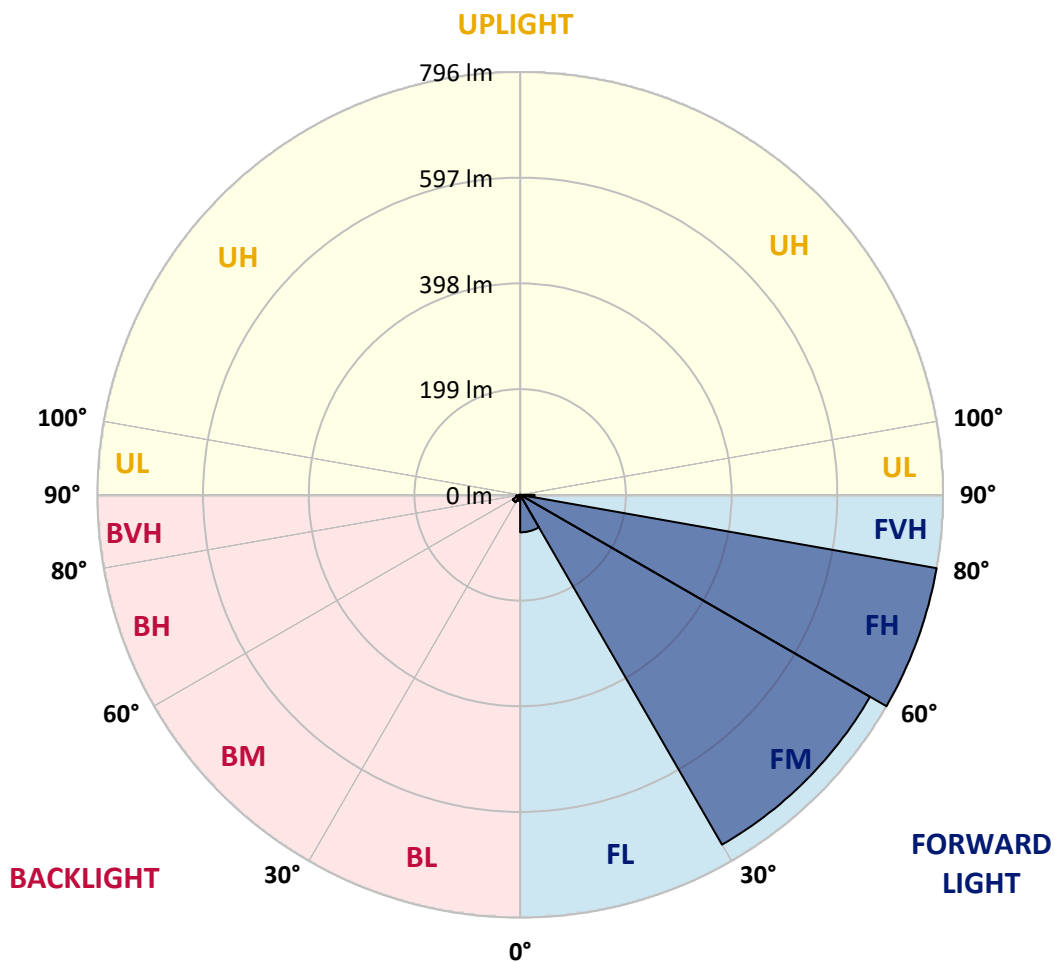
CATALOG NUMBER: ECM-E01-LED-E1-SL3-HSS-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	70.7	4.2			
FM (30°-60°)	760.7	45.0			
FH (60°-80°)	796.3	47.1			G1/1800
FVH (80°-90°)	27.2	1.6			G1/100
BL (0°-30°)	11.6	0.7	B0/110		
BM (30°-60°)	16.1	1.0	B0/220		
BH (60°-80°)	7.8	0.5	B0/110		G0/110
BVH (80°-90°)	1.1	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1
2.5°	64.4	64.1	62.8	62.8	60.8	59.5	57.9	56.3	56.3	55.9	55.6
5°	85.2	83.3	82.9	79.4	76.4	72.2	68.3	63.1	62.4	61.8	61.5
7.5°	108.3	108.0	105.0	100.8	94.9	87.2	79.4	70.9	69.6	69.0	67.7
10°	138.2	136.6	132.7	125.5	116.7	106.3	93.6	80.3	78.7	77.4	76.8
12.5°	166.8	163.9	161.6	152.5	141.5	126.2	110.9	91.7	90.4	88.8	86.2
15°	193.5	190.9	187.0	179.2	166.8	147.6	129.8	106.3	103.1	100.8	98.8
17.5°	214.3	212.7	208.1	199.3	186.0	169.1	147.6	121.3	118.7	115.8	112.2
20°	234.1	231.9	224.7	212.7	198.4	185.3	168.8	140.8	137.2	133.7	129.8
22.5°	253.0	250.7	239.0	219.2	203.9	198.4	192.5	162.9	157.4	154.5	150.6
25°	279.3	274.4	256.3	224.7	204.2	208.4	218.5	191.5	186.3	182.1	175.9
27.5°	314.8	308.3	279.7	232.8	205.5	219.5	248.5	226.3	220.8	215.9	209.1
30°	354.8	350.6	316.4	252.4	215.0	235.8	281.9	270.5	264.1	258.2	250.1
32.5°	395.1	389.3	355.4	289.4	240.3	267.3	323.9	322.0	313.5	308.0	299.2
35°	430.6	427.6	402.6	350.2	298.2	322.6	379.8	382.1	374.6	368.8	359.0
37.5°	454.6	454.6	449.7	415.6	390.2	408.5	462.1	462.4	454.9	441.6	436.7
40°	467.0	470.5	488.1	494.6	493.3	516.7	570.1	564.2	558.0	551.2	534.9
42.5°	492.4	495.6	533.0	577.9	607.1	638.0	674.8	672.8	665.4	653.0	638.0
45°	535.3	539.5	584.1	655.3	715.4	759.3	782.7	773.6	766.2	754.5	746.6
47.5°	589.9	598.0	648.4	736.6	809.1	881.6	906.0	881.9	875.4	866.3	853.6
50°	648.1	655.9	709.6	810.4	892.3	978.8	1019.5	978.8	969.4	966.5	952.2
52.5°	698.5	705.0	756.7	867.3	956.1	1057.5	1116.7	1063.0	1056.2	1046.5	1036.1
55°	728.4	733.6	782.1	894.6	999.3	1128.4	1210.7	1163.5	1153.4	1149.5	1134.6
57.5°	738.5	743.7	787.3	898.2	1022.7	1193.1	1324.8	1326.5	1314.4	1300.5	1295.9
60°	738.5	744.4	781.1	889.4	1045.5	1262.1	1477.0	1612.6	1586.6	1584.0	1567.4
62.5°	707.9	713.5	750.6	862.4	1076.1	1355.1	1689.0	1928.4	1920.9	1904.0	1876.7
65°	641.6	644.9	681.3	793.5	1064.3	1440.6	1872.8	2138.5	2126.4	2093.3	2058.2
66°	611.7	614.3	648.4	754.1	1026.0	1452.3	1905.3	2164.8	2145.0	2117.0	2077.4
67.5°	568.4	573.0	597.1	681.0	934.0	1411.6	1884.8	2146.3	2129.0	2095.2	2055.6
70°	379.5	376.2	461.1	522.6	711.5	1150.2	1691.0	1927.1	1927.4	1911.5	1895.6
72.5°	180.1	182.1	206.8	321.6	465.7	768.4	1346.0	1538.2	1560.3	1531.7	1511.8
75°	129.4	132.4	147.3	196.7	277.7	461.1	872.5	1075.7	1076.4	1025.7	980.4
77.5°	37.7	39.3	55.3	121.3	208.1	311.2	501.1	598.0	584.1	547.6	513.5
80°	15.6	15.6	16.2	38.7	83.6	211.4	350.6	460.5	458.8	444.9	424.7
82.5°	5.8	6.2	7.8	15.9	19.8	52.0	233.8	399.7	398.7	378.8	364.5
85°	0.6	0.6	1.9	6.8	7.5	9.7	46.8	176.3	175.3	176.3	154.5
87.5°	0.0	0.0	0.3	0.6	1.0	1.3	1.9	6.8	7.5	7.1	6.5
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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1
2.5°	55.6	55.0	55.0	54.6	54.6	54.6	54.3	54.0	54.0	53.7	53.3
5°	60.8	60.2	59.8	59.2	58.9	58.5	57.9	57.6	56.9	56.6	56.3
7.5°	67.0	65.7	65.4	64.4	63.4	62.8	62.1	61.1	60.5	59.2	58.9
10°	74.8	73.2	71.9	70.6	69.6	68.0	67.0	65.7	64.4	63.4	62.4
12.5°	84.9	82.6	80.7	79.4	77.1	75.1	73.2	72.2	69.6	68.3	66.7
15°	95.9	93.3	91.0	88.5	86.8	83.6	81.0	78.1	76.8	74.5	71.9
17.5°	110.2	106.0	102.4	99.8	96.6	93.3	90.4	87.5	83.6	81.0	77.7
20°	125.5	121.9	117.1	112.5	108.6	104.7	100.5	96.6	93.0	88.8	84.9
22.5°	145.0	139.8	134.0	129.4	124.2	120.0	114.1	108.9	103.1	97.5	93.0
25°	169.8	162.9	157.4	150.9	144.7	138.2	131.1	124.5	117.1	111.9	104.0
27.5°	200.3	193.8	186.3	177.9	171.7	162.0	152.5	144.4	135.6	127.5	118.7
30°	239.4	229.9	222.1	214.0	201.6	192.2	181.1	170.1	158.1	149.9	136.6
32.5°	286.2	276.1	264.4	252.7	241.3	228.0	214.3	200.6	187.3	172.4	158.7
35°	343.4	331.4	318.0	305.4	287.8	273.5	256.3	237.4	222.4	205.2	187.9
37.5°	419.2	399.3	387.6	374.3	350.6	331.1	311.9	293.0	266.7	248.5	224.1
40°	514.1	502.4	483.2	461.8	440.3	414.6	388.6	363.5	333.0	307.6	279.3
42.5°	625.7	608.4	588.9	558.0	536.2	506.0	476.4	443.2	405.8	373.3	340.2
45°	730.4	709.9	694.9	664.1	641.3	605.5	569.7	534.6	491.4	449.4	411.1
47.5°	843.6	826.6	801.9	776.9	753.8	713.5	674.8	632.2	586.7	536.9	487.1
50°	943.1	929.7	912.8	882.6	856.9	823.1	777.5	731.0	673.5	624.0	567.5
52.5°	1027.6	1017.2	993.5	972.0	948.9	917.0	876.4	831.8	769.7	715.4	651.0
55°	1127.5	1120.0	1099.2	1085.8	1065.3	1034.8	996.7	955.4	889.7	830.5	757.7
57.5°	1291.0	1285.2	1267.0	1261.4	1241.3	1214.6	1167.8	1123.6	1046.8	973.3	890.0
60°	1561.9	1550.2	1523.5	1509.9	1467.3	1431.5	1370.7	1309.9	1217.2	1123.6	1023.4
62.5°	1852.0	1819.1	1768.4	1724.8	1664.3	1602.2	1520.9	1427.9	1319.3	1208.1	1093.0
65°	2008.4	1952.5	1888.4	1819.1	1740.8	1649.4	1547.0	1435.4	1318.6	1201.3	1079.6
66°	2026.3	1963.2	1895.2	1818.2	1731.0	1633.8	1529.7	1412.6	1291.4	1176.9	1055.2
67.5°	2003.8	1937.8	1866.0	1780.4	1686.1	1585.3	1476.1	1354.4	1237.7	1121.6	1003.2
70°	1846.8	1781.1	1717.0	1627.0	1526.5	1425.0	1321.6	1185.7	1075.1	968.4	863.1
72.5°	1474.8	1430.2	1366.8	1289.7	1191.8	1072.8	986.6	865.0	769.1	665.7	584.1
75°	921.6	858.9	780.5	682.3	607.5	510.9	460.5	368.1	313.5	265.7	219.5
77.5°	471.2	424.1	369.1	313.8	260.8	208.1	161.0	113.8	76.8	53.3	39.7
80°	389.3	347.6	302.1	251.7	204.9	159.0	114.5	78.1	49.8	32.5	25.4
82.5°	321.6	286.5	245.9	199.0	158.4	124.9	86.8	56.6	35.1	22.8	17.9
85°	136.9	124.2	95.9	76.1	57.2	42.3	29.6	19.8	14.0	11.4	10.4
87.5°	5.8	6.5	6.2	4.9	3.6	3.6	3.2	2.6	2.6	2.6	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



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CANDELA DISTRIBUTION (continued):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1
2.5°	53.3	53.0	52.7	52.7	52.4	52.0	50.1	48.5	46.5	45.2	43.9
5°	55.6	55.3	54.6	54.3	53.7	53.3	49.1	45.5	42.6	40.3	38.7
7.5°	57.9	57.6	56.6	55.6	55.3	54.6	47.8	43.3	39.3	36.7	35.1
10°	60.8	59.8	58.9	57.6	56.6	55.6	46.5	40.6	36.4	34.1	32.5
12.5°	65.1	63.4	61.8	60.2	58.9	57.2	45.9	38.4	34.1	31.5	29.9
15°	69.9	67.7	65.7	63.7	61.5	59.8	44.6	36.4	32.2	29.6	27.6
17.5°	74.5	71.9	69.0	66.0	63.7	61.5	43.3	34.5	30.2	27.6	25.7
20°	81.0	77.1	73.5	69.9	66.7	63.7	41.3	32.5	28.6	25.7	23.7
22.5°	88.1	83.6	79.0	74.2	69.9	66.0	39.7	30.9	27.0	24.1	21.8
25°	97.2	91.7	85.5	79.4	74.5	69.3	38.0	29.3	25.4	22.4	20.1
27.5°	109.9	102.1	95.3	87.5	80.0	74.2	36.7	28.0	23.7	20.8	18.5
30°	127.1	115.8	105.0	96.6	87.8	79.4	35.4	26.3	22.4	19.2	16.6
32.5°	146.3	133.0	120.6	108.0	96.9	87.2	34.1	25.0	20.8	17.5	15.3
35°	170.1	153.2	136.6	121.9	108.6	95.6	32.8	23.7	19.5	15.9	13.6
37.5°	204.2	183.1	161.3	142.4	125.2	108.0	31.9	22.4	17.9	14.3	12.0
40°	251.1	223.7	197.1	171.4	148.9	127.5	30.6	21.1	16.6	13.0	10.7
42.5°	301.8	268.6	233.5	204.5	173.7	146.7	29.3	19.8	15.3	11.7	9.4
45°	364.9	323.6	281.0	241.6	203.9	169.1	28.0	18.5	13.6	10.4	8.1
47.5°	433.8	381.1	333.0	283.6	238.7	197.1	26.3	17.5	12.3	9.1	7.1
50°	504.7	449.1	388.3	332.0	278.7	225.0	24.7	15.9	11.0	8.1	5.8
52.5°	581.1	515.4	453.3	383.4	321.3	261.8	23.1	14.6	10.1	7.1	4.9
55°	678.4	604.9	532.0	453.6	378.8	304.4	21.5	13.0	8.8	6.2	3.9
57.5°	800.6	713.5	624.0	535.6	444.9	360.3	20.1	11.4	7.5	5.2	3.2
60°	916.1	814.3	706.0	604.2	501.8	403.2	18.2	10.1	6.5	4.2	3.2
62.5°	975.9	859.8	743.1	630.9	521.6	418.5	16.2	8.4	5.5	3.6	2.9
65°	961.3	842.9	729.7	616.6	509.6	408.8	14.3	7.5	4.9	3.2	2.9
66°	940.1	823.1	709.2	601.6	499.5	398.4	13.3	7.1	4.5	3.2	2.6
67.5°	893.9	780.8	672.2	572.0	471.9	378.5	12.0	6.5	4.2	2.9	2.6
70°	763.6	660.8	574.0	484.9	403.2	319.0	9.7	5.5	3.6	2.6	2.6
72.5°	505.4	435.4	377.5	324.9	271.5	210.7	8.1	4.5	2.9	2.6	2.3
75°	190.5	172.4	148.0	133.0	116.1	101.8	6.5	2.9	2.3	2.3	2.3
77.5°	33.8	31.2	27.6	25.4	23.4	21.5	5.2	1.9	1.9	2.3	2.3
80°	22.8	21.1	19.2	17.5	16.2	14.6	3.6	1.6	1.9	1.9	2.3
82.5°	16.2	15.3	14.3	13.0	12.0	10.7	2.3	1.6	1.9	1.9	1.9
85°	9.7	9.1	8.4	7.8	6.8	6.5	1.6	1.6	1.6	1.9	1.9
87.5°	2.6	2.3	2.6	2.6	1.9	2.3	1.3	1.3	1.3	1.6	1.6
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):

	145°	155°	165°	175°	180°
0°	51.1	51.1	51.1	51.1	51.1
2.5°	43.3	43.3	42.6	43.6	43.6
5°	37.4	37.4	37.1	37.4	37.4
7.5°	34.1	33.8	33.8	33.8	34.1
10°	31.2	30.9	30.9	30.9	30.9
12.5°	28.6	28.3	28.0	28.3	28.3
15°	26.3	25.7	25.7	25.7	25.7
17.5°	24.4	23.7	23.4	23.4	23.4
20°	22.4	21.5	21.5	21.5	21.5
22.5°	20.5	19.5	19.5	19.5	19.5
25°	18.5	17.5	17.5	17.5	17.5
27.5°	16.9	15.9	15.9	15.9	15.9
30°	14.9	14.3	14.3	14.6	14.3
32.5°	13.6	12.7	12.7	13.0	13.0
35°	12.0	11.4	11.4	11.4	11.4
37.5°	10.4	9.7	9.7	9.7	9.7
40°	9.1	8.4	8.1	8.4	8.4
42.5°	7.8	7.1	6.8	6.8	6.8
45°	6.8	5.8	5.5	5.8	5.8
47.5°	5.5	4.9	4.9	5.2	5.2
50°	4.2	4.2	4.5	5.2	5.2
52.5°	3.9	3.9	4.5	5.2	5.2
55°	3.6	3.9	4.5	4.9	5.2
57.5°	3.2	3.9	4.5	4.9	4.9
60°	3.2	3.6	4.2	4.9	4.9
62.5°	2.9	3.2	3.9	4.5	4.5
65°	2.9	3.2	3.9	4.5	4.5
66°	2.9	3.2	3.9	4.5	4.5
67.5°	2.9	3.2	3.9	4.5	4.5
70°	2.9	3.2	3.9	4.2	4.2
72.5°	2.6	2.9	3.6	4.2	4.2
75°	2.6	2.9	3.6	4.2	4.2
77.5°	2.6	2.9	3.6	4.2	4.2
80°	2.6	2.9	3.6	3.9	4.2
82.5°	2.3	2.9	3.2	3.9	3.9
85°	2.3	2.6	3.2	3.6	3.9
87.5°	1.9	2.3	2.6	3.2	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)