

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: P149364

Luminaire Tested: **VWM-F02-LED-E1-SL2-HSS-7030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P149364
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33726)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: VWM-F02-LED-E1-SL2-HSS-7030
Description: VISION WALL MEDIUM LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (14) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2765 lumens
Efficiency: N/A
Efficacy: 50.3 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B0 - U0 - G1

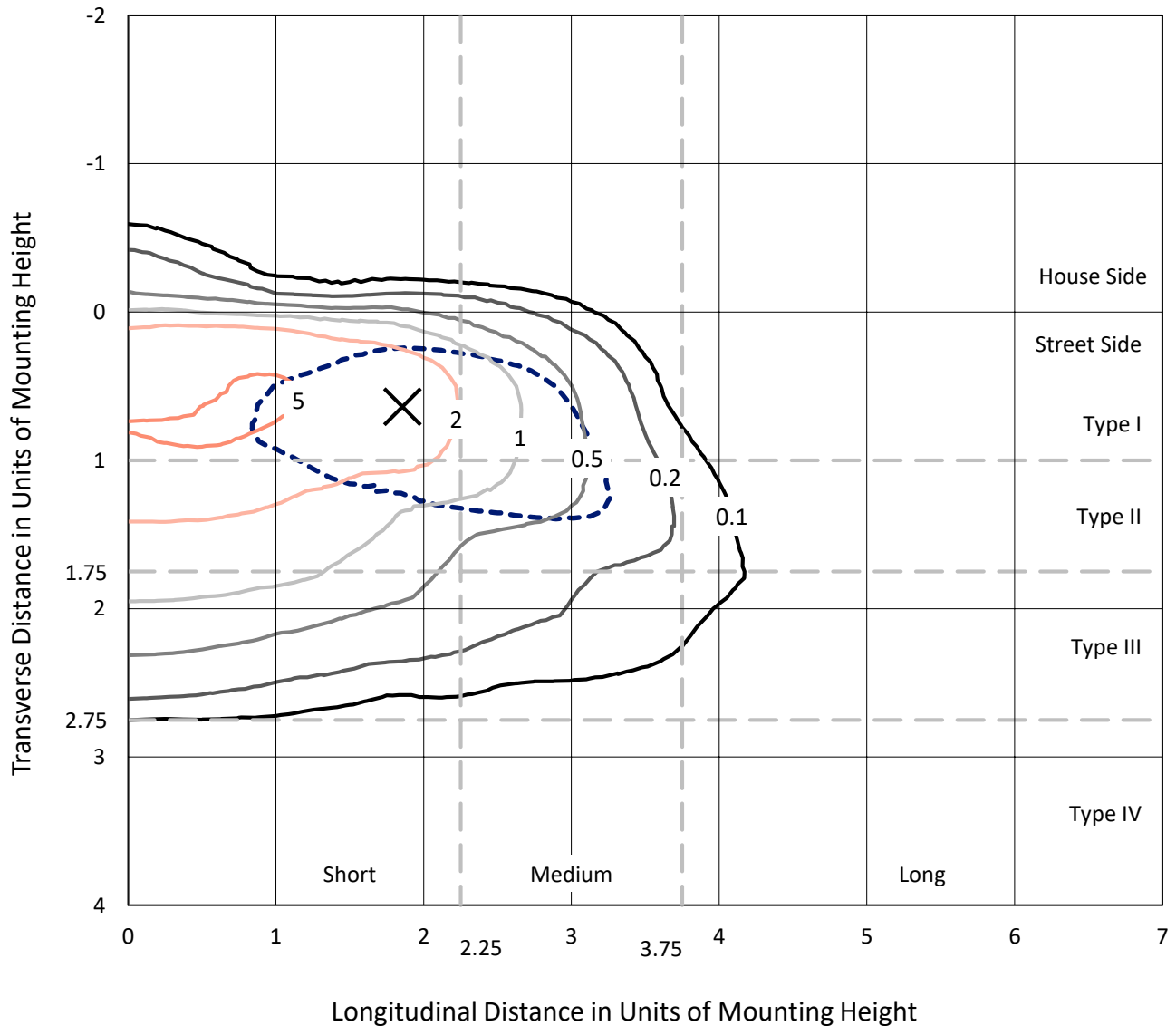
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

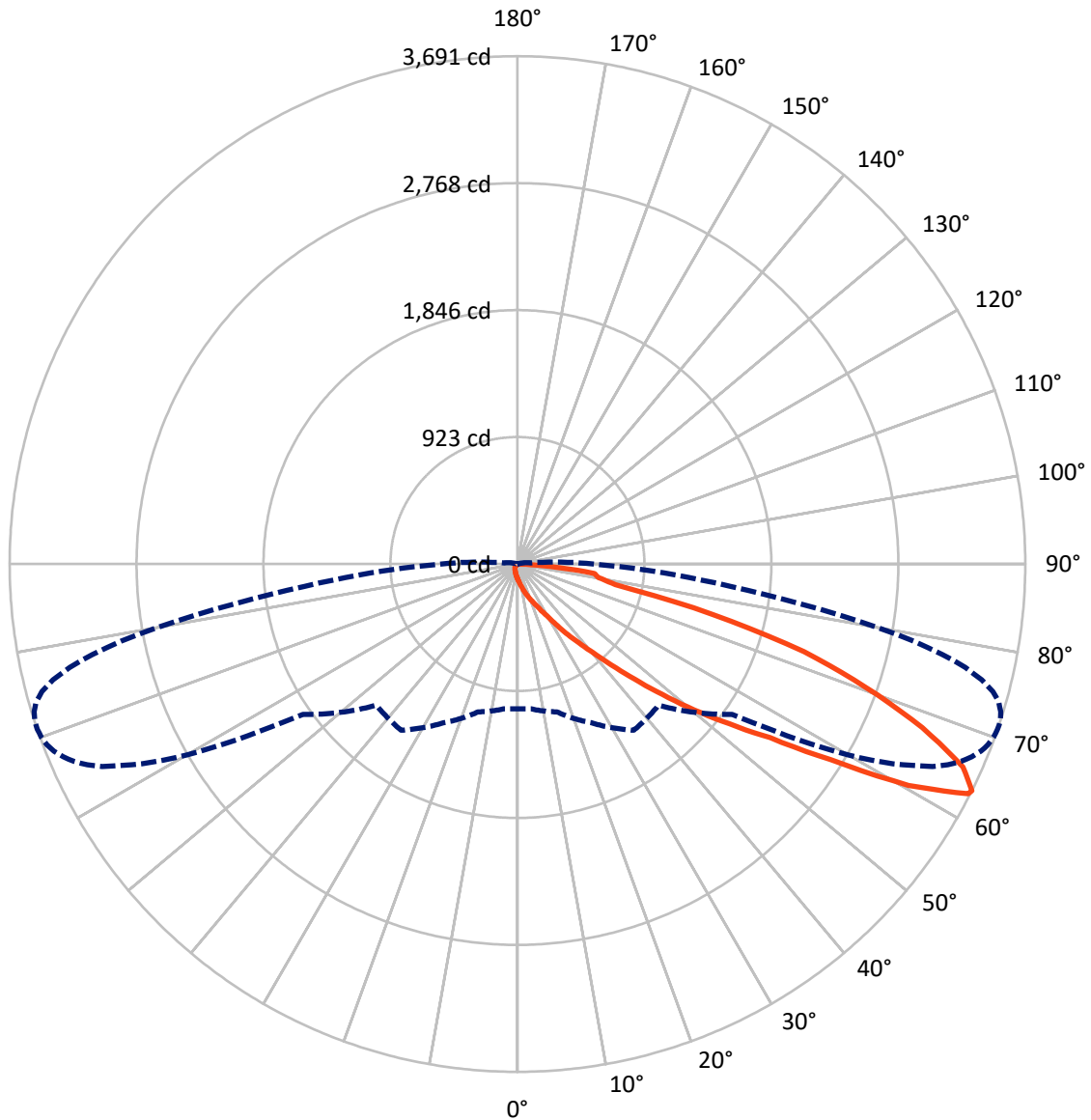
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.8 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 71-Deg Lateral - - - Horizontal Cone Through 63-Deg Vertical

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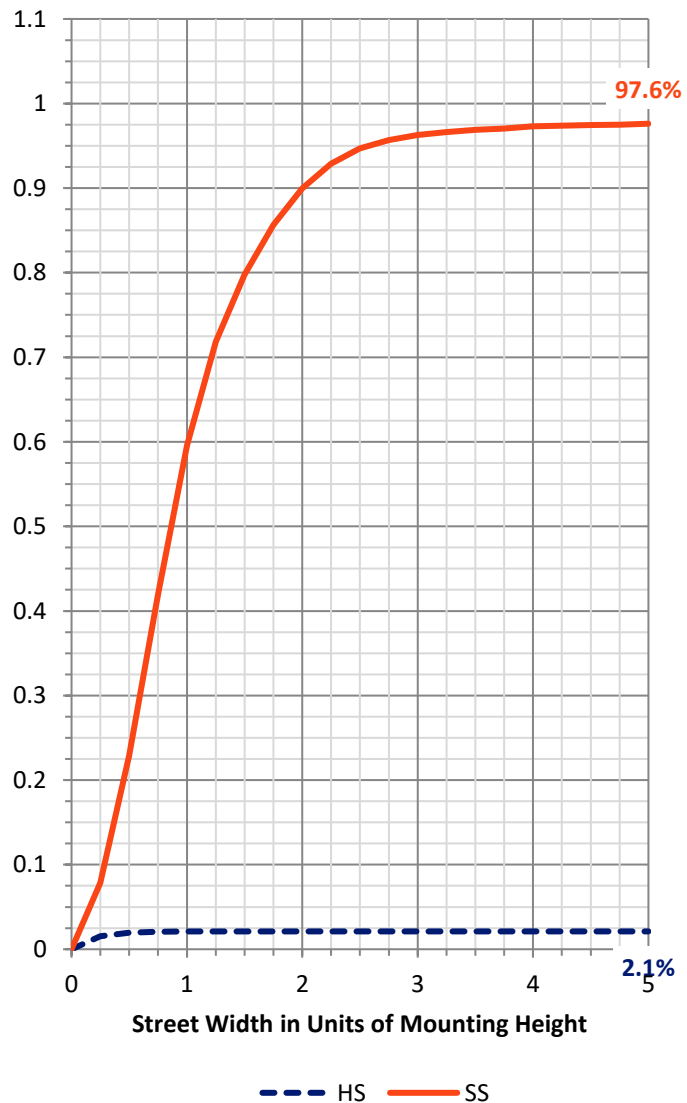
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	58.7	0.0	58.7
	% Fixture	2.1	0.0	2.1
Street Side	Lumens	2706.3	0.0	2706.3
	% Fixture	97.9	0.0	97.9
Total	Lumens	2765.0	0.0	2765.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	11.7	0.4
10°-20°	45.5	1.6
20°-30°	92.3	3.3
30°-40°	225.6	8.2
40°-50°	504.6	18.2
50°-60°	709.5	25.7
60°-70°	834.3	30.2
70°-80°	301.3	10.9
80°-90°	40.3	1.5
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°	2765.0	100.0
0°-180°	2765.0	100.0



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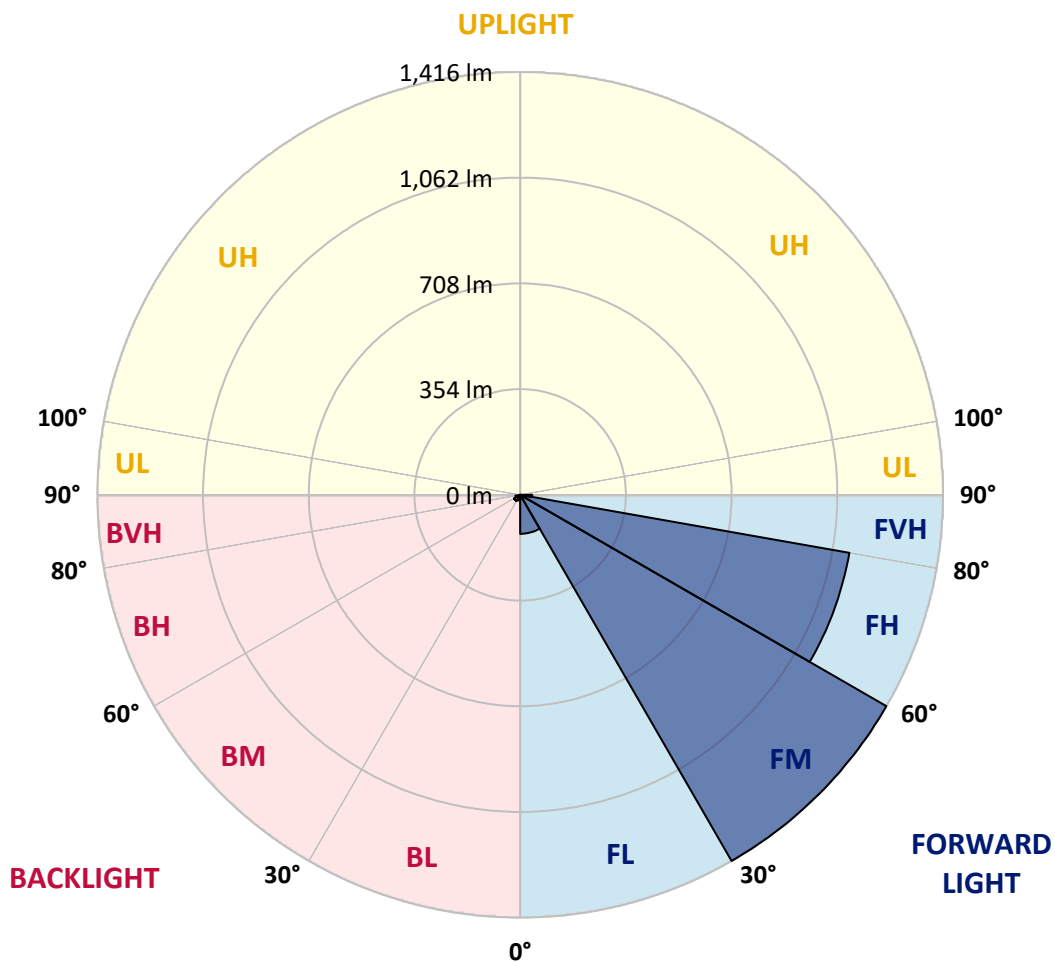
CATALOG NUMBER: VWM-F02-LED-E1-SL2-HSS-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	130.7	4.7			
FM (30°-60°)	1416.0	51.2			
FH (60°-80°)	1119.4	40.5			G1/1800
FVH (80°-90°)	40.2	1.5			G1/100
BL (0°-30°)	18.9	0.7	B0/110		
BM (30°-60°)	23.6	0.9	B0/220		
BH (60°-80°)	16.1	0.6	B0/110		G0/110
BVH (80°-90°)	0.1	0.0			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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1
2.5°	138.7	140.2	139.2	136.7	133.7	129.7	126.2	126.2	125.7	124.2	124.7
5°	182.0	182.5	180.5	174.4	168.9	160.3	150.8	149.8	148.8	147.3	146.8
7.5°	224.2	226.2	224.2	217.7	206.6	193.5	178.4	176.9	173.9	173.9	171.9
10°	267.4	267.4	265.4	257.9	247.8	229.2	210.1	207.6	204.1	203.1	200.1
12.5°	298.1	298.1	297.1	293.1	285.0	268.4	245.3	242.8	238.3	236.8	233.2
15°	310.1	310.1	310.6	314.2	314.7	307.1	283.0	281.0	276.5	272.4	270.9
17.5°	317.7	317.2	317.2	322.2	331.3	336.3	320.7	318.7	313.7	311.7	306.6
20°	334.3	333.3	330.2	330.2	338.8	356.4	356.4	355.9	350.4	348.8	346.3
22.5°	358.9	357.9	348.8	341.3	345.3	367.4	388.1	387.0	385.0	383.0	381.5
25°	399.1	395.6	380.0	357.9	354.4	378.0	412.2	414.7	416.2	416.2	417.2
27.5°	459.9	455.4	427.8	386.5	371.0	395.1	438.8	443.9	448.4	449.4	453.9
30°	544.4	536.3	496.6	436.3	400.6	420.2	478.0	483.6	490.1	492.1	499.1
32.5°	683.1	678.6	640.4	549.9	473.5	469.5	532.8	539.9	548.4	551.9	560.5
35°	894.2	895.2	864.1	782.6	677.1	621.8	630.8	636.9	639.9	650.4	655.0
37.5°	1037.5	1040.0	1047.0	1014.9	939.5	883.2	812.3	818.8	803.3	804.8	805.3
40°	1115.9	1124.0	1165.2	1196.3	1190.3	1157.6	1100.8	1104.3	1075.2	1068.7	1037.0
42.5°	1168.2	1178.7	1244.6	1341.1	1390.4	1420.0	1407.0	1405.4	1382.8	1374.3	1347.6
45°	1200.9	1210.4	1293.4	1435.6	1549.2	1635.7	1671.4	1675.4	1656.3	1647.7	1625.6
47.5°	1199.4	1210.4	1299.4	1470.8	1638.2	1776.4	1876.9	1882.0	1893.5	1886.0	1887.5
50°	1133.0	1143.6	1233.0	1411.0	1612.0	1840.7	2024.7	2040.8	2059.4	2072.0	2078.0
52.5°	1052.6	1060.1	1139.5	1308.4	1500.4	1814.1	2112.2	2139.8	2167.5	2191.1	2207.7
55°	1022.9	1031.5	1093.8	1234.0	1411.0	1702.5	2152.9	2193.6	2232.8	2271.5	2303.2
57.5°	1038.5	1046.5	1091.3	1198.8	1357.7	1584.9	2164.5	2227.8	2292.1	2355.0	2417.3
60°	1095.8	1104.3	1142.6	1231.5	1343.6	1517.0	2119.2	2224.3	2331.3	2440.9	2544.0
62.5°	1073.2	1076.7	1133.0	1288.8	1444.1	1459.2	1954.9	2101.6	2265.0	2433.9	2600.3
63°	1051.6	1055.6	1112.9	1273.2	1474.8	1450.7	1904.1	2058.9	2231.3	2413.3	2594.2
65°	953.6	954.1	997.8	1124.5	1440.6	1465.8	1677.9	1825.7	2023.7	2241.9	2470.6
67.5°	711.8	708.3	750.5	847.0	1131.0	1466.3	1440.1	1523.1	1660.8	1854.3	2059.4
70°	252.3	246.8	315.2	448.9	704.7	1199.4	1237.6	1243.1	1281.3	1385.8	1514.5
72.5°	81.9	83.4	100.5	164.4	324.7	807.3	1120.4	1103.3	1093.3	1092.8	1109.9
75°	32.7	33.2	40.2	72.9	145.8	389.1	981.2	990.7	994.3	999.3	1004.8
77.5°	15.6	17.1	22.6	40.7	72.4	192.5	702.2	783.1	829.4	865.1	886.7
80°	5.5	6.5	12.6	25.1	33.7	88.5	370.0	446.4	514.2	601.7	677.1
82.5°	0.0	0.0	2.5	17.6	18.6	35.7	151.8	177.9	203.6	263.9	338.8
85°	0.0	0.0	0.0	5.0	5.5	6.0	51.3	61.8	69.4	80.9	93.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.5	3.0	7.5	11.6
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):

	60°	61°	62°	64°	65°	66°	67°	68°	69°	70°	71°
0°	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1
2.5°	123.7	123.2	123.2	122.1	121.6	120.6	120.1	118.6	118.1	118.1	118.1
5°	146.3	144.3	143.3	140.7	139.2	138.7	136.2	135.2	133.7	134.2	131.7
7.5°	171.4	167.9	166.4	162.9	161.9	158.3	157.3	154.8	153.3	150.3	149.3
10°	199.1	194.5	192.0	186.5	185.0	182.5	179.5	176.4	173.9	170.9	169.4
12.5°	230.7	226.7	224.7	217.2	213.6	210.1	206.1	202.1	198.0	195.5	192.0
15°	267.9	261.4	259.4	252.3	246.3	241.8	236.3	231.2	228.2	223.2	219.7
17.5°	304.6	298.1	296.6	286.0	279.5	276.5	270.4	263.9	258.4	253.3	247.8
20°	341.3	336.8	332.8	322.7	315.7	310.6	302.6	296.1	291.5	284.5	277.5
22.5°	378.0	373.5	370.5	359.9	353.4	346.3	339.3	332.3	325.7	317.2	309.1
25°	415.7	412.7	411.2	401.6	395.6	389.1	382.0	374.0	365.9	356.4	347.8
27.5°	454.9	455.9	452.9	450.9	444.4	439.8	428.8	423.2	417.2	405.6	395.1
30°	504.7	507.7	506.7	508.2	504.2	501.2	492.6	485.6	478.5	467.5	455.4
32.5°	567.5	571.5	573.5	579.1	577.1	576.1	573.5	563.5	558.5	539.4	534.3
35°	664.5	662.5	671.1	675.6	673.6	672.6	669.5	664.0	658.0	644.4	631.8
37.5°	790.7	792.7	795.7	786.7	780.6	780.1	771.1	765.6	757.0	741.9	726.8
40°	1021.9	1009.3	995.3	957.1	940.5	930.9	904.3	896.7	882.2	861.6	846.0
42.5°	1322.5	1309.9	1267.7	1203.9	1169.7	1122.4	1100.8	1074.2	1053.6	1019.9	1001.8
45°	1621.1	1584.9	1579.9	1505.5	1463.2	1400.9	1362.2	1317.5	1270.7	1226.5	1194.3
47.5°	1872.9	1864.9	1840.2	1795.0	1755.8	1703.5	1653.8	1584.9	1536.6	1473.8	1416.0
50°	2074.5	2074.0	2064.9	2038.8	2006.1	1963.9	1920.2	1861.9	1807.1	1730.2	1668.3
52.5°	2225.3	2233.3	2236.3	2228.3	2215.7	2178.5	2156.4	2107.7	2061.4	1996.1	1929.2
55°	2335.9	2365.5	2380.6	2397.7	2394.2	2381.1	2380.1	2348.4	2327.3	2275.6	2228.3
57.5°	2472.6	2521.4	2568.1	2651.0	2654.1	2683.2	2698.3	2713.4	2717.4	2696.8	2681.2
60°	2646.5	2746.0	2834.5	3007.9	3053.2	3124.5	3170.8	3221.1	3263.8	3267.3	3266.3
62.5°	2769.2	2922.5	3065.2	3322.6	3410.6	3493.0	3554.8	3603.6	3633.2	3663.4	3677.5
63°	2772.7	2940.6	3092.4	3357.8	3450.3	3528.7	3587.5	3632.7	3663.9	3682.0	3691.0
65°	2687.7	2891.3	3072.3	3336.7	3423.6	3502.6	3533.2	3562.9	3578.0	3585.0	3558.3
67.5°	2278.1	2477.1	2688.2	2983.8	3058.2	3152.7	3177.8	3192.9	3199.9	3198.4	3175.8
70°	1703.5	1870.4	2105.1	2442.9	2541.5	2634.0	2691.3	2715.9	2723.9	2721.4	2687.7
72.5°	1189.3	1287.3	1480.8	1856.8	1991.0	2109.7	2180.5	2217.2	2224.8	2209.7	2178.5
75°	998.8	1003.8	1047.5	1253.1	1378.8	1505.5	1585.4	1608.5	1593.4	1547.7	1468.3
77.5°	891.7	902.8	902.8	933.4	958.1	993.3	1000.8	944.5	879.2	794.7	726.3
80°	748.0	786.7	813.8	836.4	838.9	831.9	813.3	781.6	731.4	667.0	595.7
82.5°	454.4	530.8	562.0	678.6	735.9	774.6	771.6	729.4	691.2	624.3	563.5
85°	114.6	123.7	134.2	174.4	195.5	238.8	265.9	278.5	283.0	259.9	235.2
87.5°	11.1	7.5	12.6	9.6	13.6	10.1	13.6	12.6	15.6	16.6	18.1
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):

	72°	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°
0°	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1
2.5°	117.1	116.6	116.1	115.6	115.1	114.6	113.6	113.6	112.6	112.1	111.6
5°	130.2	129.2	128.7	127.7	126.2	125.2	123.7	121.6	120.1	119.6	118.6
7.5°	146.8	144.3	143.3	141.8	139.7	136.7	134.7	133.2	130.7	129.2	126.2
10°	165.4	162.9	159.8	156.8	153.8	150.3	147.8	145.8	141.8	139.7	136.2
12.5°	189.0	184.5	181.0	176.9	172.9	168.9	165.9	159.8	156.3	151.8	148.8
15°	213.1	209.1	205.1	200.1	194.0	187.5	184.5	178.9	174.4	167.4	163.4
17.5°	242.3	234.7	228.7	222.7	217.2	211.1	205.1	196.5	190.0	184.0	175.9
20°	270.9	261.9	255.4	247.3	239.3	229.7	222.7	216.6	207.6	199.6	191.0
22.5°	301.6	292.5	282.0	274.0	262.9	255.4	245.8	235.7	226.7	216.1	205.6
25°	338.8	329.2	317.2	306.6	294.1	283.5	271.9	260.4	249.3	237.3	223.7
27.5°	384.5	374.5	361.4	348.8	332.3	319.2	308.1	292.5	278.5	263.4	247.8
30°	442.3	431.3	415.2	397.1	380.5	365.9	350.4	329.7	314.2	296.1	276.0
32.5°	517.7	504.7	483.1	466.0	445.4	426.3	404.6	384.0	361.9	338.3	315.2
35°	612.7	600.7	575.5	550.4	527.8	505.2	478.0	454.4	423.2	394.6	364.9
37.5°	711.3	689.7	666.5	639.4	611.2	584.1	550.9	518.2	482.6	451.4	414.2
40°	823.9	797.7	778.6	749.5	709.8	671.1	640.4	599.7	554.9	513.2	469.5
42.5°	978.2	949.0	914.8	870.6	842.0	796.7	757.0	708.8	649.9	603.2	550.4
45°	1156.6	1116.9	1083.7	1041.0	1006.3	950.0	903.8	839.4	780.6	719.3	655.0
47.5°	1360.2	1310.9	1262.7	1220.5	1165.2	1109.9	1051.1	982.7	907.3	839.9	763.5
50°	1593.9	1524.1	1457.2	1402.9	1327.0	1263.2	1199.4	1122.4	1039.0	961.6	874.6
52.5°	1853.8	1772.9	1684.4	1601.0	1513.0	1431.1	1354.2	1265.7	1172.7	1078.2	981.2
55°	2167.5	2106.7	2002.6	1896.5	1778.9	1669.3	1570.3	1460.7	1347.6	1223.5	1121.4
57.5°	2658.6	2628.9	2542.0	2435.9	2282.6	2149.4	1981.5	1847.3	1683.4	1512.5	1380.8
60°	3324.1	3287.4	3238.7	3152.7	3031.1	2850.1	2665.1	2456.5	2207.2	1970.4	1745.7
62.5°	3679.0	3665.9	3626.2	3566.9	3453.3	3310.5	3124.0	2894.8	2613.3	2325.8	2039.3
63°	3689.5	3673.0	3638.8	3578.5	3478.4	3340.2	3157.2	2934.5	2659.1	2366.0	2073.5
65°	3546.8	3540.3	3505.6	3439.7	3371.4	3265.8	3124.0	2932.5	2701.3	2424.3	2133.3
67.5°	3145.7	3126.1	3072.8	3052.7	3004.9	2931.5	2823.5	2691.8	2526.4	2308.7	2057.4
70°	2660.6	2631.4	2564.6	2528.9	2470.6	2424.3	2358.5	2264.5	2162.5	2010.6	1823.2
72.5°	2146.4	2086.0	2024.7	1931.7	1850.3	1767.9	1695.0	1628.6	1516.5	1455.2	1313.0
75°	1393.9	1284.3	1179.2	1038.5	911.8	799.7	690.7	635.4	520.3	473.5	406.7
77.5°	661.5	600.2	517.7	453.9	372.5	304.1	248.3	186.5	146.3	114.6	87.5
80°	533.8	482.1	432.3	374.5	313.2	249.8	191.5	143.3	101.5	70.4	49.8
82.5°	476.0	419.7	358.4	318.7	277.0	226.7	186.0	151.8	112.1	81.9	55.8
85°	185.0	155.8	120.1	98.0	76.4	62.8	56.8	39.2	30.7	24.1	18.6
87.5°	16.1	13.1	10.6	7.0	7.5	4.0	4.5	3.0	2.5	2.5	2.0
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):

	83°	84°	85°	86°	87°	88°	89°	90°	95°	105°	115°
0°	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1
2.5°	111.1	110.6	110.1	109.1	109.1	108.1	107.6	107.1	104.6	99.0	94.5
5°	116.6	115.6	114.6	113.1	112.1	110.6	109.6	108.1	102.5	92.0	82.9
7.5°	124.7	122.6	121.1	118.1	116.6	114.6	113.1	110.6	101.5	85.5	72.9
10°	134.2	130.7	128.2	124.7	121.6	119.1	116.6	113.1	100.5	78.4	63.8
12.5°	145.8	141.8	136.7	132.7	128.7	125.2	121.6	117.1	99.0	72.4	56.8
15°	157.3	151.3	147.8	142.3	136.7	131.7	126.7	122.6	99.5	65.8	50.8
17.5°	170.4	164.4	156.8	150.8	144.8	138.2	132.2	124.2	97.0	60.8	46.2
20°	183.0	174.4	167.4	159.8	151.3	143.3	135.7	128.7	95.0	55.8	42.2
22.5°	196.5	186.5	177.4	167.9	157.3	148.3	139.2	130.2	91.5	51.3	38.7
25°	213.1	201.6	188.5	176.9	165.9	154.8	143.3	132.2	88.0	47.3	36.2
27.5°	233.2	218.2	205.1	190.5	174.9	160.9	148.3	136.2	84.4	44.2	33.7
30°	258.9	241.3	222.7	204.1	187.5	171.4	153.8	138.7	80.9	41.2	31.2
32.5°	293.1	270.9	248.3	226.7	204.6	184.0	165.4	145.8	78.9	38.7	28.7
35°	338.3	309.6	282.0	254.8	228.2	203.1	178.9	156.8	78.9	35.7	25.6
37.5°	381.0	347.8	312.7	279.0	247.3	218.2	189.5	162.9	74.9	33.2	23.1
40°	427.3	387.6	346.3	306.6	268.4	232.2	199.6	168.9	71.4	30.2	20.6
42.5°	498.1	447.9	394.1	347.8	302.1	257.4	216.6	180.5	66.9	27.1	18.1
45°	591.1	527.3	464.0	407.7	349.4	294.6	246.3	201.6	65.8	24.6	15.6
47.5°	690.7	615.3	540.9	469.0	400.6	336.8	279.0	225.2	65.8	22.1	13.6
50°	789.7	695.2	615.8	532.3	455.4	380.0	311.1	249.8	66.4	20.1	11.1
52.5°	879.2	778.1	689.2	592.6	507.7	420.2	345.3	274.0	65.3	17.6	9.0
55°	1003.3	884.7	781.6	675.1	575.5	477.0	392.1	310.1	65.8	15.6	7.5
57.5°	1232.0	1092.8	968.6	828.9	714.3	587.1	484.1	384.5	71.9	13.1	5.5
60°	1560.3	1379.3	1204.9	1034.5	888.7	737.4	603.7	486.6	84.4	10.6	4.0
62.5°	1780.9	1544.2	1336.1	1148.1	978.7	820.3	674.6	541.4	93.0	8.5	2.5
63°	1803.6	1558.8	1349.6	1155.6	982.7	824.4	677.6	545.4	93.5	8.0	2.5
65°	1846.3	1583.9	1357.2	1157.1	978.7	818.8	675.6	544.9	94.5	6.5	2.0
67.5°	1797.5	1545.2	1313.5	1113.9	943.5	786.2	650.4	524.8	94.0	4.5	1.5
70°	1607.5	1398.4	1194.8	1008.8	854.0	711.8	592.1	478.5	86.5	3.0	1.0
72.5°	1180.3	1038.0	880.2	746.0	643.4	534.3	455.9	359.4	66.9	2.0	0.5
75°	349.9	318.7	267.9	236.3	208.6	172.4	153.3	119.6	34.2	1.0	0.0
77.5°	69.9	63.3	56.8	51.8	48.8	41.7	39.7	32.7	14.1	0.5	0.0
80°	36.7	30.2	25.6	22.6	19.6	16.1	13.6	11.1	2.5	0.0	0.0
82.5°	35.2	23.6	17.1	14.1	12.1	9.6	7.5	5.5	1.5	0.0	0.0
85°	13.1	10.1	7.5	6.0	5.0	4.5	3.5	3.0	0.0	0.0	0.0
87.5°	2.0	1.5	1.5	1.0	1.0	0.5	0.5	0.5	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):

	125°	135°	145°	155°	165°	175°	180°
0°	106.1	106.1	106.1	106.1	106.1	106.1	106.1
2.5°	90.0	86.0	83.9	81.4	81.4	80.9	81.9
5°	74.9	69.4	65.3	62.3	62.8	61.3	61.8
7.5°	63.3	57.8	54.3	52.3	51.8	51.3	51.3
10°	54.8	49.8	46.7	45.2	44.7	44.7	44.7
12.5°	48.8	43.7	41.2	40.2	40.2	39.7	39.7
15°	43.7	39.7	37.2	36.2	36.2	35.7	36.2
17.5°	39.7	35.7	33.7	32.7	32.7	32.2	32.2
20°	36.2	32.7	30.7	29.2	29.2	28.7	29.2
22.5°	33.2	29.7	27.1	26.1	25.6	25.1	25.6
25°	30.2	26.6	24.1	22.6	22.1	22.1	21.6
27.5°	27.6	24.1	21.1	19.6	19.1	19.1	18.6
30°	25.1	21.1	18.1	16.6	16.1	16.1	16.1
32.5°	22.6	18.1	15.6	14.1	13.6	13.6	13.6
35°	20.1	15.6	13.1	11.6	11.1	11.1	11.1
37.5°	17.1	13.1	10.1	9.0	8.5	8.0	8.0
40°	14.6	10.1	7.5	6.5	5.5	5.5	5.5
42.5°	12.1	8.0	5.5	4.0	3.5	3.0	3.5
45°	10.1	6.0	3.5	2.0	1.5	1.5	1.5
47.5°	8.0	4.0	1.5	0.5	0.5	0.5	0.5
50°	6.0	2.5	0.5	0.0	0.0	0.5	0.5
52.5°	4.5	1.5	0.0	0.0	0.0	0.0	0.0
55°	2.5	0.5	0.0	0.0	0.0	0.0	0.0
57.5°	1.5	0.0	0.0	0.0	0.0	0.0	0.0
60°	1.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.5	0.0	0.0	0.0	0.0	0.0	0.0
63°	0.5	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.5	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	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

(END OF REPORT)