

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: P597036

Luminaire Tested: **MSA-SA3B-835-U-SLL**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597036
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-24)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3B-835-U-SLL
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10382 lumens
Efficiency: N/A
Efficacy: 82.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

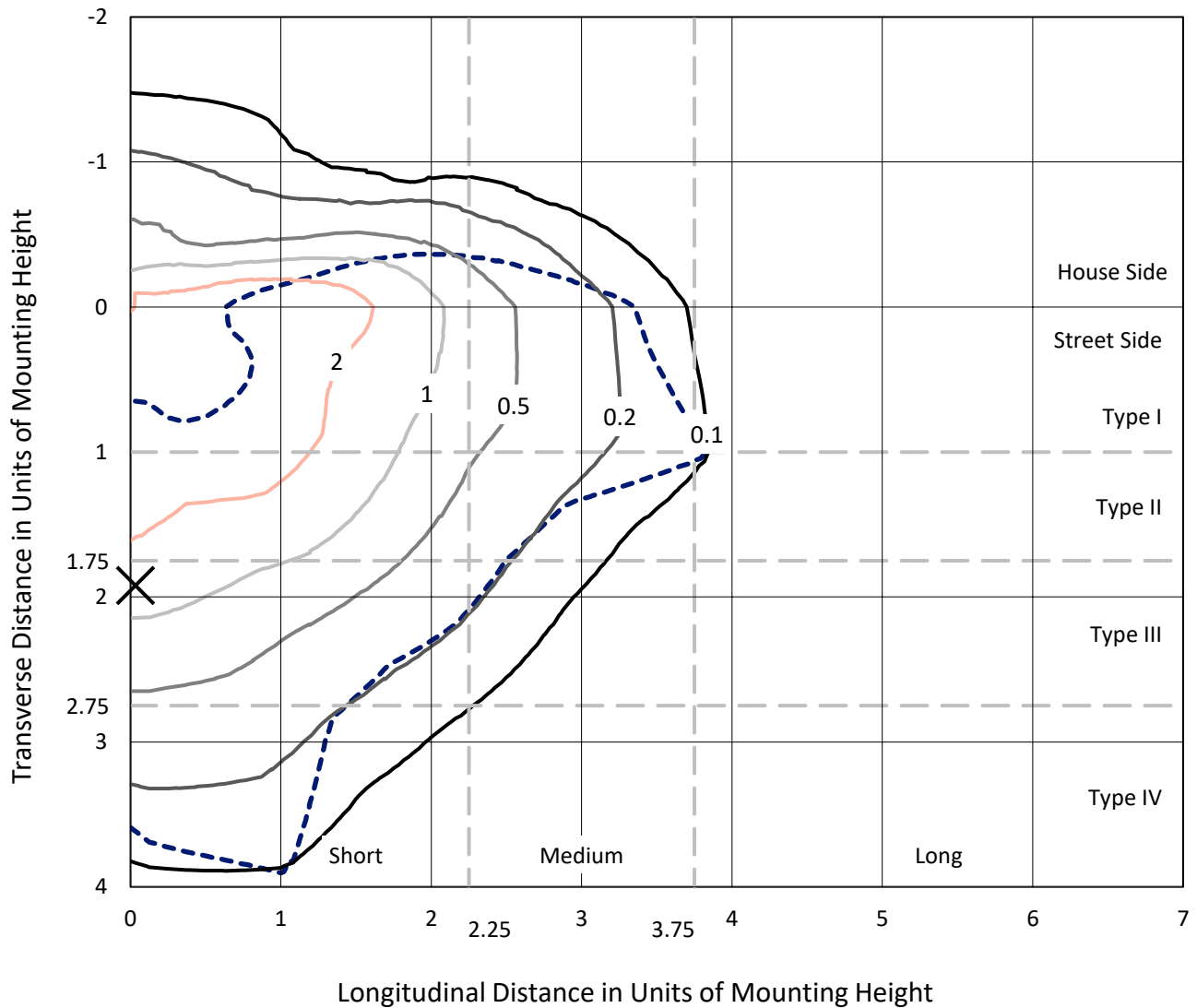
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

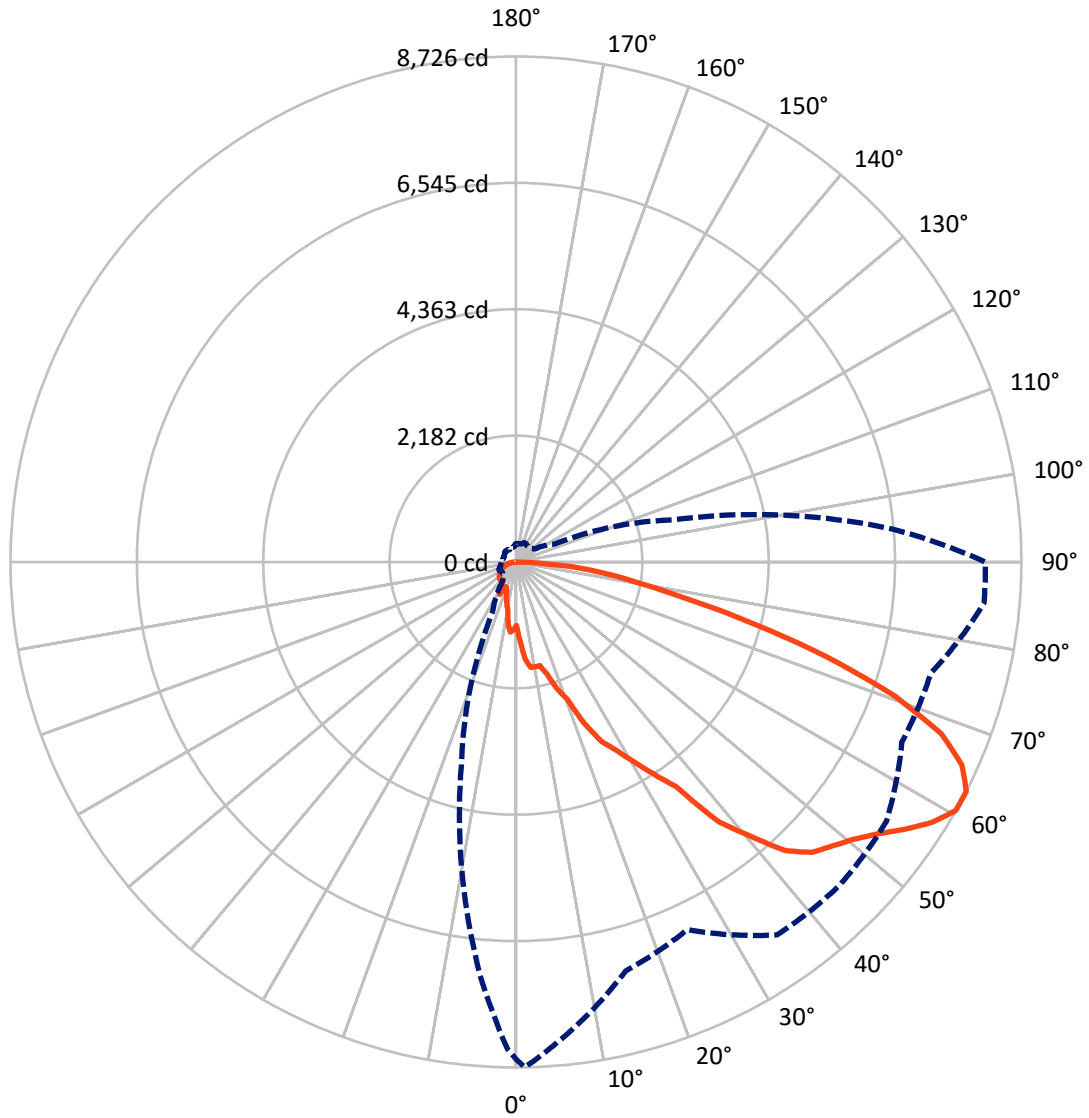
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 1-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical



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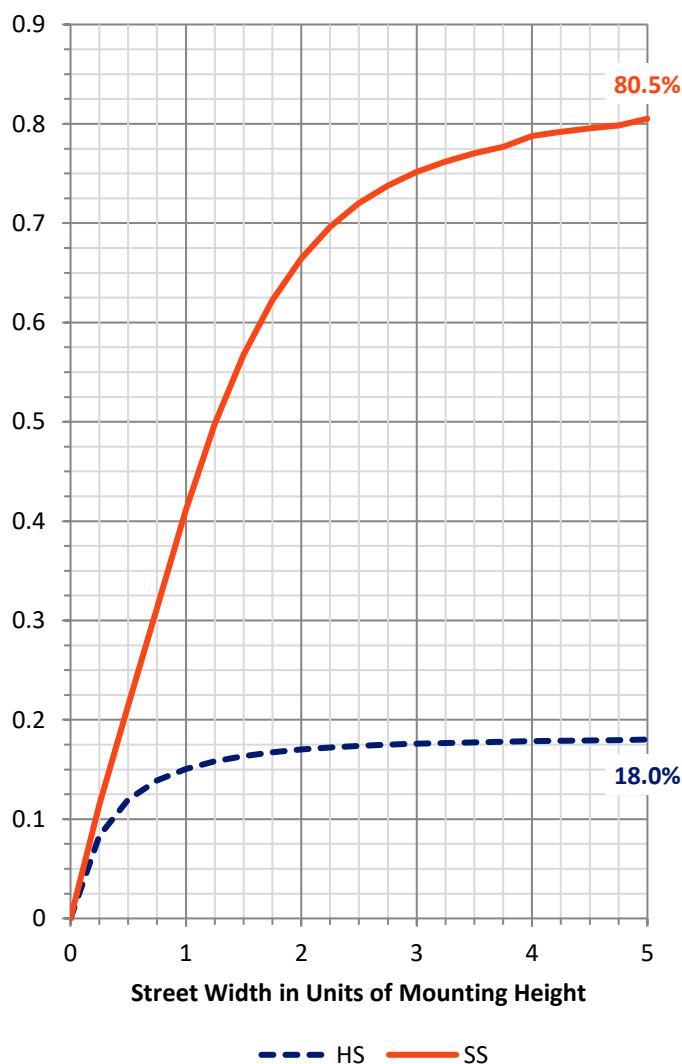
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1890.5	0.0	1890.5
	% Fixture	18.2	0.0	18.2
Street Side	Lumens	8491.5	0.0	8491.5
	% Fixture	81.8	0.0	81.8
Total	Lumens	10382.0	0.0	10382.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.5	1.2
10°-20°	364.7	3.5
20°-30°	643.9	6.2
30°-40°	1002.9	9.7
40°-50°	1651.4	15.9
50°-60°	2356.9	22.7
60°-70°	2499.3	24.1
70°-80°	1380.5	13.3
80°-90°	357.1	3.4
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°	10382.0	100.0
0°-180°	10382.0	100.0

Coefficient of Utilization

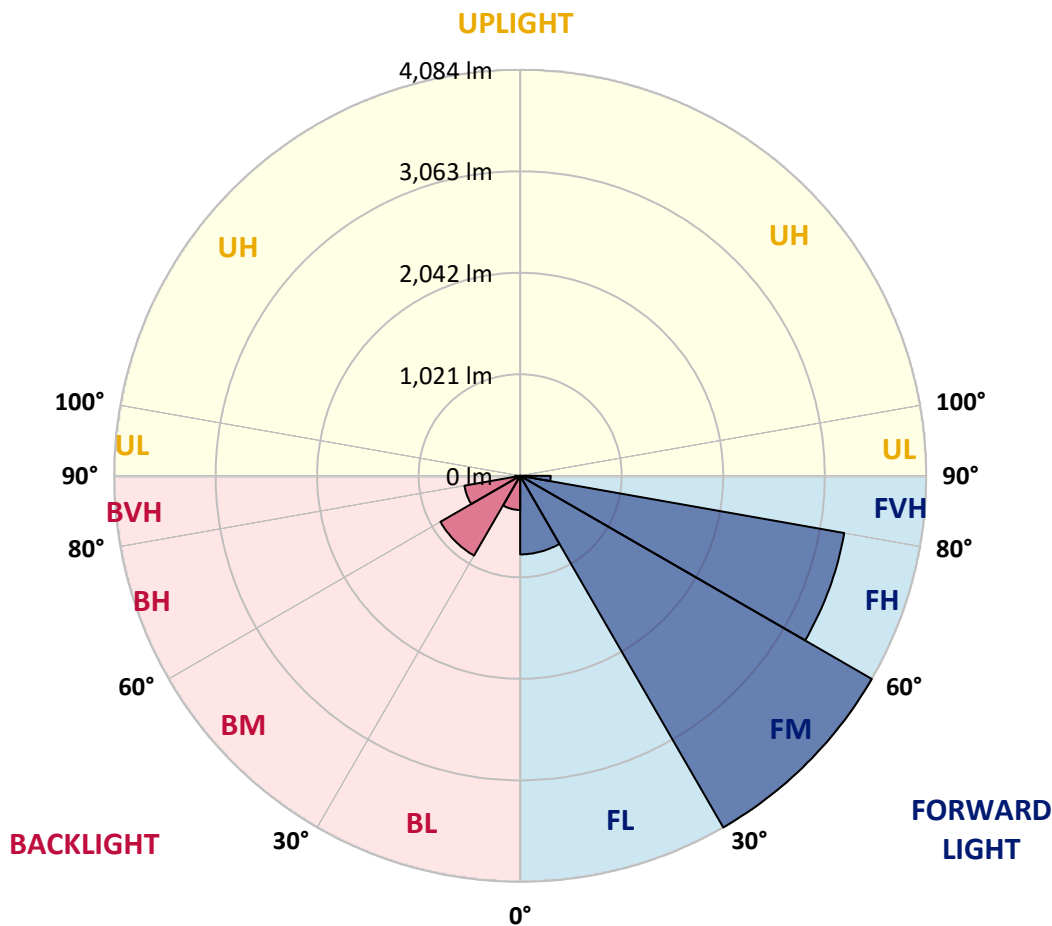


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	790.2	7.6			
FM (30°-60°)	4084.4	39.3			
FH (60°-80°)	3310.2	31.9			G2/5000
FVH (80°-90°)	306.7	3.0			G3/500
BL (0°-30°)	343.8	3.3	B1/500		
BM (30°-60°)	926.8	8.9	B1/1000		
BH (60°-80°)	569.6	5.5	B2/1000		G2/1000
BVH (80°-90°)	50.3	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8
2.5°	1346.2	1357.8	1334.1	1307.4	1197.0	1303.3	1271.6	1330.6	1311.4	1183.4	1417.7
5°	1663.6	1684.7	1661.6	1741.7	1746.7	1767.4	1576.4	1695.3	1654.0	1643.4	1761.8
7.5°	1816.7	1838.4	1897.3	2039.9	2151.3	2050.5	1939.2	1914.5	1882.2	1798.1	1869.6
10°	1826.3	1838.4	1917.5	2219.8	2273.7	2345.2	2273.2	2103.4	2033.4	1850.5	1796.1
12.5°	1797.6	1835.4	1937.6	2305.9	2466.1	2544.2	2561.9	2372.9	2201.1	1992.6	1964.8
15°	1990.5	2004.1	2150.7	2367.4	2477.7	2543.7	2601.2	2484.8	2430.9	2265.6	2043.4
17.5°	2267.1	2304.9	2424.8	2504.9	2579.5	2592.1	2544.7	2499.4	2413.7	2634.4	2398.1
20°	2454.5	2527.6	2674.7	2689.8	2533.1	2560.8	2554.3	2557.3	2508.5	2916.5	2786.6
22.5°	2950.3	3029.4	3049.5	2961.9	2666.6	2540.2	2565.4	2638.4	2830.9	3180.5	3327.6
25°	3399.2	3429.9	3613.8	3388.1	2917.5	2642.0	2600.6	2789.6	3103.4	3624.9	3729.7
27.5°	3633.5	3673.3	3795.7	3304.5	2948.8	2511.0	2414.2	2701.9	3021.8	3415.8	3875.8
30°	3933.2	3996.7	4163.5	3388.1	3043.0	2596.6	2382.5	2657.6	3011.3	3552.8	4185.1
32.5°	4242.1	4365.5	4489.4	3682.8	3029.9	2727.6	2585.5	2607.7	3107.0	3840.0	4505.5
35°	4651.1	4760.0	4866.8	3853.1	3293.9	2836.9	2695.9	2930.6	3352.8	4173.0	4952.4
37.5°	5525.7	5698.1	5416.4	4337.8	3581.1	3329.7	3075.2	3214.3	3612.8	4450.6	5682.4
40°	6083.0	6212.4	5940.4	4667.8	4086.9	3661.7	3619.8	3631.4	3971.0	4688.4	6173.6
42.5°	6636.6	6812.0	6379.2	5120.7	4698.5	4347.3	4131.7	4117.1	4372.0	5115.7	6732.4
45°	7049.8	7153.0	6529.8	5502.6	5354.5	5094.0	4932.3	4675.8	4899.0	5411.4	7078.0
47.5°	7246.2	7330.4	6772.2	5724.8	5779.7	5793.3	6085.0	5647.7	5359.5	5611.4	7259.3
50°	7491.6	7531.4	6914.7	5920.2	6183.7	6781.2	6851.3	6110.2	5807.9	5829.5	7366.7
52.5°	7784.8	7801.4	7122.8	6145.9	6592.3	7431.1	7322.8	6894.1	6234.6	6228.1	7568.7
55°	8153.6	8143.5	7383.8	6449.7	6884.0	7817.6	7735.4	7423.1	6699.6	6558.0	7883.1
57.5°	8481.6	8475.5	7729.9	6729.3	7129.4	8016.1	8040.2	7957.6	7016.0	6794.3	8223.6
60°	8642.3	8719.4	8123.9	7035.2	7145.0	8105.7	8114.8	7983.3	7369.7	7097.6	8314.3
62.5°	8579.8	8726.4	8317.3	7310.2	7001.4	7860.9	7898.7	7808.0	7353.6	7416.0	8111.8
65°	8295.7	8465.0	8149.6	7456.8	6913.2	7450.8	7460.4	7231.1	7123.3	7627.1	7637.2
67.5°	7762.7	7921.3	7615.5	7223.1	6309.7	6345.4	6559.1	6577.7	6420.5	7467.9	6970.7
70°	6829.6	6941.4	6750.0	6645.7	5273.8	5064.3	5296.0	5395.3	5466.8	6893.1	6170.6
72.5°	5406.9	5623.0	5653.2	5721.2	4246.1	3896.9	4068.7	3921.6	4387.7	5866.8	5041.6
75°	4000.2	4182.6	4378.6	4757.9	3346.8	2917.5	2896.4	2821.3	3256.6	4718.1	3739.3
77.5°	2826.9	2943.2	3093.9	3800.7	2525.6	2247.0	2260.1	2184.0	2351.8	3565.9	2583.0
80°	2026.3	2087.3	2157.3	2503.9	1863.1	1938.6	1940.7	1868.6	1748.7	2421.8	1724.0
82.5°	1443.9	1491.3	1571.4	1651.5	1389.0	1589.0	1587.5	1583.0	1386.5	1636.9	1078.6
85°	804.1	867.6	1006.6	1293.8	1003.1	1136.1	999.0	1100.3	1017.7	1089.7	546.1
87.5°	56.4	50.4	225.2	749.7	468.0	342.1	179.4	355.2	455.4	569.3	76.1
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8
2.5°	1466.1	1483.7	1414.7	1310.9	1339.1	1308.4	1269.6	1209.1	1084.7	1161.8	1162.3
5°	1760.8	1693.8	1639.9	1589.0	1503.4	1373.9	1356.8	1253.0	1194.5	1225.3	1220.7
7.5°	1853.0	1757.8	1676.7	1494.8	1336.1	1135.1	1074.6	1013.2	987.5	1062.0	1091.7
10°	1751.7	1652.5	1572.9	1351.7	1243.9	1118.5	952.2	867.1	816.7	836.3	847.9
12.5°	1833.4	1732.1	1481.7	1358.3	1180.4	1103.8	958.2	833.3	758.7	776.9	755.2
15°	1911.9	1775.4	1525.0	1279.2	1135.1	1024.2	906.3	777.4	689.7	658.5	641.8
17.5°	2199.1	1972.4	1520.0	1234.8	1069.6	942.1	800.0	659.0	600.5	568.3	540.6
20°	2549.3	2233.4	1547.2	1189.0	1000.1	839.3	684.7	553.7	512.9	491.7	484.2
22.5°	2965.9	2567.9	1702.9	1182.4	934.6	764.3	621.2	539.6	493.7	470.6	461.0
25°	3296.9	2914.0	1817.7	1226.8	931.0	702.3	582.9	599.5	578.4	585.4	529.5
27.5°	3618.3	3008.2	1753.2	1207.1	837.3	592.5	573.8	608.6	626.7	632.3	630.3
30°	3889.9	3406.2	1767.4	1096.3	707.3	482.6	439.3	456.4	506.3	585.4	600.5
32.5°	4287.4	3596.7	1887.8	1029.3	632.3	431.8	383.4	376.8	388.4	417.2	441.8
35°	4752.4	4035.0	1921.5	1011.6	580.4	409.1	375.3	360.2	366.3	387.9	393.0
37.5°	5619.5	4354.4	2046.5	990.0	561.2	395.5	369.3	363.7	376.8	394.5	404.6
40°	6097.6	4928.7	2052.5	971.3	536.6	389.9	373.3	370.8	378.9	403.0	409.1
42.5°	6734.9	5256.2	2147.2	949.7	528.0	397.5	381.4	380.4	387.4	401.5	412.6
45°	7123.3	5475.4	2152.3	937.1	526.0	430.8	392.0	388.4	386.9	395.5	405.6
47.5°	7373.7	5791.3	2213.7	923.0	538.1	439.3	404.6	389.4	384.4	387.9	395.5
50°	7611.0	6043.7	2330.1	921.0	550.7	430.8	426.7	388.9	378.9	377.4	382.9
52.5°	7902.2	6458.8	2473.7	940.1	547.6	418.2	443.3	386.9	368.8	365.3	370.8
55°	8325.9	6903.7	2626.3	924.0	516.4	394.0	427.2	385.4	358.2	351.7	356.7
57.5°	8600.5	7158.6	2797.1	910.4	469.0	375.8	412.6	386.4	359.2	344.6	347.6
60°	8509.3	7021.6	2864.1	827.3	424.2	361.7	377.9	378.4	350.1	336.5	339.1
62.5°	8106.2	6525.3	2801.7	730.5	391.0	341.6	342.1	363.2	323.9	314.4	318.4
65°	7543.0	5908.1	2548.8	667.5	375.3	320.4	312.4	318.9	288.7	281.6	289.7
67.5°	6851.8	5147.4	2172.4	601.0	369.8	291.7	282.1	279.6	260.5	252.4	260.5
70°	5984.7	4310.1	1736.6	554.2	348.6	260.5	252.9	250.4	234.3	228.2	235.3
72.5°	4810.3	3365.4	1340.1	518.4	325.5	231.8	225.2	222.2	208.6	200.0	208.6
75°	3421.3	2571.9	995.5	463.5	292.7	202.5	195.0	190.9	178.3	170.3	177.8
77.5°	2431.4	1930.6	695.3	383.4	241.3	171.3	166.8	160.2	149.1	139.6	147.1
80°	1797.6	1379.4	448.4	295.7	184.4	137.0	134.5	130.0	119.4	107.8	113.4
82.5°	1183.4	994.5	256.9	200.5	134.0	98.7	100.8	97.7	87.7	75.6	78.6
85°	530.0	588.9	136.5	110.3	87.2	59.4	65.0	63.0	55.4	43.8	44.8
87.5°	50.9	99.2	41.8	40.3	32.2	18.6	23.2	19.6	16.6	10.6	8.1
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8
2.5°	1179.9	1108.9	1037.8	1081.2	1082.2	1093.8	1095.3	1052.5	1086.7	1112.9	1140.1
5°	1198.6	1152.2	1154.7	1112.9	1090.2	1119.5	1113.4	1101.8	1122.5	1151.2	1186.0
7.5°	1063.5	1033.3	1028.3	988.0	890.2	868.6	886.7	894.3	922.0	966.3	1003.6
10°	830.3	890.2	822.7	807.1	781.4	731.0	701.8	698.3	757.2	793.0	824.2
12.5°	748.2	733.0	725.0	682.2	682.2	628.8	611.6	627.2	717.9	743.6	783.9
15°	637.3	626.2	588.9	567.8	557.7	536.1	554.2	569.3	653.9	656.0	698.3
17.5°	529.0	522.4	487.2	483.2	473.1	463.5	480.1	516.4	562.2	554.2	573.8
20°	473.1	450.4	418.2	429.7	419.2	411.6	404.6	455.9	488.2	498.8	510.4
22.5°	459.0	417.7	398.5	387.9	388.4	376.3	377.9	420.7	469.5	476.1	469.0
25°	524.5	450.9	388.9	358.2	346.6	342.6	354.2	392.0	450.9	465.0	470.6
27.5°	613.6	489.7	400.5	348.1	325.0	327.0	343.6	369.8	439.3	464.5	471.1
30°	588.9	460.5	401.0	340.6	311.9	322.4	328.5	353.7	430.3	468.0	500.8
32.5°	454.4	414.1	403.5	346.6	335.0	318.4	327.0	351.2	403.5	427.2	428.7
35°	384.9	354.2	347.1	333.0	316.9	309.8	319.4	340.6	374.8	389.4	387.4
37.5°	381.9	348.1	320.4	314.4	307.8	305.8	311.4	331.0	365.8	391.5	385.9
40°	386.9	345.1	316.9	306.3	308.8	299.8	305.3	329.5	367.3	391.5	386.4
42.5°	380.9	341.6	312.4	304.3	306.8	294.2	300.8	326.0	363.2	392.0	382.4
45°	368.8	333.5	309.8	296.2	307.8	289.2	297.2	316.9	351.2	382.4	371.3
47.5°	356.7	323.9	299.3	290.7	302.3	284.1	287.7	304.8	339.1	369.8	360.2
50°	343.6	311.9	290.7	288.2	296.2	283.1	277.6	291.7	324.5	355.2	347.1
52.5°	329.5	301.8	284.7	283.6	291.2	276.6	268.5	279.6	308.8	339.6	333.0
55°	315.9	290.7	277.1	279.6	288.2	271.0	261.0	268.0	292.2	322.4	313.4
57.5°	302.3	278.1	267.0	274.1	280.6	264.0	251.4	255.4	275.1	304.8	294.2
60°	290.2	267.0	255.9	264.5	270.5	253.4	238.8	241.3	259.0	285.7	276.1
62.5°	274.6	254.9	240.3	251.4	255.9	239.3	223.7	226.7	240.8	266.0	259.0
65°	252.4	239.8	226.2	233.8	239.8	222.7	208.1	211.6	222.2	245.9	240.8
67.5°	233.3	221.2	212.1	218.1	219.2	206.1	193.0	195.0	203.5	225.7	220.2
70°	212.1	200.5	193.5	198.0	197.5	186.4	176.3	176.8	183.9	204.0	196.5
72.5°	188.9	177.8	174.3	176.8	174.8	164.7	155.2	158.7	163.2	178.3	172.3
75°	164.2	154.2	152.1	154.7	151.6	142.1	133.5	137.0	141.1	153.7	146.1
77.5°	138.5	129.5	130.0	130.5	126.5	119.9	111.3	114.9	117.4	126.0	118.4
80°	110.3	103.3	105.3	105.3	100.8	96.2	88.2	89.2	90.7	93.7	88.2
82.5°	80.6	80.6	80.6	81.1	71.5	73.1	66.0	65.5	64.0	63.5	60.0
85°	47.9	49.9	50.9	52.4	38.8	45.3	39.3	37.8	34.8	31.7	30.7
87.5°	10.6	13.6	13.6	13.1	0.0	5.0	2.5	4.0	1.0	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):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8
2.5°	1108.9	1078.6	1135.1	1185.5	1177.4	1206.6	1138.6	1239.4	1346.2	1346.2
5°	1176.9	1151.2	1165.8	1195.0	1217.2	1319.0	1403.6	1487.7	1661.6	1663.6
7.5°	992.5	1047.9	1061.0	1052.5	1147.7	1278.7	1418.2	1658.0	1805.1	1816.7
10°	928.0	953.2	993.0	1015.2	1054.0	1182.9	1356.2	1640.9	1797.1	1826.3
12.5°	840.9	934.1	994.5	1118.5	1149.2	1174.9	1450.5	1696.8	1804.6	1797.6
15°	745.6	816.2	903.3	1040.4	1118.5	1314.9	1506.4	1876.2	1937.1	1990.5
17.5°	594.5	646.4	762.3	918.4	1111.9	1292.8	1644.4	2097.9	2211.7	2267.1
20°	489.2	489.7	605.6	812.6	1023.2	1200.1	1696.8	2281.7	2426.3	2454.5
22.5°	462.5	439.3	500.3	668.6	925.5	1255.0	1802.6	2577.5	2879.3	2950.3
25°	447.9	419.7	458.0	590.0	855.5	1283.7	2015.7	2984.0	3371.5	3399.2
27.5°	453.9	467.0	479.1	526.0	766.8	1229.8	1966.4	3165.9	3581.1	3633.5
30°	494.7	515.9	488.2	504.3	693.7	1151.7	2054.5	3461.2	3845.1	3933.2
32.5°	411.6	403.5	401.0	436.3	620.7	1081.2	2239.4	3876.8	4131.2	4242.1
35°	371.3	358.7	363.7	404.1	584.9	1071.1	2343.2	4220.9	4583.1	4651.1
37.5°	369.8	355.2	361.7	392.0	597.5	1089.2	2509.5	4773.1	5380.1	5525.7
40°	366.3	358.2	361.7	384.4	584.4	1099.3	2605.2	5237.1	5935.3	6083.0
42.5°	365.8	361.7	365.3	390.5	570.8	1103.8	2737.7	5656.2	6520.3	6636.6
45°	364.3	368.3	368.3	395.5	564.8	1134.1	2815.8	5861.8	6906.2	7049.8
47.5°	357.2	369.3	388.9	394.0	540.1	1120.0	2926.1	6173.6	7111.2	7246.2
50°	348.1	367.8	415.1	383.9	536.1	1085.7	3055.1	6421.0	7374.2	7491.6
52.5°	336.0	365.3	409.1	364.3	529.0	1079.7	3235.9	6742.4	7681.0	7784.8
55°	318.9	356.2	390.5	344.6	511.9	1060.5	3512.5	7141.0	8082.6	8153.6
57.5°	303.3	342.6	363.2	333.5	471.1	1064.5	3705.0	7465.9	8419.6	8481.6
60°	289.2	341.1	324.5	321.9	429.2	1010.6	3767.5	7462.4	8545.1	8642.3
62.5°	274.1	321.9	297.2	306.3	392.5	955.2	3635.0	7142.5	8409.5	8579.8
65°	254.4	276.1	274.6	295.2	393.5	865.0	3331.2	6578.2	8071.5	8295.7
67.5°	231.2	244.3	252.9	277.1	406.1	795.0	2842.5	5899.6	7496.1	7762.7
70°	207.6	220.7	230.2	253.4	417.7	762.8	2262.6	4946.4	6559.1	6829.6
72.5°	183.4	197.0	204.5	224.7	402.0	693.7	1674.7	3848.6	5264.8	5406.9
75°	158.2	171.3	177.3	196.0	349.1	573.8	1156.2	2915.0	3856.1	4000.2
77.5°	132.5	146.6	148.6	163.7	266.5	438.8	741.1	2235.9	2730.6	2826.9
80°	105.8	119.9	119.9	128.0	187.4	301.8	443.9	1686.7	1988.5	2026.3
82.5°	76.1	91.2	90.2	90.7	129.5	186.9	256.9	1264.1	1436.9	1443.9
85°	44.8	55.4	54.9	50.4	76.6	100.8	139.1	784.9	802.1	804.1
87.5°	8.6	13.1	11.6	5.0	21.2	29.7	40.3	145.6	57.9	56.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)