

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: P565307

Luminaire Tested: **MSA-SA2D-730-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565307
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2108-334-1)
Test Lab: INNOVATIONS CENTER
Issue Date: 8/19/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2D-730-U-T1
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE I OPTICS.
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11105 lumens
Efficiency: N/A
Efficacy: 86.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B3 - U0 - G3

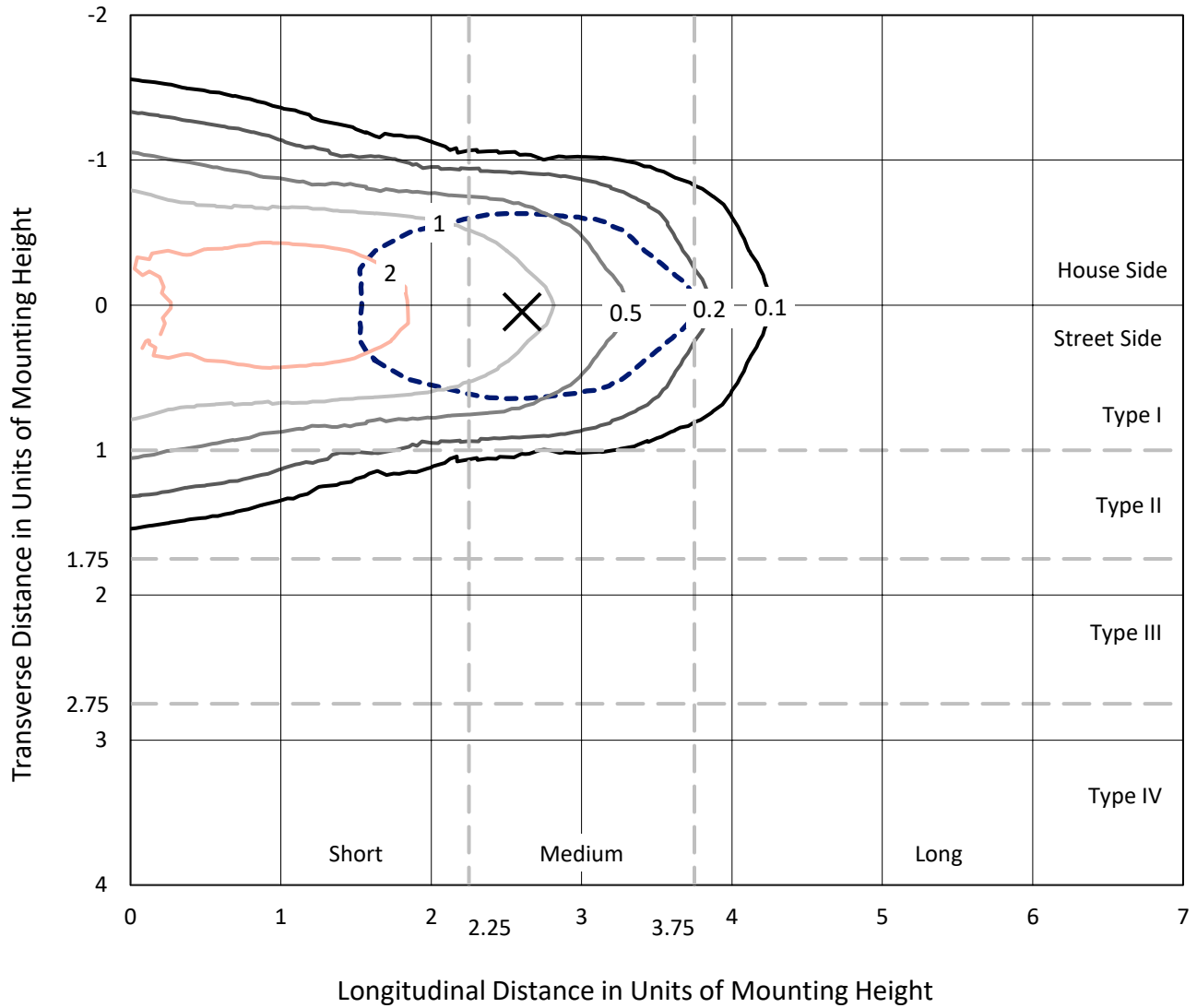
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

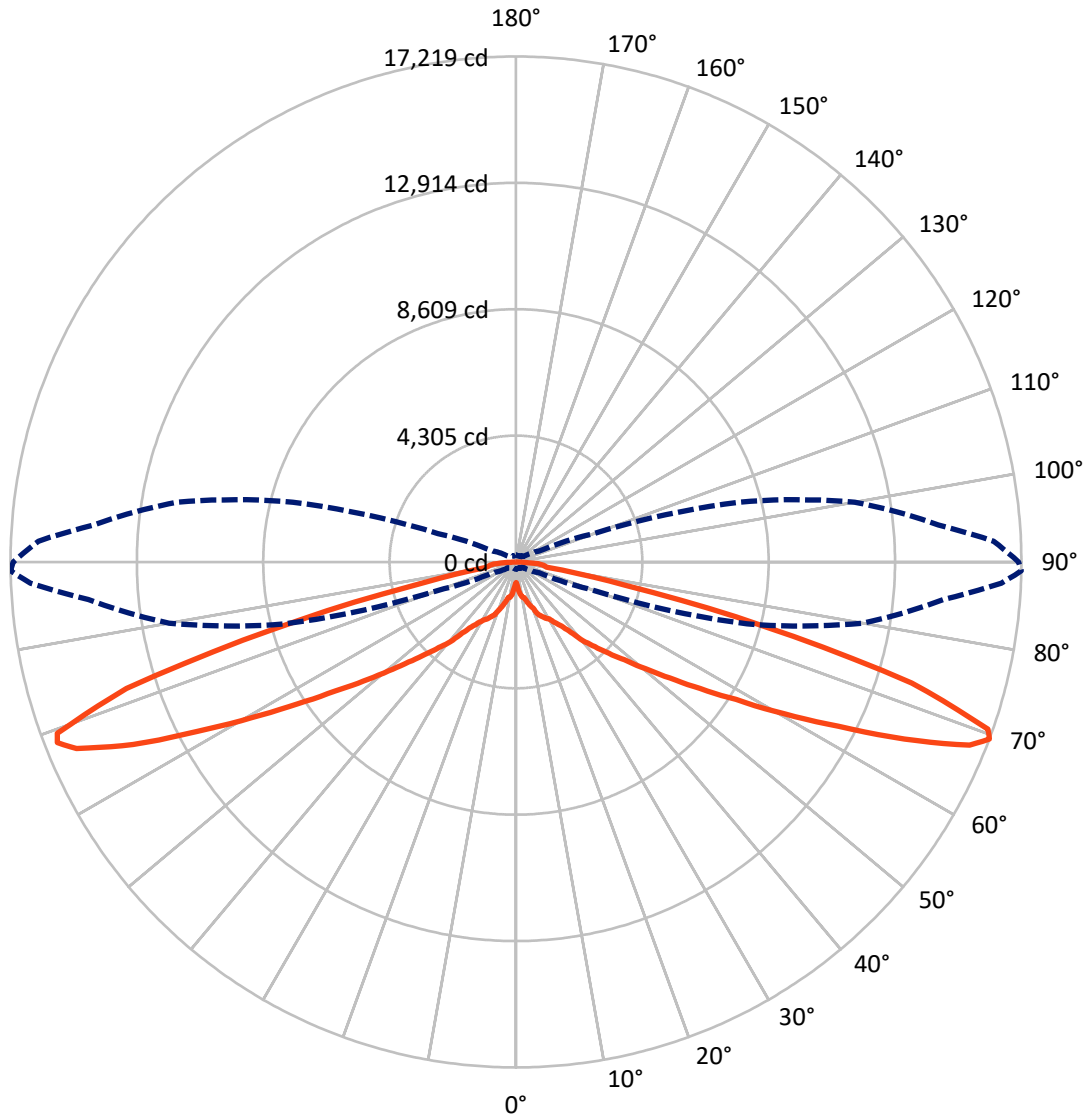
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 fc
 Type I - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 89-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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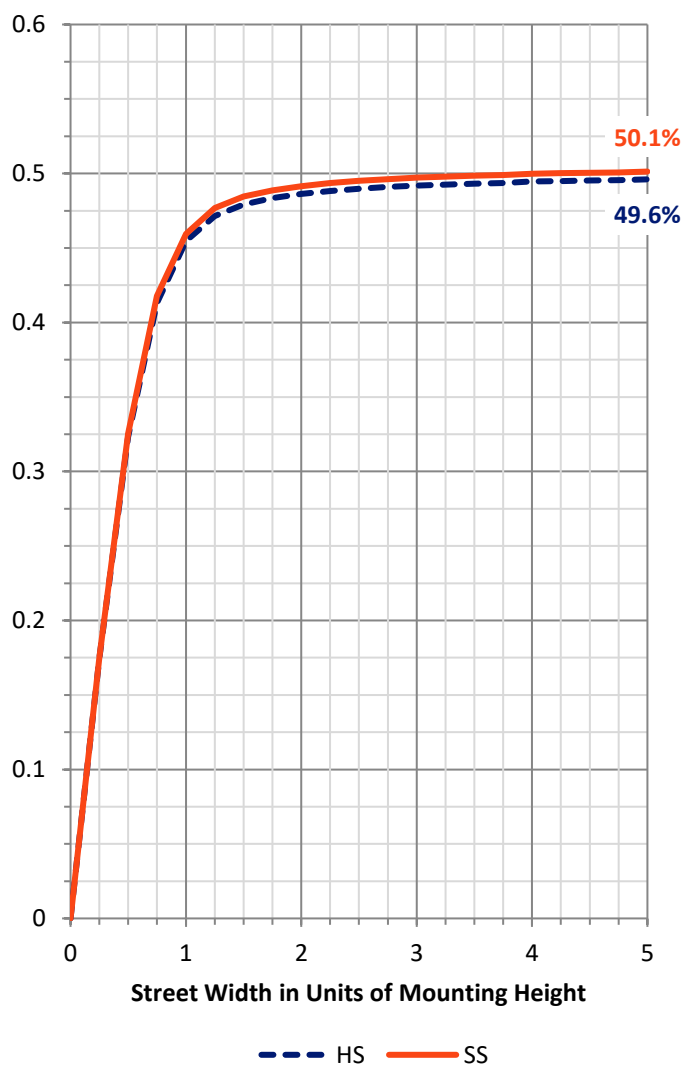
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5552.4	0.0	5552.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	5552.6	0.0	5552.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	11105.0	0.0	11105.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.4	0.8
10°-20°	407.2	3.7
20°-30°	812.4	7.3
30°-40°	1228.7	11.1
40°-50°	1783.6	16.1
50°-60°	2343.3	21.1
60°-70°	2858.5	25.7
70°-80°	1445.2	13.0
80°-90°	137.8	1.2
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°	11105.0	100.0
0°-180°	11105.0	100.0

Coefficient of Utilization



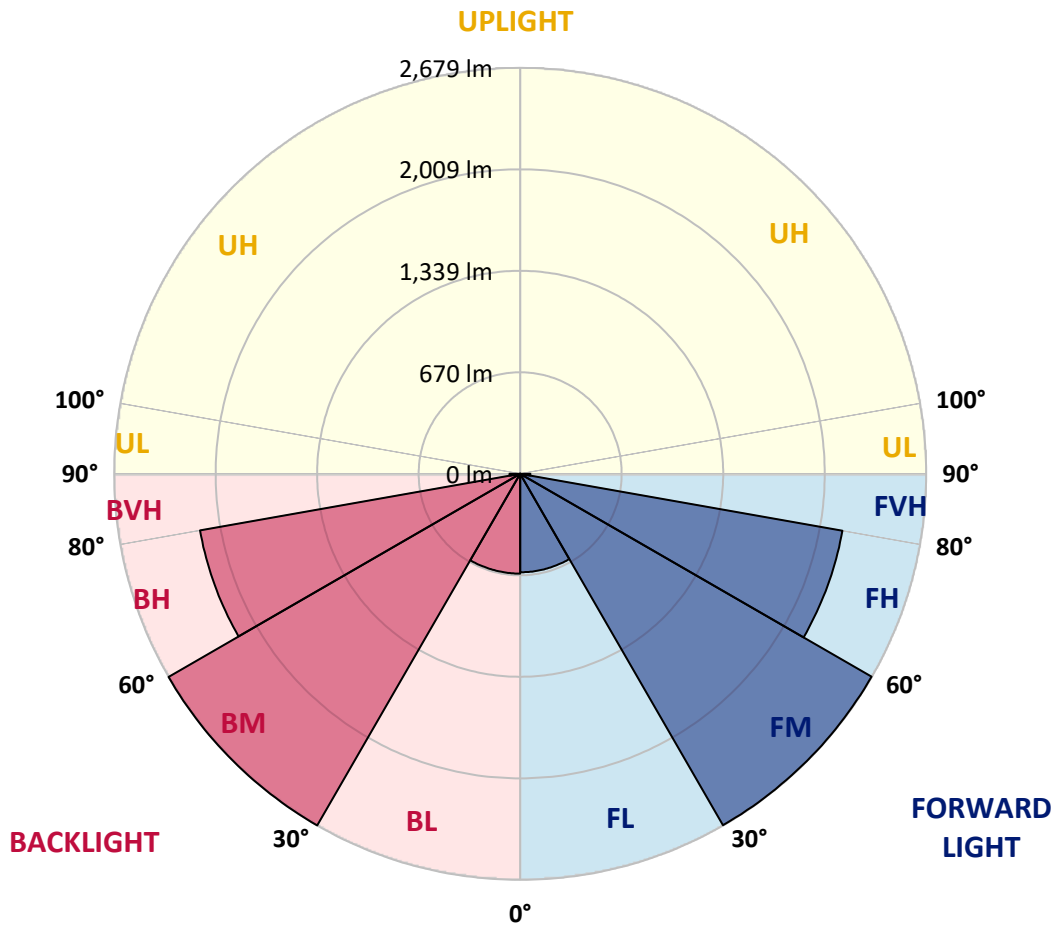
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	649.4	5.8			
FM (30°-60°)	2676.9	24.1			
FH (60°-80°)	2158.7	19.4			G2/5000
FVH (80°-90°)	67.6	0.6			G1/100
BL (0°-30°)	658.6	5.9	B2/1000		
BM (30°-60°)	2678.7	24.1	B3/5000		
BH (60°-80°)	2145.0	19.3	B3/2500		G3/2500
BVH (80°-90°)	70.2	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type I Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	703.4	703.4	703.4	703.4	703.4	703.4	703.4	703.4	703.4	703.4	703.4
2.5°	825.4	730.3	722.0	699.3	715.8	722.0	707.5	686.8	709.6	722.0	699.3
5°	1040.6	899.9	852.3	813.0	734.4	701.3	734.4	819.2	829.6	881.3	866.8
7.5°	1146.1	1123.4	1063.4	933.0	806.8	736.5	825.4	947.5	1009.6	1059.2	1110.9
10°	1224.7	1212.3	1106.8	1013.7	962.0	966.1	968.2	1007.5	1061.3	1144.0	1173.0
12.5°	1243.3	1239.2	1255.8	1235.1	1239.2	1262.0	1239.2	1228.9	1259.9	1286.8	1257.8
15°	1363.3	1361.3	1367.5	1371.6	1454.4	1489.5	1454.4	1423.3	1400.6	1377.8	1425.4
17.5°	1446.1	1435.7	1437.8	1477.1	1570.2	1667.4	1648.8	1607.5	1555.7	1586.8	1626.1
20°	1491.6	1473.0	1485.4	1501.9	1659.2	1766.8	1779.2	1723.3	1692.3	1731.6	1764.7
22.5°	1535.0	1506.1	1462.6	1479.2	1624.0	1779.2	1839.2	1824.7	1847.4	1859.8	1853.6
25°	1483.3	1501.9	1454.4	1501.9	1648.8	1791.6	1911.6	1996.4	1998.5	1992.2	2037.8
27.5°	1452.3	1437.8	1357.1	1479.2	1601.2	1690.2	1996.4	2139.1	2182.6	2050.2	2139.1
30°	1398.5	1421.3	1311.6	1413.0	1568.1	1717.1	2093.6	2298.4	2234.3	2217.7	2238.4
32.5°	1365.4	1350.9	1299.2	1355.1	1473.0	1797.8	2155.7	2391.5	2472.2	2432.9	2428.8
35°	1311.6	1322.0	1241.3	1301.3	1466.8	1729.5	2197.1	2625.3	2749.4	2718.4	2693.6
37.5°	1319.9	1284.7	1226.8	1270.2	1427.5	1766.8	2300.5	2850.8	3047.3	3063.9	2950.1
40°	1257.8	1237.1	1150.3	1222.7	1353.0	1744.0	2325.3	3107.3	3440.4	3514.9	3351.4
42.5°	1168.9	1142.0	1092.3	1173.0	1309.5	1632.3	2360.5	3415.6	3839.7	3994.8	3845.9
45°	1040.6	1005.4	980.6	1088.2	1214.4	1603.3	2323.3	3672.1	4222.4	4435.5	4431.4
47.5°	885.4	862.7	850.3	964.1	1135.8	1530.9	2246.7	3833.5	4489.3	5035.4	4952.7
50°	709.6	693.0	691.0	811.0	1003.4	1382.0	2159.8	3914.2	4894.8	5585.7	5658.2
52.5°	568.9	556.5	554.4	651.7	839.9	1181.3	1977.8	3976.2	5281.6	6210.5	6582.9
55°	444.8	432.4	434.4	515.1	668.2	966.1	1700.5	3905.9	5620.9	6849.8	7555.2
57.5°	364.1	351.7	353.8	399.3	511.0	738.6	1355.1	3752.8	5774.0	7640.1	8688.9
60°	320.7	308.3	302.0	322.7	393.1	556.5	1007.5	3157.0	5798.8	8295.9	9919.9
62.5°	297.9	285.5	279.3	285.5	324.8	426.2	726.1	2501.2	5656.1	8856.5	11047.4
65°	277.2	266.9	258.6	264.8	285.5	339.3	529.6	1713.0	4909.3	9113.0	11866.6
67.5°	254.5	246.2	237.9	246.2	260.7	285.5	411.7	1084.0	3680.4	8780.0	12208.0
69°	242.0	229.6	225.5	231.7	246.2	262.7	355.8	864.8	2799.1	8146.9	12001.1
70°	229.6	221.4	215.2	225.5	237.9	250.3	320.7	734.4	2195.0	7333.9	11488.0
72.5°	202.7	196.5	192.4	202.7	213.1	221.4	262.7	523.4	1272.3	4994.1	9111.0
75°	177.9	171.7	169.6	177.9	186.2	190.3	221.4	360.0	751.0	2612.9	5465.8
77.5°	149.0	140.7	142.7	153.1	159.3	161.4	186.2	258.6	442.7	1183.4	2532.2
80°	109.6	109.6	117.9	126.2	126.2	126.2	149.0	188.3	268.9	544.1	1050.9
82.5°	76.5	78.6	80.7	93.1	95.2	86.9	113.8	136.5	167.6	237.9	364.1
85°	43.4	45.5	47.6	55.9	57.9	51.7	74.5	86.9	97.2	117.9	190.3
87.5°	16.6	18.6	24.8	29.0	31.0	22.8	35.2	41.4	41.4	49.7	84.8
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):

	85°	87.5°	89°	90°	92.5°	95°	100°	105°	110°	115°	125°
0°	703.4	703.4	703.4	703.4	703.4	703.4	703.4	703.4	703.4	703.4	703.4
2.5°	746.8	761.3	788.2	794.4	771.7	746.8	691.0	726.1	740.6	713.7	722.0
5°	924.8	955.8	988.9	949.6	924.8	908.2	881.3	883.4	868.9	821.3	742.7
7.5°	1125.4	1090.3	1115.1	1142.0	1102.7	1104.7	1129.6	1077.8	1038.5	957.9	811.0
10°	1218.5	1218.5	1224.7	1224.7	1208.2	1208.2	1206.1	1123.4	1075.8	1040.6	999.2
12.5°	1224.7	1222.7	1247.5	1228.9	1233.0	1237.1	1247.5	1284.7	1272.3	1226.8	1264.0
15°	1396.4	1388.2	1396.4	1394.4	1400.6	1419.2	1410.9	1402.6	1404.7	1437.8	1493.7
17.5°	1557.8	1561.9	1553.7	1568.1	1568.1	1580.6	1609.5	1580.6	1555.7	1617.8	1661.2
20°	1744.0	1729.5	1696.4	1721.2	1727.4	1729.5	1777.1	1741.9	1706.8	1729.5	1781.2
22.5°	1932.3	1930.2	1934.3	1936.4	1944.7	1913.6	1849.5	1839.2	1861.9	1830.9	1837.1
25°	2048.1	2050.2	2060.5	2062.6	2027.4	2060.5	2083.3	2015.0	2015.0	2008.8	1967.4
27.5°	2188.8	2157.8	2170.2	2186.7	2172.2	2180.5	2153.6	2054.3	2159.8	2174.3	2008.8
30°	2284.0	2269.5	2255.0	2271.5	2286.0	2323.3	2246.7	2236.4	2244.6	2321.2	2104.0
32.5°	2484.6	2505.3	2478.4	2451.5	2478.4	2470.1	2437.0	2422.6	2526.0	2424.6	2170.2
35°	2670.8	2679.1	2681.2	2677.0	2693.6	2664.6	2664.6	2718.4	2749.4	2639.8	2190.9
37.5°	3119.7	3090.8	3030.8	3001.8	3053.5	3097.0	2968.7	3032.9	3020.4	2834.2	2346.0
40°	3442.5	3508.7	3527.3	3519.0	3527.3	3403.2	3430.1	3477.6	3421.8	3113.5	2292.2
42.5°	3914.2	3955.5	3941.1	3922.4	3930.7	3908.0	3827.3	4003.1	3802.4	3425.9	2375.0
45°	4344.5	4437.6	4443.8	4379.6	4431.4	4350.7	4383.8	4445.8	4243.1	3659.7	2352.2
47.5°	4857.5	5049.9	4977.5	4977.5	5029.2	4855.5	4934.1	5016.8	4478.9	3816.9	2228.1
50°	5616.8	5720.2	5716.1	5697.5	5720.2	5627.1	5614.7	5604.4	4841.0	3965.9	2151.5
52.5°	6475.3	6616.0	6562.2	6582.9	6613.9	6438.1	6576.7	6198.1	5294.0	4021.7	1977.8
55°	7571.8	7669.0	7615.2	7509.7	7650.4	7538.7	7584.2	6845.6	5608.5	3862.4	1688.1
57.5°	8877.2	8926.9	8837.9	8827.5	8920.6	8800.7	8724.1	7573.9	5771.9	3742.5	1348.9
60°	10401.9	10557.1	10501.2	10412.2	10497.1	10391.6	9812.3	8192.4	5738.8	3181.8	1044.7
62.5°	12230.7	12387.9	12325.9	12265.9	12319.7	12044.5	10834.3	8680.7	5589.9	2521.9	763.4
65°	13740.9	14450.5	14543.6	14545.7	14285.0	13647.8	11649.4	8871.0	4803.7	1760.5	558.6
67.5°	14734.0	16209.0	16668.3	16502.8	15904.9	14450.5	11978.3	8498.6	3709.4	1113.0	417.9
69°	14620.2	16554.5	17218.6	17125.5	16285.6	14438.1	11721.8	7871.8	2834.2	885.4	353.8
70°	14094.7	16271.1	17059.3	17100.7	16043.5	13883.7	11264.6	7151.8	2292.2	755.1	324.8
72.5°	11248.0	13407.9	14100.9	14371.9	13323.0	11117.7	9237.2	5045.8	1328.2	527.5	262.7
75°	6967.7	8130.4	8705.5	8862.7	8227.6	6924.3	5606.4	2807.4	808.9	372.4	221.4
77.5°	3123.9	3461.1	3792.1	3792.1	3543.8	3161.1	2569.4	1357.1	459.3	264.8	186.2
80°	1046.8	1086.1	1057.2	1067.5	1026.1	986.8	1032.3	585.5	283.4	198.6	151.0
82.5°	711.7	893.7	949.6	949.6	891.7	703.4	397.2	268.9	173.8	142.7	115.9
85°	579.3	707.5	759.2	782.0	736.5	593.7	208.9	130.3	103.4	91.0	78.6
87.5°	194.5	182.1	171.7	167.6	175.8	184.1	103.4	55.9	47.6	43.4	41.4
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):

	135°	145°	155°	165°	175°	180°
0°	703.4	703.4	703.4	703.4	703.4	703.4
2.5°	736.5	711.7	722.0	732.4	806.8	862.7
5°	732.4	767.5	846.1	945.4	991.0	1102.7
7.5°	753.0	881.3	1028.2	1131.6	1173.0	1208.2
10°	1007.5	1030.3	1079.9	1179.2	1262.0	1276.4
12.5°	1301.3	1295.1	1259.9	1305.4	1264.0	1293.0
15°	1530.9	1462.6	1415.1	1408.8	1394.4	1394.4
17.5°	1657.1	1597.1	1530.9	1514.4	1470.9	1506.1
20°	1806.1	1702.6	1537.1	1520.6	1506.1	1473.0
22.5°	1777.1	1673.7	1501.9	1481.3	1557.8	1553.7
25°	1812.3	1673.7	1510.2	1487.5	1522.6	1522.6
27.5°	1725.4	1611.6	1493.7	1357.1	1464.7	1489.5
30°	1702.6	1574.4	1437.8	1315.8	1425.4	1402.6
32.5°	1822.6	1481.3	1346.8	1309.5	1390.2	1373.7
35°	1729.5	1464.7	1324.0	1255.8	1350.9	1334.4
37.5°	1768.8	1444.0	1284.7	1226.8	1303.3	1328.2
40°	1760.5	1346.8	1239.2	1164.7	1241.3	1253.7
42.5°	1621.9	1272.3	1162.7	1088.2	1127.5	1168.9
45°	1580.6	1226.8	1088.2	984.7	986.8	1034.4
47.5°	1504.0	1123.4	951.6	856.5	856.5	895.8
50°	1375.7	984.7	796.5	709.6	707.5	738.6
52.5°	1185.4	850.3	672.4	577.2	571.0	602.0
55°	970.3	684.8	529.6	467.5	455.1	467.5
57.5°	755.1	533.7	417.9	368.2	366.2	376.5
60°	585.5	417.9	333.1	304.1	308.3	324.8
62.5°	442.7	333.1	283.4	273.1	279.3	295.8
65°	351.7	287.6	258.6	252.4	258.6	275.1
67.5°	285.5	260.7	240.0	231.7	235.8	252.4
69°	262.7	246.2	229.6	219.3	223.4	235.8
70°	250.3	237.9	221.4	211.0	215.2	227.6
72.5°	219.3	213.1	200.7	190.3	192.4	202.7
75°	192.4	188.3	180.0	167.6	167.6	180.0
77.5°	161.4	163.4	155.2	142.7	140.7	146.9
80°	128.3	132.4	128.3	115.9	111.7	111.7
82.5°	93.1	101.4	97.2	84.8	82.8	82.8
85°	57.9	64.1	62.1	53.8	53.8	47.6
87.5°	26.9	35.2	33.1	29.0	26.9	18.6
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)