

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: P565326

Luminaire Tested: **MSA-SA3C-830-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565326
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-SA3C-830-U-T1
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE I OPTICS.
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13080 lumens
Efficiency: N/A
Efficacy: 78.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B4 - U0 - G4

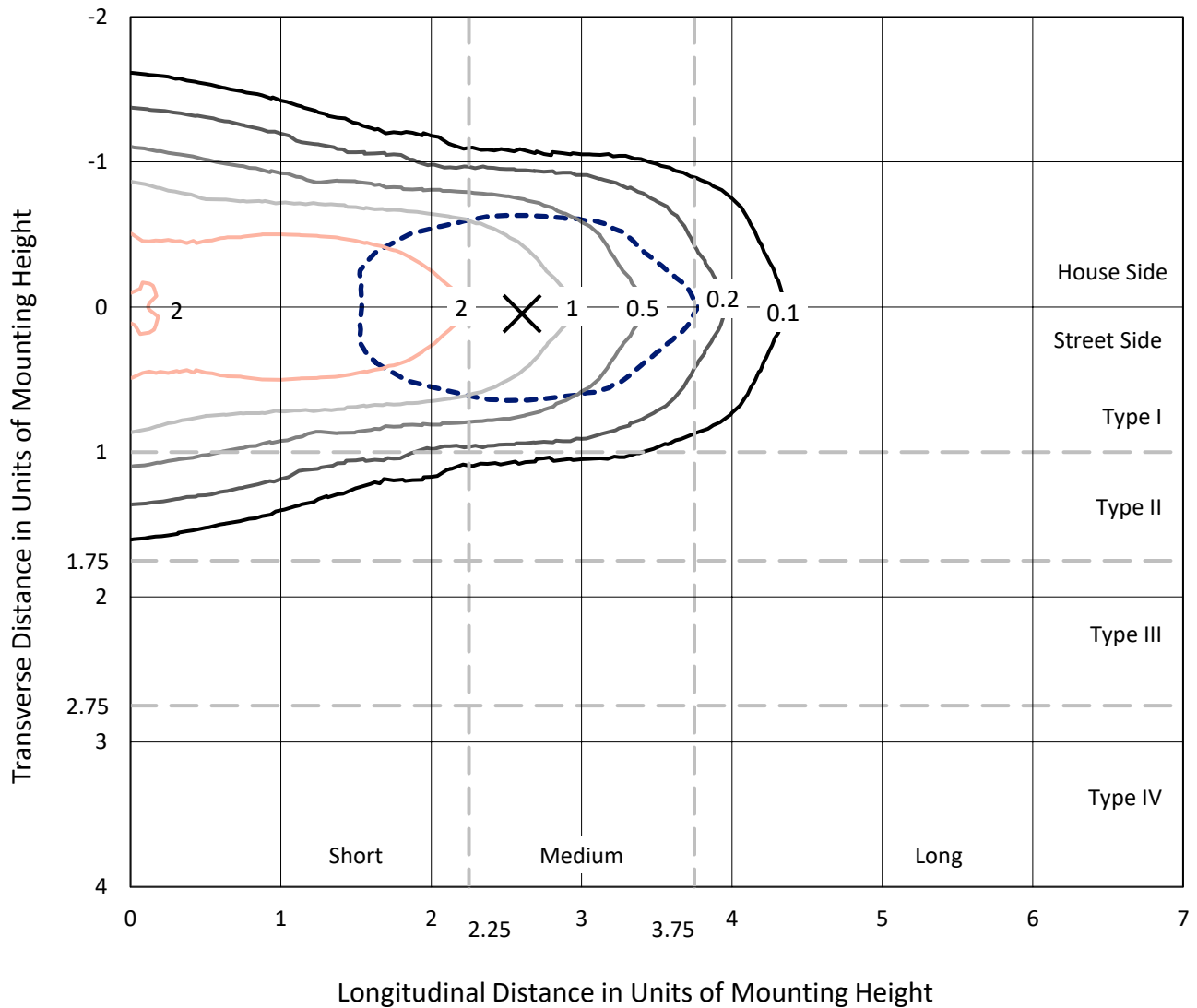
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

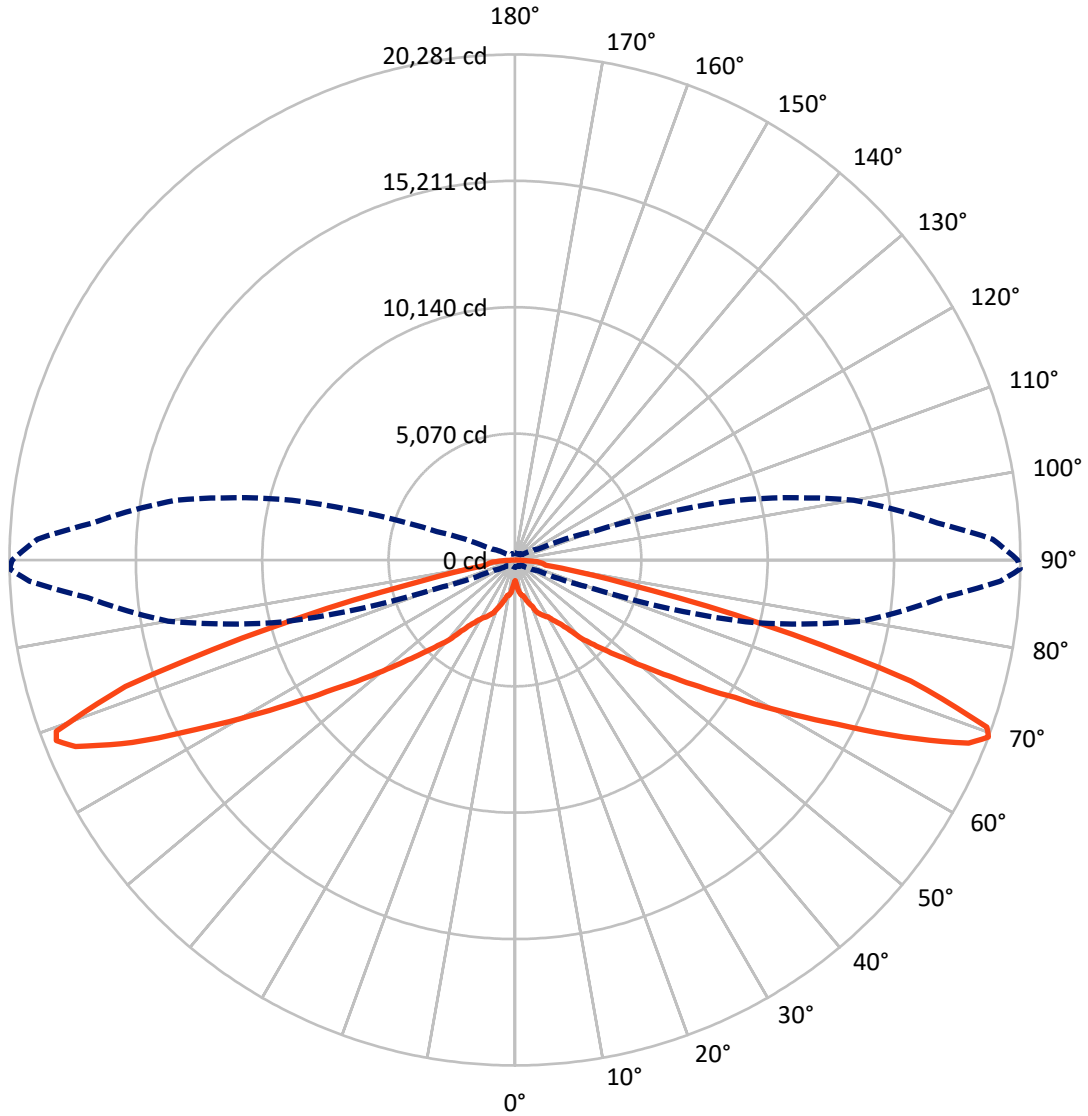
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3 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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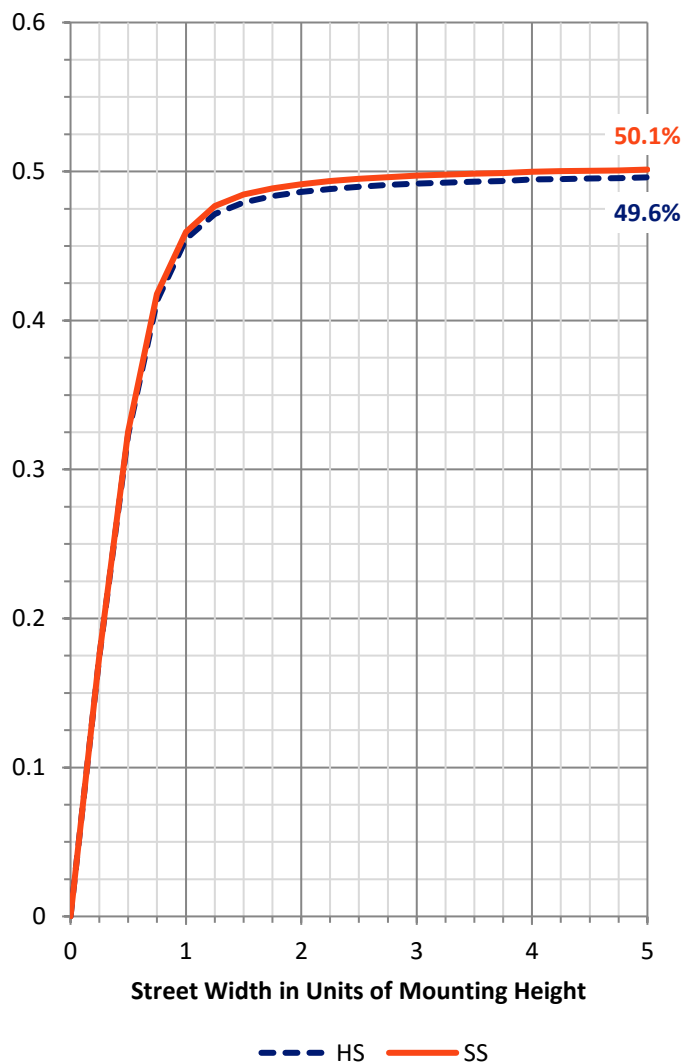
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6539.9	0.0	6539.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6540.1	0.0	6540.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	13080.0	0.0	13080.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.1	0.8
10°-20°	479.6	3.7
20°-30°	956.9	7.3
30°-40°	1447.2	11.1
40°-50°	2100.8	16.1
50°-60°	2760.0	21.1
60°-70°	3366.9	25.7
70°-80°	1702.2	13.0
80°-90°	162.2	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°	13080.0	100.0
0°-180°	13080.0	100.0

Coefficient of Utilization



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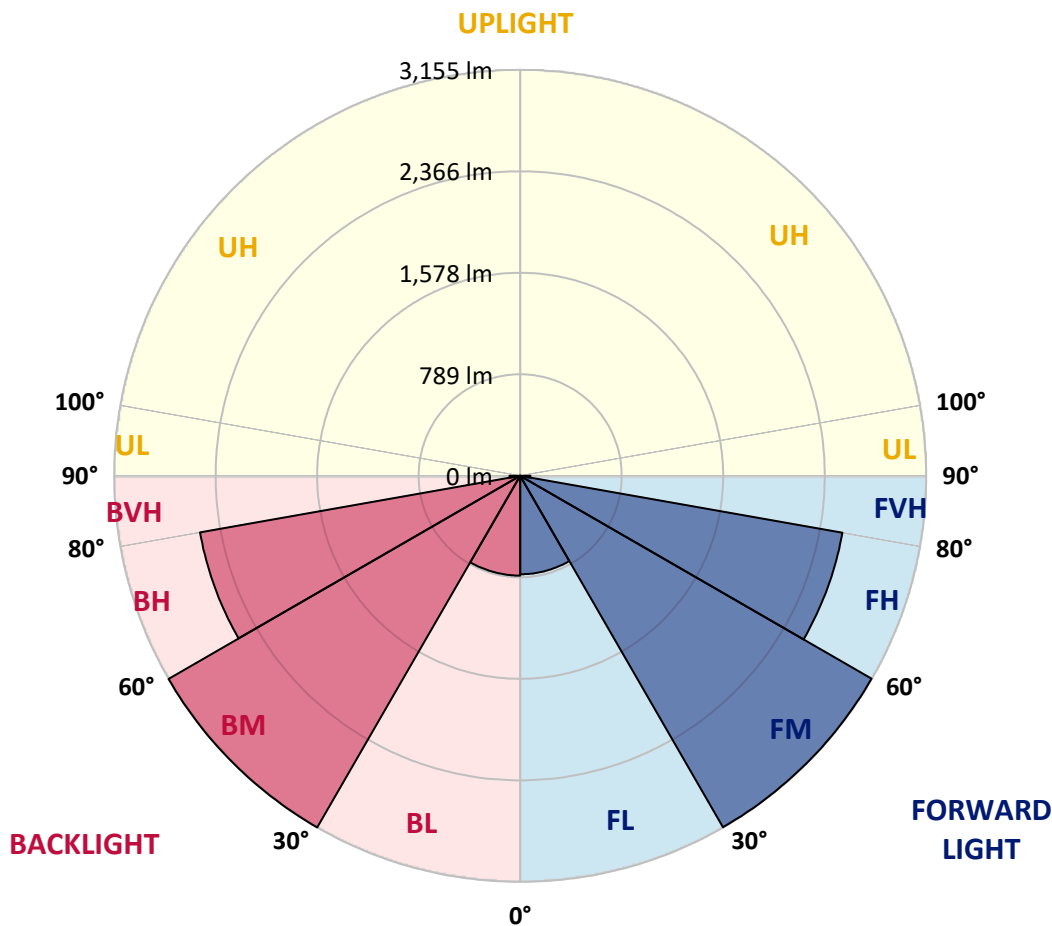
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	764.9	5.8			
FM (30°-60°)	3153.0	24.1			
FH (60°-80°)	2542.6	19.4			G2/5000
FVH (80°-90°)	79.6	0.6			G1/100
BL (0°-30°)	775.7	5.9	B2/1000		
BM (30°-60°)	3155.1	24.1	B3/5000		
BH (60°-80°)	2526.4	19.3	B4/5000		G4/5000
BVH (80°-90°)	82.7	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type I Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	828.5	828.5	828.5	828.5	828.5	828.5	828.5	828.5	828.5	828.5	828.5
2.5°	972.3	860.2	850.4	823.6	843.1	850.4	833.4	809.0	835.8	850.4	823.6
5°	1225.7	1060.0	1003.9	957.6	865.0	826.1	865.0	964.9	977.1	1038.0	1021.0
7.5°	1349.9	1323.1	1252.5	1099.0	950.3	867.5	972.3	1116.0	1189.1	1247.6	1308.5
10°	1442.5	1427.9	1303.6	1194.0	1133.1	1138.0	1140.4	1186.7	1250.0	1347.5	1381.6
12.5°	1464.5	1459.6	1479.1	1454.7	1459.6	1486.4	1459.6	1447.4	1484.0	1515.6	1481.5
15°	1605.8	1603.4	1610.7	1615.5	1713.0	1754.4	1713.0	1676.5	1649.7	1622.9	1678.9
17.5°	1703.3	1691.1	1693.5	1739.8	1849.5	1964.0	1942.1	1893.3	1832.4	1869.0	1915.3
20°	1756.9	1734.9	1749.6	1769.1	1954.3	2081.0	2095.6	2029.8	1993.2	2039.5	2078.5
22.5°	1808.1	1773.9	1722.8	1742.3	1912.8	2095.6	2166.2	2149.2	2176.0	2190.6	2183.3
25°	1747.1	1769.1	1713.0	1769.1	1942.1	2110.2	2251.5	2351.4	2353.9	2346.6	2400.2
27.5°	1710.6	1693.5	1598.5	1742.3	1886.0	1990.8	2351.4	2519.6	2570.7	2414.8	2519.6
30°	1647.2	1674.0	1544.9	1664.3	1847.0	2022.5	2466.0	2707.2	2631.7	2612.2	2636.5
32.5°	1608.2	1591.2	1530.3	1596.1	1734.9	2117.5	2539.1	2816.9	2911.9	2865.6	2860.7
35°	1544.9	1557.1	1462.0	1532.7	1727.6	2037.1	2587.8	3092.2	3238.4	3201.9	3172.6
37.5°	1554.6	1513.2	1445.0	1496.1	1681.3	2081.0	2709.6	3357.8	3589.3	3608.8	3474.8
40°	1481.5	1457.2	1354.8	1440.1	1593.6	2054.2	2738.9	3660.0	4052.3	4140.0	3947.5
42.5°	1376.8	1345.1	1286.6	1381.6	1542.4	1922.6	2780.3	4023.0	4522.6	4705.3	4529.9
45°	1225.7	1184.2	1155.0	1281.7	1430.4	1888.5	2736.4	4325.2	4973.4	5224.3	5219.5
47.5°	1042.9	1016.1	1001.5	1135.5	1337.8	1803.2	2646.3	4515.3	5287.7	5931.0	5833.5
50°	835.8	816.3	813.9	955.2	1181.8	1627.7	2543.9	4610.3	5765.3	6579.2	6664.4
52.5°	670.1	655.5	653.0	767.6	989.3	1391.4	2329.5	4683.4	6221.0	7315.1	7753.7
55°	523.9	509.3	511.7	606.7	787.1	1138.0	2003.0	4600.5	6620.6	8068.0	8898.9
57.5°	428.9	414.2	416.7	470.3	601.9	869.9	1596.1	4420.2	6800.9	8998.8	10234.2
60°	377.7	363.1	355.8	380.1	463.0	655.5	1186.7	3718.4	6830.1	9771.3	11684.1
62.5°	350.9	336.3	329.0	336.3	382.6	502.0	855.3	2946.0	6662.0	10431.6	13012.1
65°	326.5	314.3	304.6	311.9	336.3	399.6	623.8	2017.6	5782.4	10733.8	13977.1
67.5°	299.7	290.0	280.2	290.0	307.0	336.3	484.9	1276.8	4334.9	10341.5	14379.1
69°	285.1	270.5	265.6	272.9	290.0	309.5	419.1	1018.6	3296.9	9595.8	14135.4
70°	270.5	260.7	253.4	265.6	280.2	294.8	377.7	865.0	2585.4	8638.2	13531.1
72.5°	238.8	231.5	226.6	238.8	251.0	260.7	309.5	616.5	1498.6	5882.3	10731.3
75°	209.6	202.2	199.8	209.6	219.3	224.2	260.7	424.0	884.5	3077.6	6437.8
77.5°	175.4	165.7	168.1	180.3	187.6	190.1	219.3	304.6	521.5	1393.8	2982.6
80°	129.1	129.1	138.9	148.6	148.6	148.6	175.4	221.7	316.8	640.9	1237.9
82.5°	90.2	92.6	95.0	109.7	112.1	102.3	134.0	160.8	197.4	280.2	428.9
85°	51.2	53.6	56.0	65.8	68.2	60.9	87.7	102.3	114.5	138.9	224.2
87.5°	19.5	21.9	29.2	34.1	36.6	26.8	41.4	48.7	48.7	58.5	99.9
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):

	85°	87.5°	89°	90°	92.5°	95°	100°	105°	110°	115°	125°
0°	828.5	828.5	828.5	828.5	828.5	828.5	828.5	828.5	828.5	828.5	828.5
2.5°	879.7	896.7	928.4	935.7	908.9	879.7	813.9	855.3	872.3	840.7	850.4
5°	1089.2	1125.8	1164.8	1118.5	1089.2	1069.7	1038.0	1040.5	1023.4	967.4	874.8
7.5°	1325.6	1284.2	1313.4	1345.1	1298.8	1301.2	1330.5	1269.5	1223.2	1128.2	955.2
10°	1435.2	1435.2	1442.5	1442.5	1423.0	1423.0	1420.6	1323.1	1267.1	1225.7	1176.9
12.5°	1442.5	1440.1	1469.3	1447.4	1452.3	1457.2	1469.3	1513.2	1498.6	1445.0	1488.8
15°	1644.8	1635.0	1644.8	1642.4	1649.7	1671.6	1661.8	1652.1	1654.5	1693.5	1759.3
17.5°	1834.9	1839.7	1830.0	1847.0	1847.0	1861.7	1895.8	1861.7	1832.4	1905.5	1956.7
20°	2054.2	2037.1	1998.1	2027.4	2034.7	2037.1	2093.1	2051.7	2010.3	2037.1	2098.0
22.5°	2275.9	2273.5	2278.3	2280.8	2290.5	2254.0	2178.4	2166.2	2193.1	2156.5	2163.8
25°	2412.4	2414.8	2427.0	2429.4	2388.0	2427.0	2453.8	2373.4	2373.4	2366.1	2317.3
27.5°	2578.1	2541.5	2556.1	2575.6	2558.6	2568.3	2536.6	2419.7	2543.9	2561.0	2366.1
30°	2690.1	2673.1	2656.0	2675.5	2692.6	2736.4	2646.3	2634.1	2643.8	2734.0	2478.2
32.5°	2926.5	2950.9	2919.2	2887.5	2919.2	2909.5	2870.5	2853.4	2975.2	2855.8	2556.1
35°	3145.8	3155.6	3158.0	3153.1	3172.6	3138.5	3138.5	3201.9	3238.4	3109.3	2580.5
37.5°	3674.6	3640.5	3569.8	3535.7	3596.6	3647.8	3496.7	3572.2	3557.6	3338.3	2763.2
40°	4054.7	4132.7	4154.6	4144.9	4154.6	4008.4	4040.1	4096.1	4030.3	3667.3	2699.9
42.5°	4610.3	4659.0	4642.0	4620.0	4629.8	4603.0	4507.9	4715.1	4478.7	4035.2	2797.4
45°	5117.1	5226.8	5234.1	5158.5	5219.5	5124.4	5163.4	5236.5	4997.7	4310.6	2770.6
47.5°	5721.4	5948.0	5862.8	5862.8	5923.7	5719.0	5811.6	5909.1	5275.5	4495.8	2624.4
50°	6615.7	6737.5	6732.7	6710.7	6737.5	6627.9	6613.3	6601.1	5701.9	4671.2	2534.2
52.5°	7627.0	7792.7	7729.3	7753.7	7790.2	7583.1	7746.4	7300.4	6235.6	4737.0	2329.5
55°	8918.4	9032.9	8969.6	8845.3	9011.0	8879.4	8933.0	8063.1	6606.0	4549.4	1988.4
57.5°	10456.0	10514.5	10409.7	10397.5	10507.2	10365.8	10275.7	8920.9	6798.5	4408.0	1588.7
60°	12251.9	12434.6	12368.8	12264.0	12363.9	12239.7	11557.4	9649.4	6759.5	3747.7	1230.5
62.5°	14405.9	14591.1	14518.0	14447.3	14510.7	14186.6	12761.1	10224.5	6584.0	2970.4	899.2
65°	16184.7	17020.5	17130.2	17132.6	16825.6	16075.1	13721.2	10448.7	5658.1	2073.7	657.9
67.5°	17354.4	19091.7	19632.7	19437.8	18733.6	17020.5	14108.6	10010.1	4369.0	1311.0	492.2
69°	17220.3	19498.7	20280.9	20171.2	19181.9	17005.9	13806.5	9271.7	3338.3	1042.9	416.7
70°	16601.4	19164.9	20093.2	20142.0	18896.8	16352.9	13268.0	8423.8	2699.9	889.4	382.6
72.5°	13248.5	15792.4	16608.7	16927.9	15692.5	13095.0	10880.0	5943.2	1564.4	621.4	309.5
75°	8206.9	9576.3	10253.7	10438.9	9690.9	8155.7	6603.5	3306.6	952.8	438.6	260.7
77.5°	3679.5	4076.6	4466.5	4466.5	4174.1	3723.3	3026.4	1598.5	541.0	311.9	219.3
80°	1233.0	1279.3	1245.2	1257.4	1208.6	1162.3	1215.9	689.6	333.8	233.9	177.9
82.5°	838.2	1052.7	1118.5	1118.5	1050.2	828.5	467.9	316.8	204.7	168.1	136.5
85°	682.3	833.4	894.3	921.1	867.5	699.3	246.1	153.5	121.8	107.2	92.6
87.5°	229.1	214.4	202.2	197.4	207.1	216.9	121.8	65.8	56.0	51.2	48.7
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°	828.5	828.5	828.5	828.5	828.5	828.5
2.5°	867.5	838.2	850.4	862.6	950.3	1016.1
5°	862.6	904.0	996.6	1113.6	1167.2	1298.8
7.5°	887.0	1038.0	1211.1	1332.9	1381.6	1423.0
10°	1186.7	1213.5	1272.0	1388.9	1486.4	1503.5
12.5°	1532.7	1525.4	1484.0	1537.6	1488.8	1523.0
15°	1803.2	1722.8	1666.7	1659.4	1642.4	1642.4
17.5°	1951.8	1881.2	1803.2	1783.7	1732.5	1773.9
20°	2127.3	2005.4	1810.5	1791.0	1773.9	1734.9
22.5°	2093.1	1971.3	1769.1	1744.7	1834.9	1830.0
25°	2134.6	1971.3	1778.8	1752.0	1793.4	1793.4
27.5°	2032.2	1898.2	1759.3	1598.5	1725.2	1754.4
30°	2005.4	1854.3	1693.5	1549.8	1678.9	1652.1
32.5°	2146.8	1744.7	1586.3	1542.4	1637.5	1618.0
35°	2037.1	1725.2	1559.5	1479.1	1591.2	1571.7
37.5°	2083.4	1700.8	1513.2	1445.0	1535.1	1564.4
40°	2073.7	1586.3	1459.6	1371.9	1462.0	1476.7
42.5°	1910.4	1498.6	1369.4	1281.7	1328.0	1376.8
45°	1861.7	1445.0	1281.7	1159.9	1162.3	1218.4
47.5°	1771.5	1323.1	1120.9	1008.8	1008.8	1055.1
50°	1620.4	1159.9	938.1	835.8	833.4	869.9
52.5°	1396.2	1001.5	791.9	679.8	672.5	709.1
55°	1142.8	806.6	623.8	550.7	536.1	550.7
57.5°	889.4	628.7	492.2	433.7	431.3	443.5
60°	689.6	492.2	392.3	358.2	363.1	382.6
62.5°	521.5	392.3	333.8	321.6	329.0	348.5
65°	414.2	338.7	304.6	297.3	304.6	324.1
67.5°	336.3	307.0	282.7	272.9	277.8	297.3
69°	309.5	290.0	270.5	258.3	263.2	277.8
70°	294.8	280.2	260.7	248.5	253.4	268.0
72.5°	258.3	251.0	236.4	224.2	226.6	238.8
75°	226.6	221.7	212.0	197.4	197.4	212.0
77.5°	190.1	192.5	182.8	168.1	165.7	173.0
80°	151.1	156.0	151.1	136.5	131.6	131.6
82.5°	109.7	119.4	114.5	99.9	97.5	97.5
85°	68.2	75.5	73.1	63.4	63.4	56.0
87.5°	31.7	41.4	39.0	34.1	31.7	21.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)