

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: P565375

Luminaire Tested: **MSA-SA3D-750-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565375
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-SA3D-750-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: 17997 lumens
Efficiency: N/A
Efficacy: 93.7 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): 192
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: 24 FT

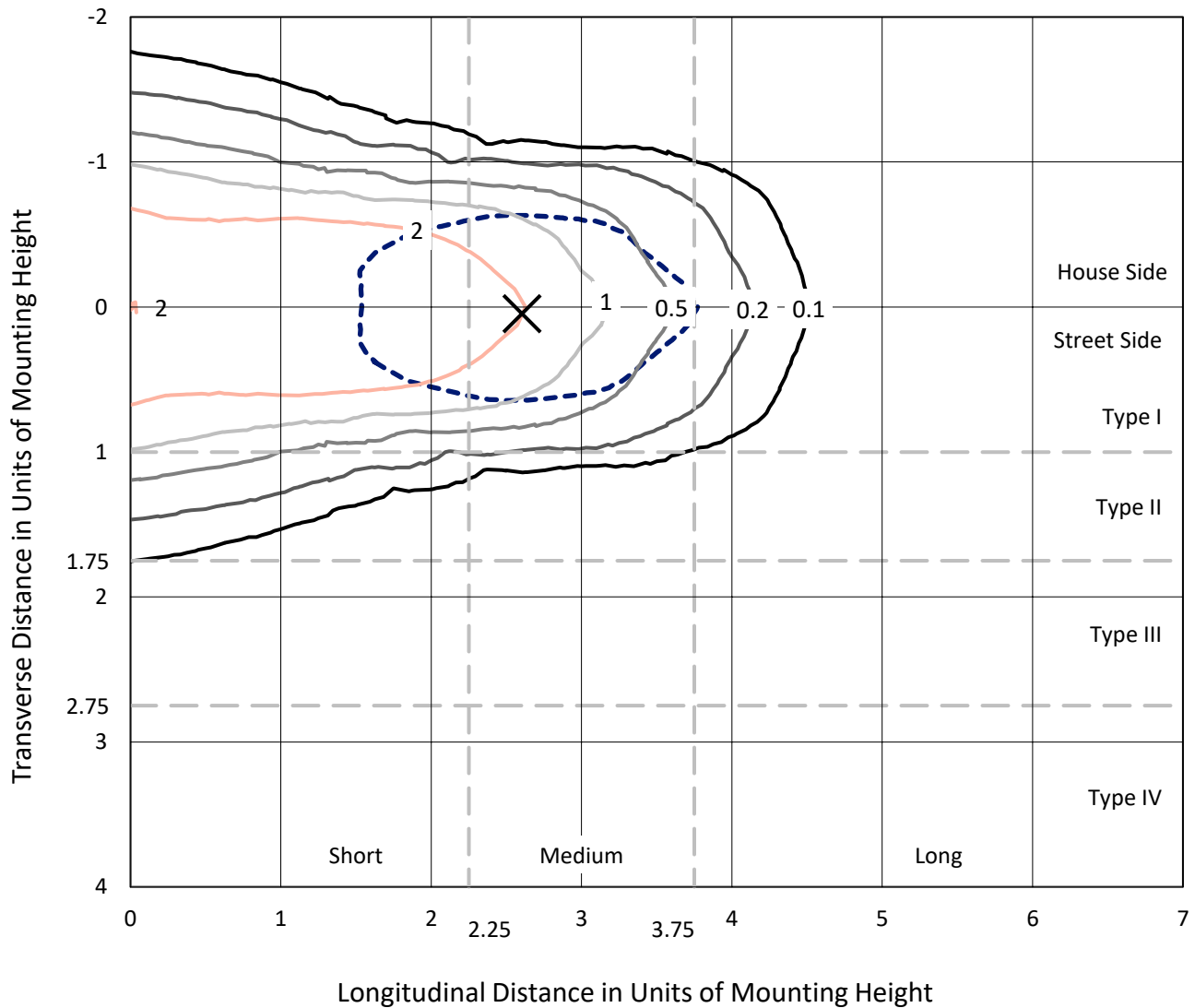


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Iso-Footcandle Lines of Horizontal Illumination

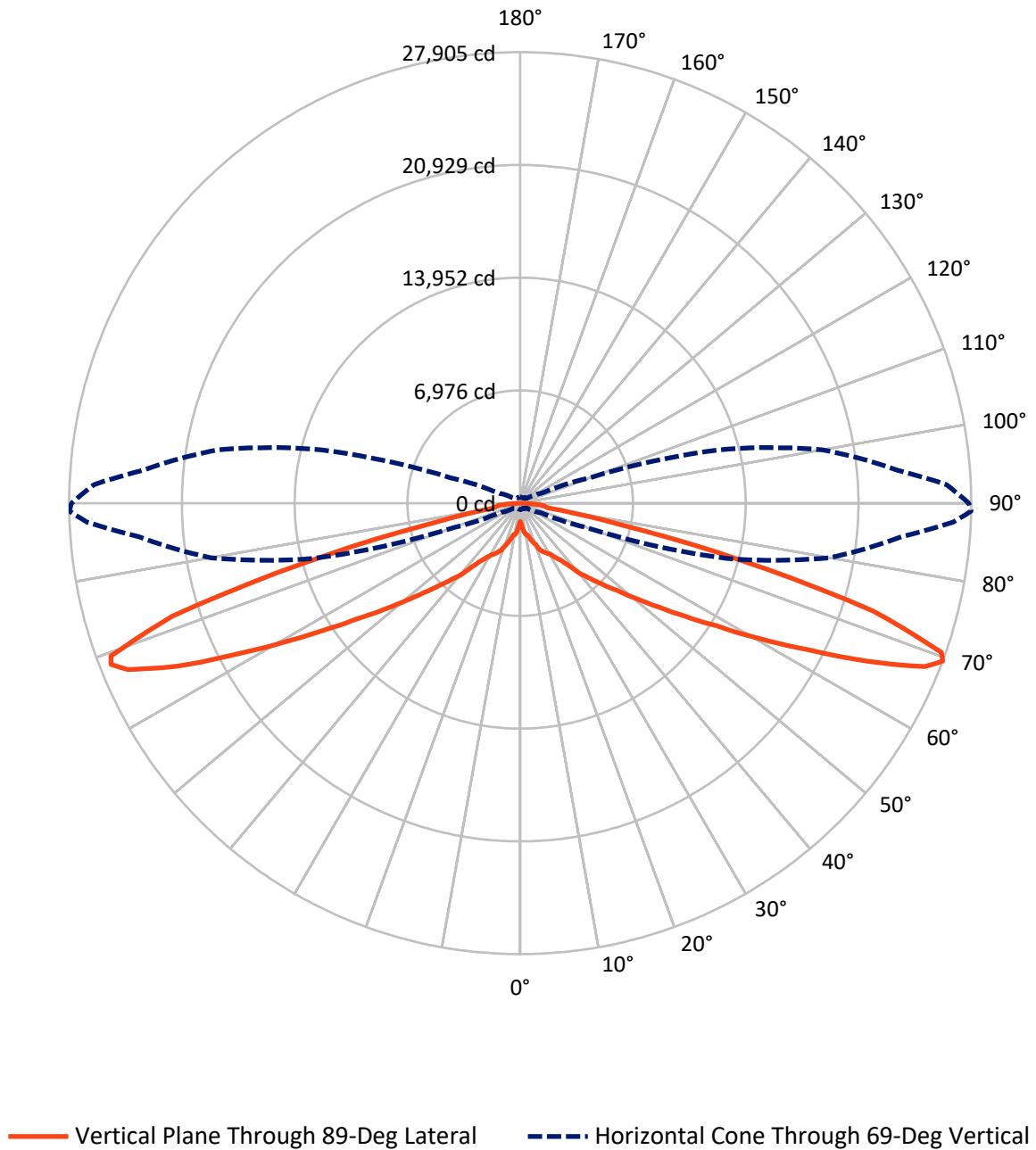
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.1 fc
 Type I - Medium - N/A

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Luminous Intensity Polar Plot



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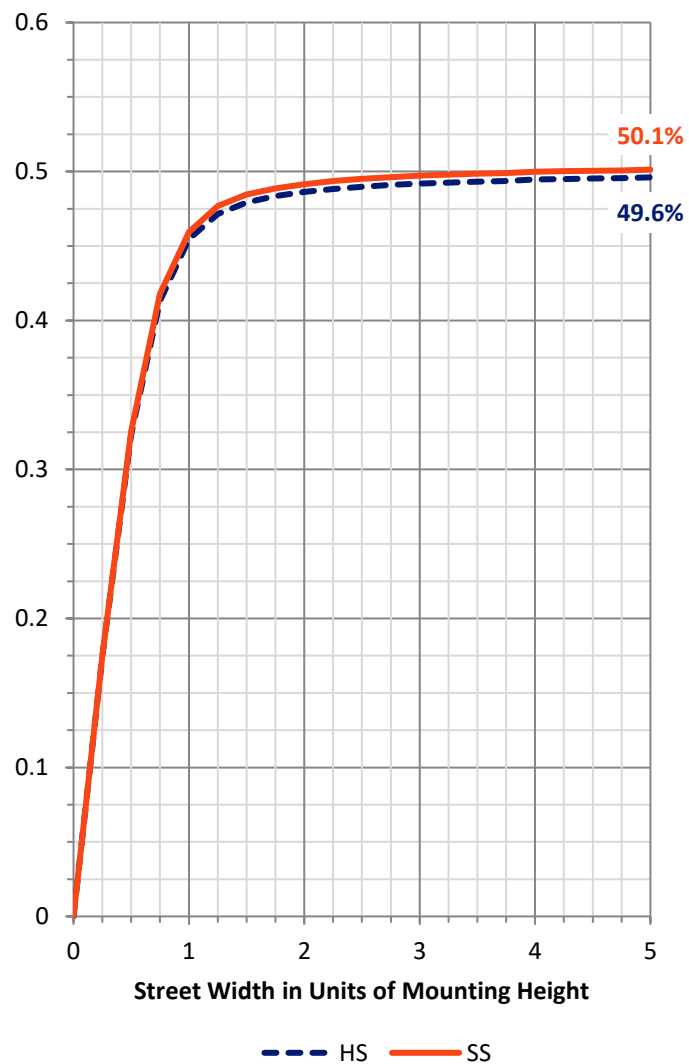
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8998.3	0.0	8998.3
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	8998.7	0.0	8998.7
	% Fixture	50.0	0.0	50.0
Total	Lumens	17997.0	0.0	17997.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.3	0.8
10°-20°	659.9	3.7
20°-30°	1316.6	7.3
30°-40°	1991.3	11.1
40°-50°	2890.5	16.1
50°-60°	3797.6	21.1
60°-70°	4632.5	25.7
70°-80°	2342.1	13.0
80°-90°	223.2	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°	17997.0	100.0
0°-180°	17997.0	100.0

Coefficient of Utilization



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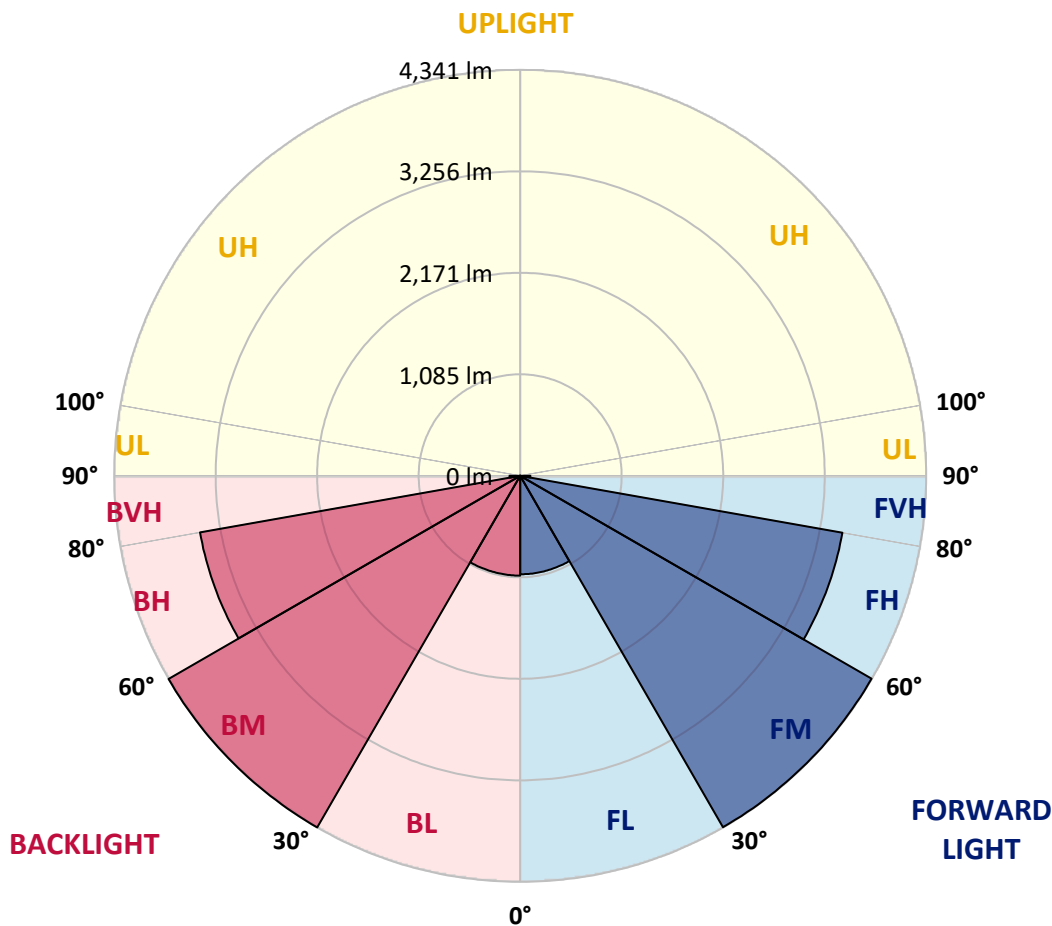
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1052.5	5.8			
FM	(30°-60°)	4338.3	24.1			
FH	(60°-80°)	3498.5	19.4			G2/5000
FVH	(80°-90°)	109.5	0.6			G2/225
BL	(0°-30°)	1067.3	5.9	B3/2500		
BM	(30°-60°)	4341.1	24.1	B3/5000		
BH	(60°-80°)	3476.2	19.3	B4/5000		G4/5000
BVH	(80°-90°)	113.8	0.6			G2/225
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°	1139.9	1139.9	1139.9	1139.9	1139.9	1139.9	1139.9	1139.9	1139.9	1139.9	1139.9
2.5°	1337.7	1183.5	1170.1	1133.2	1160.0	1170.1	1146.6	1113.1	1150.0	1170.1	1133.2
5°	1686.4	1458.4	1381.3	1317.6	1190.2	1136.6	1190.2	1327.7	1344.4	1428.3	1404.8
7.5°	1857.4	1820.5	1723.3	1512.1	1307.6	1193.6	1337.7	1535.6	1636.1	1716.6	1800.4
10°	1984.8	1964.7	1793.7	1642.8	1559.0	1565.7	1569.1	1632.8	1720.0	1854.1	1901.0
12.5°	2015.0	2008.3	2035.1	2001.6	2008.3	2045.2	2008.3	1991.5	2041.8	2085.4	2038.5
15°	2209.5	2206.1	2216.2	2222.9	2357.0	2414.0	2357.0	2306.7	2269.8	2232.9	2310.0
17.5°	2343.6	2326.8	2330.2	2393.9	2544.7	2702.3	2672.1	2605.1	2521.3	2571.5	2635.2
20°	2417.3	2387.1	2407.3	2434.1	2688.9	2863.2	2883.4	2792.8	2742.5	2806.2	2859.9
22.5°	2487.7	2440.8	2370.4	2397.2	2631.9	2883.4	2980.6	2957.1	2994.0	3014.1	3004.0
25°	2403.9	2434.1	2357.0	2434.1	2672.1	2903.5	3097.9	3235.4	3238.7	3228.7	3302.4
27.5°	2353.6	2330.2	2199.4	2397.2	2595.0	2739.2	3235.4	3466.7	3537.1	3322.6	3466.7
30°	2266.4	2303.3	2125.6	2289.9	2541.4	2782.8	3393.0	3724.9	3621.0	3594.1	3627.7
32.5°	2212.8	2189.3	2105.5	2196.0	2387.1	2913.5	3493.5	3875.8	4006.5	3942.8	3936.1
35°	2125.6	2142.4	2011.6	2108.9	2377.1	2802.9	3560.6	4254.6	4455.8	4405.5	4365.3
37.5°	2139.0	2082.0	1988.2	2058.6	2313.4	2863.2	3728.2	4620.1	4938.6	4965.4	4781.0
40°	2038.5	2004.9	1864.1	1981.5	2192.7	2826.4	3768.5	5035.8	5575.6	5696.3	5431.4
42.5°	1894.3	1850.7	1770.2	1901.0	2122.3	2645.3	3825.5	5535.4	6222.7	6474.1	6232.7
45°	1686.4	1629.4	1589.2	1763.5	1968.1	2598.4	3765.1	5951.1	6842.9	7188.3	7181.6
47.5°	1435.0	1398.1	1378.0	1562.4	1840.7	2481.0	3641.1	6212.6	7275.4	8160.6	8026.4
50°	1150.0	1123.2	1119.8	1314.3	1626.1	2239.6	3500.3	6343.4	7932.6	9052.4	9169.7
52.5°	922.0	901.9	898.5	1056.1	1361.2	1914.4	3205.2	6444.0	8559.5	10064.9	10668.4
55°	720.8	700.7	704.1	834.8	1082.9	1565.7	2755.9	6330.0	9109.4	11100.9	12244.2
57.5°	590.1	570.0	573.3	647.1	828.1	1196.9	2196.0	6081.9	9357.5	12381.6	14081.5
60°	519.7	499.6	489.5	523.0	637.0	901.9	1632.8	5116.3	9397.7	13444.5	16076.4
62.5°	482.8	462.7	452.6	462.7	526.4	690.7	1176.8	4053.5	9166.4	14353.1	17903.6
65°	449.3	432.5	419.1	429.1	462.7	549.8	858.3	2776.1	7956.0	14768.8	19231.3
67.5°	412.4	399.0	385.6	399.0	422.4	462.7	667.2	1756.8	5964.5	14229.0	19784.5
69°	392.3	372.2	365.4	375.5	399.0	425.8	576.7	1401.4	4536.2	13203.1	19449.2
70°	372.2	358.7	348.7	365.4	385.6	405.7	519.7	1190.2	3557.3	11885.4	18617.7
72.5°	328.6	318.5	311.8	328.6	345.3	358.7	425.8	848.2	2061.9	8093.5	14765.4
75°	288.3	278.3	274.9	288.3	301.7	308.5	358.7	583.4	1217.0	4234.5	8857.9
77.5°	241.4	228.0	231.3	248.1	258.2	261.5	301.7	419.1	717.5	1917.8	4103.7
80°	177.7	177.7	191.1	204.5	204.5	204.5	241.4	305.1	435.9	881.8	1703.2
82.5°	124.1	127.4	130.8	150.9	154.2	140.8	184.4	221.3	271.6	385.6	590.1
85°	70.4	73.8	77.1	90.5	93.9	83.8	120.7	140.8	157.6	191.1	308.5
87.5°	26.8	30.2	40.2	46.9	50.3	36.9	57.0	67.1	67.1	80.5	137.5
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):

	85°	87.5°	89°	90°	92.5°	95°	100°	105°	110°	115°	125°
0°	1139.9	1139.9	1139.9	1139.9	1139.9	1139.9	1139.9	1139.9	1139.9	1139.9	1139.9
2.5°	1210.3	1233.8	1277.4	1287.4	1250.6	1210.3	1119.8	1176.8	1200.3	1156.7	1170.1
5°	1498.7	1549.0	1602.6	1538.9	1498.7	1471.9	1428.3	1431.6	1408.1	1331.0	1203.6
7.5°	1823.9	1766.9	1807.1	1850.7	1787.0	1790.4	1830.6	1746.8	1683.1	1552.3	1314.3
10°	1974.8	1974.8	1984.8	1984.8	1958.0	1958.0	1954.6	1820.5	1743.4	1686.4	1619.4
12.5°	1984.8	1981.5	2021.7	1991.5	1998.2	2004.9	2021.7	2082.0	2061.9	1988.2	2048.5
15°	2263.1	2249.7	2263.1	2259.7	2269.8	2300.0	2286.6	2273.2	2276.5	2330.2	2420.7
17.5°	2524.6	2531.3	2517.9	2541.4	2541.4	2561.5	2608.4	2561.5	2521.3	2621.8	2692.2
20°	2826.4	2802.9	2749.2	2789.5	2799.5	2802.9	2880.0	2823.0	2766.0	2802.9	2886.7
22.5°	3131.5	3128.1	3134.8	3138.2	3151.6	3101.3	2997.3	2980.6	3017.5	2967.2	2977.2
25°	3319.2	3322.6	3339.3	3342.7	3285.7	3339.3	3376.2	3265.6	3265.6	3255.5	3188.4
27.5°	3547.2	3496.9	3517.0	3543.8	3520.4	3533.8	3490.2	3329.3	3500.3	3523.7	3255.5
30°	3701.4	3677.9	3654.5	3681.3	3704.8	3765.1	3641.1	3624.3	3637.7	3761.8	3409.7
32.5°	4026.6	4060.2	4016.6	3973.0	4016.6	4003.2	3949.5	3926.1	4093.7	3929.4	3517.0
35°	4328.4	4341.8	4345.1	4338.4	4365.3	4318.3	4318.3	4405.5	4455.8	4278.1	3550.5
37.5°	5055.9	5009.0	4911.8	4864.8	4948.6	5019.0	4811.2	4915.1	4895.0	4593.2	3802.0
40°	5578.9	5686.2	5716.4	5703.0	5716.4	5515.2	5558.8	5635.9	5545.4	5045.9	3714.8
42.5°	6343.4	6410.4	6387.0	6356.8	6370.2	6333.3	6202.6	6487.5	6162.3	5552.1	3848.9
45°	7040.7	7191.6	7201.7	7097.7	7181.6	7050.8	7104.4	7205.0	6876.5	5931.0	3812.1
47.5°	7872.2	8184.0	8066.7	8066.7	8150.5	7868.9	7996.3	8130.4	7258.7	6185.8	3610.9
50°	9102.7	9270.3	9263.6	9233.4	9270.3	9119.4	9099.3	9082.6	7845.4	6427.2	3486.8
52.5°	10494.1	10722.0	10634.9	10668.4	10718.7	10433.7	10658.3	10044.8	8579.6	6517.7	3205.2
55°	12271.0	12428.6	12341.4	12170.4	12398.4	12217.4	12291.1	11094.2	9089.3	6259.6	2735.8
57.5°	14386.6	14467.0	14322.9	14306.1	14457.0	14262.5	14138.5	12274.4	9354.1	6065.1	2186.0
60°	16857.5	17109.0	17018.5	16874.3	17011.8	16840.8	15902.0	13276.8	9300.5	5156.5	1693.1
62.5°	19821.4	20076.2	19975.6	19878.4	19965.5	19519.6	17558.3	14068.1	9059.1	4087.0	1237.2
65°	22268.9	23418.8	23569.7	23573.1	23150.6	22118.0	18879.2	14376.5	7785.0	2853.2	905.2
67.5°	23878.2	26268.7	27013.0	26744.8	25775.8	23418.8	19412.3	13773.0	6011.5	1803.8	677.3
69°	23693.8	26828.6	27904.8	27753.9	26392.7	23398.7	18996.6	12757.2	4593.2	1435.0	573.3
70°	22842.2	26369.3	27646.6	27713.7	26000.5	22500.2	18255.6	11590.4	3714.8	1223.7	526.4
72.5°	18228.8	21729.1	22852.2	23291.4	21591.6	18017.6	14970.0	8177.3	2152.5	854.9	425.8
75°	11292.0	13176.2	14108.3	14363.1	13333.8	11221.6	9085.9	4549.7	1310.9	603.5	358.7
77.5°	5062.6	5609.1	6145.6	6145.6	5743.2	5123.0	4164.1	2199.4	744.3	429.1	301.7
80°	1696.5	1760.2	1713.2	1730.0	1663.0	1599.3	1673.0	948.8	459.3	321.9	244.7
82.5°	1153.3	1448.4	1538.9	1538.9	1445.0	1139.9	643.7	435.9	281.6	231.3	187.8
85°	938.8	1146.6	1230.5	1267.3	1193.6	962.2	338.6	211.2	167.6	147.5	127.4
87.5°	315.2	295.0	278.3	271.6	285.0	298.4	167.6	90.5	77.1	70.4	67.1
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):

	135°	145°	155°	165°	175°	180°
0°	1139.9	1139.9	1139.9	1139.9	1139.9	1139.9
2.5°	1193.6	1153.3	1170.1	1186.9	1307.6	1398.1
5°	1186.9	1243.9	1371.3	1532.2	1606.0	1787.0
7.5°	1220.4	1428.3	1666.3	1833.9	1901.0	1958.0
10°	1632.8	1669.7	1750.1	1911.1	2045.2	2068.6
12.5°	2108.9	2098.8	2041.8	2115.6	2048.5	2095.5
15°	2481.0	2370.4	2293.3	2283.2	2259.7	2259.7
17.5°	2685.5	2588.3	2481.0	2454.2	2383.8	2440.8
20°	2926.9	2759.3	2491.1	2464.3	2440.8	2387.1
22.5°	2880.0	2712.4	2434.1	2400.6	2524.6	2517.9
25°	2937.0	2712.4	2447.5	2410.6	2467.6	2467.6
27.5°	2796.2	2611.8	2420.7	2199.4	2373.7	2414.0
30°	2759.3	2551.4	2330.2	2132.3	2310.0	2273.2
32.5°	2953.8	2400.6	2182.6	2122.3	2253.0	2226.2
35°	2802.9	2373.7	2145.7	2035.1	2189.3	2162.5
37.5°	2866.6	2340.2	2082.0	1988.2	2112.2	2152.5
40°	2853.2	2182.6	2008.3	1887.6	2011.6	2031.8
42.5°	2628.5	2061.9	1884.2	1763.5	1827.2	1894.3
45°	2561.5	1988.2	1763.5	1595.9	1599.3	1676.4
47.5°	2437.4	1820.5	1542.3	1388.0	1388.0	1451.7
50°	2229.6	1595.9	1290.8	1150.0	1146.6	1196.9
52.5°	1921.1	1378.0	1089.6	935.4	925.4	975.6
55°	1572.4	1109.8	858.3	757.7	737.6	757.7
57.5°	1223.7	865.0	677.3	596.8	593.4	610.2
60°	948.8	677.3	539.8	492.9	499.6	526.4
62.5°	717.5	539.8	459.3	442.6	452.6	479.4
65°	570.0	466.0	419.1	409.0	419.1	445.9
67.5°	462.7	422.4	388.9	375.5	382.2	409.0
69°	425.8	399.0	372.2	355.4	362.1	382.2
70°	405.7	385.6	358.7	342.0	348.7	368.8
72.5°	355.4	345.3	325.2	308.5	311.8	328.6
75°	311.8	305.1	291.7	271.6	271.6	291.7
77.5°	261.5	264.9	251.5	231.3	228.0	238.0
80°	207.9	214.6	207.9	187.8	181.0	181.0
82.5°	150.9	164.3	157.6	137.5	134.1	134.1
85°	93.9	103.9	100.6	87.2	87.2	77.1
87.5°	43.6	57.0	53.6	46.9	43.6	30.2
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)