

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: P565394

Luminaire Tested: **MSA-SA4C-760-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565394
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-SA4C-760-U-T1
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE I OPTICS.
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21755 lumens
Efficiency: N/A
Efficacy: 96.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B4 - U0 - G4

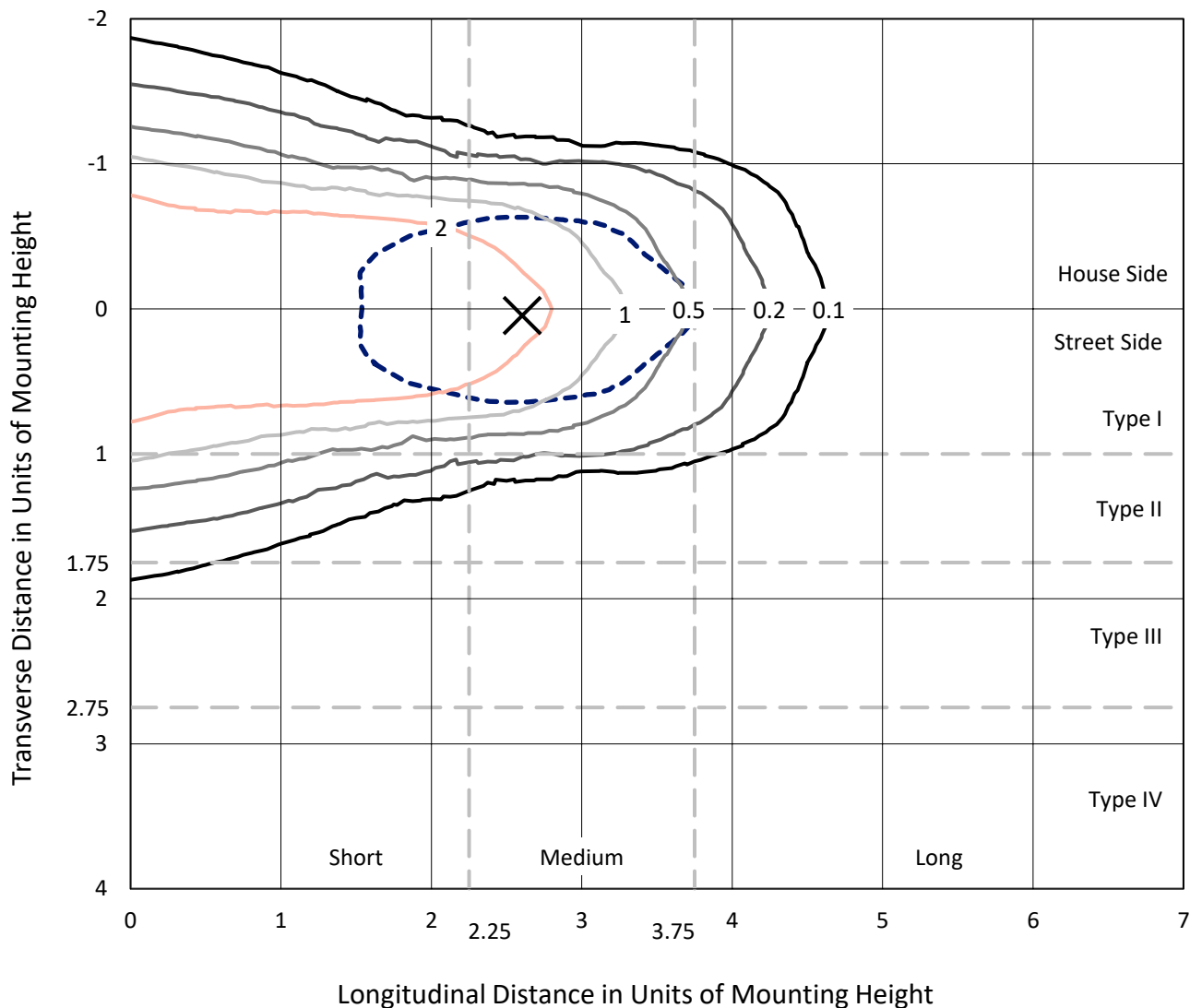
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

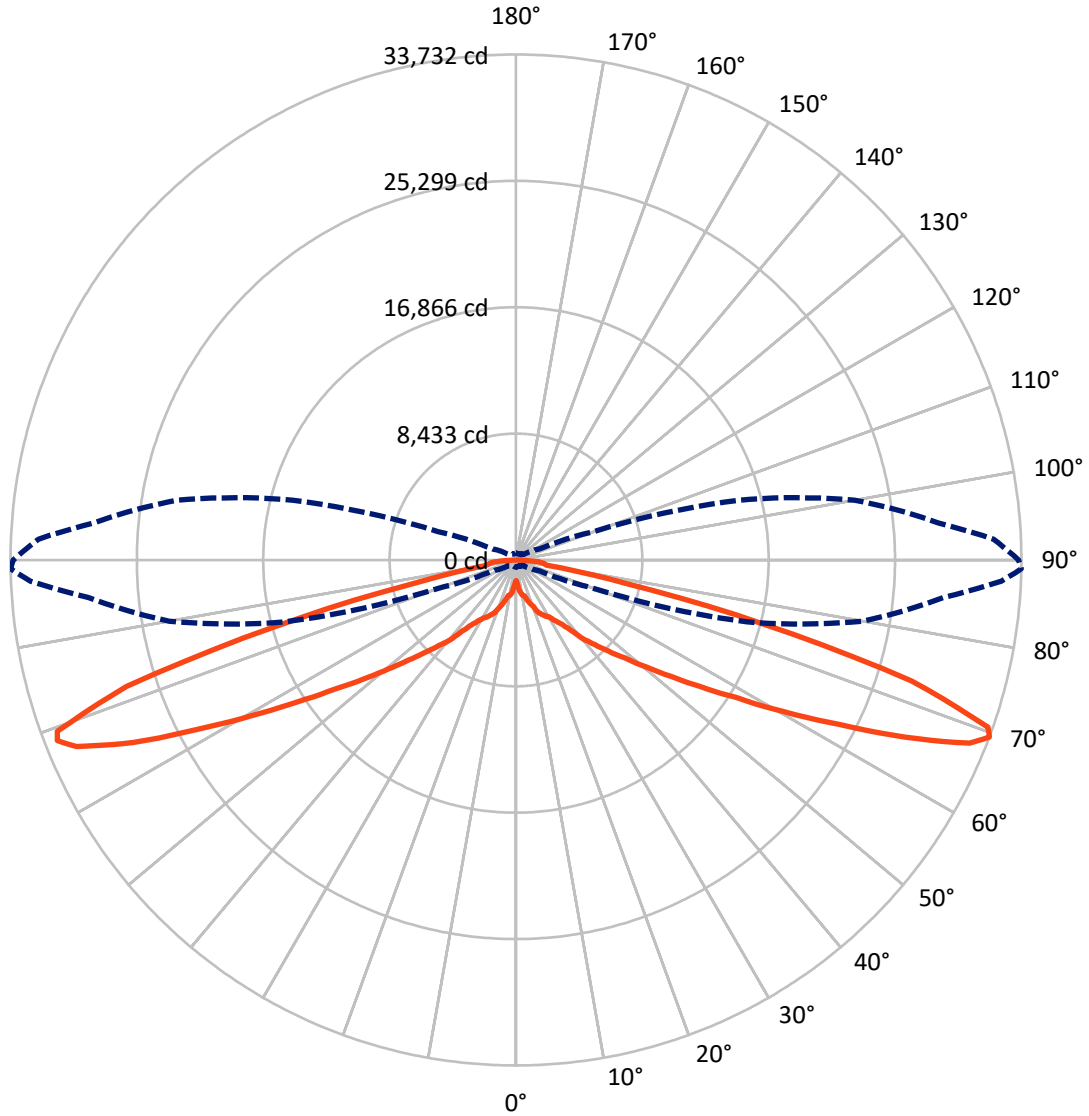
✕ Max cd
 - - - 1/2 Max cd



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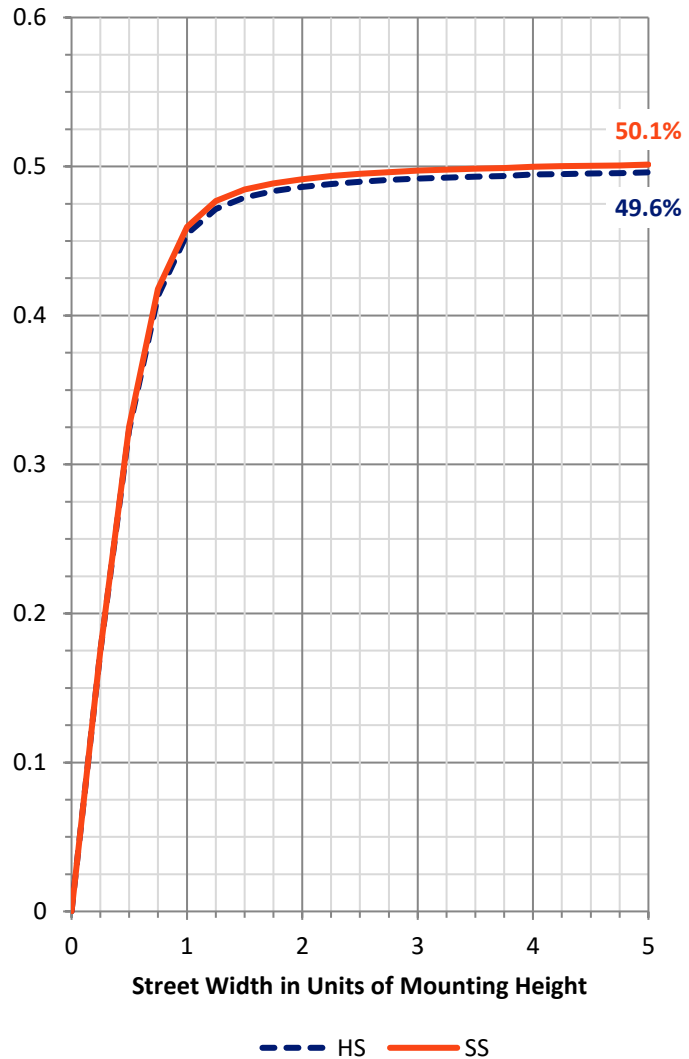
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10877.3	0.0	10877.3
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	10877.7	0.0	10877.7
	% Fixture	50.0	0.0	50.0
Total	Lumens	21755.0	0.0	21755.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.2	0.8
10°-20°	797.7	3.7
20°-30°	1591.5	7.3
30°-40°	2407.1	11.1
40°-50°	3494.1	16.1
50°-60°	4590.6	21.1
60°-70°	5599.9	25.7
70°-80°	2831.1	13.0
80°-90°	269.9	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°	21755.0	100.0
0°-180°	21755.0	100.0

Coefficient of Utilization



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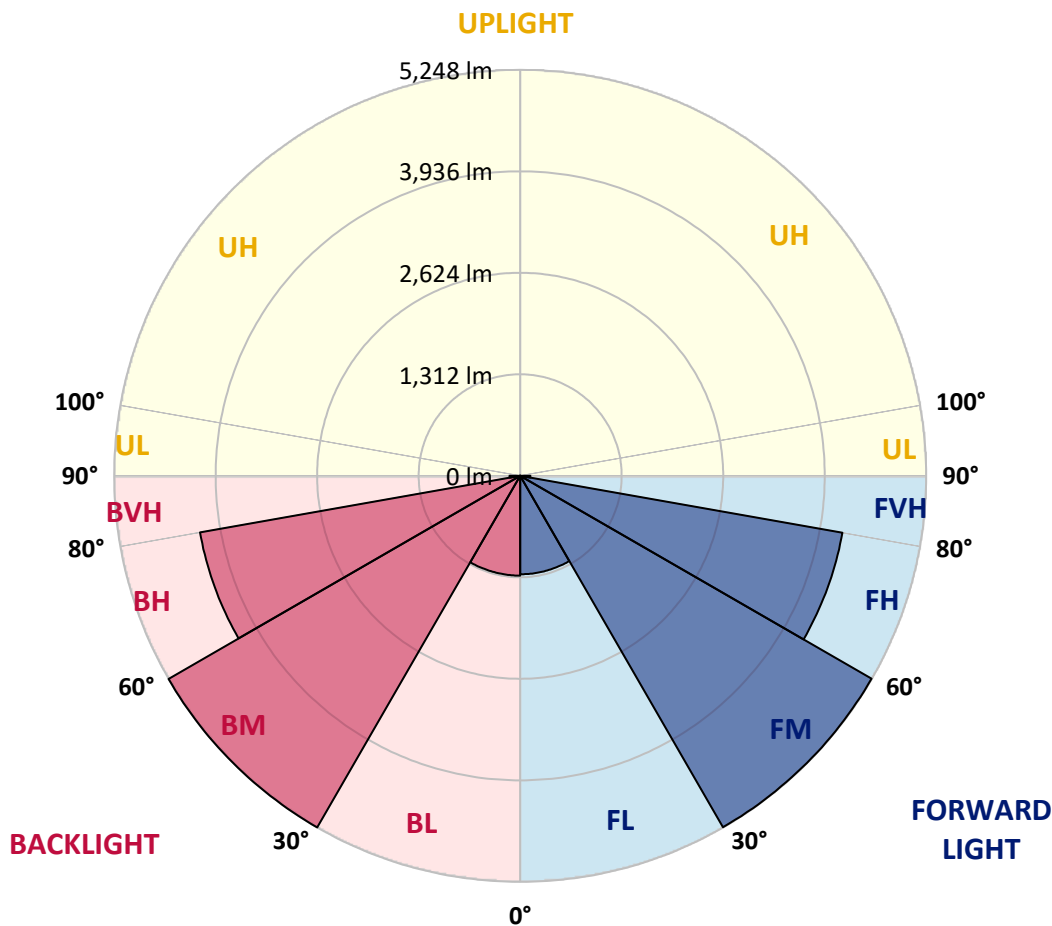
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1272.2	5.8			
FM (30°-60°)	5244.1	24.1			
FH (60°-80°)	4229.0	19.4			G2/5000
FVH (80°-90°)	132.4	0.6			G2/225
BL (0°-30°)	1290.1	5.9	B3/2500		
BM (30°-60°)	5247.6	24.1	B4/8500		
BH (60°-80°)	4202.0	19.3	B4/5000		G4/5000
BVH (80°-90°)	137.5	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°	1378.0	1378.0	1378.0	1378.0	1378.0	1378.0	1378.0	1378.0	1378.0	1378.0	1378.0
2.5°	1617.1	1430.6	1414.4	1369.9	1402.3	1414.4	1386.1	1345.5	1390.1	1414.4	1369.9
5°	2038.6	1763.0	1669.8	1592.8	1438.8	1373.9	1438.8	1604.9	1625.2	1726.5	1698.1
7.5°	2245.3	2200.7	2083.2	1827.8	1580.6	1442.8	1617.1	1856.2	1977.8	2075.0	2176.4
10°	2399.3	2375.0	2168.3	1985.9	1884.6	1892.7	1896.7	1973.7	2079.1	2241.2	2298.0
12.5°	2435.7	2427.6	2460.1	2419.5	2427.6	2472.2	2427.6	2407.4	2468.2	2520.9	2464.1
15°	2670.8	2666.8	2678.9	2687.0	2849.1	2918.0	2849.1	2788.3	2743.8	2699.2	2792.4
17.5°	2832.9	2812.7	2816.7	2893.7	3076.1	3266.6	3230.1	3149.0	3047.7	3108.5	3185.5
20°	2922.1	2885.6	2909.9	2942.4	3250.4	3461.1	3485.4	3376.0	3315.2	3392.2	3457.1
22.5°	3007.2	2950.5	2865.3	2897.8	3181.5	3485.4	3603.0	3574.6	3619.2	3643.5	3631.3
25°	2905.9	2942.4	2849.1	2942.4	3230.1	3509.7	3744.8	3911.0	3915.0	3902.9	3992.0
27.5°	2845.1	2816.7	2658.7	2897.8	3136.9	3311.2	3911.0	4190.6	4275.7	4016.4	4190.6
30°	2739.7	2784.3	2569.5	2768.1	3072.0	3363.8	4101.5	4502.7	4377.1	4344.6	4385.2
32.5°	2674.9	2646.5	2545.2	2654.6	2885.6	3521.9	4223.0	4685.1	4843.1	4766.1	4758.0
35°	2569.5	2589.8	2431.7	2549.2	2873.5	3388.2	4304.1	5143.0	5386.2	5325.4	5276.8
37.5°	2585.7	2516.8	2403.3	2488.4	2796.5	3461.1	4506.7	5584.8	5969.8	6002.2	5779.3
40°	2464.1	2423.6	2253.4	2395.2	2650.5	3416.5	4555.4	6087.3	6739.9	6885.8	6565.6
42.5°	2289.8	2237.2	2139.9	2298.0	2565.4	3197.7	4624.3	6691.2	7522.0	7826.0	7534.2
45°	2038.6	1969.7	1921.0	2131.8	2379.0	3140.9	4551.3	7193.8	8271.8	8689.3	8681.2
47.5°	1734.6	1690.0	1665.7	1888.6	2225.0	2999.1	4401.4	7509.9	8794.6	9864.6	9702.5
50°	1390.1	1357.7	1353.6	1588.7	1965.6	2707.3	4231.2	7667.9	9589.0	10942.6	11084.5
52.5°	1114.5	1090.2	1086.2	1276.6	1645.4	2314.2	3874.5	7789.5	10346.9	12166.6	12896.1
55°	871.4	847.0	851.1	1009.2	1309.1	1892.7	3331.4	7651.7	11011.5	13418.9	14800.9
57.5°	713.3	689.0	693.0	782.2	1001.0	1446.9	2654.6	7351.8	11311.4	14967.1	17021.9
60°	628.2	603.9	591.7	632.2	770.0	1090.2	1973.7	6184.6	11360.1	16251.8	19433.3
62.5°	583.6	559.3	547.1	559.3	636.3	834.9	1422.5	4899.9	11080.4	17350.2	21642.1
65°	543.1	522.8	506.6	518.8	559.3	664.7	1037.5	3355.7	9617.4	17852.7	23247.0
67.5°	498.5	482.3	466.1	482.3	510.7	559.3	806.5	2123.7	7210.0	17200.2	23915.7
69°	474.2	449.9	441.8	453.9	482.3	514.7	697.1	1694.1	5483.5	15960.0	23510.4
70°	449.9	433.7	421.5	441.8	466.1	490.4	628.2	1438.8	4300.0	14367.3	22505.3
72.5°	397.2	385.0	376.9	397.2	417.4	433.7	514.7	1025.4	2492.5	9783.5	17848.6
75°	348.5	336.4	332.3	348.5	364.8	372.9	433.7	705.2	1471.2	5118.7	10707.6
77.5°	291.8	275.6	279.6	299.9	312.1	316.1	364.8	506.6	867.3	2318.2	4960.7
80°	214.8	214.8	231.0	247.2	247.2	247.2	291.8	368.8	526.9	1065.9	2058.8
82.5°	150.0	154.0	158.1	182.4	186.4	170.2	222.9	267.5	328.3	466.1	713.3
85°	85.1	89.2	93.2	109.4	113.5	101.3	145.9	170.2	190.5	231.0	372.9
87.5°	32.4	36.5	48.6	56.7	60.8	44.6	68.9	81.1	81.1	97.3	166.2
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°	1378.0	1378.0	1378.0	1378.0	1378.0	1378.0	1378.0	1378.0	1378.0	1378.0	1378.0
2.5°	1463.1	1491.4	1544.1	1556.3	1511.7	1463.1	1353.6	1422.5	1450.9	1398.2	1414.4
5°	1811.6	1872.4	1937.3	1860.2	1811.6	1779.2	1726.5	1730.6	1702.2	1609.0	1455.0
7.5°	2204.7	2135.8	2184.5	2237.2	2160.2	2164.2	2212.8	2111.5	2034.5	1876.5	1588.7
10°	2387.1	2387.1	2399.3	2399.3	2366.9	2366.9	2362.8	2200.7	2107.5	2038.6	1957.5
12.5°	2399.3	2395.2	2443.9	2407.4	2415.5	2423.6	2443.9	2516.8	2492.5	2403.3	2476.3
15°	2735.7	2719.4	2735.7	2731.6	2743.8	2780.2	2764.0	2747.8	2751.9	2816.7	2926.1
17.5°	3051.8	3059.9	3043.7	3072.0	3072.0	3096.4	3153.1	3096.4	3047.7	3169.3	3254.4
20°	3416.5	3388.2	3323.3	3372.0	3384.1	3388.2	3481.4	3412.5	3343.6	3388.2	3489.5
22.5°	3785.3	3781.3	3789.4	3793.4	3809.7	3748.9	3623.2	3603.0	3647.5	3586.8	3598.9
25°	4012.3	4016.4	4036.6	4040.7	3971.8	4036.6	4081.2	3947.5	3947.5	3935.3	3854.2
27.5°	4287.9	4227.1	4251.4	4283.8	4255.5	4271.7	4219.0	4024.5	4231.2	4259.5	3935.3
30°	4474.3	4446.0	4417.6	4450.0	4478.4	4551.3	4401.4	4381.1	4397.3	4547.3	4121.7
32.5°	4867.4	4908.0	4855.3	4802.6	4855.3	4839.1	4774.2	4745.9	4948.5	4749.9	4251.4
35°	5232.2	5248.4	5252.5	5244.4	5276.8	5220.0	5220.0	5325.4	5386.2	5171.4	4291.9
37.5°	6111.7	6054.9	5937.4	5880.7	5982.0	6067.1	5815.8	5941.4	5917.1	5552.4	4595.9
40°	6743.9	6873.6	6910.1	6893.9	6910.1	6666.9	6719.6	6812.8	6703.4	6099.5	4490.5
42.5°	7667.9	7749.0	7720.6	7684.2	7700.4	7655.8	7497.7	7842.2	7449.1	6711.5	4652.6
45°	8510.9	8693.3	8705.5	8579.8	8681.2	8523.1	8587.9	8709.5	8312.3	7169.5	4608.1
47.5°	9516.0	9893.0	9751.1	9751.1	9852.4	9512.0	9666.0	9828.1	8774.4	7477.5	4364.9
50°	11003.4	11206.1	11198.0	11161.5	11206.1	11023.7	10999.4	10979.1	9483.6	7769.3	4214.9
52.5°	12685.3	12960.9	12855.6	12896.1	12956.9	12612.4	12883.9	12142.3	10371.2	7878.7	3874.5
55°	14833.3	15023.8	14918.5	14711.8	14987.4	14768.5	14857.7	13410.8	10987.2	7566.6	3307.1
57.5°	17390.7	17487.9	17313.7	17293.4	17475.8	17240.7	17090.8	14837.4	11307.4	7331.6	2642.4
60°	20377.6	20681.6	20572.1	20397.9	20564.0	20357.3	19222.6	16049.2	11242.5	6233.2	2046.7
62.5°	23960.3	24268.3	24146.7	24029.2	24134.6	23595.6	21224.7	17005.7	10950.7	4940.4	1495.5
65°	26918.9	28309.0	28491.4	28495.4	27984.8	26736.5	22821.5	17378.5	9410.7	3449.0	1094.3
67.5°	28864.2	31753.9	32653.6	32329.4	31158.1	28309.0	23465.9	16649.0	7266.7	2180.4	818.7
69°	28641.3	32430.7	33731.7	33549.3	31903.9	28284.7	22963.3	15421.0	5552.4	1734.6	693.0
70°	27611.9	31875.5	33419.6	33500.7	31429.7	27198.5	22067.6	14010.6	4490.5	1479.3	636.3
72.5°	22035.2	26266.4	27624.1	28155.0	26100.2	21779.9	18095.9	9884.8	2601.9	1033.5	514.7
75°	13649.9	15927.6	17054.3	17362.3	16118.1	13564.8	10983.2	5499.7	1584.7	729.5	433.7
77.5°	6119.8	6780.4	7428.8	7428.8	6942.5	6192.7	5033.6	2658.7	899.7	518.8	364.8
80°	2050.7	2127.7	2071.0	2091.3	2010.2	1933.2	2022.4	1147.0	555.2	389.1	295.9
82.5°	1394.2	1750.8	1860.2	1860.2	1746.8	1378.0	778.1	526.9	340.4	279.6	227.0
85°	1134.8	1386.1	1487.4	1532.0	1442.8	1163.2	409.3	255.3	202.6	178.3	154.0
87.5°	381.0	356.6	336.4	328.3	344.5	360.7	202.6	109.4	93.2	85.1	81.1
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°	1378.0	1378.0	1378.0	1378.0	1378.0	1378.0
2.5°	1442.8	1394.2	1414.4	1434.7	1580.6	1690.0
5°	1434.7	1503.6	1657.6	1852.1	1941.3	2160.2
7.5°	1475.2	1726.5	2014.3	2216.9	2298.0	2366.9
10°	1973.7	2018.3	2115.6	2310.1	2472.2	2500.6
12.5°	2549.2	2537.1	2468.2	2557.3	2476.3	2533.0
15°	2999.1	2865.3	2772.1	2760.0	2731.6	2731.6
17.5°	3246.3	3128.8	2999.1	2966.7	2881.6	2950.5
20°	3538.1	3335.5	3011.3	2978.8	2950.5	2885.6
22.5°	3481.4	3278.7	2942.4	2901.8	3051.8	3043.7
25°	3550.3	3278.7	2958.6	2914.0	2982.9	2982.9
27.5°	3380.1	3157.2	2926.1	2658.7	2869.4	2918.0
30°	3335.5	3084.2	2816.7	2577.6	2792.4	2747.8
32.5°	3570.5	2901.8	2638.4	2565.4	2723.5	2691.1
35°	3388.2	2869.4	2593.8	2460.1	2646.5	2614.1
37.5°	3465.2	2828.9	2516.8	2403.3	2553.3	2601.9
40°	3449.0	2638.4	2427.6	2281.7	2431.7	2456.0
42.5°	3177.4	2492.5	2277.7	2131.8	2208.8	2289.8
45°	3096.4	2403.3	2131.8	1929.1	1933.2	2026.4
47.5°	2946.4	2200.7	1864.3	1677.9	1677.9	1754.9
50°	2695.1	1929.1	1560.3	1390.1	1386.1	1446.9
52.5°	2322.3	1665.7	1317.2	1130.7	1118.6	1179.4
55°	1900.8	1341.5	1037.5	915.9	891.6	915.9
57.5°	1479.3	1045.6	818.7	721.4	717.4	737.6
60°	1147.0	818.7	652.5	595.8	603.9	636.3
62.5°	867.3	652.5	555.2	535.0	547.1	579.6
65°	689.0	563.3	506.6	494.4	506.6	539.0
67.5°	559.3	510.7	470.1	453.9	462.0	494.4
69°	514.7	482.3	449.9	429.6	437.7	462.0
70°	490.4	466.1	433.7	413.4	421.5	445.8
72.5°	429.6	417.4	393.1	372.9	376.9	397.2
75°	376.9	368.8	352.6	328.3	328.3	352.6
77.5°	316.1	320.2	304.0	279.6	275.6	287.8
80°	251.3	259.4	251.3	227.0	218.9	218.9
82.5°	182.4	198.6	190.5	166.2	162.1	162.1
85°	113.5	125.6	121.6	105.4	105.4	93.2
87.5°	52.7	68.9	64.8	56.7	52.7	36.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)