

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: P565313

Luminaire Tested: **MSA-SA4B-730-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565313
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-SA4B-730-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: 15998 lumens
Efficiency: N/A
Efficacy: 93.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B4 - U0 - G4

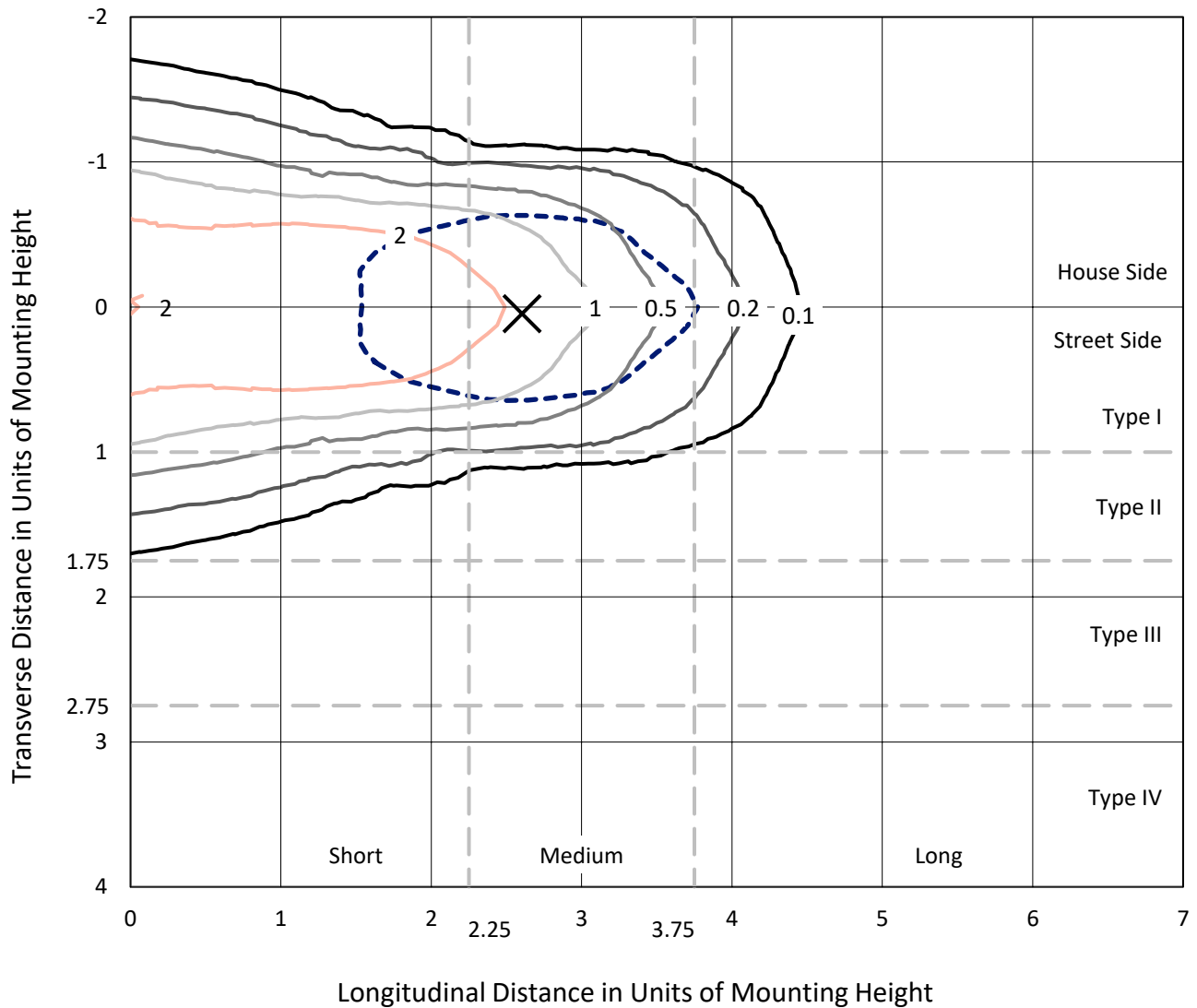
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

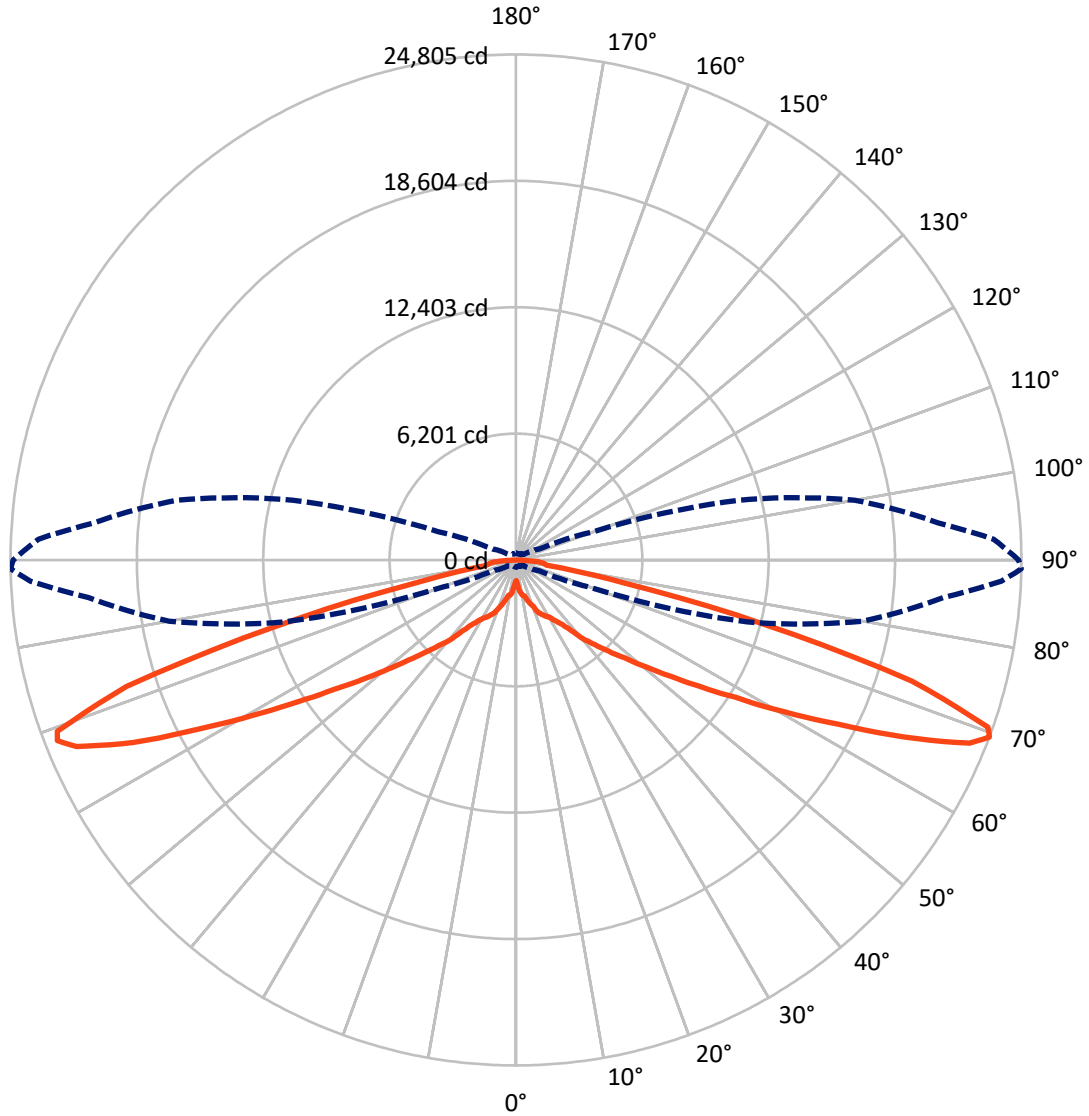
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 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	7998.8	0.0	7998.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	7999.2	0.0	7999.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	15998.0	0.0	15998.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.3	0.8
10°-20°	586.6	3.7
20°-30°	1170.3	7.3
30°-40°	1770.1	11.1
40°-50°	2569.4	16.1
50°-60°	3375.8	21.1
60°-70°	4118.0	25.7
70°-80°	2081.9	13.0
80°-90°	198.4	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°	15998.0	100.0
0°-180°	15998.0	100.0

Coefficient of Utilization



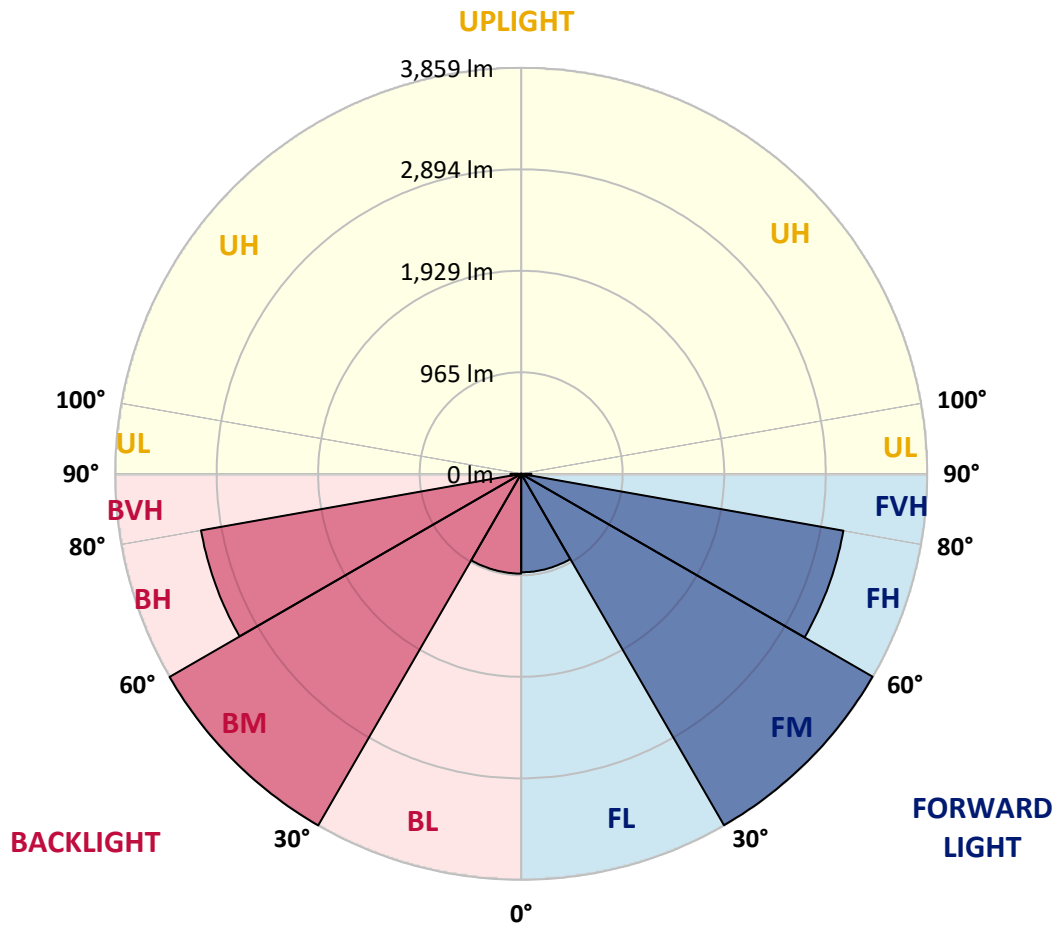
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	935.6	5.8			
FM (30°-60°)	3856.4	24.1			
FH (60°-80°)	3109.9	19.4			G2/5000
FVH (80°-90°)	97.3	0.6			G1/100
BL (0°-30°)	948.7	5.9	B2/1000		
BM (30°-60°)	3858.9	24.1	B3/5000		
BH (60°-80°)	3090.0	19.3	B4/5000		G4/5000
BVH (80°-90°)	101.1	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°	1013.3	1013.3	1013.3	1013.3	1013.3	1013.3	1013.3	1013.3	1013.3	1013.3	1013.3
2.5°	1189.2	1052.1	1040.1	1007.4	1031.2	1040.1	1019.3	989.5	1022.3	1040.1	1007.4
5°	1499.1	1296.4	1227.9	1171.3	1058.0	1010.3	1058.0	1180.2	1195.1	1269.6	1248.8
7.5°	1651.1	1618.3	1531.9	1344.1	1162.3	1061.0	1189.2	1365.0	1454.4	1525.9	1600.4
10°	1764.4	1746.5	1594.5	1460.4	1385.9	1391.8	1394.8	1451.4	1528.9	1648.1	1689.8
12.5°	1791.2	1785.2	1809.1	1779.3	1785.2	1818.0	1785.2	1770.3	1815.0	1853.8	1812.0
15°	1964.0	1961.1	1970.0	1976.0	2095.2	2145.8	2095.2	2050.5	2017.7	1984.9	2053.4
17.5°	2083.3	2068.4	2071.3	2128.0	2262.1	2402.1	2375.3	2315.7	2241.2	2285.9	2342.5
20°	2148.8	2122.0	2139.9	2163.7	2390.2	2545.2	2563.1	2482.6	2437.9	2494.5	2542.2
22.5°	2211.4	2169.7	2107.1	2130.9	2339.6	2563.1	2649.5	2628.7	2661.4	2679.3	2670.4
25°	2136.9	2163.7	2095.2	2163.7	2375.3	2581.0	2753.8	2876.0	2879.0	2870.1	2935.6
27.5°	2092.2	2071.3	1955.1	2130.9	2306.8	2434.9	2876.0	3081.7	3144.3	2953.5	3081.7
30°	2014.7	2047.5	1889.5	2035.6	2259.1	2473.7	3016.1	3311.1	3218.8	3194.9	3224.7
32.5°	1967.0	1946.2	1871.6	1952.1	2122.0	2589.9	3105.5	3445.3	3561.5	3504.9	3498.9
35°	1889.5	1904.4	1788.2	1874.6	2113.1	2491.6	3165.1	3782.0	3960.9	3916.2	3880.4
37.5°	1901.5	1850.8	1767.3	1829.9	2056.4	2545.2	3314.1	4106.9	4390.0	4413.9	4250.0
40°	1812.0	1782.2	1657.1	1761.4	1949.1	2512.4	3349.9	4476.5	4956.3	5063.6	4828.1
42.5°	1683.9	1645.1	1573.6	1689.8	1886.6	2351.5	3400.6	4920.5	5531.5	5755.0	5540.4
45°	1499.1	1448.4	1412.7	1567.7	1749.5	2309.8	3346.9	5290.1	6082.9	6389.8	6383.9
47.5°	1275.6	1242.8	1224.9	1388.8	1636.2	2205.4	3236.6	5522.6	6467.3	7254.1	7134.9
50°	1022.3	998.4	995.4	1168.3	1445.5	1990.9	3111.5	5638.8	7051.5	8046.9	8151.2
52.5°	819.6	801.7	798.7	938.8	1210.0	1701.8	2849.2	5728.2	7608.8	8947.0	9483.4
55°	640.8	622.9	625.9	742.1	962.6	1391.8	2449.8	5626.9	8097.6	9867.9	10884.2
57.5°	524.5	506.7	509.6	575.2	736.1	1064.0	1952.1	5406.3	8318.1	11006.4	12517.4
60°	462.0	444.1	435.1	464.9	566.3	801.7	1451.4	4548.0	8353.9	11951.1	14290.7
62.5°	429.2	411.3	402.3	411.3	467.9	613.9	1046.1	3603.2	8148.2	12758.8	15915.0
65°	399.4	384.5	372.5	381.5	411.3	488.8	763.0	2467.7	7072.3	13128.4	17095.2
67.5°	366.6	354.7	342.7	354.7	375.5	411.3	593.1	1561.7	5302.0	12648.5	17586.9
69°	348.7	330.8	324.9	333.8	354.7	378.5	512.6	1245.8	4032.4	11736.5	17288.9
70°	330.8	318.9	310.0	324.9	342.7	360.6	462.0	1058.0	3162.1	10565.3	16549.8
72.5°	292.1	283.1	277.2	292.1	307.0	318.9	378.5	754.0	1832.9	7194.5	13125.4
75°	256.3	247.4	244.4	256.3	268.2	274.2	318.9	518.6	1081.9	3764.2	7874.0
77.5°	214.6	202.7	205.6	220.5	229.5	232.5	268.2	372.5	637.8	1704.7	3647.9
80°	158.0	158.0	169.9	181.8	181.8	181.8	214.6	271.2	387.4	783.8	1514.0
82.5°	110.3	113.3	116.2	134.1	137.1	125.2	163.9	196.7	241.4	342.7	524.5
85°	62.6	65.6	68.5	80.5	83.4	74.5	107.3	125.2	140.1	169.9	274.2
87.5°	23.8	26.8	35.8	41.7	44.7	32.8	50.7	59.6	59.6	71.5	122.2
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°	1013.3	1013.3	1013.3	1013.3	1013.3	1013.3	1013.3	1013.3	1013.3	1013.3	1013.3
2.5°	1075.9	1096.8	1135.5	1144.4	1111.7	1075.9	995.4	1046.1	1067.0	1028.2	1040.1
5°	1332.2	1376.9	1424.6	1368.0	1332.2	1308.4	1269.6	1272.6	1251.7	1183.2	1069.9
7.5°	1621.3	1570.6	1606.4	1645.1	1588.5	1591.5	1627.3	1552.8	1496.1	1379.9	1168.3
10°	1755.4	1755.4	1764.4	1764.4	1740.5	1740.5	1737.5	1618.3	1549.8	1499.1	1439.5
12.5°	1764.4	1761.4	1797.1	1770.3	1776.3	1782.2	1797.1	1850.8	1832.9	1767.3	1821.0
15°	2011.7	1999.8	2011.7	2008.7	2017.7	2044.5	2032.6	2020.7	2023.6	2071.3	2151.8
17.5°	2244.2	2250.2	2238.2	2259.1	2259.1	2277.0	2318.7	2277.0	2241.2	2330.6	2393.2
20°	2512.4	2491.6	2443.9	2479.6	2488.6	2491.6	2560.1	2509.4	2458.8	2491.6	2566.1
22.5°	2783.6	2780.6	2786.6	2789.6	2801.5	2756.8	2664.4	2649.5	2682.3	2637.6	2646.5
25°	2950.5	2953.5	2968.4	2971.4	2920.7	2968.4	3001.2	2902.8	2902.8	2893.9	2834.3
27.5°	3153.2	3108.5	3126.4	3150.2	3129.3	3141.3	3102.5	2959.5	3111.5	3132.3	2893.9
30°	3290.3	3269.4	3248.6	3272.4	3293.3	3346.9	3236.6	3221.7	3233.7	3343.9	3031.0
32.5°	3579.4	3609.2	3570.4	3531.7	3570.4	3558.5	3510.8	3490.0	3639.0	3492.9	3126.4
35°	3847.6	3859.5	3862.5	3856.5	3880.4	3838.7	3838.7	3916.2	3960.9	3802.9	3156.2
37.5°	4494.3	4452.6	4366.2	4324.5	4399.0	4461.6	4276.8	4369.2	4351.3	4083.1	3379.7
40°	4959.3	5054.6	5081.5	5069.5	5081.5	4902.6	4941.4	5009.9	4929.5	4485.4	3302.2
42.5°	5638.8	5698.4	5677.5	5650.7	5662.6	5629.8	5513.6	5766.9	5477.9	4935.4	3421.4
45°	6258.7	6392.8	6401.8	6309.4	6383.9	6267.6	6315.3	6404.7	6112.7	5272.2	3388.6
47.5°	6997.8	7275.0	7170.7	7170.7	7245.2	6994.8	7108.1	7227.3	6452.4	5498.7	3209.8
50°	8091.6	8240.6	8234.7	8207.8	8240.6	8106.5	8088.6	8073.7	6974.0	5713.3	3099.5
52.5°	9328.4	9531.1	9453.6	9483.4	9528.1	9274.8	9474.5	8929.1	7626.7	5793.8	2849.2
55°	10908.0	11048.1	10970.6	10818.6	11021.3	10860.3	10925.9	9861.9	8079.7	5564.3	2432.0
57.5°	12788.6	12860.1	12732.0	12717.1	12851.2	12678.3	12568.1	10911.0	8315.1	5391.4	1943.2
60°	14985.1	15208.6	15128.2	15000.0	15122.2	14970.2	14135.7	11802.1	8267.4	4583.8	1505.1
62.5°	17619.7	17846.2	17756.8	17670.4	17747.9	17351.5	15608.0	12505.5	8052.9	3633.0	1099.7
65°	19795.4	20817.6	20951.7	20954.7	20579.2	19661.3	16782.3	12779.7	6920.3	2536.3	804.7
67.5°	21225.9	23350.9	24012.5	23774.1	22912.8	20817.6	17256.1	12243.2	5343.7	1603.4	602.0
69°	21062.0	23848.6	24805.3	24671.2	23461.2	20799.7	16886.6	11340.2	4083.1	1275.6	509.6
70°	20305.0	23440.3	24575.8	24635.4	23112.5	20001.0	16227.9	10303.0	3302.2	1087.8	467.9
72.5°	16204.1	19315.5	20313.9	20704.4	19193.3	16016.3	13307.2	7269.0	1913.4	760.0	378.5
75°	10037.8	11712.7	12541.2	12767.7	11852.8	9975.2	8076.7	4044.3	1165.3	536.5	318.9
77.5°	4500.3	4986.1	5462.9	5462.9	5105.3	4553.9	3701.6	1955.1	661.6	381.5	268.2
80°	1508.0	1564.7	1522.9	1537.9	1478.2	1421.6	1487.2	843.4	408.3	286.1	217.6
82.5°	1025.2	1287.5	1368.0	1368.0	1284.5	1013.3	572.2	387.4	250.3	205.6	166.9
85°	834.5	1019.3	1093.8	1126.6	1061.0	855.4	301.0	187.8	149.0	131.1	113.3
87.5°	280.2	262.3	247.4	241.4	253.3	265.2	149.0	80.5	68.5	62.6	59.6
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°	1013.3	1013.3	1013.3	1013.3	1013.3	1013.3
2.5°	1061.0	1025.2	1040.1	1055.0	1162.3	1242.8
5°	1055.0	1105.7	1219.0	1362.0	1427.6	1588.5
7.5°	1084.8	1269.6	1481.2	1630.2	1689.8	1740.5
10°	1451.4	1484.2	1555.7	1698.8	1818.0	1838.9
12.5°	1874.6	1865.7	1815.0	1880.6	1821.0	1862.7
15°	2205.4	2107.1	2038.5	2029.6	2008.7	2008.7
17.5°	2387.2	2300.8	2205.4	2181.6	2119.0	2169.7
20°	2601.8	2452.8	2214.4	2190.5	2169.7	2122.0
22.5°	2560.1	2411.1	2163.7	2133.9	2244.2	2238.2
25°	2610.8	2411.1	2175.6	2142.9	2193.5	2193.5
27.5°	2485.6	2321.7	2151.8	1955.1	2110.1	2145.8
30°	2452.8	2268.0	2071.3	1895.5	2053.4	2020.7
32.5°	2625.7	2133.9	1940.2	1886.6	2002.8	1978.9
35°	2491.6	2110.1	1907.4	1809.1	1946.2	1922.3
37.5°	2548.2	2080.3	1850.8	1767.3	1877.6	1913.4
40°	2536.3	1940.2	1785.2	1677.9	1788.2	1806.1
42.5°	2336.6	1832.9	1674.9	1567.7	1624.3	1683.9
45°	2277.0	1767.3	1567.7	1418.6	1421.6	1490.2
47.5°	2166.7	1618.3	1371.0	1233.9	1233.9	1290.5
50°	1981.9	1418.6	1147.4	1022.3	1019.3	1064.0
52.5°	1707.7	1224.9	968.6	831.5	822.6	867.3
55°	1397.8	986.5	763.0	673.6	655.7	673.6
57.5°	1087.8	768.9	602.0	530.5	527.5	542.4
60°	843.4	602.0	479.8	438.1	444.1	467.9
62.5°	637.8	479.8	408.3	393.4	402.3	426.2
65°	506.7	414.3	372.5	363.6	372.5	396.4
67.5°	411.3	375.5	345.7	333.8	339.8	363.6
69°	378.5	354.7	330.8	315.9	321.9	339.8
70°	360.6	342.7	318.9	304.0	310.0	327.8
72.5°	315.9	307.0	289.1	274.2	277.2	292.1
75°	277.2	271.2	259.3	241.4	241.4	259.3
77.5°	232.5	235.4	223.5	205.6	202.7	211.6
80°	184.8	190.7	184.8	166.9	160.9	160.9
82.5°	134.1	146.0	140.1	122.2	119.2	119.2
85°	83.4	92.4	89.4	77.5	77.5	68.5
87.5°	38.7	50.7	47.7	41.7	38.7	26.8
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)