

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: P565280

Luminaire Tested: **MSA-SA3D-727-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565280
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-727-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: 15050 lumens
Efficiency: N/A
Efficacy: 78.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B4 - U0 - G4

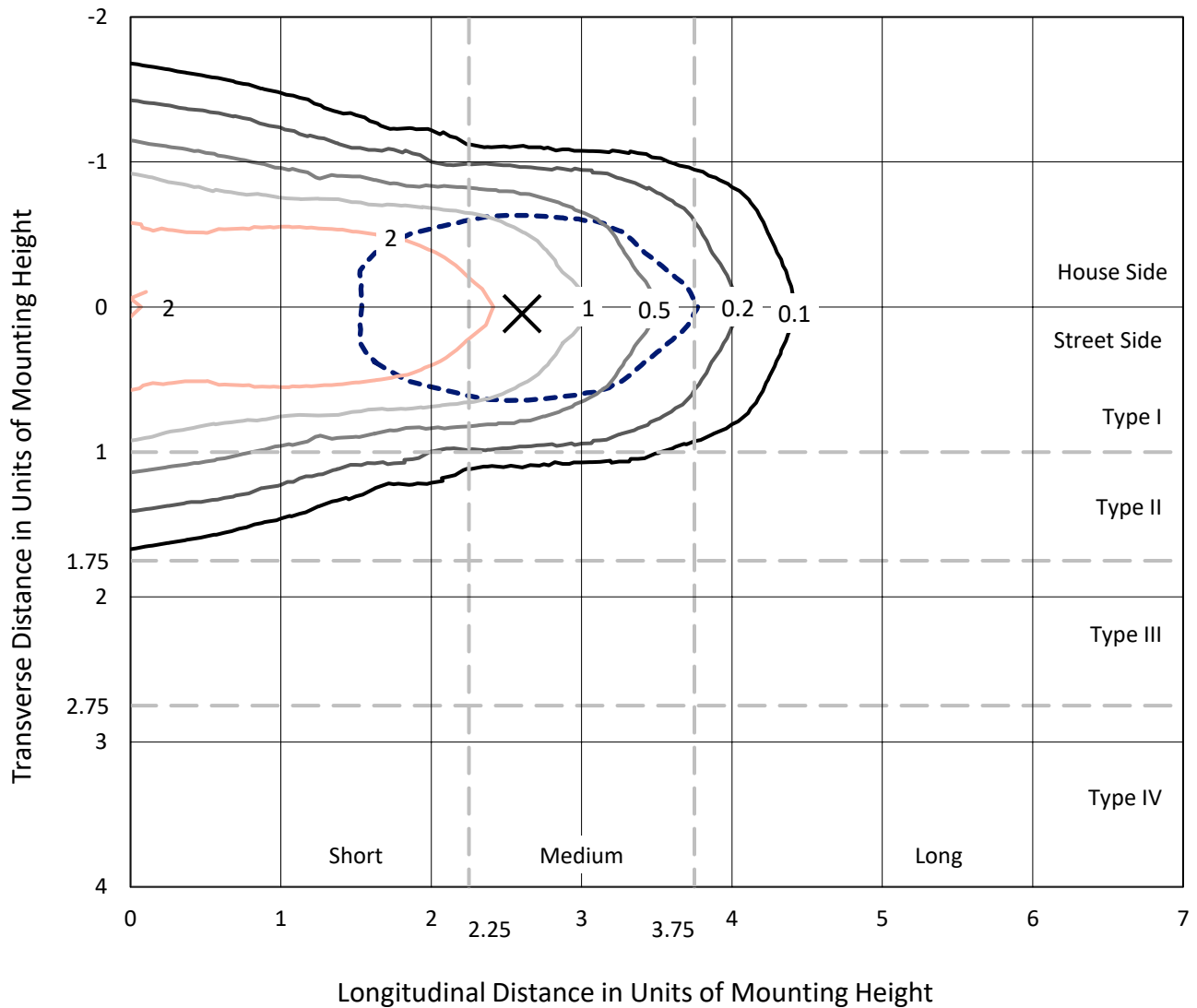
Input Watts (W): 192
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

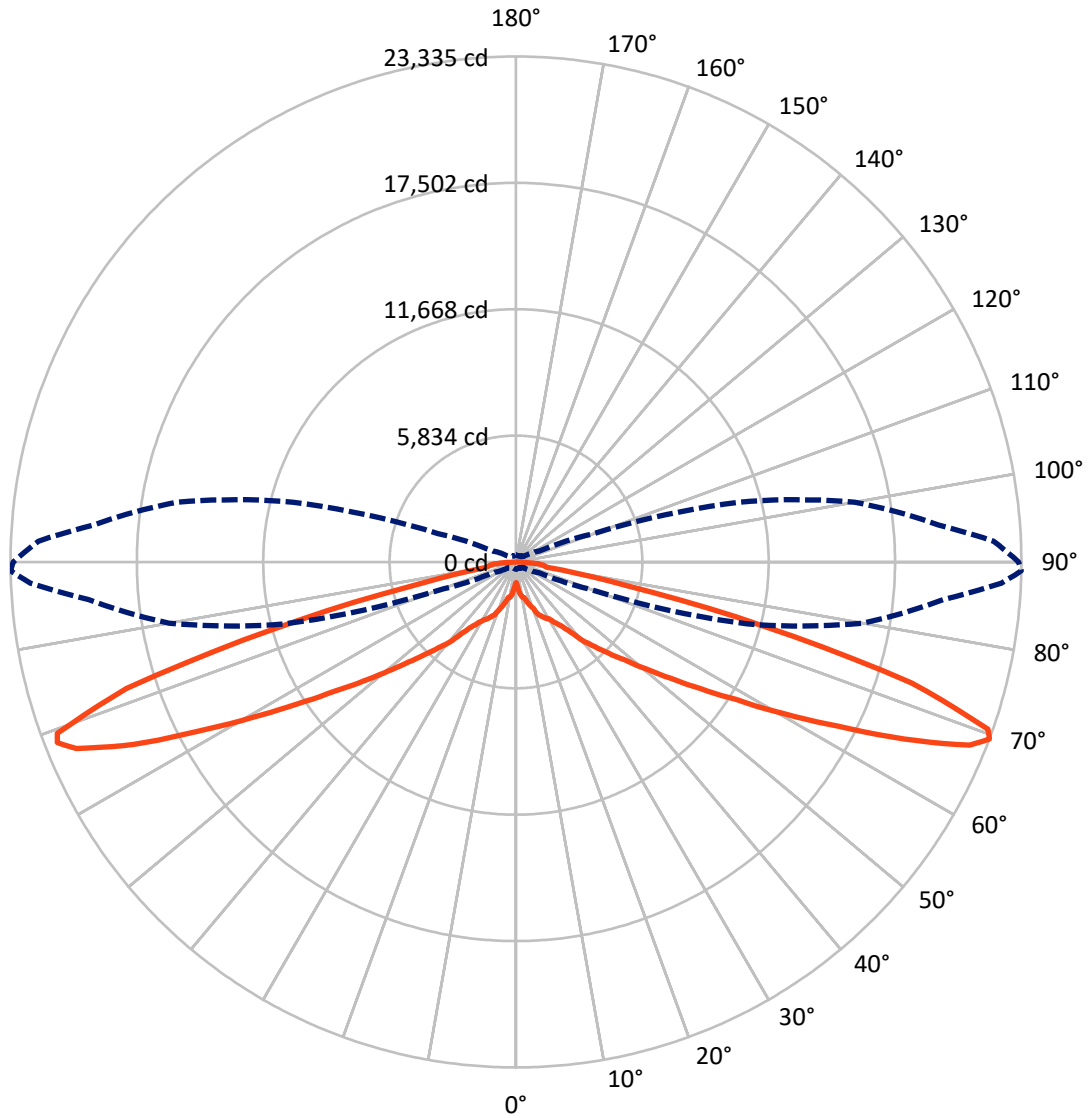
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 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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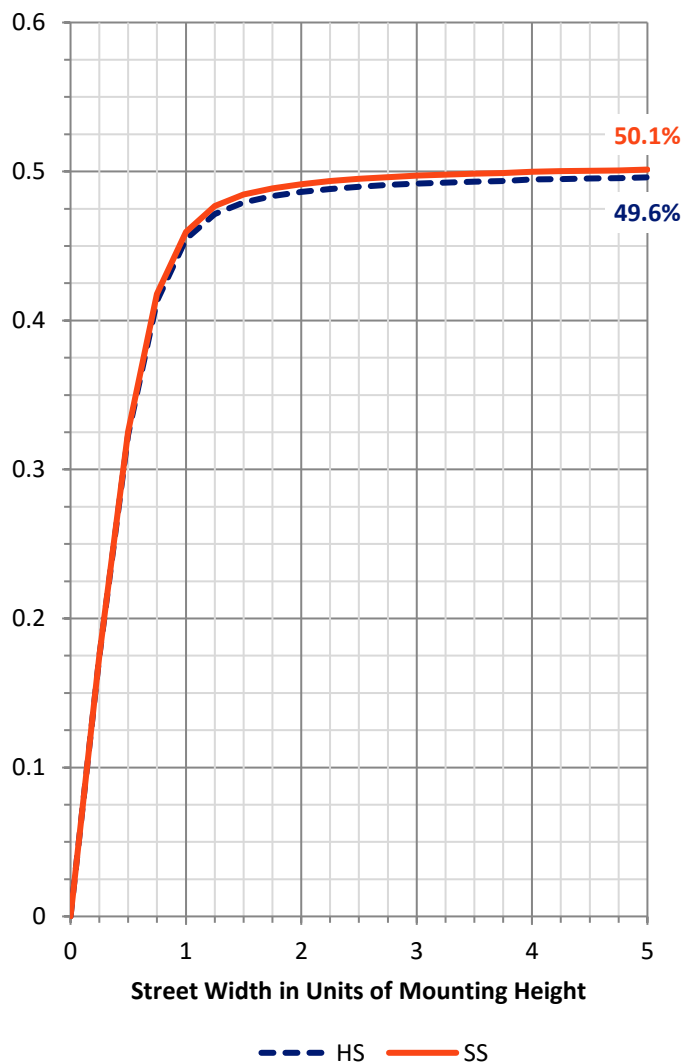
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7524.9	0.0	7524.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	7525.1	0.0	7525.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	15050.0	0.0	15050.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.8	0.8
10°-20°	551.9	3.7
20°-30°	1101.0	7.3
30°-40°	1665.2	11.1
40°-50°	2417.2	16.1
50°-60°	3175.7	21.1
60°-70°	3874.0	25.7
70°-80°	1958.6	13.0
80°-90°	186.7	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°	15050.0	100.0
0°-180°	15050.0	100.0

Coefficient of Utilization

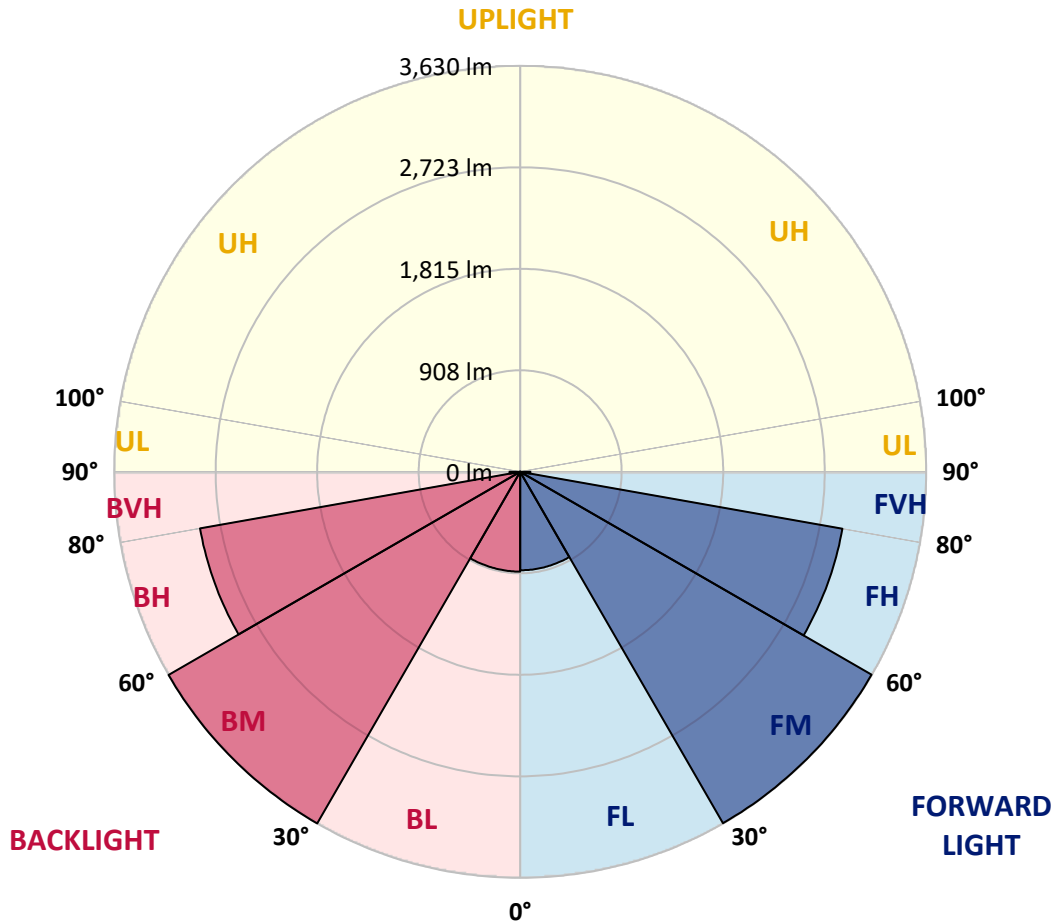


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	880.1	5.8			
FM (30°-60°)	3627.9	24.1			
FH (60°-80°)	2925.6	19.4			G2/5000
FVH (80°-90°)	91.6	0.6			G1/100
BL (0°-30°)	892.5	5.9	B2/1000		
BM (30°-60°)	3630.3	24.1	B3/5000		
BH (60°-80°)	2906.9	19.3	B4/5000		G4/5000
BVH (80°-90°)	95.1	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°	953.3	953.3	953.3	953.3	953.3	953.3	953.3	953.3	953.3	953.3	953.3
2.5°	1118.7	989.7	978.5	947.7	970.1	978.5	958.9	930.8	961.7	978.5	947.7
5°	1410.3	1219.6	1155.1	1101.9	995.3	950.5	995.3	1110.3	1124.3	1194.4	1174.8
7.5°	1553.3	1522.4	1441.1	1264.5	1093.5	998.1	1118.7	1284.1	1368.2	1435.5	1505.6
10°	1659.8	1643.0	1500.0	1373.8	1303.7	1309.3	1312.1	1365.4	1438.3	1550.5	1589.7
12.5°	1685.0	1679.4	1701.9	1673.8	1679.4	1710.3	1679.4	1665.4	1707.5	1743.9	1704.7
15°	1847.7	1844.9	1853.3	1858.9	1971.0	2018.7	1971.0	1929.0	1898.1	1867.3	1931.8
17.5°	1959.8	1945.8	1948.6	2001.9	2128.0	2259.8	2234.6	2178.5	2108.4	2150.5	2203.7
20°	2021.5	1996.3	2013.1	2035.5	2248.6	2394.4	2411.2	2335.5	2293.4	2346.7	2391.6
22.5°	2080.4	2041.1	1982.2	2004.7	2200.9	2411.2	2492.5	2472.9	2503.7	2520.5	2512.1
25°	2010.3	2035.5	1971.0	2035.5	2234.6	2428.0	2590.6	2705.6	2708.4	2700.0	2761.7
27.5°	1968.2	1948.6	1839.2	2004.7	2170.1	2290.6	2705.6	2899.1	2957.9	2778.5	2899.1
30°	1895.3	1926.2	1777.6	1914.9	2125.2	2327.1	2837.4	3114.9	3028.0	3005.6	3033.6
32.5°	1850.5	1830.8	1760.7	1836.4	1996.3	2436.4	2921.5	3241.1	3350.5	3297.2	3291.6
35°	1777.6	1791.6	1682.2	1763.5	1987.8	2343.9	2977.6	3557.9	3726.2	3684.1	3650.5
37.5°	1788.8	1741.1	1662.6	1721.5	1934.6	2394.4	3117.7	3863.5	4129.9	4152.3	3998.1
40°	1704.7	1676.6	1558.9	1657.0	1833.6	2363.5	3151.4	4211.2	4662.6	4763.5	4542.0
42.5°	1584.1	1547.7	1480.4	1589.7	1774.8	2212.1	3199.1	4629.0	5203.7	5414.0	5212.1
45°	1410.3	1362.6	1329.0	1474.8	1645.8	2172.9	3148.6	4976.6	5722.4	6011.2	6005.6
47.5°	1200.0	1169.2	1152.3	1306.5	1539.2	2074.8	3044.8	5195.3	6084.1	6824.3	6712.1
50°	961.7	939.2	936.4	1099.1	1359.8	1872.9	2927.1	5304.6	6633.6	7570.1	7668.2
52.5°	771.0	754.2	751.4	883.2	1138.3	1600.9	2680.4	5388.8	7157.9	8416.8	8921.5
55°	602.8	586.0	588.8	698.1	905.6	1309.3	2304.7	5293.4	7617.7	9283.1	10239.2
57.5°	493.5	476.6	479.4	541.1	692.5	1000.9	1836.4	5086.0	7825.2	10354.2	11775.6
60°	434.6	417.8	409.3	437.4	532.7	754.2	1365.4	4278.5	7858.8	11242.9	13443.9
62.5°	403.7	386.9	378.5	386.9	440.2	577.6	984.1	3389.7	7665.4	12002.7	14971.9
65°	375.7	361.7	350.5	358.9	386.9	459.8	717.8	2321.5	6653.2	12350.4	16082.2
67.5°	344.9	333.6	322.4	333.6	353.3	386.9	557.9	1469.2	4987.8	11899.0	16544.8
69°	328.0	311.2	305.6	314.0	333.6	356.1	482.2	1172.0	3793.4	11041.1	16264.4
70°	311.2	300.0	291.6	305.6	322.4	339.3	434.6	995.3	2974.8	9939.2	15569.1
72.5°	274.8	266.4	260.7	274.8	288.8	300.0	356.1	709.3	1724.3	6768.2	12347.6
75°	241.1	232.7	229.9	241.1	252.3	257.9	300.0	487.8	1017.8	3541.1	7407.4
77.5°	201.9	190.7	193.5	207.5	215.9	218.7	252.3	350.5	600.0	1603.7	3431.8
80°	148.6	148.6	159.8	171.0	171.0	171.0	201.9	255.1	364.5	737.4	1424.3
82.5°	103.7	106.5	109.3	126.2	129.0	117.8	154.2	185.0	227.1	322.4	493.5
85°	58.9	61.7	64.5	75.7	78.5	70.1	100.9	117.8	131.8	159.8	257.9
87.5°	22.4	25.2	33.6	39.3	42.1	30.8	47.7	56.1	56.1	67.3	115.0
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°	953.3	953.3	953.3	953.3	953.3	953.3	953.3	953.3	953.3	953.3	953.3
2.5°	1012.1	1031.8	1068.2	1076.6	1045.8	1012.1	936.4	984.1	1003.7	967.3	978.5
5°	1253.3	1295.3	1340.2	1286.9	1253.3	1230.8	1194.4	1197.2	1177.6	1113.1	1006.5
7.5°	1525.2	1477.6	1511.2	1547.7	1494.4	1497.2	1530.8	1460.7	1407.5	1298.1	1099.1
10°	1651.4	1651.4	1659.8	1659.8	1637.4	1637.4	1634.6	1522.4	1457.9	1410.3	1354.2
12.5°	1659.8	1657.0	1690.6	1665.4	1671.0	1676.6	1690.6	1741.1	1724.3	1662.6	1713.1
15°	1892.5	1881.3	1892.5	1889.7	1898.1	1923.4	1912.1	1900.9	1903.7	1948.6	2024.3
17.5°	2111.2	2116.8	2105.6	2125.2	2125.2	2142.0	2181.3	2142.0	2108.4	2192.5	2251.4
20°	2363.5	2343.9	2299.1	2332.7	2341.1	2343.9	2408.4	2360.7	2313.1	2343.9	2414.0
22.5°	2618.7	2615.9	2621.5	2624.3	2635.5	2593.4	2506.5	2492.5	2523.4	2481.3	2489.7
25°	2775.7	2778.5	2792.5	2795.3	2747.7	2792.5	2823.4	2730.8	2730.8	2722.4	2666.3
27.5°	2966.3	2924.3	2941.1	2963.5	2943.9	2955.1	2918.7	2784.1	2927.1	2946.7	2722.4
30°	3095.3	3075.7	3056.1	3078.5	3098.1	3148.6	3044.8	3030.8	3042.0	3145.8	2851.4
32.5°	3367.3	3395.3	3358.9	3322.4	3358.9	3347.6	3302.8	3283.2	3423.3	3286.0	2941.1
35°	3619.6	3630.8	3633.6	3628.0	3650.5	3611.2	3611.2	3684.1	3726.2	3577.6	2969.1
37.5°	4228.0	4188.8	4107.5	4068.2	4138.3	4197.2	4023.3	4110.3	4093.4	3841.1	3179.4
40°	4665.4	4755.1	4780.4	4769.1	4780.4	4612.1	4648.6	4713.1	4637.4	4219.6	3106.5
42.5°	5304.6	5360.7	5341.1	5315.9	5327.1	5296.2	5186.9	5425.2	5153.2	4643.0	3218.7
45°	5887.8	6014.0	6022.4	5935.5	6005.6	5896.2	5941.1	6025.2	5750.4	4959.8	3187.8
47.5°	6583.1	6843.9	6745.8	6745.8	6815.9	6580.3	6686.9	6799.0	6070.1	5172.9	3019.6
50°	7612.1	7752.3	7746.7	7721.5	7752.3	7626.1	7609.3	7595.3	6560.7	5374.7	2915.9
52.5°	8775.7	8966.3	8893.4	8921.5	8963.5	8725.2	8913.0	8400.0	7174.7	5450.4	2680.4
55°	10261.6	10393.4	10320.5	10177.5	10368.2	10216.8	10278.5	9277.5	7600.9	5234.6	2287.8
57.5°	12030.8	12098.1	11977.5	11963.5	12089.7	11927.0	11823.3	10264.4	7822.4	5071.9	1828.0
60°	14097.1	14307.4	14231.7	14111.1	14226.1	14083.1	13298.1	11102.8	7777.5	4312.1	1415.9
62.5°	16575.6	16788.7	16704.6	16623.3	16696.2	16323.3	14683.1	11764.4	7575.7	3417.7	1034.6
65°	18622.3	19584.0	19710.2	19713.0	19359.7	18496.2	15787.8	12022.4	6510.3	2386.0	757.0
67.5°	19968.1	21967.2	22589.6	22365.3	21555.0	19584.0	16233.6	11517.7	5027.1	1508.4	566.4
69°	19813.9	22435.4	23335.4	23209.2	22070.9	19567.2	15885.9	10668.2	3841.1	1200.0	479.4
70°	19101.8	22051.3	23119.5	23175.6	21742.9	18815.8	15266.3	9692.5	3106.5	1023.4	440.2
72.5°	15243.9	18170.9	19110.2	19477.5	18056.0	15067.2	12518.6	6838.3	1800.0	714.9	356.1
75°	9442.9	11018.6	11798.1	12011.2	11150.4	9384.1	7598.1	3804.7	1096.3	504.7	300.0
77.5°	4233.6	4690.6	5139.2	5139.2	4802.8	4284.1	3482.2	1839.2	622.4	358.9	252.3
80°	1418.7	1472.0	1432.7	1446.7	1390.6	1337.4	1399.1	793.5	384.1	269.2	204.7
82.5°	964.5	1211.2	1286.9	1286.9	1208.4	953.3	538.3	364.5	235.5	193.5	157.0
85°	785.0	958.9	1029.0	1059.8	998.1	804.7	283.2	176.6	140.2	123.4	106.5
87.5°	263.6	246.7	232.7	227.1	238.3	249.5	140.2	75.7	64.5	58.9	56.1
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°	953.3	953.3	953.3	953.3	953.3	953.3
2.5°	998.1	964.5	978.5	992.5	1093.5	1169.2
5°	992.5	1040.2	1146.7	1281.3	1343.0	1494.4
7.5°	1020.6	1194.4	1393.5	1533.6	1589.7	1637.4
10°	1365.4	1396.3	1463.5	1598.1	1710.3	1729.9
12.5°	1763.5	1755.1	1707.5	1769.2	1713.1	1752.3
15°	2074.8	1982.2	1917.7	1909.3	1889.7	1889.7
17.5°	2245.8	2164.5	2074.8	2052.3	1993.4	2041.1
20°	2447.7	2307.5	2083.2	2060.7	2041.1	1996.3
22.5°	2408.4	2268.2	2035.5	2007.5	2111.2	2105.6
25°	2456.1	2268.2	2046.7	2015.9	2063.5	2063.5
27.5°	2338.3	2184.1	2024.3	1839.2	1985.0	2018.7
30°	2307.5	2133.6	1948.6	1783.2	1931.8	1900.9
32.5°	2470.1	2007.5	1825.2	1774.8	1884.1	1861.7
35°	2343.9	1985.0	1794.4	1701.9	1830.8	1808.4
37.5°	2397.2	1957.0	1741.1	1662.6	1766.3	1800.0
40°	2386.0	1825.2	1679.4	1578.5	1682.2	1699.1
42.5°	2198.1	1724.3	1575.7	1474.8	1528.0	1584.1
45°	2142.0	1662.6	1474.8	1334.6	1337.4	1401.9
47.5°	2038.3	1522.4	1289.7	1160.7	1160.7	1214.0
50°	1864.5	1334.6	1079.4	961.7	958.9	1000.9
52.5°	1606.5	1152.3	911.2	782.2	773.8	815.9
55°	1314.9	928.0	717.8	633.6	616.8	633.6
57.5°	1023.4	723.4	566.4	499.1	496.3	510.3
60°	793.5	566.4	451.4	412.1	417.8	440.2
62.5°	600.0	451.4	384.1	370.1	378.5	400.9
65°	476.6	389.7	350.5	342.1	350.5	372.9
67.5°	386.9	353.3	325.2	314.0	319.6	342.1
69°	356.1	333.6	311.2	297.2	302.8	319.6
70°	339.3	322.4	300.0	286.0	291.6	308.4
72.5°	297.2	288.8	272.0	257.9	260.7	274.8
75°	260.7	255.1	243.9	227.1	227.1	243.9
77.5°	218.7	221.5	210.3	193.5	190.7	199.1
80°	173.8	179.4	173.8	157.0	151.4	151.4
82.5°	126.2	137.4	131.8	115.0	112.1	112.1
85°	78.5	86.9	84.1	72.9	72.9	64.5
87.5°	36.4	47.7	44.9	39.3	36.4	25.2
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)