

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: P368478

Luminaire Tested: **MSA-SA4C-730-U-SL4**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368478
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-20)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4C-730-U-SL4
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS
EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21345 lumens
Efficiency: N/A
Efficacy: 94.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - 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

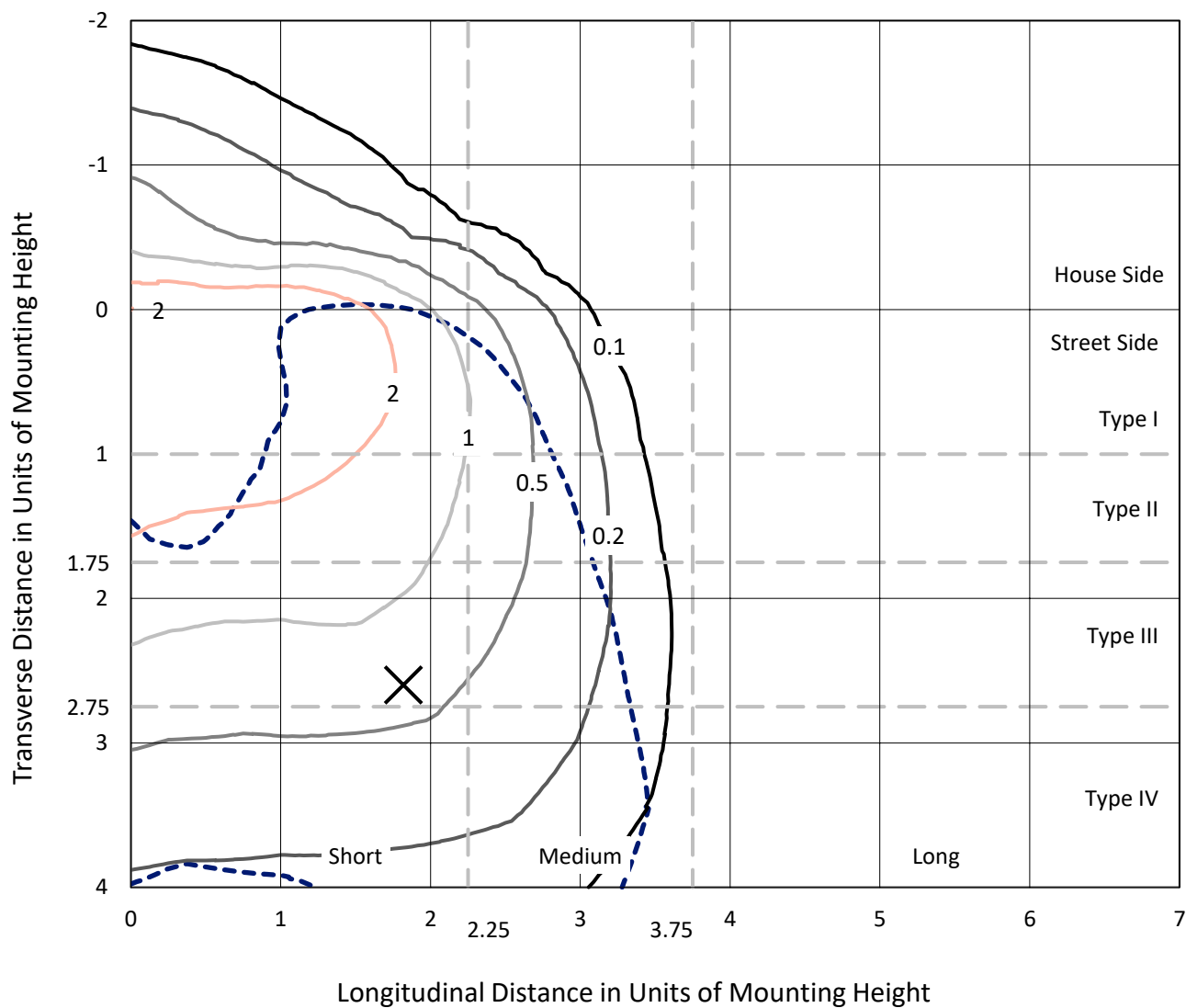


REPORT NUMBER: P368478

CATALOG NUMBER: MSA-SA4C-730-U-SL4

Iso-Footcandle Lines of Horizontal Illumination

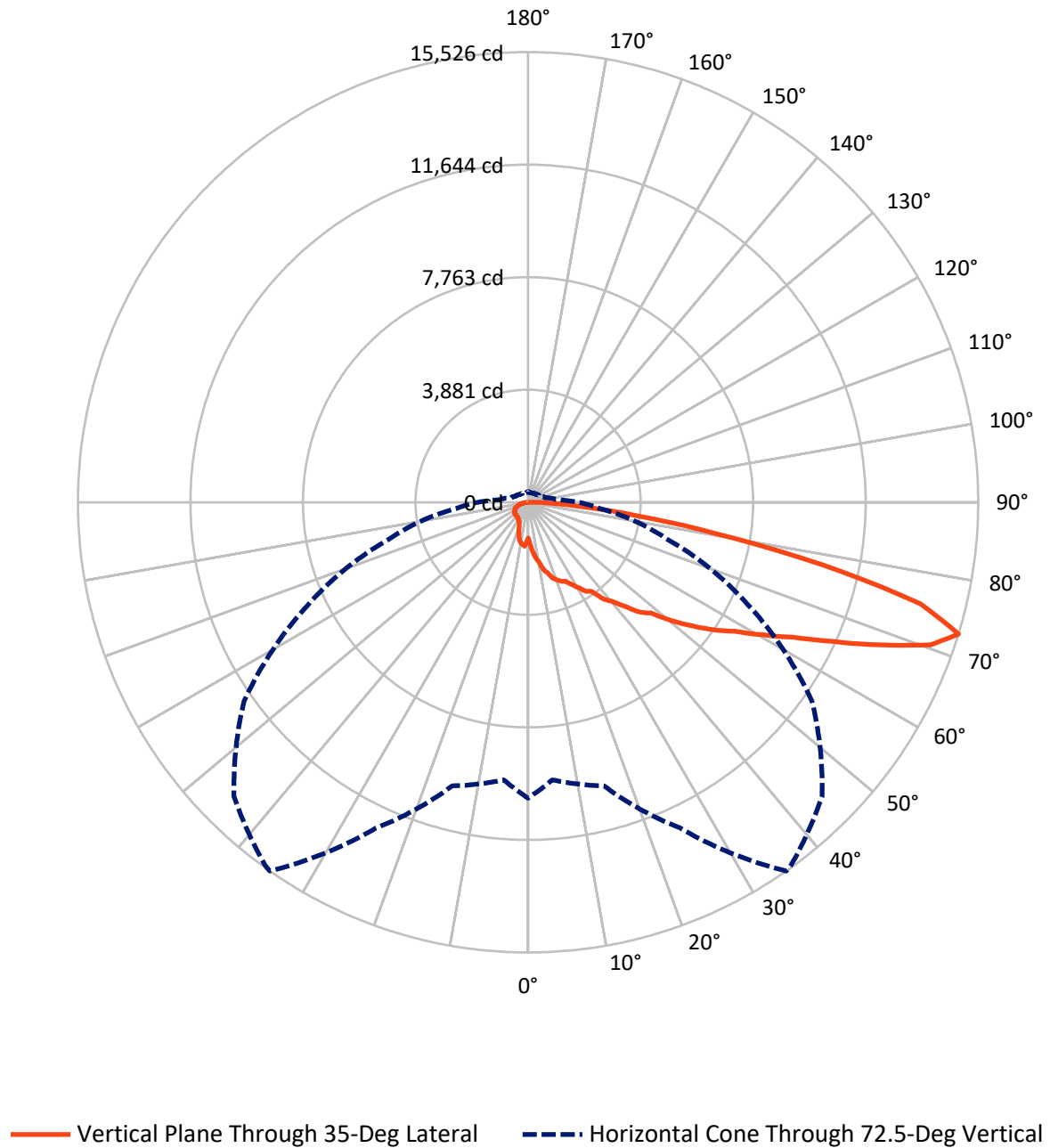
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 fc
 Type IV - Short - N/A

REPORT NUMBER: P368478
CATALOG NUMBER: MSA-SA4C-730-U-SL4

Luminous Intensity Polar Plot



REPORT NUMBER: P368478

CATALOG NUMBER: MSA-SA4C-730-U-SL4

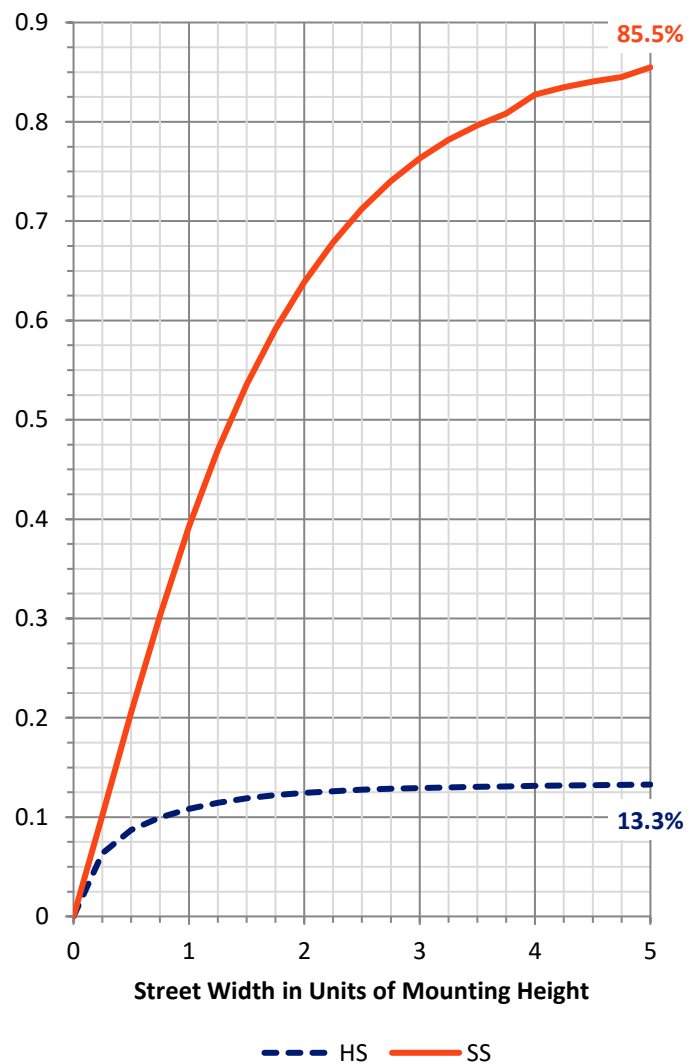
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2864.4	0.0	2864.4
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	18480.6	0.0	18480.6
	% Fixture	86.6	0.0	86.6
Total	Lumens	21345.0	0.0	21345.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.9	0.8
10°-20°	577.5	2.7
20°-30°	1003.4	4.7
30°-40°	1677.1	7.9
40°-50°	2910.8	13.6
50°-60°	4400.3	20.6
60°-70°	5700.6	26.7
70°-80°	4206.4	19.7
80°-90°	705.0	3.3
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°	21345.0	100.0
0°-180°	21345.0	100.0

Coefficient of Utilization



REPORT NUMBER: P368478

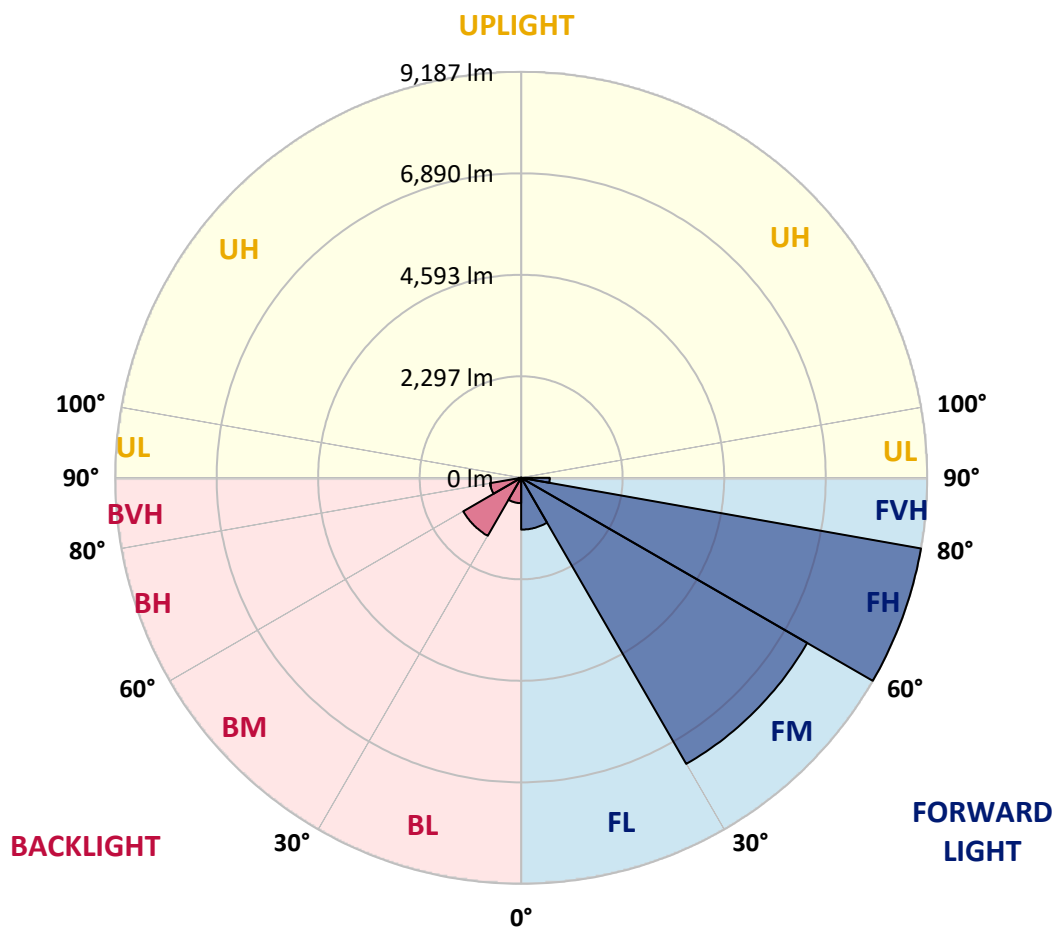
CATALOG NUMBER: MSA-SA4C-730-U-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1172.3	5.5			
FM	(30°-60°)	7474.3	35.0			
FH	(60°-80°)	9186.7	43.0			G4/12000
FVH	(80°-90°)	647.3	3.0			G4/750
BL	(0°-30°)	572.6	2.7	B2/1000		
BM	(30°-60°)	1513.9	7.1	B2/2500		
BH	(60°-80°)	720.3	3.4	B2/1000		G2/1000
BVH	(80°-90°)	57.7	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type IV Short



REPORT NUMBER: P368478

CATALOG NUMBER: MSA-SA4C-730-U-SL4

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	1233.5	1233.5	1233.5	1233.5	1233.5	1233.5	1233.5	1233.5	1233.5	1233.5	1233.5
2.5°	1538.7	1464.9	1401.2	1398.4	1457.7	1480.4	1471.3	1451.3	1427.6	1377.5	1486.8
5°	1927.7	1822.1	1802.0	1778.3	1724.6	1739.2	1651.7	1718.2	1739.2	1787.4	1860.3
7.5°	2157.3	2095.4	2047.1	2027.0	1934.1	1923.2	1858.5	1953.3	1993.3	1987.0	2095.4
10°	2247.5	2191.0	2194.7	2129.1	2099.0	2111.8	2119.1	2120.9	2145.5	2165.5	2110.9
12.5°	2294.0	2315.8	2396.0	2351.4	2389.6	2405.1	2481.7	2403.3	2406.0	2303.1	2359.6
15°	2528.1	2582.8	2536.3	2534.5	2522.6	2548.2	2613.7	2560.9	2601.9	2569.1	2496.2
17.5°	2810.5	2826.9	2737.6	2701.2	2748.6	2740.4	2724.0	2732.2	2630.1	2819.6	2730.4
20°	2897.1	2961.8	2844.2	2701.2	2857.9	2878.9	2875.2	2839.7	2664.8	2938.1	2851.5
22.5°	3148.5	3061.1	2968.1	2877.0	2957.2	2969.1	2949.0	2864.3	2806.0	2909.8	2978.2
25°	3262.4	3241.5	3123.0	3112.1	3023.7	2981.8	3016.4	2991.8	2934.4	3119.4	3043.8
27.5°	3523.0	3498.4	3226.0	3338.0	3209.6	3198.6	3015.5	3097.5	3154.9	3141.2	3254.2
30°	3818.1	3846.4	3448.3	3560.3	3411.8	3391.8	3207.7	3311.6	3350.8	3363.5	3504.7
32.5°	4146.1	4223.5	3828.2	3736.1	3656.9	3670.5	3514.8	3325.3	3477.4	3775.3	3836.4
35°	4501.4	4533.3	4118.8	3980.3	3773.5	3758.9	3761.6	3785.3	3939.3	4279.1	4326.5
37.5°	5158.3	5010.7	4647.2	4296.4	4227.2	4091.4	4183.5	4256.3	4410.3	4931.4	5130.0
40°	5562.8	5453.4	4899.5	4696.4	4505.1	4517.8	4690.0	4689.1	5052.6	5590.1	5893.5
42.5°	5937.2	5817.8	5295.8	5091.8	4910.5	4955.1	5004.3	5090.8	5787.8	6654.2	6792.7
45°	6238.7	5977.3	5601.9	5556.4	5407.0	5347.8	5556.4	5694.9	6666.9	7515.1	7595.3
47.5°	6443.7	6228.7	5861.6	5821.5	5711.3	5856.1	6425.5	6514.8	7348.4	8379.7	8373.3
50°	6755.3	6461.0	6129.4	6108.5	6419.1	6496.6	7190.8	7181.7	8011.6	9097.6	8947.2
52.5°	7114.2	6743.5	6383.6	6608.6	7082.4	7120.6	7722.8	7967.9	8735.9	9789.9	9397.3
55°	7526.9	7112.4	6764.4	7065.1	7770.2	7657.2	8266.7	8865.2	9642.4	10519.7	9722.5
57.5°	8038.0	7535.1	7253.6	7711.0	8397.9	8498.1	9045.6	9799.1	10372.1	10973.4	9959.4
60°	8577.4	7987.0	7729.2	8164.7	9277.0	9391.8	9927.5	10575.3	11190.2	11400.6	9914.8
62.5°	9092.1	8453.5	8220.2	8757.7	10251.8	10536.1	10931.5	11344.2	11870.7	11504.5	9374.5
65°	9665.1	9025.6	8878.9	9685.2	11573.7	11856.2	12372.7	12248.8	12104.0	11136.5	8480.8
67.5°	10271.9	9622.3	9649.6	10761.1	13132.5	13180.8	13974.3	13150.7	11829.7	10161.6	6980.3
70°	10598.0	9933.0	10214.5	11908.1	14718.6	14649.4	14811.6	13393.1	10711.9	8032.6	4811.2
72.5°	10202.6	9609.6	10125.2	12390.9	15525.8	15451.1	14341.5	11954.6	8375.1	4995.2	2494.4
75°	8638.4	8066.3	8855.2	11045.3	13977.0	14046.3	12205.1	8889.8	4794.8	2008.8	1035.8
77.5°	5869.8	5574.6	6250.6	8233.0	10382.1	10621.7	9055.7	5198.3	2013.4	831.8	626.8
80°	3102.1	2961.8	3461.0	4742.8	6574.0	6752.6	5325.0	2589.2	1031.3	538.4	447.3
82.5°	1685.4	1626.2	1894.0	2438.8	3735.2	3891.0	2761.3	1720.0	695.1	337.1	273.3
85°	1132.4	1109.6	1287.3	1310.1	1766.5	1817.5	1446.7	1324.6	417.3	164.9	180.4
87.5°	566.7	543.9	677.8	598.5	674.2	675.1	663.2	845.4	105.7	54.7	32.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P368478

CATALOG NUMBER: MSA-SA4C-730-U-SL4

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1233.5	1233.5	1233.5	1233.5	1233.5	1233.5	1233.5	1233.5	1233.5	1233.5	1233.5
2.5°	1488.6	1456.7	1346.5	1345.6	1362.0	1351.1	1359.3	1314.6	1295.5	1382.9	1378.4
5°	1850.3	1754.6	1662.6	1630.7	1593.4	1512.3	1516.9	1517.8	1504.1	1556.0	1559.7
7.5°	2062.6	1947.8	1863.1	1693.6	1560.6	1456.7	1470.4	1485.9	1470.4	1539.6	1565.2
10°	2093.6	2002.4	1901.3	1712.7	1624.4	1530.5	1435.8	1352.0	1341.9	1310.1	1320.1
12.5°	2277.6	2202.0	1990.6	1783.8	1680.9	1536.9	1363.8	1268.2	1188.0	1201.7	1176.1
15°	2428.8	2375.1	2121.8	1851.2	1605.2	1426.7	1242.6	1111.5	1039.5	1031.3	1005.8
17.5°	2633.8	2557.3	2133.6	1804.8	1507.8	1293.7	1085.9	937.5	906.5	893.7	881.0
20°	2732.2	2594.6	2090.8	1659.0	1393.9	1135.1	931.1	803.5	794.4	817.2	812.6
22.5°	2817.8	2625.6	2052.6	1570.6	1216.2	974.8	825.4	741.6	731.6	760.7	766.2
25°	2867.9	2714.0	2010.6	1480.4	1106.0	855.5	746.1	698.8	700.6	738.8	734.3
27.5°	3093.9	2744.9	1905.0	1373.8	979.4	767.1	707.9	683.3	673.3	726.1	730.6
30°	3236.0	2947.2	1881.3	1260.9	885.5	702.4	673.3	663.2	661.4	725.2	729.7
32.5°	3500.2	3014.6	1892.2	1137.9	800.8	682.4	647.7	646.8	665.1	726.1	733.4
35°	3866.4	3298.8	1839.4	1067.7	754.3	651.4	627.7	635.0	666.0	732.5	742.5
37.5°	4580.7	3566.7	1855.8	1002.1	738.8	641.4	622.2	626.8	676.9	748.9	776.2
40°	5146.4	4052.3	1830.3	969.3	717.9	639.5	610.4	628.6	676.0	758.0	782.6
42.5°	5966.3	4439.5	1833.0	936.5	717.0	632.3	608.6	630.4	674.2	749.8	783.5
45°	6669.7	4786.6	1872.2	917.4	707.9	644.1	605.8	633.2	662.3	720.6	758.0
47.5°	7246.3	5173.7	1912.3	899.2	704.2	655.0	603.1	614.0	642.3	687.8	721.5
50°	7716.4	5446.1	1963.3	895.5	704.2	649.6	595.8	594.9	618.6	655.0	686.9
52.5°	8082.7	5638.4	1997.9	900.1	704.2	628.6	586.7	579.4	594.0	620.4	652.3
55°	8347.8	5697.6	1969.7	911.9	703.3	609.5	570.3	563.9	571.2	589.4	619.5
57.5°	8454.4	5541.8	1801.1	891.0	703.3	595.8	550.3	543.0	550.3	563.9	594.0
60°	8187.4	5040.7	1557.9	837.2	689.7	577.6	527.5	522.9	533.9	545.7	574.9
62.5°	7517.8	4374.8	1298.2	773.5	661.4	562.1	505.6	506.5	523.8	540.2	569.4
65°	6477.4	3569.4	1082.3	708.8	625.9	537.5	482.8	489.2	513.8	535.7	564.8
67.5°	5097.2	2644.7	911.0	645.9	575.8	497.4	457.3	459.2	476.5	497.4	525.7
70°	3407.3	1682.7	748.9	572.1	510.2	445.5	418.2	411.8	407.2	425.5	450.0
72.5°	1728.2	993.9	614.9	489.2	439.1	389.0	368.1	351.7	338.9	349.8	369.0
75°	905.6	695.1	496.5	406.3	362.6	330.7	315.2	293.4	284.2	290.6	304.3
77.5°	640.5	543.9	401.8	321.6	295.2	262.4	265.1	242.3	235.0	238.7	253.3
80°	492.0	430.9	308.8	243.2	227.8	195.9	205.0	191.3	182.2	180.4	191.3
82.5°	335.3	324.3	219.6	170.4	159.4	136.7	149.4	143.9	132.1	124.8	130.3
85°	225.9	215.0	133.9	98.4	93.8	71.1	91.1	87.5	77.4	66.5	67.4
87.5°	39.2	72.0	38.3	24.6	22.8	8.2	21.0	20.0	18.2	9.1	7.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)