

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: P367463

Luminaire Tested: **MSA-SA2C-750-U-SL3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367463
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-19)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2C-750-U-SL3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS
EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10130 lumens
Efficiency: N/A
Efficacy: 89.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

Input Watts (W): 113
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

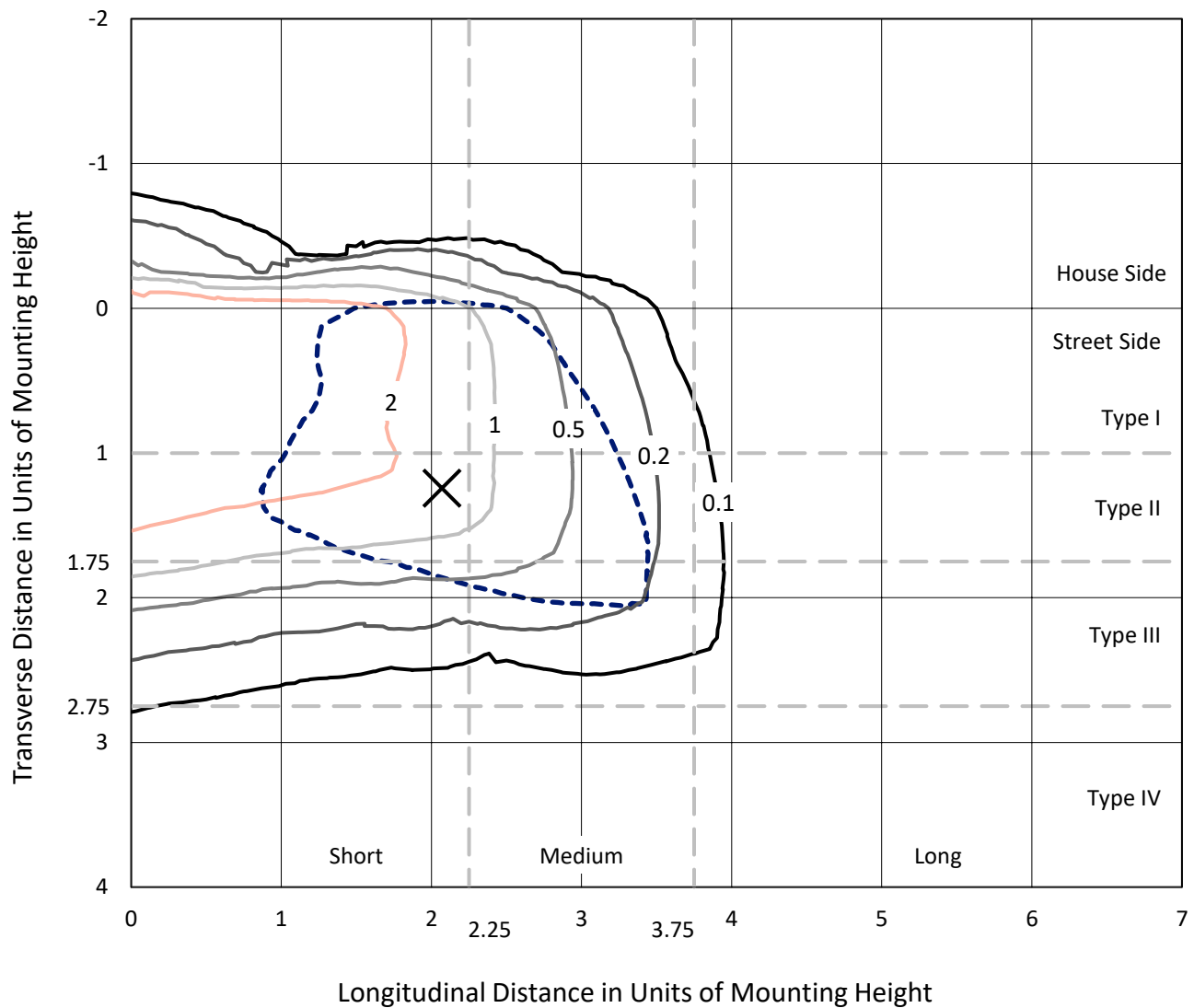


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Iso-Footcandle Lines of Horizontal Illumination

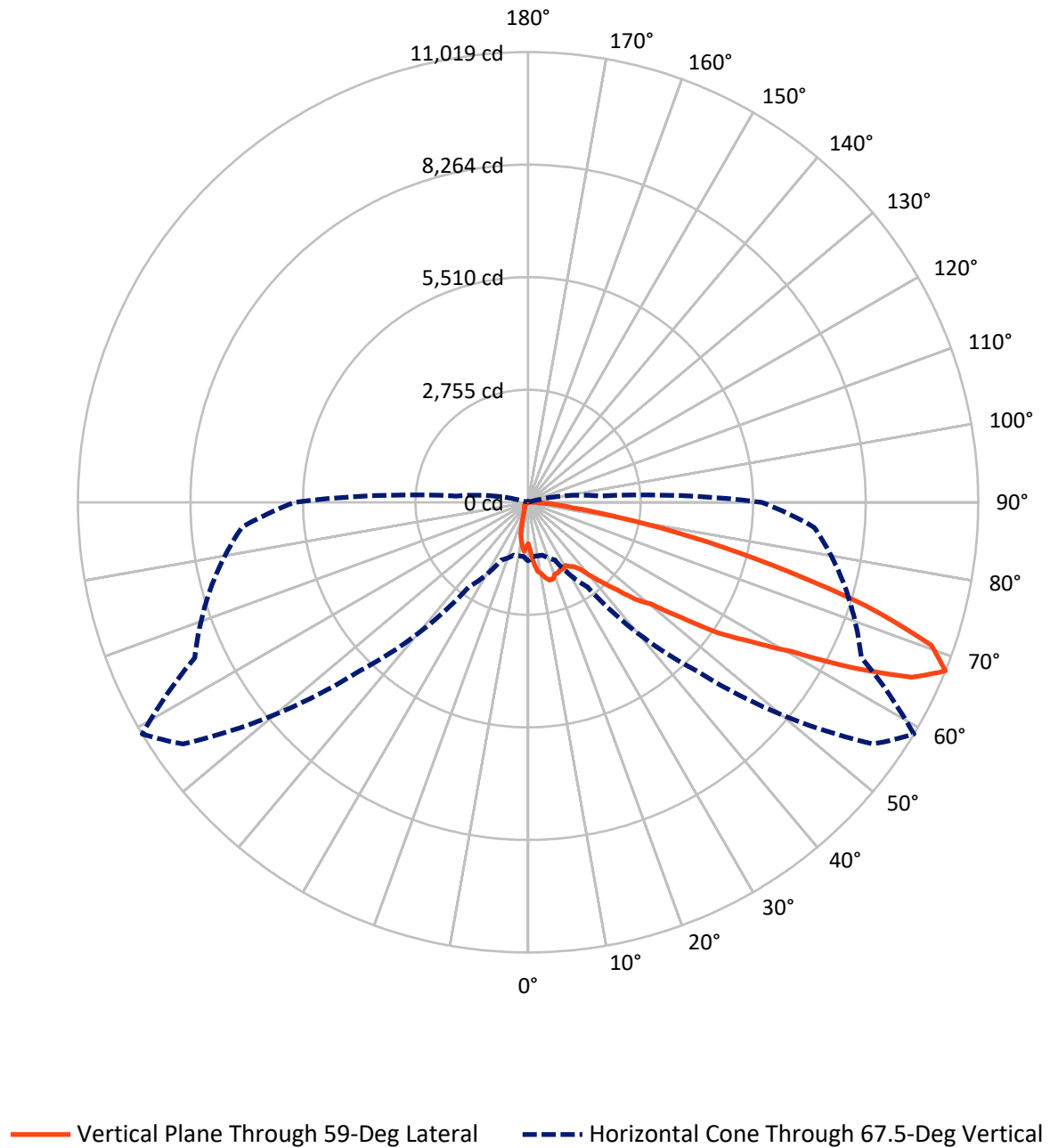
× Max cd
--- 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.5 fc
Type III - Short - N/A

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Luminous Intensity Polar Plot



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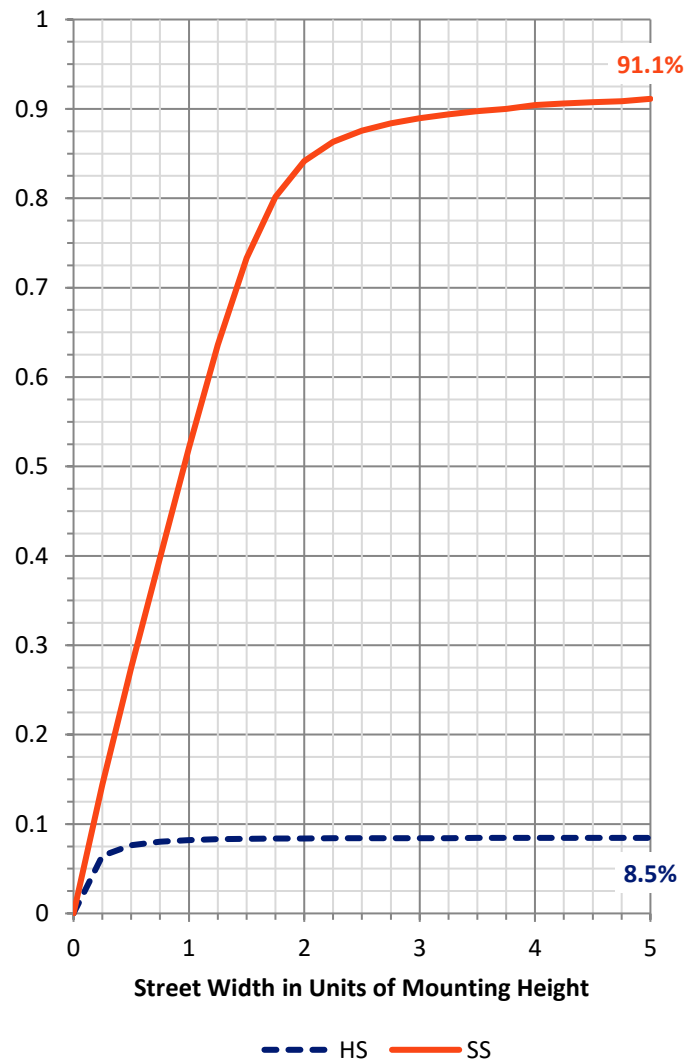
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	861.5	0.0	861.5
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	9268.5	0.0	9268.5
	% Fixture	91.5	0.0	91.5
Total	Lumens	10130.0	0.0	10130.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.2	1.2
10°-20°	347.0	3.4
20°-30°	516.1	5.1
30°-40°	796.3	7.9
40°-50°	1421.1	14.0
50°-60°	2528.9	25.0
60°-70°	2945.3	29.1
70°-80°	1309.8	12.9
80°-90°	142.2	1.4
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°	10130.0	100.0
0°-180°	10130.0	100.0

Coefficient of Utilization



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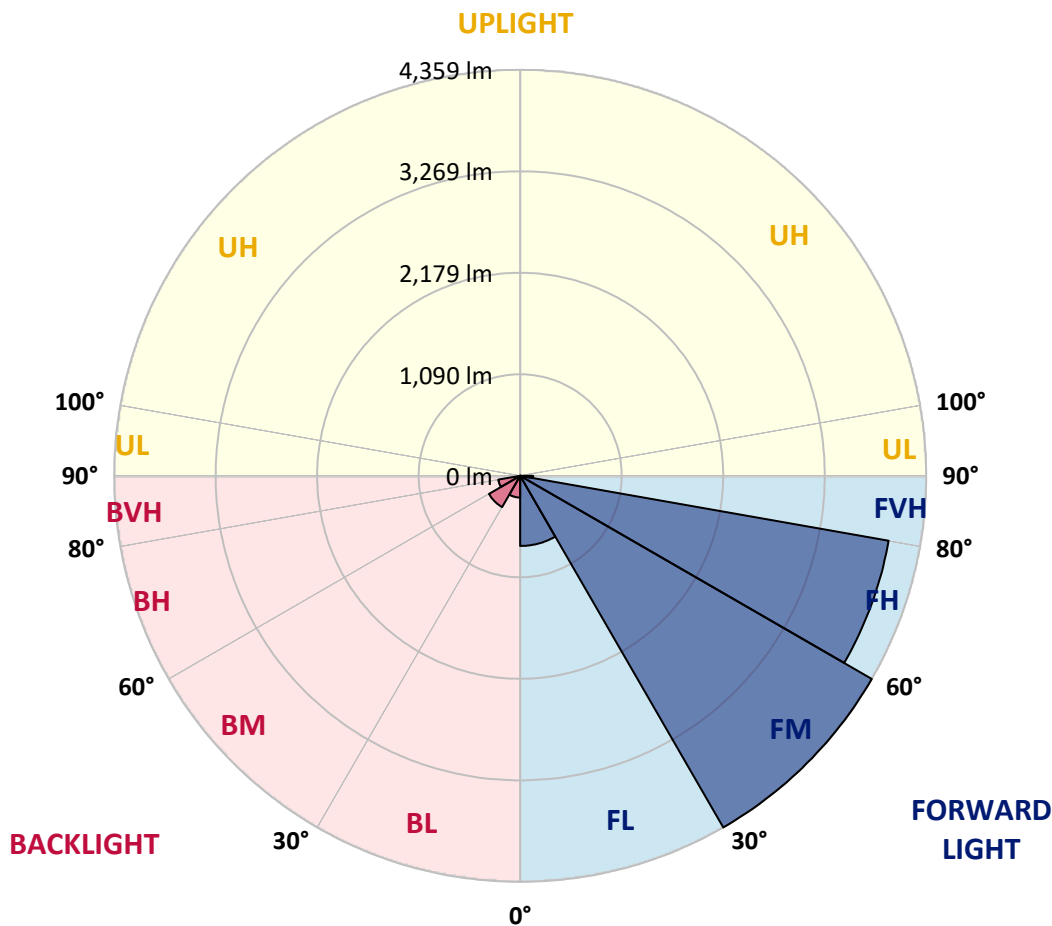
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	753.4	7.4			
FM	(30°-60°)	4358.9	43.0			
FH	(60°-80°)	4016.5	39.6			G2/5000
FVH	(80°-90°)	139.7	1.4			G2/225
BL	(0°-30°)	233.0	2.3	B1/500		
BM	(30°-60°)	387.3	3.8	B1/1000		
BH	(60°-80°)	238.6	2.4	B1/500		G1/500
BVH	(80°-90°)	2.5	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1013.5	1013.5	1013.5	1013.5	1013.5	1013.5	1013.5	1013.5	1013.5	1013.5	1013.5
2.5°	1321.3	1271.5	1200.8	1221.8	1240.8	1258.7	1229.0	1212.0	1203.8	1131.0	1222.3
5°	1622.4	1560.3	1528.0	1519.8	1499.3	1453.6	1529.5	1495.7	1507.0	1521.3	1551.1
7.5°	1714.2	1686.0	1639.3	1656.7	1578.8	1572.1	1677.3	1706.5	1745.0	1718.8	1754.7
10°	1667.0	1618.3	1640.3	1634.2	1631.1	1699.8	1773.7	1775.2	1832.7	1860.4	1738.8
12.5°	1573.7	1579.3	1658.3	1652.1	1754.7	1892.2	1909.1	1891.2	1985.0	1936.8	1918.3
15°	1635.7	1681.9	1638.3	1653.2	1689.6	1861.4	1921.4	1976.8	2065.5	2094.3	1969.6
17.5°	1710.6	1715.2	1635.7	1617.3	1709.1	1789.1	1930.6	1976.3	1985.0	2236.9	2085.0
20°	1670.1	1709.6	1614.7	1498.3	1640.8	1749.6	1893.2	1878.8	1937.3	2278.9	2111.2
22.5°	1777.8	1721.4	1599.8	1512.1	1560.3	1659.3	1780.9	1874.7	1962.4	2178.4	2145.1
25°	1788.1	1767.5	1659.3	1581.3	1573.1	1598.3	1767.5	1828.1	1965.5	2268.7	2116.3
27.5°	1903.5	1879.9	1658.3	1666.0	1589.0	1511.6	1702.9	1845.0	2021.4	2213.8	2177.4
30°	2052.2	2054.3	1768.6	1792.7	1682.9	1558.3	1755.7	1794.7	2059.4	2301.5	2222.5
32.5°	2203.0	2265.1	1986.6	1858.8	1824.5	1735.2	1690.1	1870.1	2017.8	2451.3	2335.3
35°	2432.3	2474.3	2166.1	2051.7	1916.8	1815.2	1868.6	1933.2	2167.1	2649.8	2483.6
37.5°	2820.6	2744.7	2488.2	2289.2	2256.9	2107.1	2133.8	2075.8	2319.4	2883.7	2777.0
40°	3039.1	2970.3	2703.6	2606.7	2400.5	2423.6	2339.4	2373.3	2540.5	3127.3	3044.2
42.5°	3266.8	3201.2	2967.3	2898.5	2702.1	2606.7	2568.7	2690.3	2879.6	3533.0	3427.4
45°	3495.6	3328.9	3229.9	3264.3	3176.0	2987.3	2943.2	3051.4	3249.9	4031.6	3831.5
47.5°	3688.4	3547.9	3473.5	3457.6	3423.3	3685.4	3505.8	3553.5	3641.3	4472.7	4335.2
50°	4036.2	3897.7	3781.3	3749.0	3916.2	4288.0	4011.1	3918.7	4094.2	5005.6	4918.9
52.5°	4538.4	4361.9	4176.7	4177.3	4492.7	4696.9	4828.2	4666.1	4698.9	5591.9	5553.4
55°	4942.0	4717.9	4564.5	4685.6	5155.9	5270.3	5771.4	5629.3	5586.8	6135.6	6088.4
57.5°	4997.4	4728.7	4655.8	4868.2	5511.9	6242.3	6781.4	6426.4	6361.3	6590.6	6684.4
60°	4480.4	4195.2	4250.1	4591.7	5627.8	6834.7	7708.7	7418.9	7005.0	7123.5	7188.1
62.5°	3341.7	3114.0	3267.8	3720.2	5181.1	7231.7	8782.3	8916.7	7751.8	7523.6	7509.7
65°	2168.1	2025.5	2126.6	2497.4	3920.8	7186.6	9741.5	10324.1	8340.2	7849.8	7610.8
67.5°	1434.1	1325.9	1340.3	1559.8	2535.4	5844.8	10314.9	11019.2	9001.8	8035.0	7031.7
70°	1068.9	983.8	988.9	1107.9	1504.9	3854.6	9515.3	10470.8	9243.4	7393.3	5675.5
72.5°	770.9	714.0	761.7	894.0	1199.2	2038.4	7092.2	8623.3	8060.1	5831.4	3823.9
75°	534.0	496.5	574.5	747.8	1094.6	1265.4	4686.6	6207.4	5649.4	3658.7	1728.6
77.5°	296.0	284.7	397.0	609.4	993.5	1037.1	2870.8	4078.8	3133.5	1311.5	411.4
80°	129.3	125.2	192.3	457.5	835.0	937.1	1616.2	2261.5	1232.6	233.9	132.8
82.5°	55.4	53.3	82.1	275.4	606.8	783.7	996.6	1088.4	424.2	72.3	75.4
85°	9.7	10.8	32.8	145.2	369.3	398.0	721.7	644.2	213.4	34.4	53.9
87.5°	0.0	0.0	5.1	28.2	69.2	113.9	312.9	225.7	40.5	11.3	9.2
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1013.5	1013.5	1013.5	1013.5	1013.5	1013.5	1013.5	1013.5	1013.5	1013.5	1013.5
2.5°	1235.1	1206.4	1097.1	1083.3	1068.4	1046.4	1038.2	991.0	984.8	1045.3	1045.3
5°	1537.2	1434.7	1330.5	1248.5	1175.1	1073.6	1044.8	1015.1	991.0	984.8	1003.8
7.5°	1696.8	1571.6	1408.0	1199.2	1030.0	882.7	821.2	778.1	729.9	744.3	751.9
10°	1688.0	1555.2	1346.4	1078.2	890.4	727.8	571.4	480.1	429.3	404.2	401.1
12.5°	1773.7	1648.5	1304.9	981.7	742.2	517.5	359.6	294.4	257.0	257.5	254.4
15°	1823.4	1687.0	1256.7	859.7	522.7	332.9	249.3	234.9	229.8	235.4	232.4
17.5°	1911.2	1727.5	1147.4	677.6	359.6	251.3	229.3	223.6	230.3	242.1	239.0
20°	1904.5	1657.3	992.0	477.5	265.7	226.2	217.0	208.2	222.1	234.4	232.4
22.5°	1898.3	1588.5	845.8	352.4	222.1	206.2	198.5	194.9	202.1	216.5	219.5
25°	1844.0	1554.7	697.6	264.7	201.1	187.2	183.6	180.5	183.1	194.9	194.4
27.5°	1910.6	1469.0	538.6	222.1	186.2	169.8	166.7	161.6	156.4	166.7	168.2
30°	1896.8	1480.8	422.1	195.4	171.3	149.3	150.3	139.5	130.3	139.5	139.5
32.5°	1947.1	1394.6	338.0	177.5	156.4	140.5	127.7	116.4	109.8	115.4	116.4
35°	2020.4	1398.2	264.7	166.2	143.6	125.2	109.8	98.5	92.3	94.9	96.4
37.5°	2266.1	1373.6	221.1	157.5	139.0	115.9	100.0	85.1	81.0	84.1	85.7
40°	2426.1	1439.3	194.9	152.9	127.2	106.7	85.7	74.9	71.3	72.8	75.4
42.5°	2727.7	1475.7	182.1	147.7	116.4	91.3	73.3	67.2	62.1	64.1	66.2
45°	3050.4	1537.7	172.3	142.1	108.2	80.0	64.6	59.5	52.8	53.3	55.4
47.5°	3446.9	1685.5	161.1	132.3	96.9	72.8	57.4	49.8	43.6	43.1	45.7
50°	3979.3	1882.9	150.8	120.0	89.8	66.7	50.3	40.5	35.4	33.9	35.9
52.5°	4547.6	2138.4	140.0	111.3	81.0	58.5	43.1	32.8	28.2	27.2	28.7
55°	5110.8	2383.6	129.8	105.7	71.8	50.3	36.4	27.2	23.1	22.1	23.1
57.5°	5752.4	2648.7	116.4	94.4	63.1	43.6	30.3	22.6	19.0	18.0	18.5
60°	6235.6	2742.1	105.1	82.1	54.9	38.5	25.6	18.0	15.4	14.4	14.9
62.5°	6464.9	2589.8	94.4	71.3	48.2	33.3	21.5	14.9	12.8	11.8	11.8
65°	6405.4	2252.3	83.6	61.0	41.5	27.7	16.9	12.8	11.3	9.7	9.2
67.5°	5718.1	1762.4	71.3	51.3	34.9	22.6	14.4	12.3	10.3	9.2	7.7
70°	4534.8	1276.2	58.0	42.6	29.2	18.5	11.3	11.3	9.7	9.2	7.2
72.5°	2972.4	803.2	47.2	34.4	24.1	14.4	8.7	10.3	9.2	9.2	6.7
75°	1288.0	287.2	38.0	27.7	20.0	9.7	7.7	9.2	9.7	9.2	7.7
77.5°	301.6	89.2	29.7	22.1	16.4	6.7	7.7	9.2	9.7	8.7	6.7
80°	113.4	38.0	19.5	14.4	12.8	4.1	6.7	5.6	5.1	3.6	1.0
82.5°	68.7	15.9	10.3	7.2	6.2	1.0	3.1	2.1	1.0	1.0	0.0
85°	48.7	7.7	5.6	5.1	3.1	0.0	0.5	0.0	0.0	0.5	0.0
87.5°	6.7	2.1	2.6	2.6	2.1	0.0	0.0	0.0	0.0	0.0	0.0
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)