

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: P367922

Luminaire Tested: **MSA-SA3C-727-U-RW**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367922
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-7)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3C-727-U-RW
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15636 lumens
Efficiency: N/A
Efficacy: 94.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U0 - G4

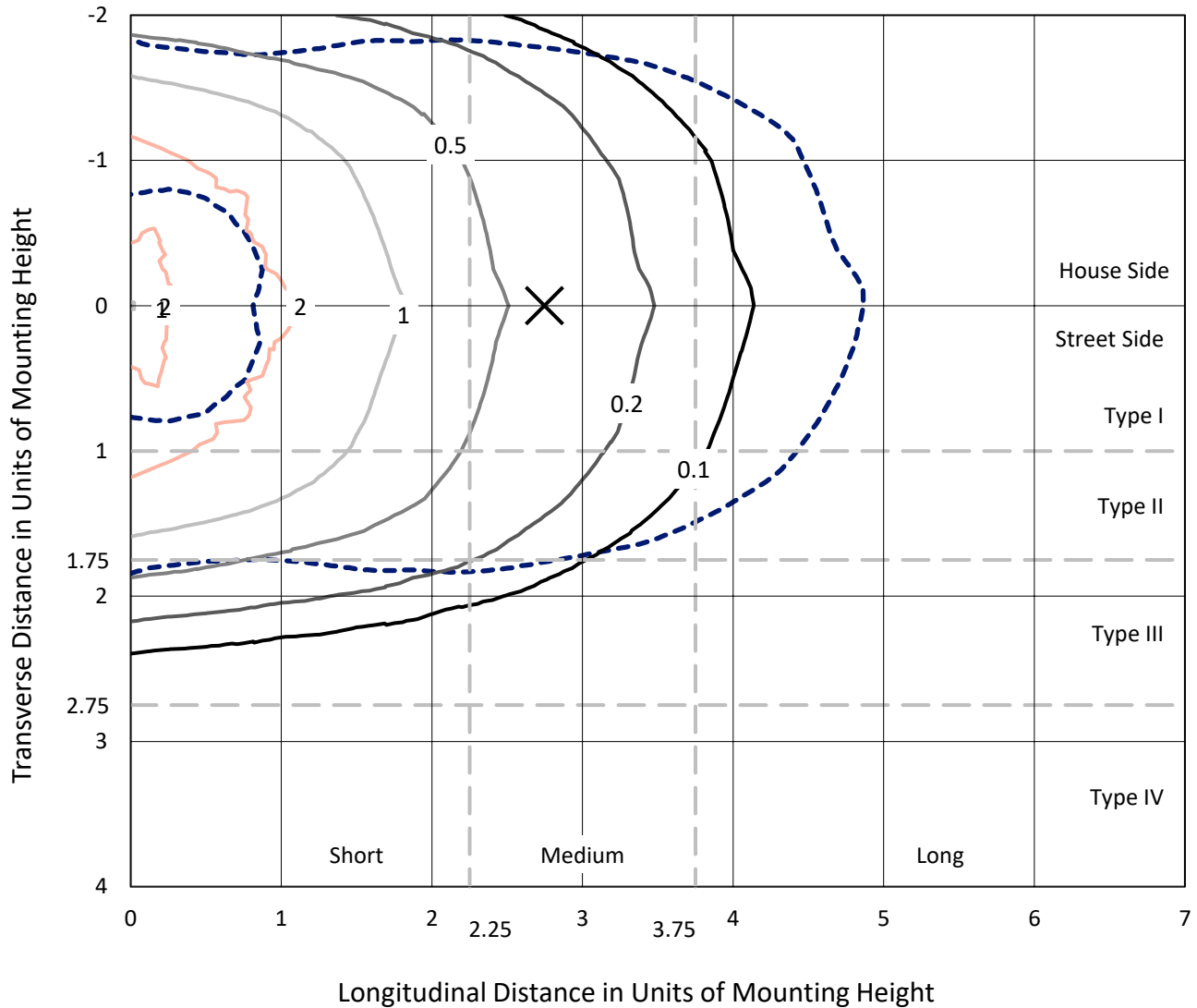
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

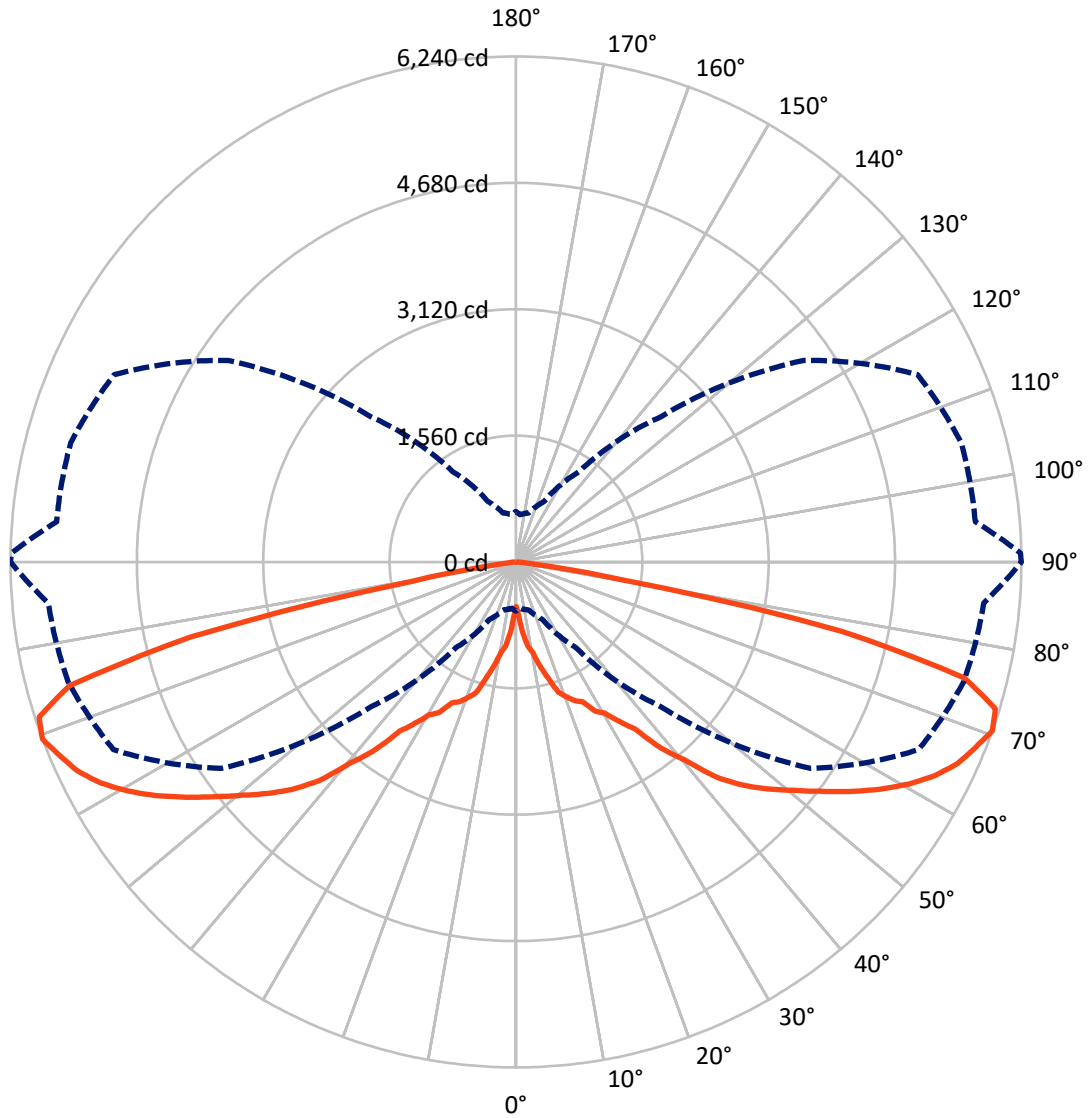
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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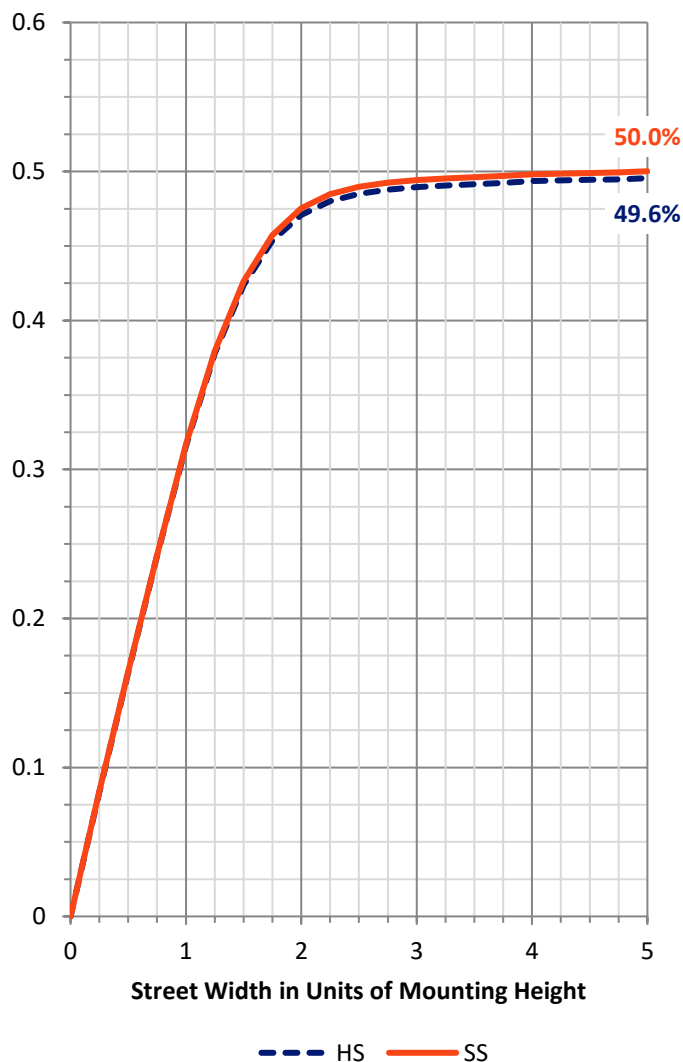
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7789.0	0.0	7789.0
	% Fixture	49.8	0.0	49.8
Street Side	Lumens	7847.0	0.0	7847.0
	% Fixture	50.2	0.0	50.2
Total	Lumens	15636.0	0.0	15636.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.8	0.5
10°-20°	379.4	2.4
20°-30°	820.4	5.2
30°-40°	1565.2	10.0
40°-50°	2843.4	18.2
50°-60°	3994.3	25.5
60°-70°	3813.8	24.4
70°-80°	1957.3	12.5
80°-90°	179.5	1.1
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°	15636.0	100.0
0°-180°	15636.0	100.0

Coefficient of Utilization



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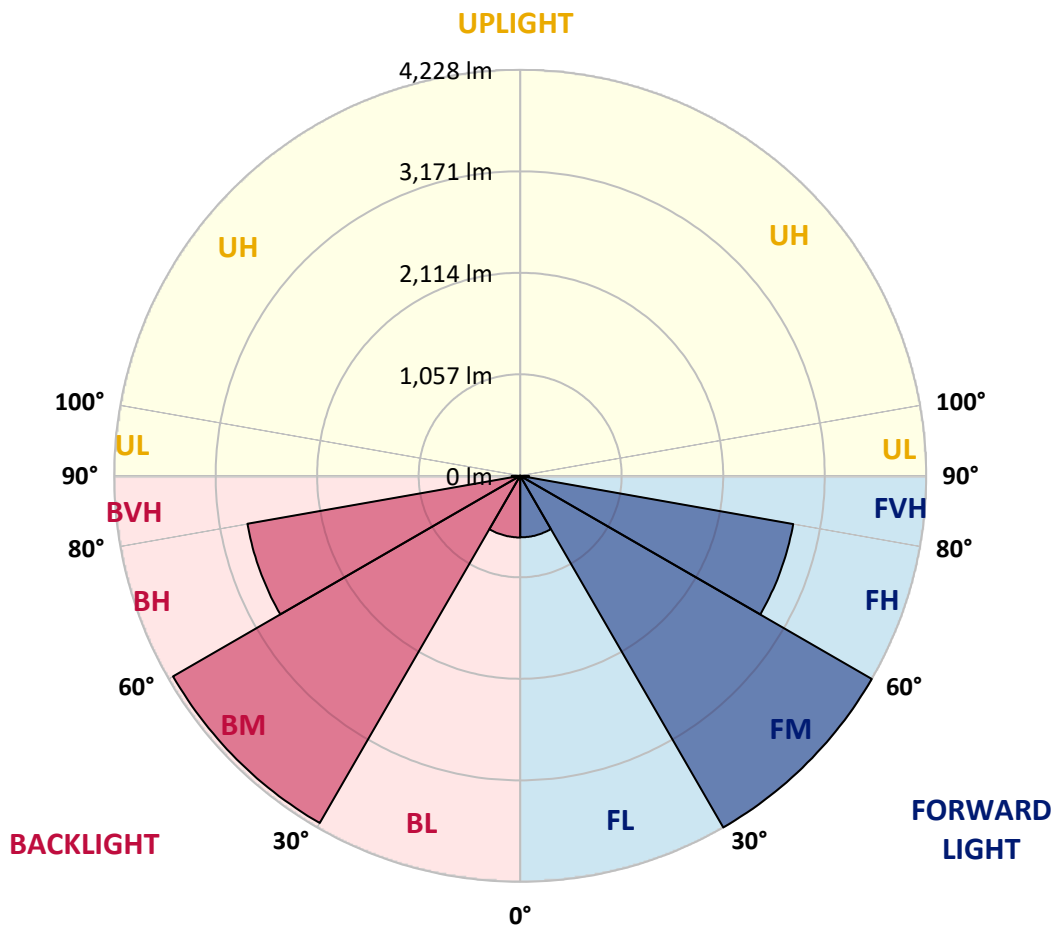
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	640.7	4.1			
FM (30°-60°)	4228.1	27.0			
FH (60°-80°)	2887.1	18.5			G2/5000
FVH (80°-90°)	91.1	0.6			G1/100
BL (0°-30°)	641.9	4.1	B2/1000		
BM (30°-60°)	4174.8	26.7	B3/5000		
BH (60°-80°)	2883.9	18.4	B4/5000		G4/5000
BVH (80°-90°)	88.4	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	548.8	548.8	548.8	548.8	548.8	548.8	548.8	548.8	548.8	548.8	548.8
2.5°	664.8	640.0	609.0	627.4	635.0	648.3	646.4	640.0	612.8	658.4	663.5
5°	832.1	792.8	778.2	775.7	779.5	766.8	808.0	795.9	818.1	859.3	868.8
7.5°	947.4	918.2	887.2	896.7	857.4	851.7	904.9	952.5	964.5	1039.9	1045.0
10°	1001.9	973.4	981.6	975.9	971.5	1008.2	1032.9	1067.8	1117.9	1124.8	1135.6
12.5°	1048.1	1059.6	1095.7	1094.4	1154.0	1219.2	1209.7	1245.9	1254.1	1341.6	1314.9
15°	1165.4	1188.8	1186.3	1208.5	1234.5	1341.6	1342.2	1403.7	1460.1	1494.3	1485.4
17.5°	1337.1	1345.4	1311.1	1312.4	1387.8	1431.5	1480.3	1469.6	1616.6	1683.8	1688.2
20°	1439.8	1460.7	1421.4	1369.4	1503.1	1563.3	1590.6	1527.9	1685.0	1775.6	1775.6
22.5°	1619.1	1565.3	1505.7	1470.8	1588.7	1652.7	1649.5	1631.8	1715.4	1875.8	1860.6
25°	1718.0	1687.6	1657.8	1666.6	1726.2	1759.2	1802.9	1761.7	1840.3	1959.4	1909.4
27.5°	1905.5	1849.2	1702.8	1819.4	1819.4	1794.7	1887.2	1906.8	1855.5	2049.4	2086.8
30°	2117.8	2098.2	1891.0	2014.5	1976.5	1906.8	2084.3	2071.6	1985.4	2183.1	2166.0
32.5°	2318.7	2383.4	2186.9	2119.1	2176.1	2202.8	2109.6	2147.6	2164.1	2354.8	2346.6
35°	2626.7	2681.2	2420.8	2403.6	2308.6	2283.9	2354.8	2367.5	2368.8	2569.7	2532.9
37.5°	3159.7	3081.1	2823.8	2702.8	2713.5	2683.7	2697.7	2597.6	2611.5	2903.0	2921.4
40°	3549.4	3460.7	3174.2	3087.4	2874.5	3001.9	2889.1	2878.9	2851.0	3228.7	3218.6
42.5°	3979.7	3858.0	3541.1	3425.2	3198.9	3147.0	3095.0	3212.2	3204.6	3554.4	3631.8
45°	4304.8	4058.9	3893.5	3821.2	3685.6	3558.3	3508.8	3561.4	3537.3	3797.2	3932.1
47.5°	4510.1	4296.5	4106.4	3954.3	3824.4	4136.8	3886.5	3816.2	3767.4	4058.2	4188.2
50°	4673.6	4427.1	4202.7	4152.0	4254.7	4531.0	4136.2	3980.9	4040.5	4254.7	4431.5
52.5°	4717.9	4456.8	4255.3	4223.0	4500.6	4550.6	4486.6	4225.5	4209.7	4490.4	4704.0
55°	4582.3	4332.0	4236.3	4413.1	4719.8	4678.0	4775.6	4608.9	4496.8	4731.2	4999.9
57.5°	4233.1	3984.7	3961.9	4216.7	4603.2	4959.4	5007.5	4875.7	4728.7	4977.1	5294.0
60°	3659.6	3432.8	3490.4	3771.8	4354.8	4861.8	5117.8	4997.4	4951.8	5198.9	5566.5
62.5°	2766.8	2590.0	2743.9	3136.2	3901.1	4735.7	5269.9	5250.9	5185.0	5434.7	5807.3
65°	1764.2	1671.1	1828.2	2226.8	3197.0	4506.3	5342.8	5368.1	5428.9	5616.5	5993.6
67.5°	1025.3	975.9	1071.6	1398.0	2276.9	3700.2	5207.2	5570.9	5602.6	5710.3	6115.9
70°	606.5	574.1	613.4	785.2	1289.0	2520.9	4441.6	5482.2	5721.7	5796.5	6239.5
72.5°	462.6	432.2	415.1	464.5	673.0	1302.3	3003.1	4647.0	5626.0	5739.5	6187.5
75°	399.9	370.7	350.4	354.9	400.5	618.5	1628.0	3323.8	4794.0	5226.2	5715.4
77.5°	343.5	317.5	302.9	301.6	307.3	339.7	680.6	1802.3	3002.5	3756.6	4120.3
80°	275.0	254.7	251.6	251.6	243.3	240.8	338.4	685.7	1142.6	1354.9	1299.1
82.5°	200.9	180.6	200.9	198.3	185.7	175.5	215.5	296.6	352.3	278.2	219.9
85°	135.6	117.2	132.4	135.0	122.9	91.3	129.3	148.3	152.1	95.1	78.6
87.5°	47.5	46.3	74.8	65.3	53.2	31.1	47.5	51.3	53.9	33.6	22.8
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):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	548.8	548.8	548.8	548.8	548.8	548.8	548.8	548.8	548.8	548.8	548.8
2.5°	665.4	657.8	619.8	625.5	640.0	647.0	654.0	625.5	611.5	655.9	651.4
5°	871.3	843.5	812.4	808.0	809.9	782.6	798.5	791.5	794.7	823.2	828.9
7.5°	1043.7	1010.1	968.9	936.6	880.8	836.5	873.9	892.9	898.6	949.3	968.3
10°	1136.9	1108.3	1096.3	1035.5	1017.1	1011.4	1002.5	972.1	1005.7	993.6	1003.2
12.5°	1319.4	1313.7	1250.9	1211.0	1214.8	1225.6	1169.8	1139.4	1095.7	1164.1	1139.4
15°	1474.6	1499.3	1436.6	1363.7	1327.6	1346.0	1303.5	1259.2	1219.9	1240.8	1214.2
17.5°	1673.0	1672.3	1550.0	1472.1	1468.9	1467.7	1404.9	1307.3	1354.2	1339.7	1340.9
20°	1778.2	1761.1	1609.0	1519.0	1595.7	1568.4	1512.0	1386.5	1441.0	1458.8	1470.2
22.5°	1866.3	1856.8	1672.3	1606.4	1655.9	1656.5	1600.1	1534.2	1527.2	1582.4	1552.6
25°	1927.7	1965.8	1792.1	1776.3	1797.8	1776.3	1721.1	1678.0	1650.2	1732.5	1650.2
27.5°	2073.5	2019.6	1810.5	1900.5	1913.8	1805.4	1874.5	1823.8	1746.5	1848.5	1882.1
30°	2177.4	2209.1	1939.8	2075.4	2059.5	1959.4	1987.9	1986.0	1893.5	2092.5	2069.0
32.5°	2356.1	2318.1	2150.8	2140.0	2178.0	2173.6	2125.4	2148.9	2171.7	2316.2	2351.0
35°	2539.3	2579.8	2285.8	2358.6	2347.9	2279.4	2405.5	2391.0	2458.8	2755.3	2657.1
37.5°	2952.4	2759.1	2588.7	2579.2	2651.4	2662.2	2621.6	2685.6	2832.0	3060.2	3165.4
40°	3223.0	3134.9	2845.3	2856.7	2756.6	2929.0	2814.9	3020.9	3132.4	3517.1	3479.7
42.5°	3632.4	3417.6	3139.4	3177.4	3157.1	3074.1	3224.3	3330.1	3489.8	3783.2	3972.7
45°	3937.2	3642.5	3510.7	3487.3	3484.7	3629.2	3610.2	3779.4	3836.4	4057.0	4214.1
47.5°	4168.5	3918.2	3723.0	3749.6	3672.3	4084.9	3865.0	3917.6	4032.9	4240.8	4423.9
50°	4442.9	4164.1	3942.3	4008.2	4196.4	4354.8	4155.8	4065.8	4122.2	4367.5	4571.5
52.5°	4697.0	4403.6	4159.6	4214.8	4522.1	4449.9	4428.3	4200.8	4193.9	4390.9	4622.9
55°	4994.2	4663.4	4448.0	4622.9	4731.9	4642.5	4608.3	4331.4	4160.3	4269.9	4488.5
57.5°	5285.7	4920.7	4706.5	4742.6	4880.8	4792.1	4535.4	4108.9	3895.4	3916.9	4138.1
60°	5558.9	5157.1	4980.3	4945.4	5055.7	4707.8	4258.5	3701.5	3418.2	3366.2	3557.6
62.5°	5792.7	5354.8	5187.5	5092.5	5197.6	4711.0	3826.9	3047.5	2736.3	2560.2	2709.1
65°	5978.4	5518.9	5399.8	5350.4	5388.4	4424.5	3154.6	2237.6	1856.1	1660.9	1747.8
67.5°	6101.9	5610.8	5556.3	5621.0	5114.0	3685.0	2337.1	1432.2	1079.2	972.7	1027.2
70°	6230.0	5691.9	5690.0	5470.1	4336.4	2540.5	1365.0	825.7	628.0	586.8	621.0
72.5°	6186.9	5595.6	5624.1	4783.8	3005.0	1358.0	720.5	467.0	425.2	439.8	470.2
75°	5729.3	5087.4	4949.9	3439.1	1704.7	631.2	415.1	353.6	351.1	373.3	403.0
77.5°	4155.8	3543.0	3179.3	1949.3	730.7	341.6	305.4	295.3	295.3	313.1	339.7
80°	1370.1	1185.7	1235.7	754.1	345.4	235.7	238.3	242.7	241.4	245.9	268.1
82.5°	225.0	233.2	360.6	308.0	208.5	161.0	180.0	188.8	191.4	171.1	194.5
85°	79.8	90.0	153.4	142.6	120.4	81.1	118.5	132.4	130.5	114.1	126.1
87.5°	24.7	31.7	55.8	43.1	36.1	22.2	44.4	52.0	65.3	26.6	24.1
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)