

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: P596348

Luminaire Tested: **MSA-SA3C-722-U-SL2**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P596348  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-16)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA3C-722-U-SL2  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13295 lumens  
Efficiency: N/A  
Efficacy: 80.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B3 - U0 - G3

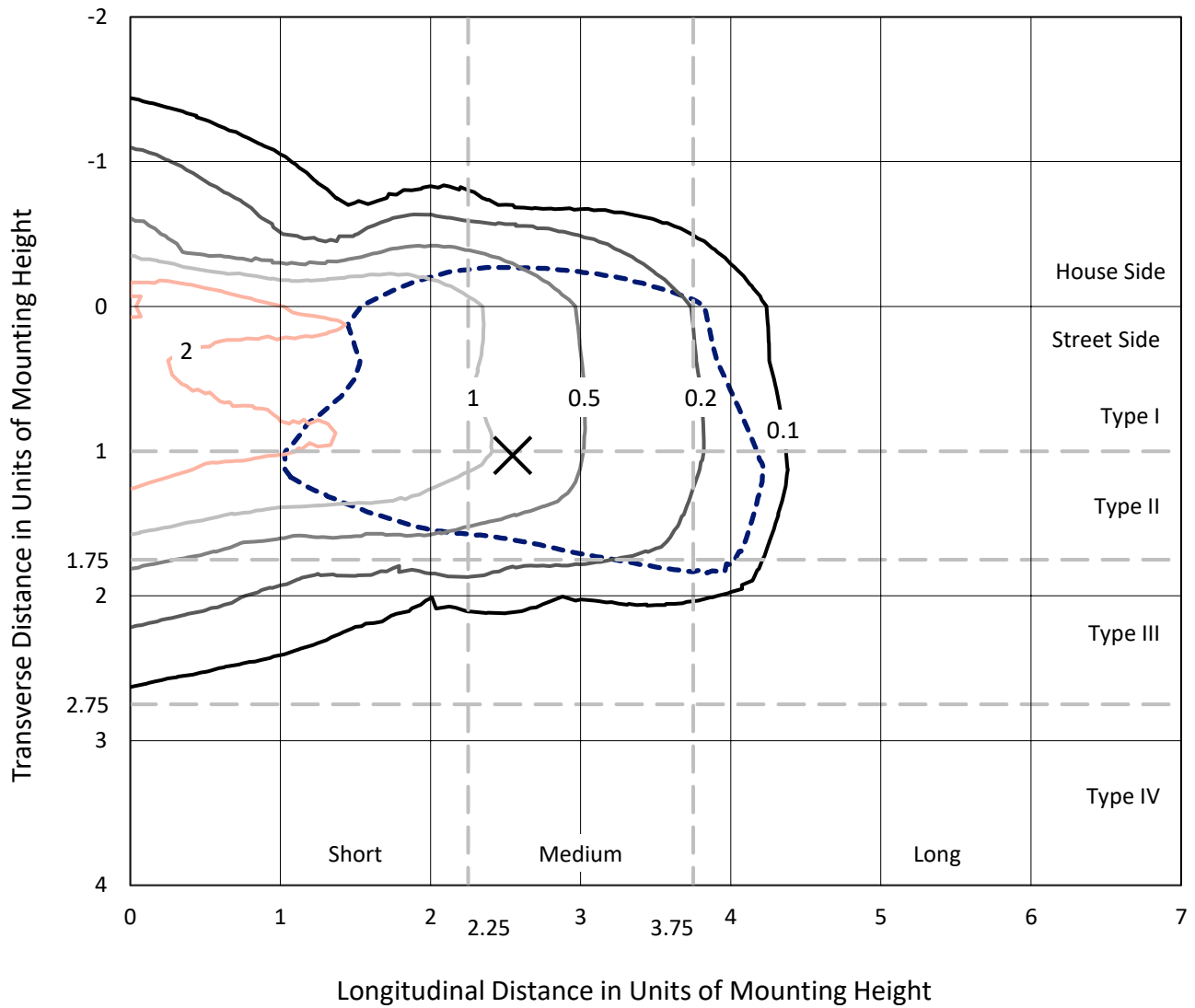
Input Watts (W): 166  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

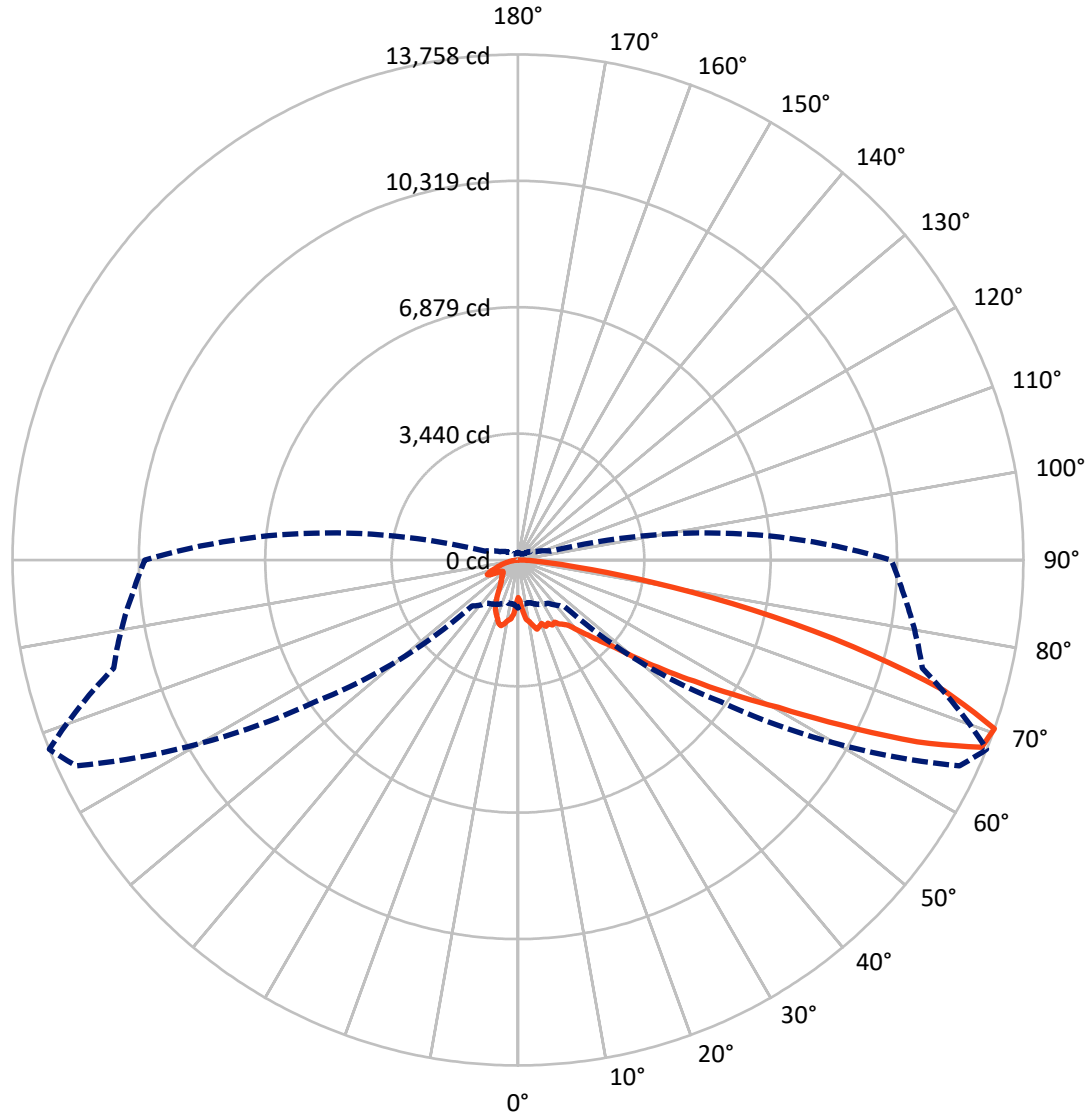
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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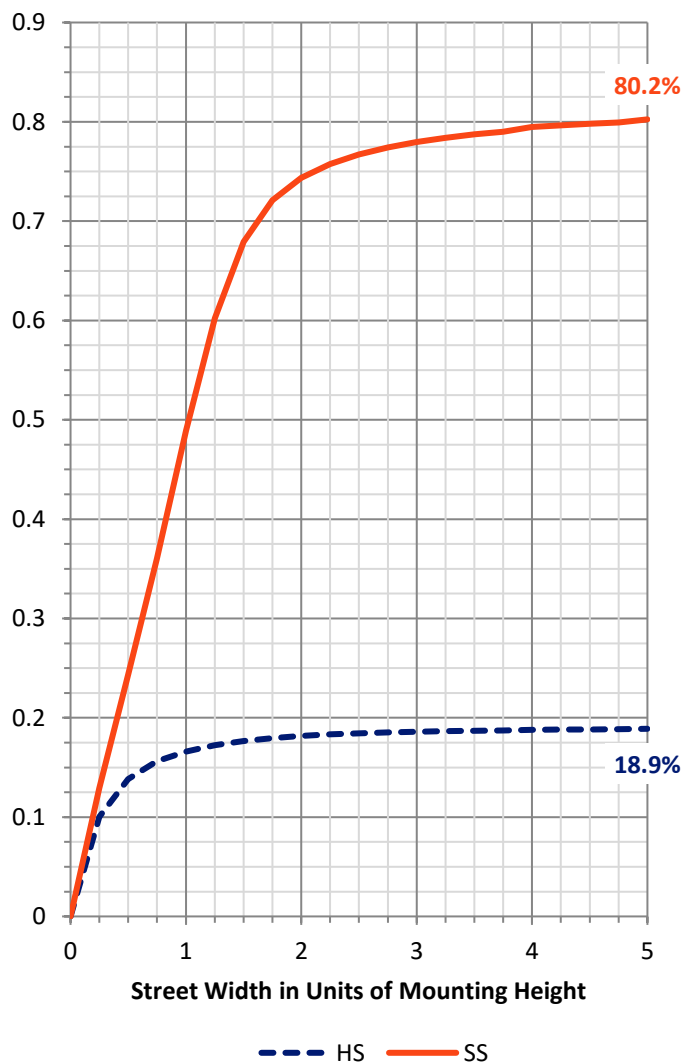
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2538.3	0.0	2538.3
	% Fixture	19.1	0.0	19.1
<b>Street Side</b>	Lumens	10756.7	0.0	10756.7
	% Fixture	80.9	0.0	80.9
<b>Total</b>	Lumens	13295.0	0.0	13295.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.1	1.0
10°-20°	443.7	3.3
20°-30°	675.0	5.1
30°-40°	1031.0	7.8
40°-50°	1772.8	13.3
50°-60°	2934.3	22.1
60°-70°	3617.6	27.2
70°-80°	2323.9	17.5
80°-90°	360.5	2.7
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°	13295.0	100.0
0°-180°	13295.0	100.0

**Coefficient of Utilization**



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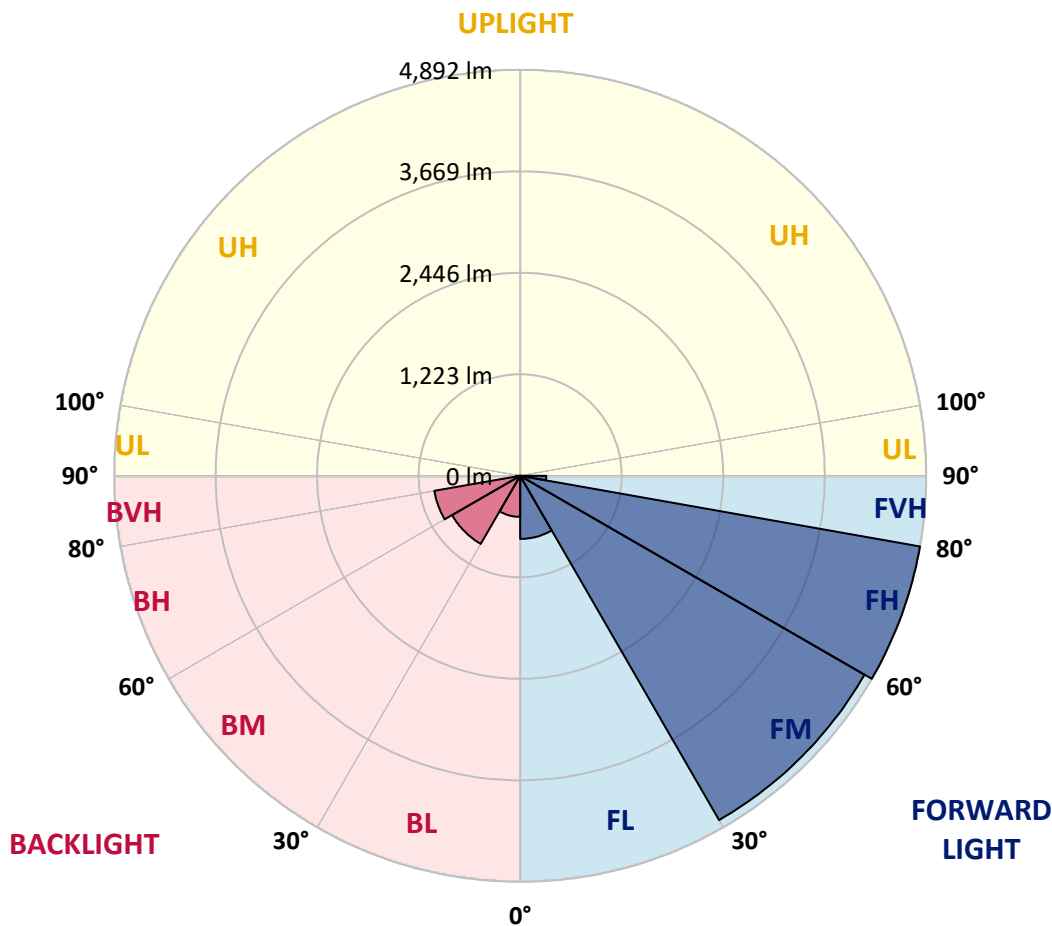
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	760.2	5.7			
FM (30°-60°)	4790.7	36.0			
FH (60°-80°)	4891.5	36.8			G2/5000
FVH (80°-90°)	314.2	2.4			G3/500
BL (0°-30°)	494.6	3.7	B1/500		
BM (30°-60°)	947.5	7.1	B1/1000		
BH (60°-80°)	1050.0	7.9	B3/2500		G3/2500
BVH (80°-90°)	46.3	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	1019.4	1019.4	1019.4	1019.4	1019.4	1019.4	1019.4	1019.4	1019.4	1019.4	1019.4
2.5°	1171.3	1124.0	1076.1	1099.5	1136.8	1169.6	1162.9	1166.8	1121.8	1115.6	1234.2
5°	1379.9	1298.7	1297.0	1298.1	1301.5	1263.6	1356.0	1403.9	1414.4	1463.4	1579.7
7.5°	1452.3	1419.4	1386.1	1402.8	1360.5	1364.4	1477.9	1602.5	1632.0	1667.6	1826.8
10°	1437.3	1406.1	1416.1	1418.9	1426.7	1489.6	1562.4	1682.1	1707.1	1820.6	1861.8
12.5°	1439.5	1433.9	1480.7	1482.3	1565.8	1678.7	1707.7	1817.8	1827.9	1911.3	2083.3
15°	1515.7	1554.1	1527.9	1541.9	1558.0	1693.2	1734.9	1893.0	1953.1	2060.5	2189.5
17.5°	1664.3	1675.4	1596.9	1576.4	1629.2	1670.4	1765.5	1834.0	1896.9	2196.8	2374.8
20°	1698.8	1728.8	1635.3	1529.1	1640.9	1698.2	1764.4	1795.6	1844.6	2216.8	2469.4
22.5°	1846.8	1784.5	1671.5	1579.1	1615.9	1671.5	1719.4	1836.8	1965.3	2159.5	2564.0
25°	1930.8	1894.6	1793.9	1694.9	1663.7	1665.4	1757.8	1862.9	1907.4	2243.5	2582.9
27.5°	2133.9	2076.0	1849.6	1830.6	1713.2	1622.0	1763.9	1927.5	2005.4	2177.9	2675.3
30°	2388.2	2344.2	2047.1	2022.1	1842.9	1683.7	1841.8	1975.3	1964.2	2220.7	2739.3
32.5°	2594.1	2667.5	2367.6	2170.1	2042.6	1890.2	1817.3	1967.0	2077.7	2320.3	2847.8
35°	2887.9	2956.9	2617.4	2483.9	2207.3	1985.9	1988.1	2081.6	2150.0	2436.6	2969.1
37.5°	3396.4	3335.8	3062.6	2851.7	2674.7	2344.2	2245.2	2212.4	2267.4	2579.0	3206.7
40°	3763.1	3711.9	3390.3	3270.1	2925.7	2733.7	2462.2	2431.0	2528.4	2725.9	3400.9
42.5°	4197.7	4106.4	3807.1	3708.0	3348.0	3001.9	2728.2	2746.0	2793.3	3003.0	3663.5
45°	4640.0	4418.6	4248.9	4241.1	4000.7	3522.7	3154.9	3140.5	3142.1	3410.9	3958.4
47.5°	4991.2	4792.0	4597.8	4505.4	4384.1	4423.6	3774.8	3605.1	3553.9	3821.5	4400.8
50°	5228.7	4999.5	4779.7	4758.0	5081.9	5295.0	4356.8	4175.4	4207.1	4409.1	4990.6
52.5°	5233.8	4961.7	4732.4	4884.3	5647.2	5952.1	5359.5	4852.6	4953.9	5091.3	5760.1
55°	4869.9	4587.7	4438.6	4784.7	5868.1	6731.7	6768.4	5937.6	5820.8	5871.4	6679.9
57.5°	4102.5	3817.6	3730.8	4145.4	5449.1	7483.4	8469.9	7234.1	6891.4	6679.9	7622.5
60°	3088.2	2841.7	2787.7	3052.0	4517.6	7262.5	9847.6	8847.7	8149.4	7583.0	8567.9
62.5°	2315.9	2138.9	2057.7	2095.5	3126.0	6544.1	10752.4	10886.5	9897.7	8569.0	9491.5
65°	1881.8	1738.8	1666.5	1617.5	1944.2	5060.1	10588.8	12602.5	11939.8	9604.5	10210.4
67.5°	1571.9	1445.0	1411.7	1459.5	1536.9	2935.7	9309.0	13562.4	13607.4	10626.1	10630.5
70°	1304.8	1210.8	1198.5	1334.3	1436.1	1771.7	6723.9	13260.8	13758.2	11392.3	10532.1
72.5°	1008.2	957.6	955.9	1169.1	1426.7	1510.1	4004.1	11455.7	12124.0	11147.5	9568.3
75°	699.4	664.4	691.1	960.9	1393.9	1531.8	2285.2	8922.9	9423.1	9486.0	7664.8
77.5°	481.3	451.8	480.8	695.0	1244.7	1568.6	1598.6	6451.8	6507.4	6361.1	4390.2
80°	335.0	314.4	336.6	491.9	968.7	1552.4	1361.0	4061.9	3726.9	2838.9	1405.5
82.5°	207.5	201.4	225.9	350.5	682.2	1412.2	1289.8	2096.1	1600.3	783.4	501.9
85°	109.1	100.2	131.3	228.7	426.8	1108.4	1208.6	956.5	617.6	278.2	201.4
87.5°	32.3	28.9	50.6	92.4	180.8	496.9	691.6	405.6	230.4	81.8	62.9
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°	1019.4	1019.4	1019.4	1019.4	1019.4	1019.4	1019.4	1019.4	1019.4	1019.4	1019.4
2.5°	1242.5	1236.4	1154.0	1164.6	1182.4	1186.9	1186.3	1156.3	1124.5	1213.0	1210.2
5°	1582.5	1527.4	1486.2	1477.3	1426.7	1376.0	1393.9	1387.7	1379.9	1420.0	1425.0
7.5°	1827.3	1751.1	1703.2	1580.3	1463.4	1362.1	1394.4	1404.4	1384.4	1456.7	1478.4
10°	1891.9	1831.8	1780.0	1622.0	1557.4	1498.5	1411.1	1311.5	1298.1	1256.4	1261.4
12.5°	2058.2	2049.9	1873.5	1734.4	1650.4	1533.0	1344.3	1223.6	1120.1	1125.1	1095.0
15°	2189.5	2194.0	1982.0	1787.2	1561.9	1382.7	1160.7	1010.5	904.2	883.1	861.3
17.5°	2365.9	2357.0	1990.9	1723.8	1438.4	1175.7	903.6	754.5	736.7	749.0	730.0
20°	2442.7	2364.3	1934.1	1566.3	1245.3	893.1	682.7	603.7	638.2	687.2	688.3
22.5°	2511.7	2377.6	1904.7	1439.5	988.2	649.4	548.1	533.6	574.2	640.4	646.0
25°	2508.9	2439.4	1851.8	1311.5	766.2	506.9	476.3	486.9	535.3	604.3	608.2
27.5°	2635.2	2392.1	1714.4	1143.5	577.0	434.0	441.8	461.3	484.1	549.8	562.5
30°	2634.1	2480.0	1645.4	939.2	463.5	397.8	417.9	434.6	453.5	513.6	520.8
32.5°	2696.4	2422.7	1603.6	730.6	415.7	388.9	394.0	410.6	437.9	478.5	483.5
35°	2771.6	2487.8	1470.1	580.4	397.8	381.2	385.0	394.5	419.5	456.8	461.8
37.5°	3012.5	2500.0	1417.2	489.1	396.7	377.8	377.3	382.3	410.6	444.6	459.6
40°	3106.5	2611.9	1263.1	456.8	392.8	377.8	370.0	372.8	396.2	439.6	451.3
42.5°	3331.9	2649.2	1149.0	445.7	392.8	371.1	358.9	363.3	390.6	429.0	447.4
45°	3563.9	2702.0	1013.3	443.5	392.3	370.6	347.2	357.2	379.5	411.8	431.8
47.5°	3894.4	2892.3	877.5	436.8	387.8	373.4	344.4	343.9	363.3	391.2	410.1
50°	4433.6	3189.4	772.3	428.4	388.4	371.1	338.9	331.1	343.9	368.4	386.7
52.5°	5184.2	3695.8	731.1	424.0	383.9	362.2	329.4	317.2	324.4	343.9	361.7
55°	6055.6	4379.6	771.8	424.0	375.0	348.3	316.1	301.6	305.5	318.8	336.1
57.5°	7073.9	5229.3	968.2	417.9	363.9	331.6	299.9	283.2	284.3	296.0	311.6
60°	8137.2	6178.6	1408.3	412.9	356.1	313.3	281.0	263.7	262.1	273.2	287.1
62.5°	9202.2	7054.4	1871.3	424.6	353.9	297.7	261.0	243.7	243.2	253.2	264.9
65°	10049.1	7653.1	1986.4	471.9	368.4	279.9	240.4	224.2	223.1	231.5	244.3
67.5°	10464.7	7739.9	1509.0	530.8	399.0	263.2	220.3	205.3	204.2	213.1	224.2
70°	10157.0	7146.8	931.5	537.0	397.3	243.7	199.8	187.0	184.7	194.2	202.5
72.5°	9018.6	6251.5	707.8	475.2	343.9	215.9	179.2	168.0	164.7	173.0	180.8
75°	7238.6	4963.3	567.0	383.4	271.0	182.0	158.6	148.0	144.1	151.9	158.6
77.5°	4216.6	2792.2	414.5	299.4	204.8	148.6	135.2	125.8	121.3	129.6	134.7
80°	1371.0	930.3	260.4	214.8	149.7	116.3	109.6	102.9	98.5	104.1	105.7
82.5°	492.4	346.1	144.1	131.9	99.6	83.5	82.9	79.0	73.4	75.7	75.7
85°	218.1	158.0	85.7	70.7	59.5	44.5	52.3	49.5	44.0	42.8	41.2
87.5°	61.2	52.3	31.2	23.9	19.5	7.2	16.7	15.0	12.2	11.1	7.8
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)