

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: P368472

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

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P368472  
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-SA4C-730-U-RW  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22504 lumens  
Efficiency: N/A  
Efficacy: 100.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B4 - U0 - G4

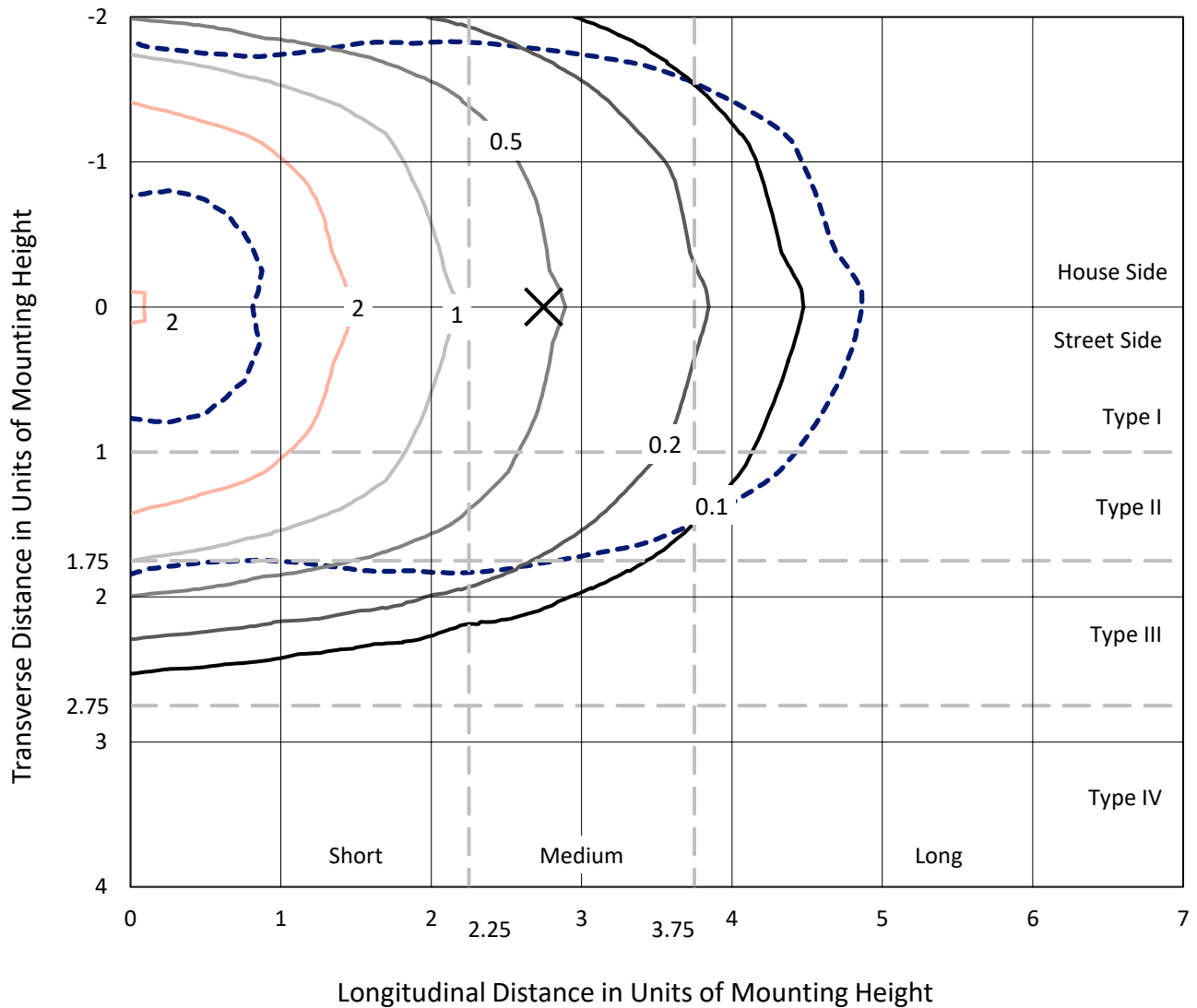
Input Watts (W): 225  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

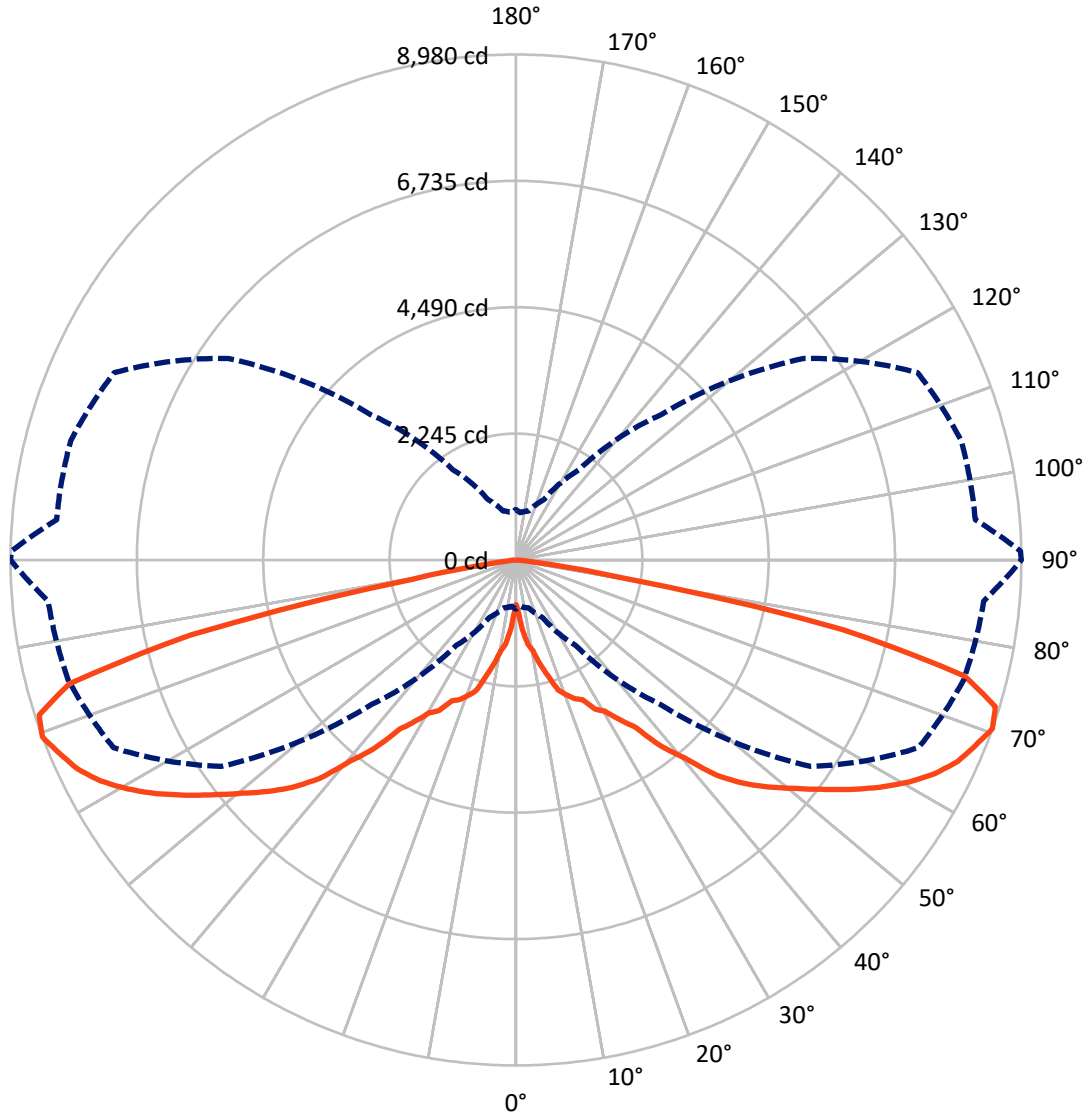
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 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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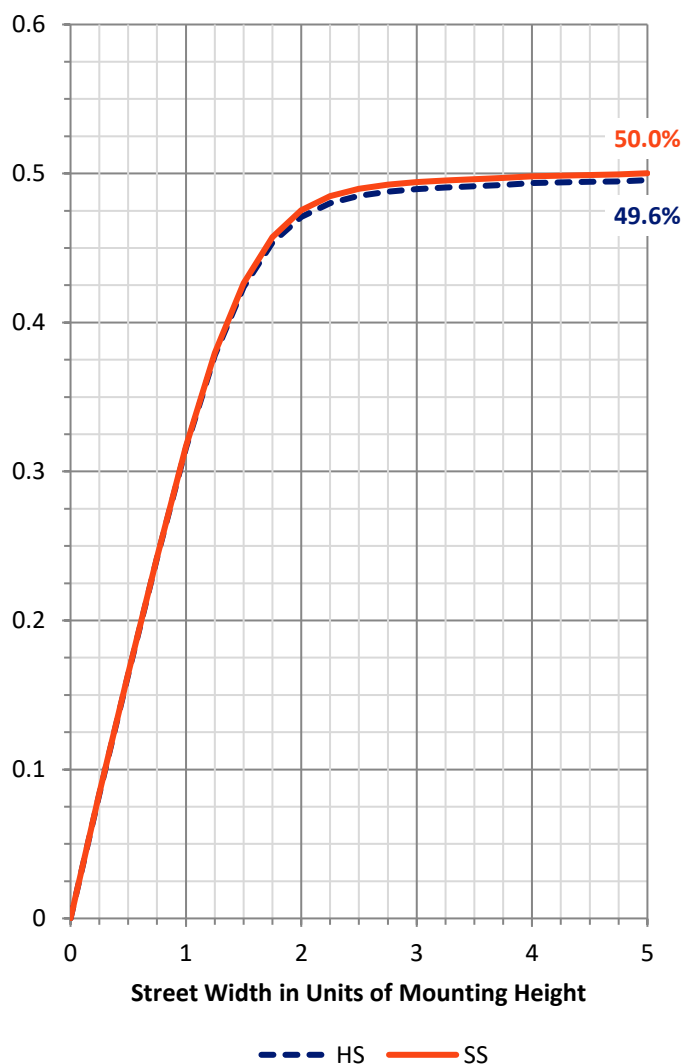
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	11210.3	0.0	11210.3
	% Fixture	49.8	0.0	49.8
<b>Street Side</b>	Lumens	11293.7	0.0	11293.7
	% Fixture	50.2	0.0	50.2
<b>Total</b>	Lumens	22504.0	0.0	22504.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.1	0.5
10°-20°	546.1	2.4
20°-30°	1180.7	5.2
30°-40°	2252.7	10.0
40°-50°	4092.4	18.2
50°-60°	5748.8	25.5
60°-70°	5489.0	24.4
70°-80°	2817.0	12.5
80°-90°	258.3	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°	22504.0	100.0
0°-180°	22504.0	100.0

**Coefficient of Utilization**

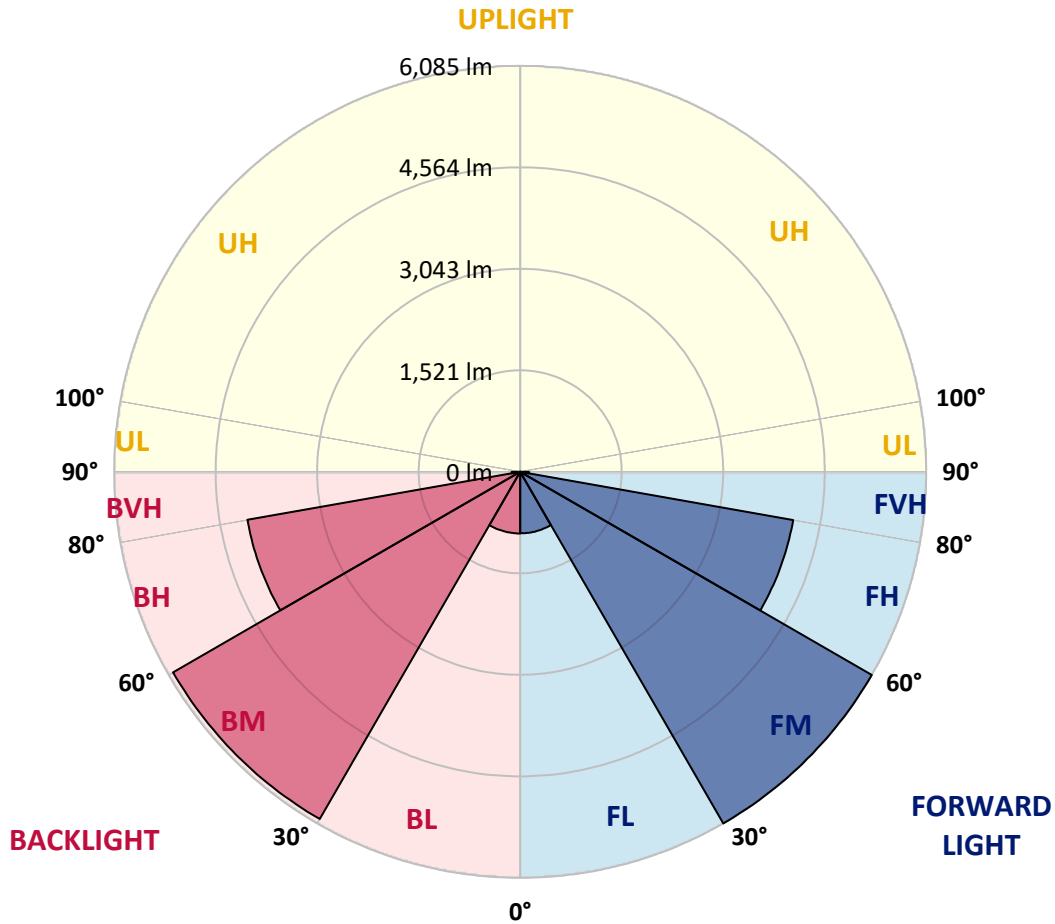


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	922.1	4.1			
FM (30°-60°)	6085.3	27.0			
FH (60°-80°)	4155.2	18.5			G2/5000
FVH (80°-90°)	131.1	0.6			G2/225
BL (0°-30°)	923.9	4.1	B2/1000		
BM (30°-60°)	6008.5	26.7	B4/8500		
BH (60°-80°)	4150.7	18.4	B4/5000		G4/5000
BVH (80°-90°)	127.2	0.6			G2/225
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°	789.8	789.8	789.8	789.8	789.8	789.8	789.8	789.8	789.8	789.8	789.8
2.5°	956.7	921.2	876.5	902.9	913.9	933.0	930.3	921.2	882.0	947.6	954.9
5°	1197.5	1141.0	1120.0	1116.4	1121.8	1103.6	1162.9	1145.5	1177.5	1236.7	1250.4
7.5°	1363.5	1321.6	1276.9	1290.6	1234.0	1225.8	1302.4	1370.8	1388.1	1496.7	1504.0
10°	1442.0	1400.9	1412.8	1404.6	1398.2	1451.1	1486.6	1536.8	1608.9	1618.9	1634.4
12.5°	1508.5	1525.0	1576.9	1575.1	1660.9	1754.8	1741.1	1793.1	1805.0	1930.8	1892.5
15°	1677.3	1711.0	1707.4	1739.3	1776.7	1930.8	1931.7	2020.2	2101.4	2150.6	2137.9
17.5°	1924.4	1936.3	1887.0	1888.9	1997.4	2060.3	2130.6	2115.1	2326.7	2423.3	2429.7
20°	2072.2	2102.3	2045.7	1971.0	2163.4	2250.0	2289.3	2199.0	2425.2	2555.6	2555.6
22.5°	2330.3	2252.8	2167.0	2116.9	2286.5	2378.6	2374.1	2348.5	2468.9	2699.7	2677.8
25°	2472.6	2428.8	2385.9	2398.7	2484.4	2531.9	2594.8	2535.5	2648.6	2820.1	2748.0
27.5°	2742.5	2661.4	2450.7	2618.5	2618.5	2582.9	2716.1	2744.4	2670.5	2949.6	3003.4
30°	3048.1	3019.8	2721.6	2899.4	2844.7	2744.4	2999.7	2981.5	2857.5	3142.0	3117.4
32.5°	3337.2	3430.2	3147.5	3049.9	3132.0	3170.3	3036.2	3091.0	3114.7	3389.2	3377.3
35°	3780.5	3858.9	3484.0	3459.4	3322.6	3287.0	3389.2	3407.4	3409.3	3698.4	3645.5
37.5°	4547.5	4434.4	4064.1	3889.9	3905.4	3862.6	3882.6	3738.5	3758.6	4178.1	4204.6
40°	5108.4	4980.7	4568.5	4443.5	4137.1	4320.4	4158.1	4143.5	4103.3	4646.9	4632.3
42.5°	5727.7	5552.6	5096.6	4929.7	4604.1	4529.3	4454.5	4623.2	4612.3	5115.7	5227.0
45°	6195.6	5841.7	5603.7	5499.7	5304.5	5121.2	5050.0	5125.7	5091.1	5465.0	5659.3
47.5°	6491.1	6183.7	5910.1	5691.2	5504.3	5953.9	5593.6	5492.4	5422.2	5840.8	6027.8
50°	6726.4	6371.6	6048.7	5975.8	6123.5	6521.2	5953.0	5729.5	5815.3	6123.5	6378.0
52.5°	6790.2	6414.5	6124.4	6077.9	6477.4	6549.5	6457.3	6081.6	6058.8	6462.8	6770.2
55°	6595.1	6234.8	6097.1	6351.5	6793.0	6732.8	6873.2	6633.4	6471.9	6809.4	7196.1
57.5°	6092.5	5735.0	5702.2	6068.8	6625.2	7137.7	7207.1	7017.3	6805.8	7163.3	7619.3
60°	5267.1	4940.6	5023.6	5428.6	6267.6	6997.3	7365.8	7192.5	7126.8	7482.5	8011.5
62.5°	3982.0	3727.6	3949.2	4513.8	5614.6	6815.8	7584.6	7557.3	7462.4	7821.8	8358.1
65°	2539.2	2405.1	2631.3	3205.0	4601.3	6485.6	7689.5	7726.0	7813.6	8083.5	8626.2
67.5°	1475.7	1404.6	1542.3	2012.0	3277.0	5325.5	7494.4	8017.9	8063.5	8218.5	8802.2
70°	872.8	826.3	882.9	1130.0	1855.1	3628.2	6392.6	7890.2	8234.9	8342.6	8980.1
72.5°	665.8	622.0	597.4	668.5	968.6	1874.3	4322.2	6688.1	8097.2	8260.5	8905.3
75°	575.5	533.6	504.4	510.8	576.4	890.2	2343.1	4783.7	6899.7	7521.7	8225.8
77.5°	494.3	456.9	436.0	434.1	442.3	488.9	979.5	2593.9	4321.3	5406.7	5930.2
80°	395.8	366.6	362.1	362.1	350.2	346.6	487.0	986.8	1644.4	1950.0	1869.7
82.5°	289.1	259.9	289.1	285.5	267.2	252.6	310.1	426.8	507.1	400.4	316.5
85°	195.2	168.7	190.6	194.3	176.9	131.3	186.1	213.4	218.9	136.8	113.1
87.5°	68.4	66.6	107.6	93.9	76.6	44.7	68.4	73.9	77.5	48.3	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



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**CANDELA DISTRIBUTION (continued):**

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	789.8	789.8	789.8	789.8	789.8	789.8	789.8	789.8	789.8	789.8	789.8
2.5°	957.7	946.7	892.0	900.2	921.2	931.2	941.2	900.2	880.1	944.0	937.6
5°	1254.1	1213.9	1169.3	1162.9	1165.6	1126.4	1149.2	1139.2	1143.7	1184.8	1193.0
7.5°	1502.2	1453.8	1394.5	1348.0	1267.8	1203.9	1257.7	1285.1	1293.3	1366.3	1393.6
10°	1636.2	1595.2	1577.9	1490.3	1463.8	1455.6	1442.9	1399.1	1447.4	1430.1	1443.8
12.5°	1898.9	1890.7	1800.4	1742.9	1748.4	1763.9	1683.7	1639.9	1576.9	1675.4	1639.9
15°	2122.4	2157.9	2067.6	1962.7	1910.8	1937.2	1876.1	1812.3	1755.7	1785.8	1747.5
17.5°	2407.8	2406.9	2230.9	2118.7	2114.1	2112.3	2022.0	1881.6	1949.1	1928.1	1929.9
20°	2559.2	2534.6	2315.7	2186.2	2296.6	2257.3	2176.2	1995.6	2074.0	2099.6	2116.0
22.5°	2686.0	2672.3	2406.9	2312.1	2383.2	2384.1	2302.9	2208.1	2198.1	2277.4	2234.5
25°	2774.5	2829.2	2579.3	2556.5	2587.5	2556.5	2477.1	2415.1	2375.0	2493.6	2375.0
27.5°	2984.2	2906.7	2605.7	2735.3	2754.4	2598.4	2697.9	2624.9	2513.6	2660.5	2708.8
30°	3133.8	3179.4	2791.8	2987.0	2964.2	2820.1	2861.1	2858.4	2725.2	3011.6	2977.9
32.5°	3391.0	3336.3	3095.5	3080.0	3134.7	3128.3	3059.0	3092.8	3125.6	3333.6	3383.7
35°	3654.6	3713.0	3289.8	3394.7	3379.2	3280.7	3462.2	3441.2	3538.8	3965.6	3824.2
37.5°	4249.3	3971.1	3725.7	3712.1	3816.0	3831.5	3773.2	3865.3	4076.0	4404.3	4555.7
40°	4638.7	4511.9	4095.1	4111.5	3967.4	4215.5	4051.3	4347.8	4508.3	5061.9	5008.1
42.5°	5227.9	4918.7	4518.3	4573.0	4543.9	4424.4	4640.5	4792.8	5022.7	5445.0	5717.7
45°	5666.6	5242.5	5052.8	5019.0	5015.4	5223.3	5196.0	5439.5	5521.6	5839.0	6065.2
47.5°	5999.5	5639.2	5358.3	5396.6	5285.4	5879.1	5562.6	5638.3	5804.3	6103.5	6367.1
50°	6394.4	5993.1	5673.9	5768.7	6039.6	6267.6	5981.3	5851.7	5932.9	6285.9	6579.6
52.5°	6760.2	6337.9	5986.7	6066.1	6508.4	6404.4	6373.4	6046.0	6036.0	6319.6	6653.4
55°	7187.9	6711.8	6401.7	6653.4	6810.3	6681.7	6632.5	6233.9	5987.6	6145.4	6460.1
57.5°	7607.4	7082.1	6773.8	6825.8	7024.6	6897.0	6527.6	5913.8	5606.4	5637.4	5955.7
60°	8000.5	7422.3	7167.8	7117.7	7276.4	6775.7	6129.0	5327.3	4919.6	4844.8	5120.3
62.5°	8337.1	7706.9	7466.1	7329.3	7480.7	6780.2	5507.9	4386.1	3938.3	3684.7	3899.0
65°	8604.3	7943.1	7771.6	7700.5	7755.2	6368.0	4540.2	3220.5	2671.4	2390.5	2515.4
67.5°	8782.2	8075.3	7996.9	8089.9	7360.3	5303.6	3363.7	2061.2	1553.2	1400.0	1478.4
70°	8966.4	8192.1	8189.3	7872.9	6241.2	3656.4	1964.6	1188.4	903.8	844.6	893.8
72.5°	8904.4	8053.4	8094.5	6885.1	4325.0	1954.5	1037.0	672.2	612.0	633.0	676.7
75°	8245.9	7322.0	7124.1	4949.7	2453.4	908.4	597.4	508.9	505.3	537.2	580.1
77.5°	5981.3	5099.3	4575.8	2805.5	1051.6	491.6	439.6	425.0	425.0	450.6	488.9
80°	1971.9	1706.5	1778.5	1085.3	497.1	339.3	342.9	349.3	347.5	353.9	385.8
82.5°	323.8	335.6	519.0	443.3	300.1	231.7	259.0	271.8	275.4	246.3	280.0
85°	114.9	129.5	220.7	205.2	173.3	116.7	170.6	190.6	187.9	164.2	181.5
87.5°	35.6	45.6	80.3	62.0	52.0	31.9	63.8	74.8	93.9	38.3	34.7
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)