

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: P596412

Luminaire Tested: **MSA-SA4B-722-U-RW**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P596412  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-7)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA4B-722-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: 14668 lumens  
Efficiency: N/A  
Efficacy: 85.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B4 - U0 - G4

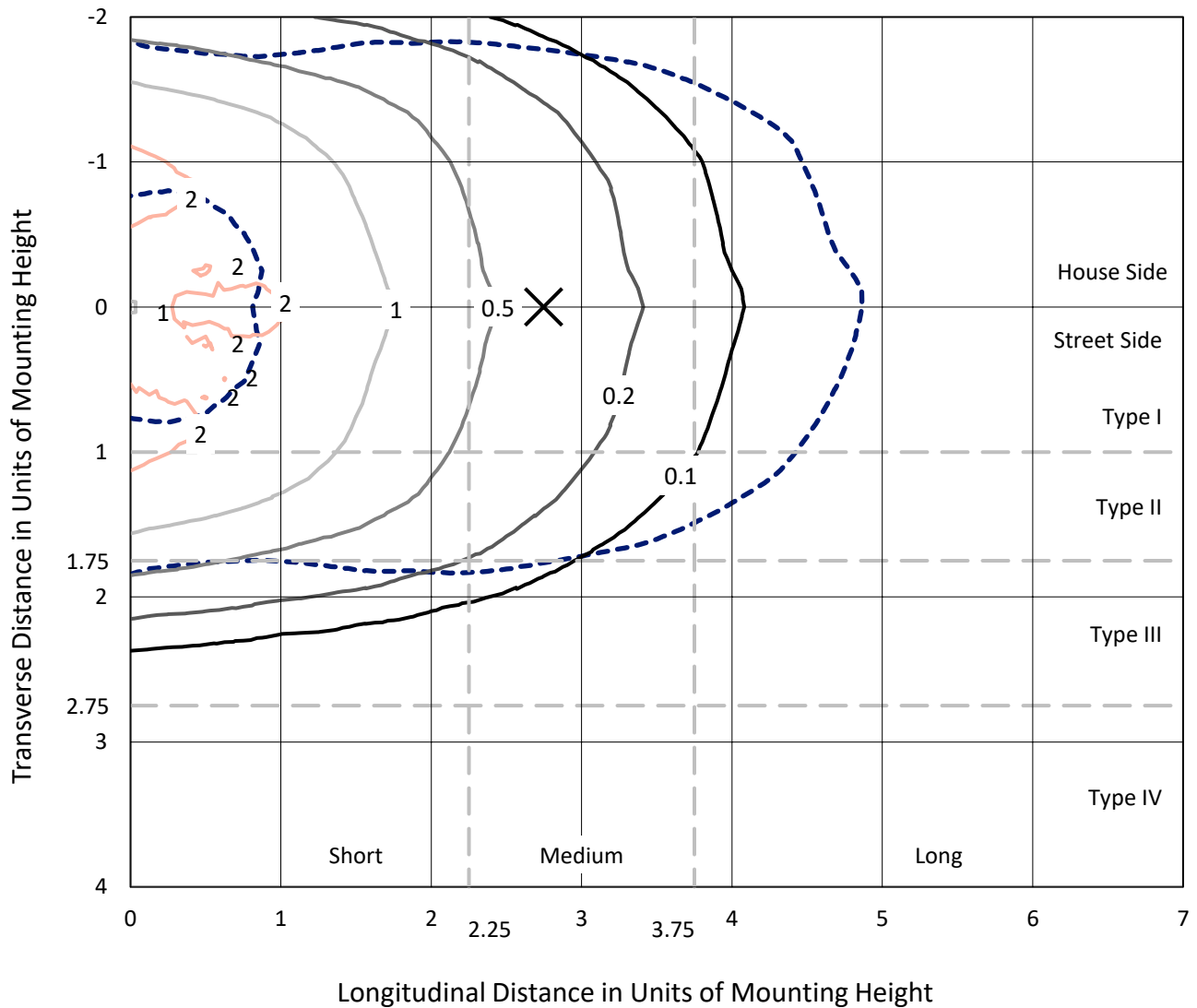
Input Watts (W): 171  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

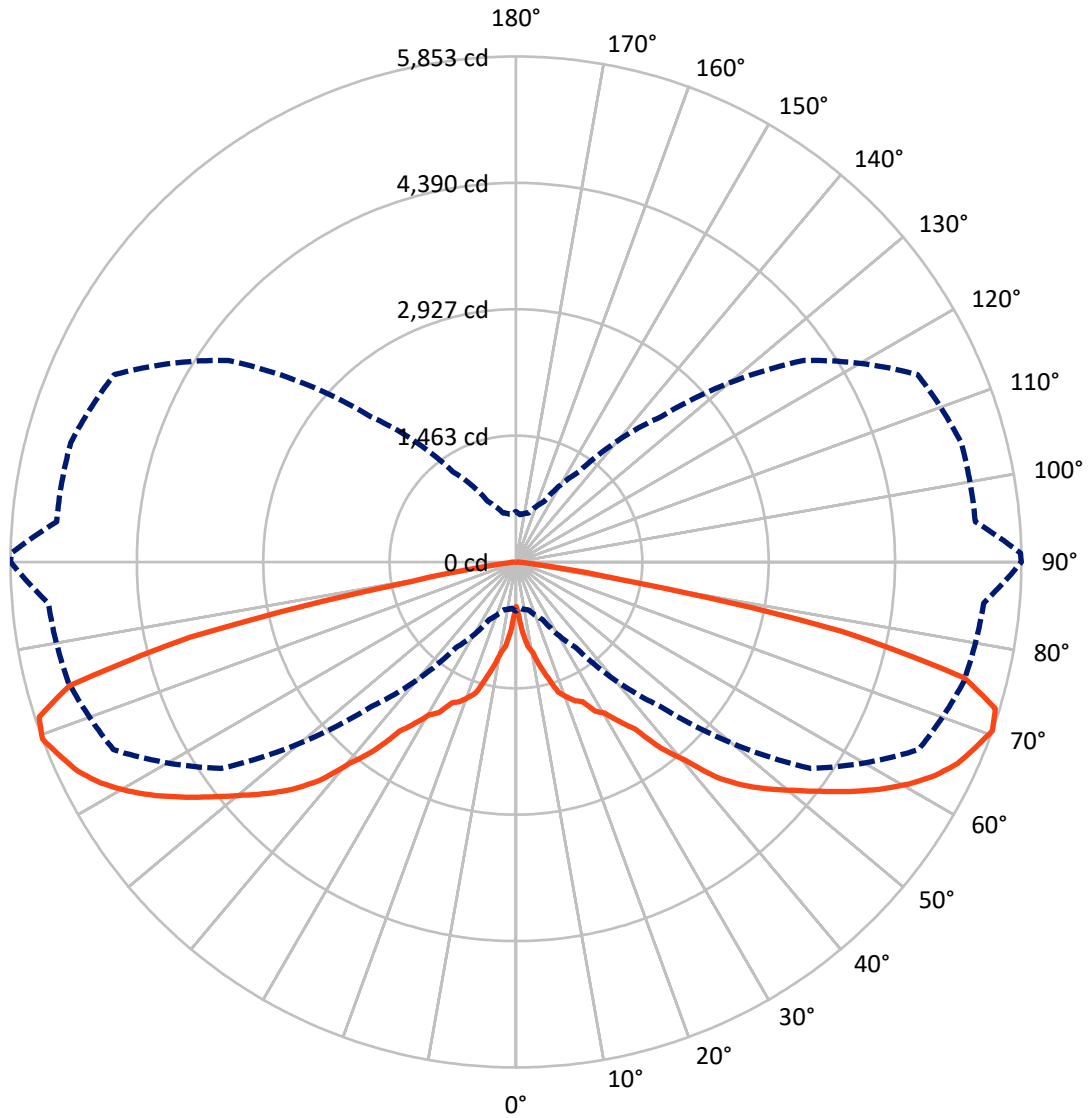
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.4 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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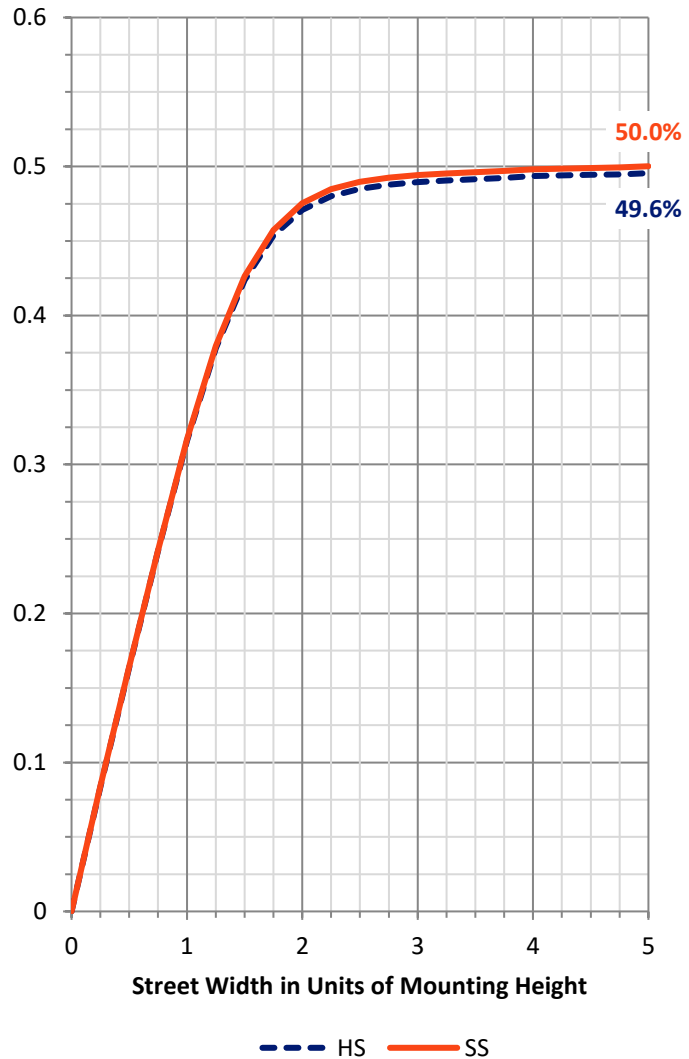
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7306.8	0.0	7306.8
	% Fixture	49.8	0.0	49.8
<b>Street Side</b>	Lumens	7361.2	0.0	7361.2
	% Fixture	50.2	0.0	50.2
<b>Total</b>	Lumens	14668.0	0.0	14668.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.6	0.5
10°-20°	355.9	2.4
20°-30°	769.6	5.2
30°-40°	1468.3	10.0
40°-50°	2667.4	18.2
50°-60°	3747.0	25.5
60°-70°	3577.7	24.4
70°-80°	1836.1	12.5
80°-90°	168.3	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°	14668.0	100.0
0°-180°	14668.0	100.0

**Coefficient of Utilization**



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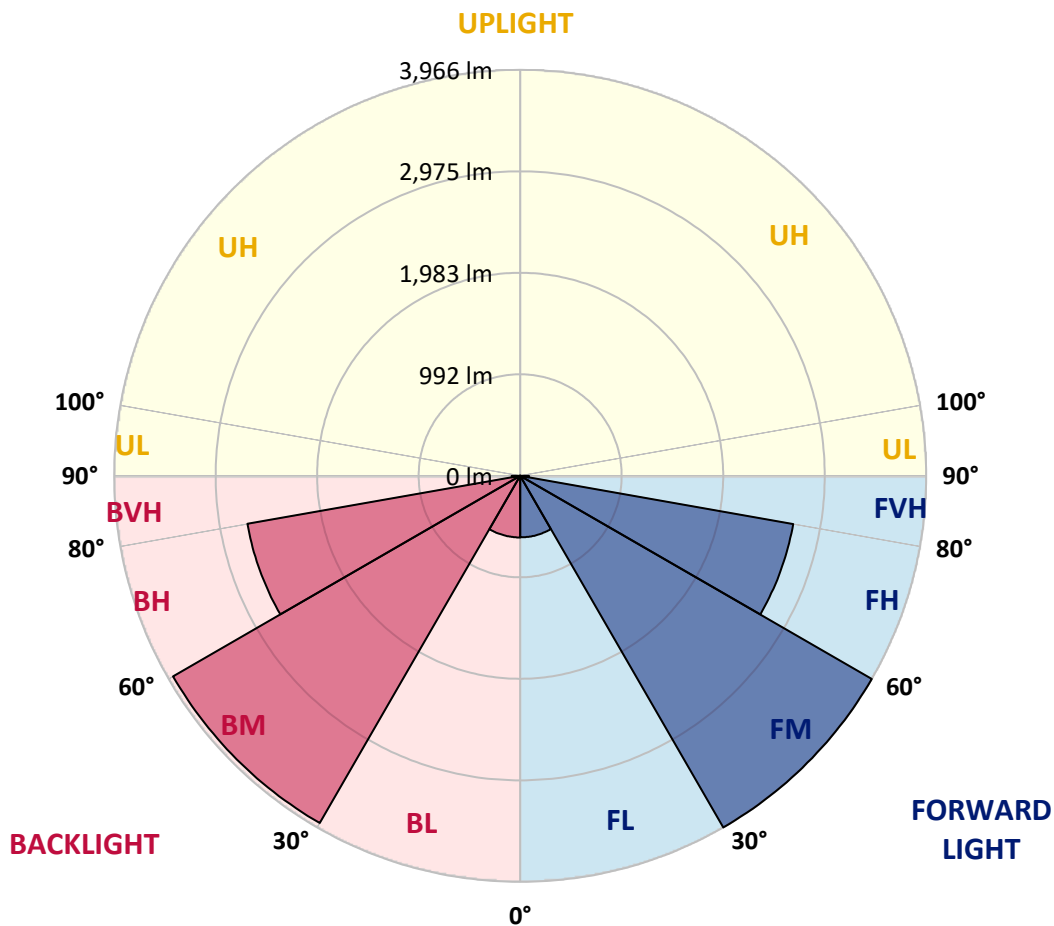
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	601.0	4.1			
FM (30°-60°)	3966.4	27.0			
FH (60°-80°)	2708.4	18.5			G2/5000
FVH (80°-90°)	85.4	0.6			G1/100
BL (0°-30°)	602.2	4.1	B2/1000		
BM (30°-60°)	3916.3	26.7	B3/5000		
BH (60°-80°)	2705.4	18.4	B4/5000		G4/5000
BVH (80°-90°)	82.9	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°	514.8	514.8	514.8	514.8	514.8	514.8	514.8	514.8	514.8	514.8	514.8
2.5°	623.6	600.4	571.3	588.5	595.7	608.1	606.4	600.4	574.9	617.7	622.4
5°	780.5	743.7	730.0	727.6	731.2	719.3	758.0	746.7	767.5	806.1	815.0
7.5°	888.7	861.4	832.3	841.2	804.3	799.0	848.9	893.5	904.8	975.5	980.3
10°	939.9	913.1	920.8	915.5	911.3	945.8	969.0	1001.7	1048.7	1055.2	1065.3
12.5°	983.3	994.0	1027.8	1026.7	1082.5	1143.8	1134.8	1168.7	1176.5	1258.5	1233.5
15°	1093.2	1115.2	1112.9	1133.7	1158.0	1258.5	1259.1	1316.8	1369.7	1401.8	1393.4
17.5°	1254.3	1262.1	1230.0	1231.2	1301.9	1342.9	1388.7	1378.6	1516.5	1579.5	1583.7
20°	1350.6	1370.3	1333.4	1284.7	1410.1	1466.6	1492.1	1433.3	1580.7	1665.7	1665.7
22.5°	1518.9	1468.3	1412.5	1379.8	1490.3	1550.4	1547.4	1530.8	1609.2	1759.6	1745.4
25°	1611.6	1583.1	1555.1	1563.5	1619.3	1650.3	1691.3	1652.6	1726.3	1838.1	1791.1
27.5°	1787.6	1734.7	1597.3	1706.7	1706.7	1683.5	1770.3	1788.8	1740.6	1922.5	1957.6
30°	1986.7	1968.3	1773.9	1889.8	1854.2	1788.8	1955.2	1943.3	1862.5	2048.0	2031.9
32.5°	2175.2	2235.8	2051.5	1987.9	2041.4	2066.4	1979.0	2014.7	2030.1	2209.1	2201.3
35°	2464.1	2515.2	2270.9	2254.8	2165.7	2142.5	2209.1	2221.0	2222.1	2410.6	2376.1
37.5°	2964.0	2890.3	2649.0	2535.4	2545.5	2517.6	2530.7	2436.7	2449.8	2723.3	2740.5
40°	3329.6	3246.4	2977.7	2896.3	2696.5	2816.0	2710.2	2700.7	2674.5	3028.8	3019.3
42.5°	3733.3	3619.2	3321.9	3213.1	3000.9	2952.2	2903.4	3013.4	3006.2	3334.4	3406.9
45°	4038.3	3807.6	3652.4	3584.7	3457.5	3338.0	3291.6	3340.9	3318.3	3562.1	3688.7
47.5°	4230.9	4030.5	3852.2	3709.5	3587.6	3880.7	3645.9	3579.9	3534.1	3807.0	3928.9
50°	4384.2	4153.0	3942.5	3895.0	3991.3	4250.5	3880.1	3734.5	3790.4	3991.3	4157.1
52.5°	4425.9	4180.9	3991.9	3961.6	4221.9	4268.9	4208.9	3963.9	3949.1	4212.4	4412.8
55°	4298.6	4063.8	3974.1	4139.9	4427.6	4388.4	4479.9	4323.6	4218.4	4438.3	4690.4
57.5°	3971.1	3738.0	3716.6	3955.6	4318.3	4652.3	4697.5	4573.9	4436.0	4669.0	4966.2
60°	3433.1	3220.3	3274.4	3538.3	4085.2	4560.8	4801.0	4688.0	4645.2	4877.1	5221.9
62.5°	2595.5	2429.6	2574.1	2942.0	3659.6	4442.5	4943.6	4925.8	4864.0	5098.2	5447.8
65°	1655.0	1567.6	1715.1	2089.0	2999.1	4227.3	5012.0	5035.8	5092.8	5268.8	5622.5
67.5°	961.9	915.5	1005.3	1311.4	2135.9	3471.1	4884.8	5226.0	5255.7	5356.8	5737.3
70°	568.9	538.6	575.4	736.6	1209.2	2364.8	4166.7	5142.8	5367.5	5437.6	5853.2
72.5°	434.0	405.4	389.4	435.7	631.3	1221.6	2817.2	4359.3	5277.7	5384.1	5804.4
75°	375.1	347.8	328.7	332.9	375.7	580.2	1527.2	3118.0	4497.2	4902.6	5361.6
77.5°	322.2	297.8	284.2	283.0	288.3	318.6	638.5	1690.7	2816.6	3524.0	3865.3
80°	258.0	239.0	236.0	236.0	228.3	225.9	317.4	643.2	1071.8	1271.0	1218.7
82.5°	188.4	169.4	188.4	186.1	174.2	164.7	202.1	278.2	330.5	261.0	206.3
85°	127.2	110.0	124.2	126.6	115.3	85.6	121.3	139.1	142.7	89.2	73.7
87.5°	44.6	43.4	70.1	61.2	49.9	29.1	44.6	48.2	50.5	31.5	21.4
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°	514.8	514.8	514.8	514.8	514.8	514.8	514.8	514.8	514.8	514.8	514.8
2.5°	624.2	617.1	581.4	586.7	600.4	607.0	613.5	586.7	573.7	615.3	611.1
5°	817.4	791.2	762.1	758.0	759.7	734.2	749.0	742.5	745.5	772.2	777.6
7.5°	979.1	947.6	908.9	878.6	826.3	784.7	819.8	837.6	843.0	890.5	908.4
10°	1066.5	1039.7	1028.4	971.4	954.1	948.8	940.5	911.9	943.4	932.1	941.1
12.5°	1237.7	1232.3	1173.5	1136.0	1139.6	1149.7	1097.4	1068.9	1027.8	1092.0	1068.9
15°	1383.3	1406.5	1347.7	1279.3	1245.4	1262.7	1222.8	1181.2	1144.4	1164.0	1139.0
17.5°	1569.4	1568.8	1454.1	1381.0	1378.0	1376.8	1317.9	1226.4	1270.4	1256.7	1257.9
20°	1668.1	1652.0	1509.4	1425.0	1496.9	1471.3	1418.4	1300.7	1351.8	1368.5	1379.2
22.5°	1750.7	1741.8	1568.8	1507.0	1553.4	1554.0	1501.0	1439.2	1432.7	1484.4	1456.5
25°	1808.4	1844.1	1681.2	1666.3	1686.5	1666.3	1614.6	1574.2	1548.0	1625.3	1548.0
27.5°	1945.1	1894.6	1698.4	1782.8	1795.3	1693.7	1758.5	1710.9	1638.4	1734.1	1765.6
30°	2042.6	2072.3	1819.7	1946.9	1932.0	1838.1	1864.9	1863.1	1776.3	1962.9	1941.0
32.5°	2210.3	2174.6	2017.6	2007.5	2043.2	2039.0	1993.9	2015.9	2037.3	2172.8	2205.5
35°	2382.1	2420.1	2144.3	2212.6	2202.5	2138.3	2256.6	2242.9	2306.6	2584.8	2492.6
37.5°	2769.6	2588.3	2428.4	2419.5	2487.3	2497.4	2459.3	2519.4	2656.7	2870.7	2969.4
40°	3023.5	2940.9	2669.2	2679.9	2586.0	2747.7	2640.6	2833.9	2938.5	3299.3	3264.3
42.5°	3407.5	3206.0	2945.0	2980.7	2961.7	2883.8	3024.7	3124.0	3273.8	3549.0	3726.8
45°	3693.5	3417.0	3293.4	3271.4	3269.0	3404.5	3386.7	3545.4	3598.9	3805.8	3953.2
47.5°	3910.4	3675.6	3492.5	3517.5	3445.0	3832.0	3625.7	3675.0	3783.2	3978.2	4150.0
50°	4167.8	3906.3	3698.2	3760.0	3936.6	4085.2	3898.6	3814.1	3867.0	4097.1	4288.5
52.5°	4406.2	4131.0	3902.1	3953.8	4242.2	4174.4	4154.2	3940.8	3934.2	4119.1	4336.7
55°	4685.0	4374.7	4172.6	4336.7	4438.9	4355.1	4323.0	4063.2	3902.7	4005.6	4210.7
57.5°	4958.5	4616.1	4415.2	4449.0	4578.6	4495.4	4254.6	3854.6	3654.2	3674.4	3881.9
60°	5214.7	4837.8	4672.0	4639.3	4742.7	4416.3	3994.9	3472.3	3206.6	3157.8	3337.4
62.5°	5434.1	5023.3	4866.4	4777.2	4875.9	4419.3	3590.0	2858.8	2566.9	2401.7	2541.4
65°	5608.3	5177.3	5065.5	5019.1	5054.8	4150.6	2959.3	2099.1	1741.2	1558.1	1639.6
67.5°	5724.2	5263.5	5212.3	5273.0	4797.4	3456.9	2192.4	1343.5	1012.4	912.5	963.6
70°	5844.3	5339.6	5337.8	5131.5	4068.0	2383.2	1280.5	774.6	589.1	550.5	582.6
72.5°	5803.8	5249.2	5275.9	4487.7	2819.0	1274.0	675.9	438.1	398.9	412.6	441.1
75°	5374.6	4772.4	4643.4	3226.2	1599.1	592.1	389.4	331.7	329.3	350.1	378.1
77.5°	3898.6	3323.7	2982.5	1828.6	685.4	320.4	286.5	277.0	277.0	293.7	318.6
80°	1285.3	1112.3	1159.2	707.4	324.0	221.1	223.5	227.7	226.5	230.7	251.5
82.5°	211.0	218.8	338.3	288.9	195.6	151.0	168.8	177.2	179.5	160.5	182.5
85°	74.9	84.4	143.9	133.8	112.9	76.1	111.2	124.2	122.5	107.0	118.3
87.5°	23.2	29.7	52.3	40.4	33.9	20.8	41.6	48.7	61.2	25.0	22.6
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)