

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: P597138

Luminaire Tested: **MSA-SA4C-835-U-RW**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P597138  
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-SA4C-835-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: 20371 lumens  
Efficiency: N/A  
Efficacy: 90.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B4 - U0 - G4

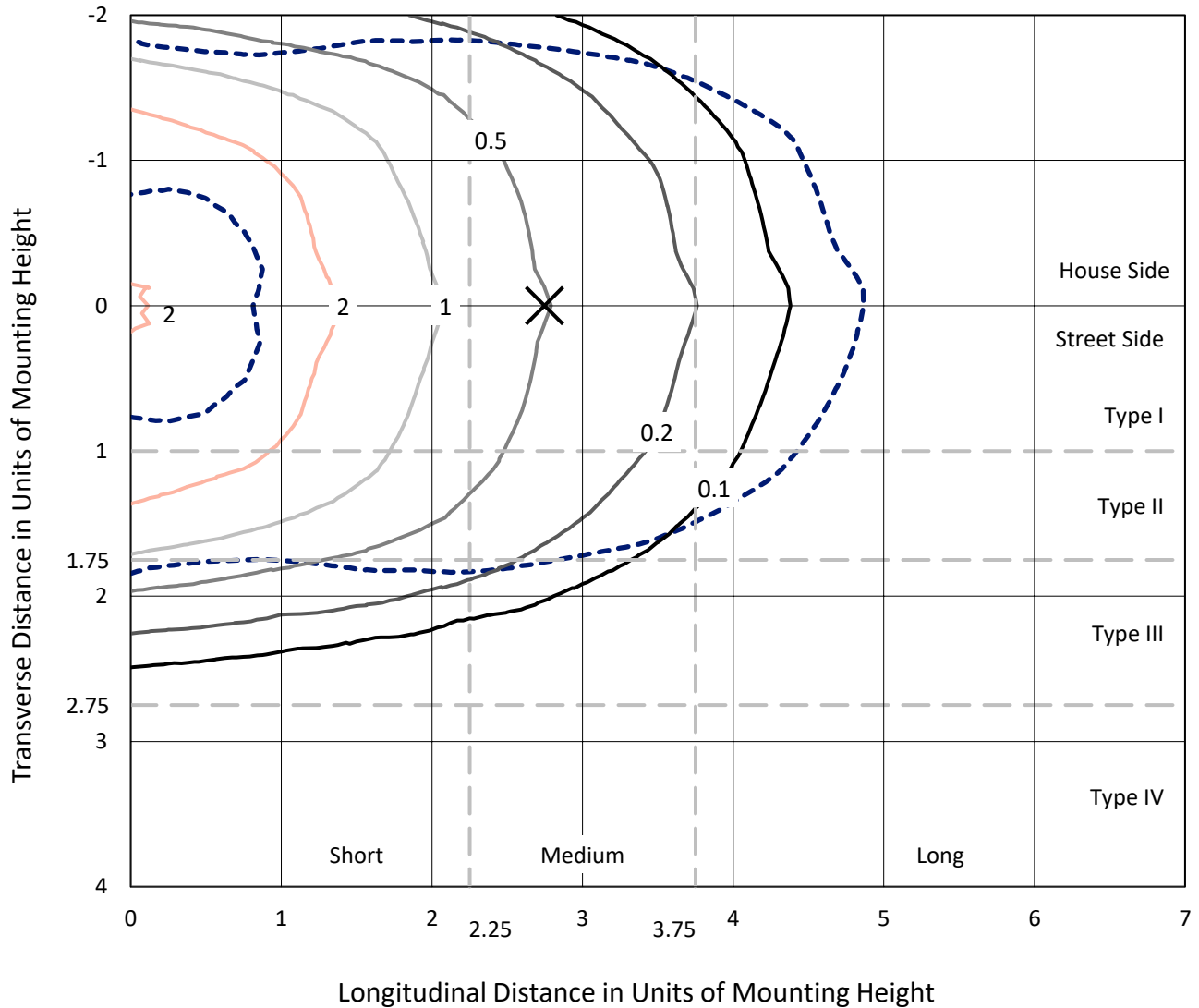
Input Watts (W): 225  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

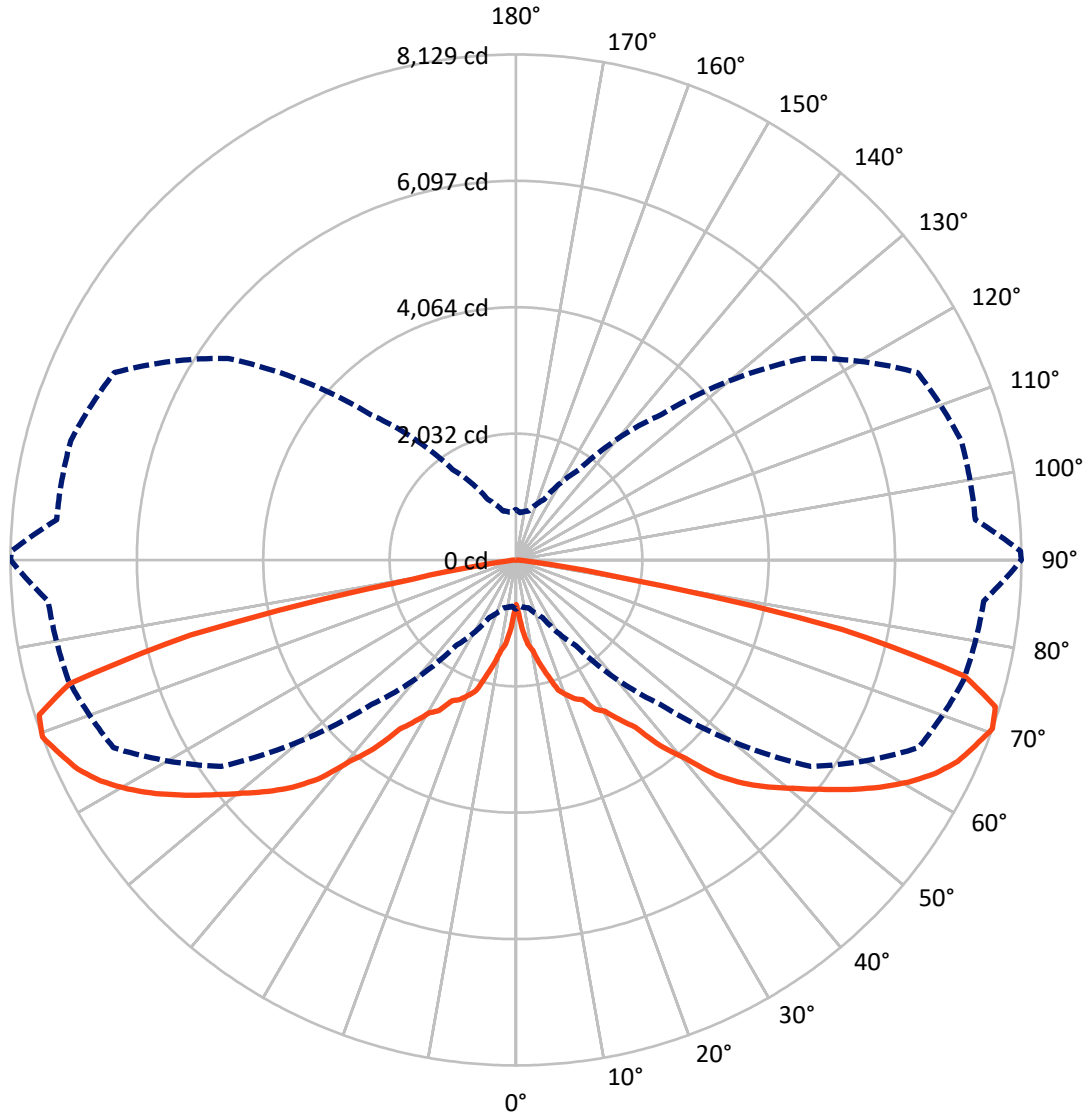
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.3 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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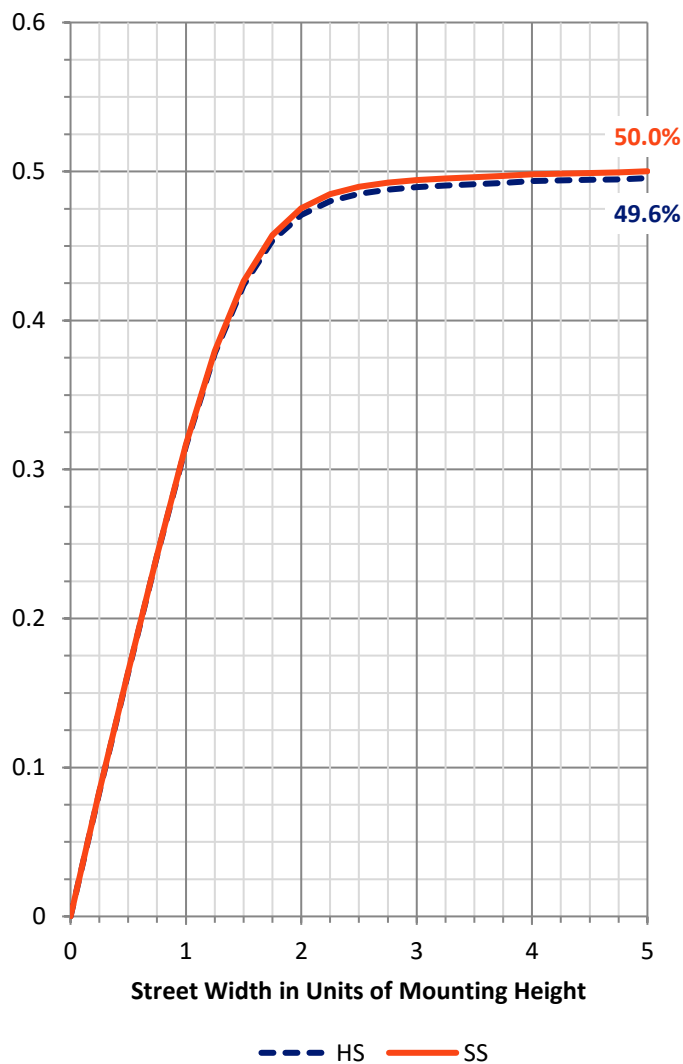
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10147.8	0.0	10147.8
	% Fixture	49.8	0.0	49.8
<b>Street Side</b>	Lumens	10223.2	0.0	10223.2
	% Fixture	50.2	0.0	50.2
<b>Total</b>	Lumens	20371.0	0.0	20371.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.8	0.5
10°-20°	494.3	2.4
20°-30°	1068.8	5.2
30°-40°	2039.2	10.0
40°-50°	3704.5	18.2
50°-60°	5203.9	25.5
60°-70°	4968.7	24.4
70°-80°	2550.0	12.5
80°-90°	233.8	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°	20371.0	100.0
0°-180°	20371.0	100.0

**Coefficient of Utilization**



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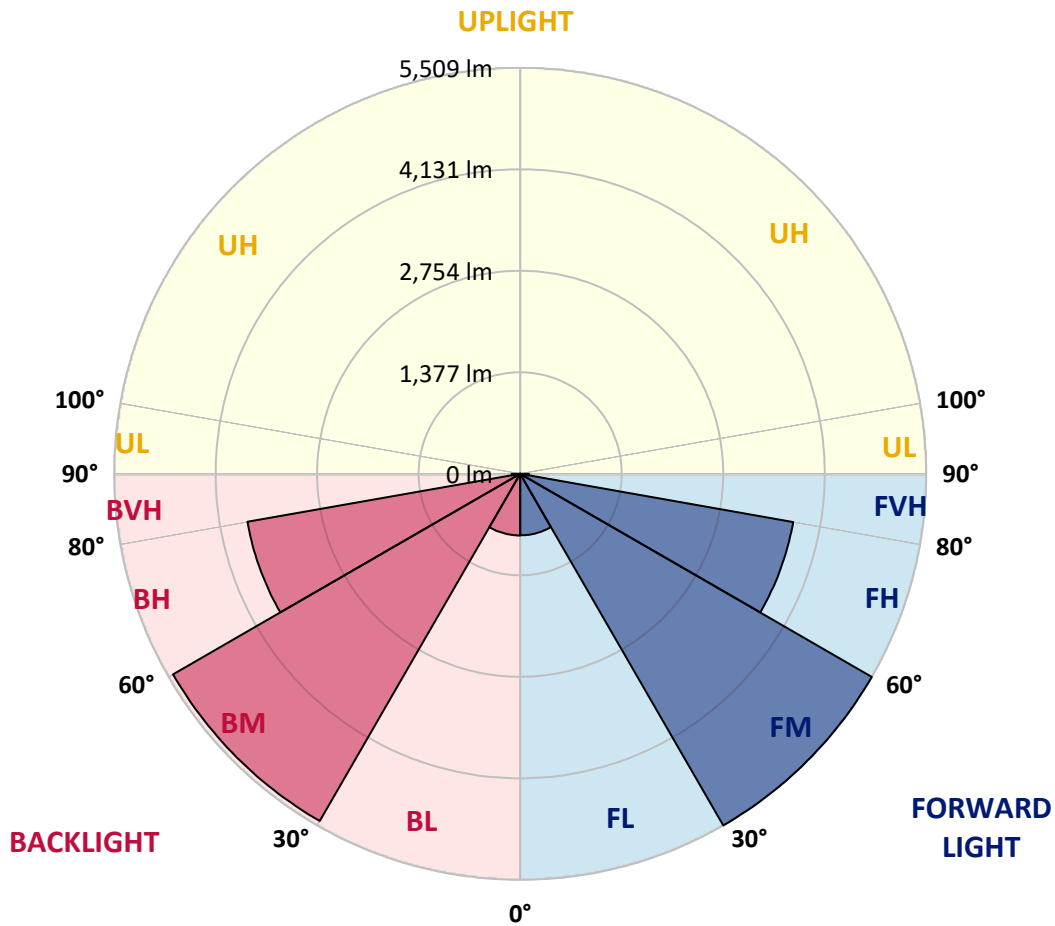
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	834.7	4.1			
FM (30°-60°)	5508.5	27.0			
FH (60°-80°)	3761.4	18.5			G2/5000
FVH (80°-90°)	118.6	0.6			G2/225
BL (0°-30°)	836.3	4.1	B2/1000		
BM (30°-60°)	5439.0	26.7	B4/8500		
BH (60°-80°)	3757.3	18.4	B4/5000		G4/5000
BVH (80°-90°)	115.2	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°	715.0	715.0	715.0	715.0	715.0	715.0	715.0	715.0	715.0	715.0	715.0
2.5°	866.1	833.9	793.4	817.4	827.3	844.6	842.1	833.9	798.4	857.8	864.4
5°	1084.0	1032.8	1013.8	1010.5	1015.5	999.0	1052.6	1037.0	1065.9	1119.5	1131.9
7.5°	1234.3	1196.3	1155.9	1168.2	1117.0	1109.6	1179.0	1240.9	1256.6	1354.8	1361.4
10°	1305.3	1268.1	1278.9	1271.4	1265.7	1313.5	1345.7	1391.1	1456.4	1465.5	1479.5
12.5°	1365.6	1380.4	1427.5	1425.8	1503.4	1588.5	1576.1	1623.1	1633.9	1747.8	1713.1
15°	1518.3	1548.8	1545.5	1574.4	1608.3	1747.8	1748.6	1828.7	1902.2	1946.8	1935.2
17.5°	1742.0	1752.8	1708.2	1709.8	1808.1	1865.0	1928.6	1914.6	2106.1	2193.6	2199.4
20°	1875.8	1903.0	1851.8	1784.1	1958.3	2036.8	2072.3	1990.5	2195.3	2313.4	2313.4
22.5°	2109.4	2039.3	1961.6	1916.2	2069.8	2153.2	2149.1	2125.9	2234.9	2443.8	2424.0
25°	2238.2	2198.6	2159.8	2171.3	2249.0	2291.9	2348.9	2295.2	2397.6	2552.8	2487.6
27.5°	2482.6	2409.1	2218.4	2370.3	2370.3	2338.1	2458.7	2484.3	2417.4	2670.0	2718.7
30°	2759.2	2733.6	2463.6	2624.6	2575.1	2484.3	2715.4	2698.9	2586.6	2844.2	2821.9
32.5°	3020.9	3105.1	2849.2	2760.8	2835.1	2869.8	2748.4	2798.0	2819.4	3068.0	3057.2
35°	3422.1	3493.1	3153.8	3131.5	3007.7	2975.5	3068.0	3084.5	3086.1	3347.8	3300.0
37.5°	4116.5	4014.1	3678.9	3521.2	3535.3	3496.4	3514.6	3384.2	3402.3	3782.1	3806.0
40°	4624.2	4508.6	4135.5	4022.4	3745.0	3910.9	3763.9	3750.7	3714.4	4206.5	4193.3
42.5°	5184.8	5026.3	4613.5	4462.4	4167.7	4100.0	4032.3	4185.0	4175.1	4630.8	4731.6
45°	5608.4	5288.0	5072.5	4978.4	4801.7	4635.8	4571.4	4639.9	4608.5	4947.0	5122.9
47.5°	5875.8	5597.6	5349.9	5151.8	4982.5	5389.6	5063.4	4971.8	4908.2	5287.2	5456.4
50°	6088.9	5767.7	5475.4	5409.4	5543.1	5903.1	5388.7	5186.5	5264.1	5543.1	5773.5
52.5°	6146.6	5806.5	5544.0	5501.8	5863.5	5928.7	5845.3	5505.1	5484.5	5850.3	6128.5
55°	5970.0	5643.9	5519.2	5749.5	6149.1	6094.6	6221.8	6004.6	5858.5	6164.0	6514.0
57.5°	5515.1	5191.4	5161.7	5493.6	5997.2	6461.2	6523.9	6352.2	6160.7	6484.3	6897.1
60°	4767.9	4472.3	4547.4	4914.0	5673.6	6334.1	6667.6	6510.7	6451.3	6773.3	7252.1
62.5°	3604.6	3374.3	3574.9	4085.9	5082.4	6169.8	6865.8	6841.0	6755.1	7080.4	7565.9
65°	2298.5	2177.1	2381.9	2901.2	4165.2	5870.9	6960.7	6993.7	7073.0	7317.4	7808.6
67.5°	1335.8	1271.4	1396.1	1821.3	2966.4	4820.7	6784.0	7257.9	7299.2	7439.5	7967.9
70°	790.1	748.0	799.2	1022.9	1679.3	3284.3	5786.7	7142.3	7454.4	7551.8	8128.9
72.5°	602.7	563.1	540.8	605.2	876.8	1696.6	3912.6	6054.2	7329.7	7477.5	8061.2
75°	521.0	483.0	456.6	462.3	521.8	805.8	2121.0	4330.3	6245.7	6808.8	7446.2
77.5°	447.5	413.6	394.6	393.0	400.4	442.5	886.7	2348.0	3911.7	4894.2	5368.1
80°	358.3	331.9	327.8	327.8	317.0	313.7	440.9	893.3	1488.6	1765.1	1692.5
82.5°	261.7	235.3	261.7	258.4	241.9	228.7	280.7	386.4	459.0	362.4	286.5
85°	176.7	152.7	172.6	175.9	160.2	118.9	168.4	193.2	198.1	123.8	102.4
87.5°	61.9	60.3	97.4	85.0	69.4	40.5	61.9	66.9	70.2	43.8	29.7
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°	715.0	715.0	715.0	715.0	715.0	715.0	715.0	715.0	715.0	715.0	715.0
2.5°	866.9	857.0	807.4	814.9	833.9	842.9	852.0	814.9	796.7	854.5	848.7
5°	1135.2	1098.9	1058.4	1052.6	1055.1	1019.6	1040.3	1031.2	1035.3	1072.5	1079.9
7.5°	1359.8	1316.0	1262.4	1220.2	1147.6	1089.8	1138.5	1163.3	1170.7	1236.8	1261.5
10°	1481.1	1444.0	1428.3	1349.0	1325.1	1317.7	1306.1	1266.5	1310.2	1294.6	1306.9
12.5°	1718.9	1711.5	1629.7	1577.7	1582.7	1596.7	1524.1	1484.4	1427.5	1516.6	1484.4
15°	1921.2	1953.4	1871.7	1776.7	1729.6	1753.6	1698.3	1640.5	1589.3	1616.5	1581.9
17.5°	2179.6	2178.8	2019.4	1917.9	1913.8	1912.1	1830.4	1703.2	1764.3	1745.3	1747.0
20°	2316.7	2294.4	2096.2	1979.0	2078.9	2043.4	1969.9	1806.4	1877.4	1900.5	1915.4
22.5°	2431.4	2419.0	2178.8	2092.9	2157.3	2158.1	2084.7	1998.8	1989.7	2061.5	2022.7
25°	2511.5	2561.0	2334.8	2314.2	2342.2	2314.2	2242.3	2186.2	2149.9	2257.2	2149.9
27.5°	2701.4	2631.2	2358.8	2476.0	2493.3	2352.2	2442.1	2376.1	2275.4	2408.3	2452.1
30°	2836.8	2878.1	2527.2	2703.9	2683.2	2552.8	2589.9	2587.5	2466.9	2726.2	2695.6
32.5°	3069.6	3020.1	2802.1	2788.1	2837.6	2831.8	2769.1	2799.6	2829.4	3017.6	3063.0
35°	3308.2	3361.0	2978.0	3072.9	3058.9	2969.7	3134.0	3115.0	3203.4	3589.7	3461.8
37.5°	3846.5	3594.7	3372.6	3360.2	3454.3	3468.4	3415.5	3498.9	3689.6	3986.9	4123.9
40°	4199.0	4084.3	3707.0	3721.8	3591.4	3816.0	3667.3	3935.7	4081.0	4582.1	4533.4
42.5°	4732.4	4452.5	4090.1	4139.6	4113.2	4005.0	4200.7	4338.6	4546.6	4928.9	5175.7
45°	5129.5	4745.6	4573.9	4543.3	4540.0	4728.3	4703.5	4923.9	4998.2	5285.5	5490.3
47.5°	5430.8	5104.7	4850.4	4885.1	4784.4	5321.9	5035.4	5103.9	5254.2	5525.0	5763.6
50°	5788.3	5425.1	5136.1	5222.0	5467.2	5673.6	5414.3	5297.1	5370.6	5690.1	5955.9
52.5°	6119.4	5737.1	5419.3	5491.1	5891.5	5797.4	5769.3	5473.0	5463.9	5720.6	6022.8
55°	6506.6	6075.6	5794.9	6022.8	6164.8	6048.4	6003.8	5643.0	5420.1	5562.9	5847.8
57.5°	6886.4	6410.8	6131.8	6178.8	6358.8	6243.2	5908.9	5353.2	5075.0	5103.1	5391.2
60°	7242.2	6718.8	6488.4	6443.0	6586.7	6133.4	5548.1	4822.4	4453.3	4385.6	4635.0
62.5°	7546.9	6976.4	6758.4	6634.6	6771.6	6137.6	4985.8	3970.3	3565.0	3335.5	3529.5
65°	7788.8	7190.2	7035.0	6970.6	7020.1	5764.4	4109.9	2915.2	2418.2	2163.9	2277.0
67.5°	7949.8	7309.9	7238.9	7323.1	6662.7	4800.9	3044.8	1865.9	1406.0	1267.3	1338.3
70°	8116.5	7415.6	7413.1	7126.6	5649.6	3309.9	1778.4	1075.8	818.2	764.5	809.1
72.5°	8060.4	7290.1	7327.3	6232.5	3915.0	1769.3	938.7	608.5	554.0	573.0	612.6
75°	7464.3	6628.0	6448.8	4480.6	2220.9	822.3	540.8	460.7	457.4	486.3	525.1
77.5°	5414.3	4616.0	4142.1	2539.6	951.9	445.0	397.9	384.7	384.7	407.9	442.5
80°	1785.0	1544.7	1609.9	982.5	450.0	307.1	310.4	316.2	314.6	320.3	349.2
82.5°	293.1	303.8	469.8	401.2	271.6	209.7	234.5	246.0	249.3	222.9	253.5
85°	104.0	117.2	199.8	185.8	156.9	105.7	154.4	172.6	170.1	148.6	164.3
87.5°	32.2	41.3	72.7	56.1	47.1	28.9	57.8	67.7	85.0	34.7	31.4
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)