

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: P597062

Luminaire Tested: **MSA-SA3C-835-U-T2**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P597062  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-8)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA3C-835-U-T2  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14970 lumens  
Efficiency: N/A  
Efficacy: 90.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G3

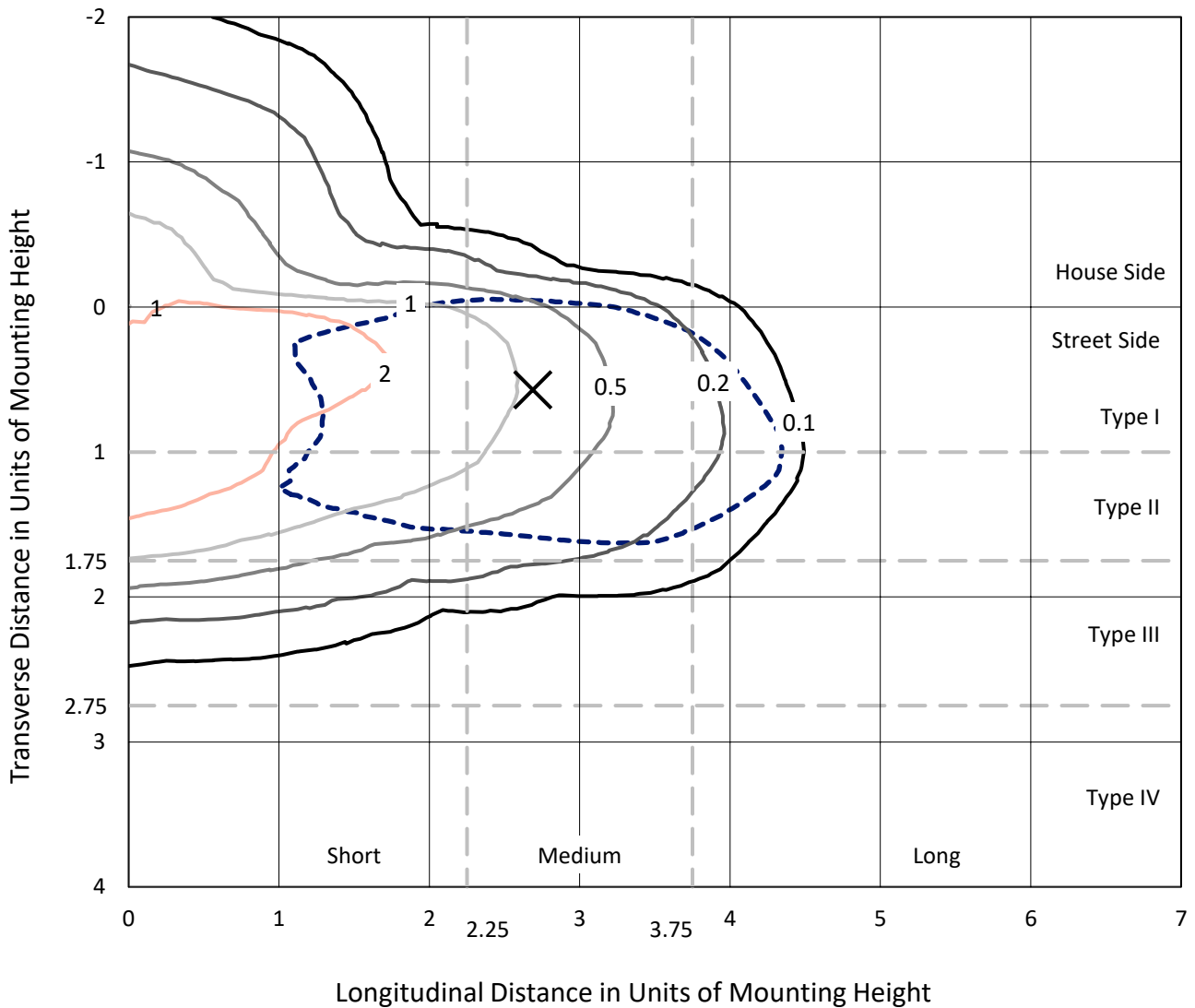
Input Watts (W): 166  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

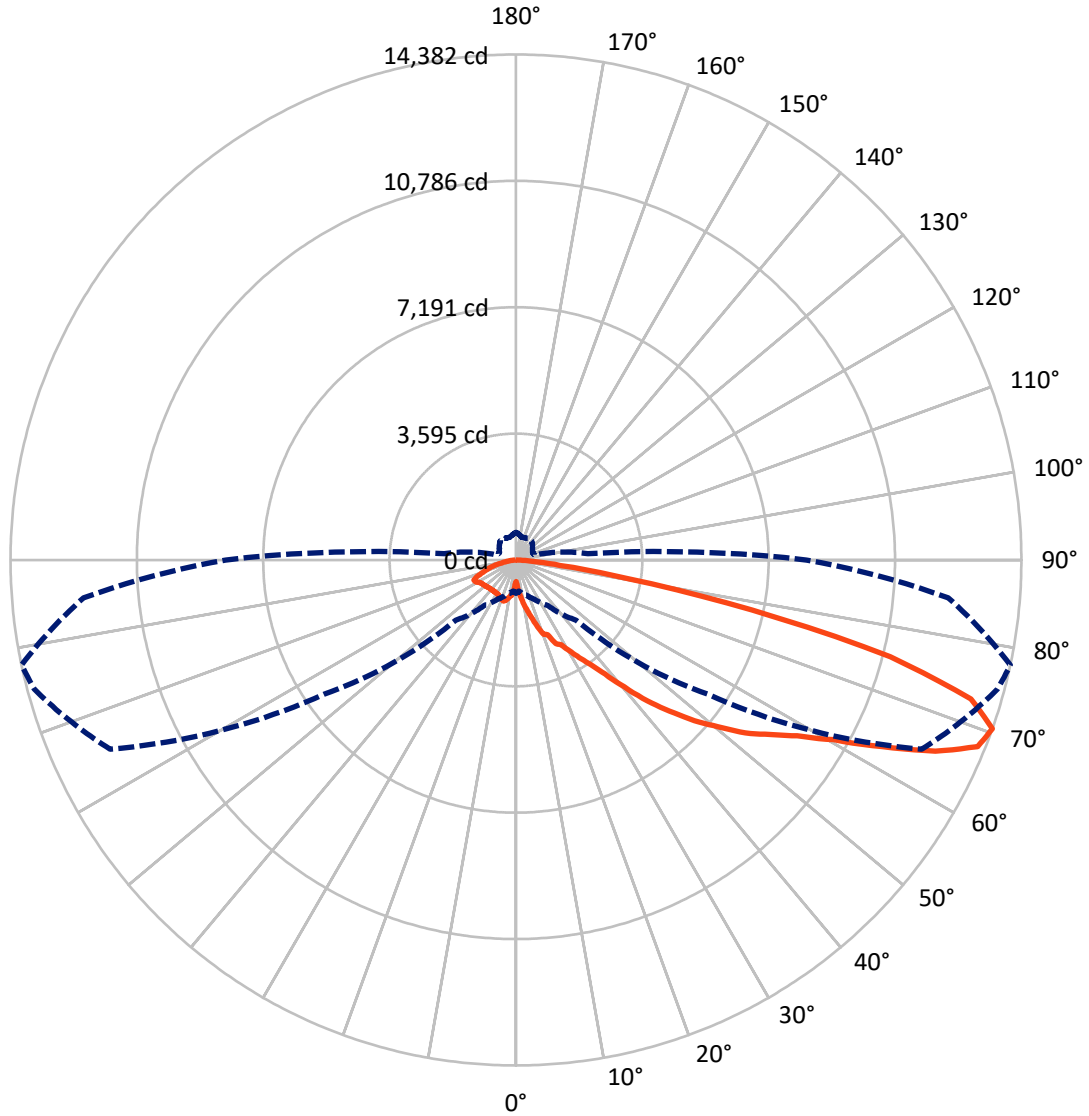
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.6 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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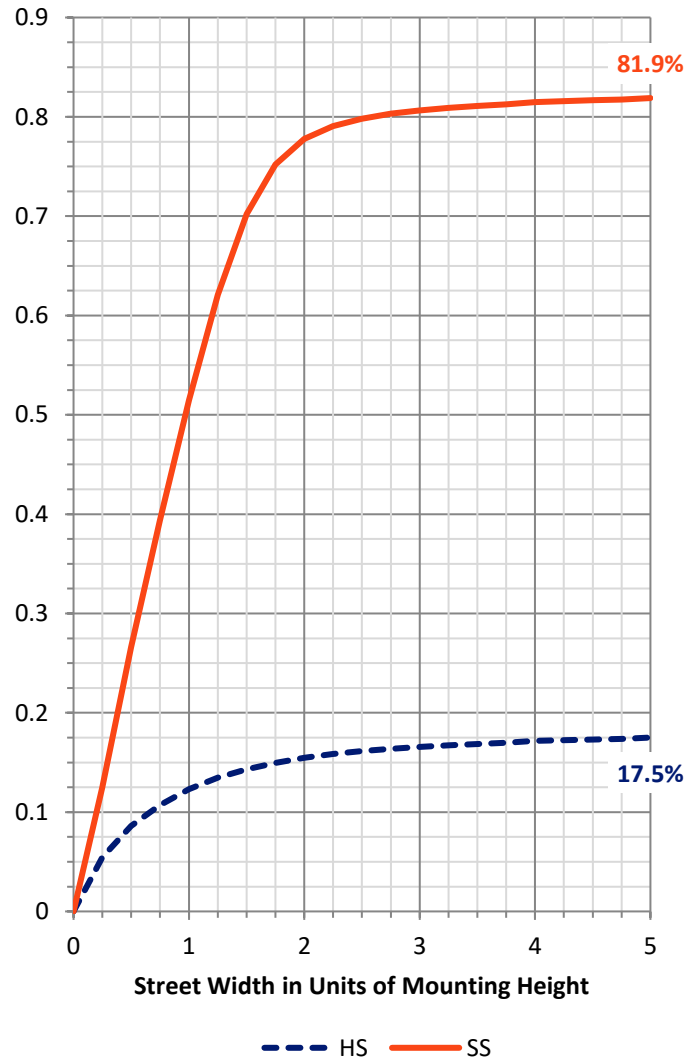
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2671.9	0.0	2671.9
	% Fixture	17.8	0.0	17.8
<b>Street Side</b>	Lumens	12298.1	0.0	12298.1
	% Fixture	82.2	0.0	82.2
<b>Total</b>	Lumens	14970.0	0.0	14970.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.3	0.6
10°-20°	415.6	2.8
20°-30°	799.9	5.3
30°-40°	1347.3	9.0
40°-50°	2331.3	15.6
50°-60°	3519.9	23.5
60°-70°	3898.7	26.0
70°-80°	2247.8	15.0
80°-90°	315.2	2.1
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°	14970.0	100.0
0°-180°	14970.0	100.0

**Coefficient of Utilization**



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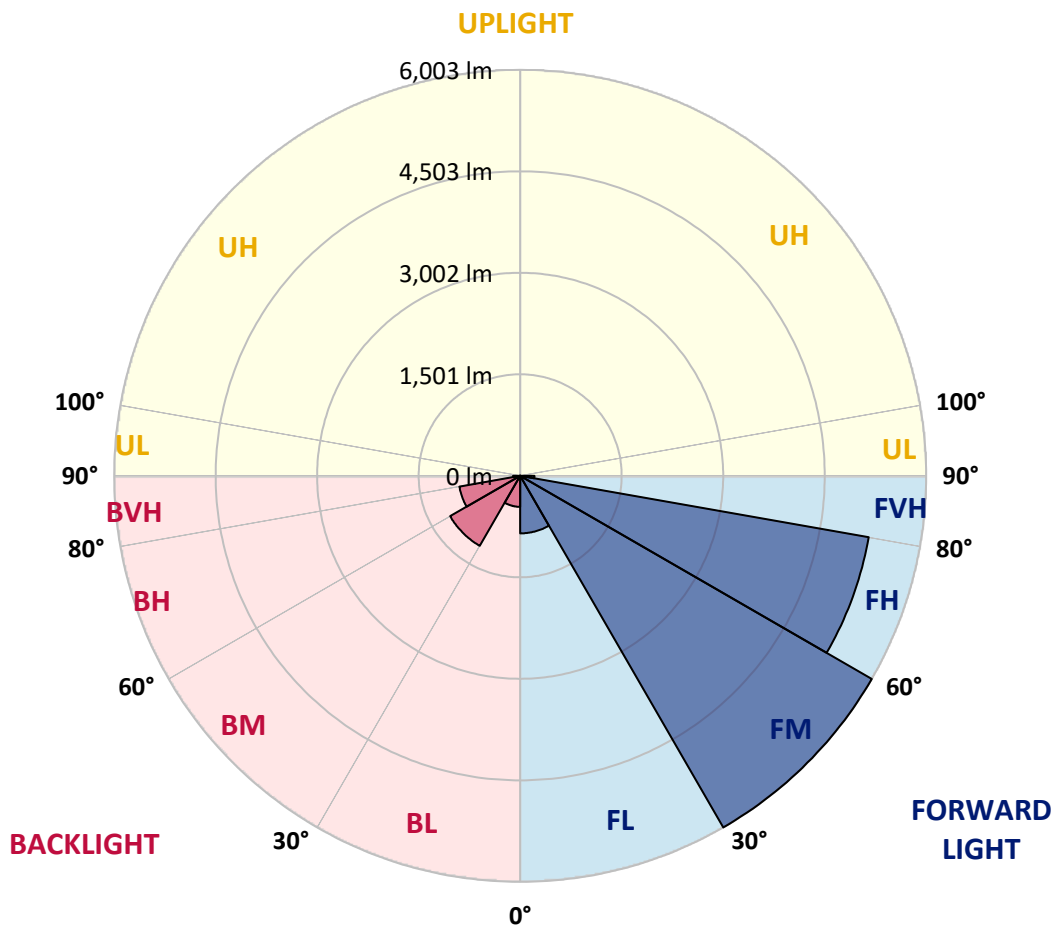
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	851.0	5.7			
FM (30°-60°)	6003.4	40.1			
FH (60°-80°)	5233.3	35.0			G3/7500
FVH (80°-90°)	210.3	1.4			G2/225
BL (0°-30°)	458.8	3.1	B1/500		
BM (30°-60°)	1195.1	8.0	B2/2500		
BH (60°-80°)	913.1	6.1	B2/1000		G2/1000
BVH (80°-90°)	104.9	0.7			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3
2.5°	785.7	757.6	715.2	732.7	753.9	756.4	749.5	710.8	697.7	727.0	735.8
5°	1100.8	1053.4	1024.7	1015.4	983.5	917.4	964.8	940.5	945.5	931.1	959.2
7.5°	1366.1	1334.2	1291.8	1280.0	1206.9	1155.1	1187.6	1177.0	1125.8	1105.8	1137.7
10°	1500.9	1465.9	1467.8	1442.2	1422.9	1427.9	1411.6	1364.8	1326.8	1299.9	1223.2
12.5°	1582.0	1590.7	1637.5	1624.4	1697.5	1757.4	1711.8	1642.5	1522.1	1497.8	1421.6
15°	1774.8	1807.3	1763.6	1783.6	1814.8	1929.6	1910.9	1895.9	1768.6	1721.2	1580.8
17.5°	1973.3	1979.5	1913.4	1902.8	1977.7	2035.7	2108.7	2024.5	2040.1	2007.0	1779.8
20°	2015.7	2058.8	1963.9	1898.4	2052.5	2167.4	2257.9	2168.6	2251.0	2259.7	1944.0
22.5°	2171.1	2119.3	1994.5	1930.2	2065.0	2206.1	2353.3	2403.3	2377.1	2303.4	2102.5
25°	2279.1	2251.6	2124.3	2053.2	2104.3	2234.1	2492.5	2622.9	2646.0	2636.0	2253.5
27.5°	2479.4	2493.1	2231.0	2251.0	2179.9	2191.7	2576.1	2914.4	2770.2	2730.3	2440.7
30°	2795.8	2734.6	2440.7	2456.9	2339.0	2319.0	2752.7	3165.9	3036.7	2988.6	2594.9
32.5°	3125.9	3131.5	2774.6	2636.0	2573.0	2553.0	2717.8	3297.5	3373.7	3311.3	2827.6
35°	3591.5	3559.0	3136.5	2954.3	2726.5	2691.6	2966.8	3679.5	3819.3	3644.5	3104.1
37.5°	4300.4	4202.4	3710.7	3289.4	3120.9	3081.0	3322.5	4022.1	4336.6	4119.4	3555.9
40°	4869.6	4670.5	4223.7	3710.7	3425.5	3474.8	3575.3	4437.7	4873.3	4751.0	3974.0
42.5°	5323.3	5146.6	4586.9	4226.2	3838.6	3777.5	3887.3	4952.6	5603.5	5483.6	4495.8
45°	5758.2	5398.8	4995.0	4670.5	4297.9	4372.2	4356.0	5478.0	6499.0	6130.2	4956.9
47.5°	6187.6	5850.0	5427.5	4991.3	4616.2	5078.6	4905.8	5868.7	7103.1	6829.7	5442.5
50°	6739.3	6367.9	5886.8	5448.1	5223.4	5561.7	5271.5	6199.4	7779.6	7458.8	5900.5
52.5°	7105.6	6744.3	6322.4	6009.1	5988.5	5858.1	5783.8	6618.2	8372.4	8177.7	6386.0
55°	7062.5	6714.3	6523.3	6557.7	6812.3	6372.3	6311.8	7237.9	8990.9	8765.6	6910.3
57.5°	6522.7	6142.7	6183.2	6386.7	7070.6	7275.3	7172.4	7900.0	9542.5	9440.2	7558.7
60°	5081.1	4885.8	5215.9	5587.9	6724.9	7539.9	8263.8	8707.6	10221.5	10385.0	8577.1
62.5°	3300.7	3039.8	3561.5	4193.1	5693.3	7365.2	9375.3	10239.0	11333.6	11704.9	10124.8
65°	1709.9	1668.1	2033.2	2613.6	3963.4	6279.9	9767.2	11845.3	12685.3	13117.8	11603.2
67.5°	1243.1	1165.7	1334.9	1676.2	2419.5	4282.3	9024.6	13074.1	13770.6	14166.9	12462.5
70°	946.7	889.3	1018.5	1230.0	1580.1	2418.9	6661.9	12739.0	14189.3	14381.5	12348.3
72.5°	708.9	659.6	772.6	969.8	1217.5	1361.7	3937.8	10474.3	13474.8	13540.3	11082.7
75°	566.0	528.0	576.6	765.7	992.3	926.7	2091.9	7588.6	10947.9	11004.1	8465.4
77.5°	464.3	431.9	451.8	574.1	772.0	697.1	1037.8	4827.1	6950.8	6864.7	4762.8
80°	378.8	350.7	360.1	415.0	587.9	520.5	582.9	2518.1	3315.6	3182.1	1980.8
82.5°	291.4	267.7	286.4	305.2	425.6	373.8	340.1	1145.8	1358.0	1265.0	726.4
85°	195.3	173.5	249.0	229.0	278.3	229.7	186.0	456.2	506.1	471.8	255.2
87.5°	53.7	50.5	83.6	114.2	114.2	86.7	68.0	110.5	141.0	123.6	59.9
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°	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3
2.5°	739.5	725.8	689.6	686.5	695.2	696.5	690.8	677.7	670.9	708.3	702.7
5°	952.3	903.6	874.3	847.5	810.0	783.2	790.1	808.8	815.0	843.1	846.2
7.5°	1117.7	1053.4	989.1	903.0	846.2	810.0	837.5	857.5	873.1	913.0	929.2
10°	1189.5	1119.6	1028.5	938.0	922.4	928.6	913.0	918.0	942.3	944.2	952.3
12.5°	1323.0	1243.8	1079.6	997.9	993.5	1006.6	1001.0	1024.1	1040.9	1086.5	1067.1
15°	1450.9	1349.8	1118.3	1034.7	1016.6	1042.8	1073.4	1112.1	1148.3	1191.3	1169.5
17.5°	1606.3	1454.1	1120.2	1017.8	1021.0	1077.1	1109.0	1130.2	1238.1	1297.4	1267.5
20°	1704.3	1464.7	1078.4	976.0	1021.0	1071.5	1115.8	1138.9	1260.0	1349.2	1369.8
22.5°	1792.9	1468.4	1045.9	953.6	982.3	1049.1	1115.8	1167.0	1244.4	1329.9	1333.0
25°	1841.6	1465.3	1004.1	955.4	981.7	1014.7	1074.0	1120.8	1178.2	1297.4	1300.5
27.5°	1966.4	1424.7	962.9	962.9	976.7	977.9	1053.4	1080.9	1089.0	1197.6	1216.9
30°	2002.6	1433.5	957.9	961.7	968.5	956.1	989.1	1007.2	1019.1	1112.7	1115.8
32.5°	2060.7	1363.6	972.9	950.4	941.7	939.8	948.0	964.2	969.2	1026.6	1037.2
35°	2131.2	1335.5	977.9	947.3	929.9	920.5	944.8	924.9	940.5	1007.9	1015.4
37.5°	2360.8	1296.8	1003.5	947.3	924.9	914.3	902.4	911.8	967.3	1032.2	1072.1
40°	2507.5	1308.7	997.3	956.7	908.0	898.0	878.1	912.4	998.5	1113.3	1143.3
42.5°	2764.6	1315.5	1004.7	952.3	913.6	874.9	888.0	925.5	1016.0	1081.5	1127.7
45°	3030.5	1336.7	999.7	939.2	901.1	919.2	901.1	934.8	977.9	979.8	1014.7
47.5°	3291.3	1422.2	989.1	912.4	898.0	945.5	899.3	904.9	908.0	919.2	960.4
50°	3597.7	1513.4	974.2	874.9	902.4	946.7	906.1	878.7	875.6	912.4	958.6
52.5°	3946.0	1616.3	954.8	838.7	876.8	934.8	929.9	880.6	853.7	889.3	935.5
55°	4356.0	1733.6	932.4	802.5	848.7	936.1	943.0	867.4	854.3	893.0	942.3
57.5°	4900.8	1903.4	888.7	750.1	814.4	916.7	909.3	852.5	840.0	881.2	932.4
60°	5830.6	2229.8	826.3	698.3	777.6	869.3	881.8	825.6	813.2	858.7	912.4
62.5°	7075.6	2622.3	750.7	647.8	732.7	818.1	847.5	786.9	785.7	843.7	899.9
65°	8234.5	2845.1	672.7	601.6	686.5	770.7	808.8	750.7	753.2	826.3	882.4
67.5°	8716.3	2583.0	602.8	560.4	633.4	716.4	777.0	722.7	714.6	802.5	854.3
70°	8263.8	2051.9	542.3	516.7	573.5	657.8	732.7	685.2	666.5	746.4	786.9
72.5°	7312.1	1710.6	485.5	465.6	521.1	596.0	672.7	634.7	610.3	671.5	707.7
75°	5715.8	1403.5	420.6	415.0	461.2	539.8	610.3	584.1	552.9	591.6	627.8
77.5°	3254.5	888.0	353.2	357.0	390.0	473.0	535.4	514.9	483.0	499.3	541.1
80°	1302.4	448.1	283.9	286.4	314.5	388.8	443.7	436.2	403.1	416.3	445.0
82.5°	486.8	245.9	209.7	210.9	239.0	307.7	378.8	375.1	343.9	334.5	350.7
85°	193.5	121.7	128.6	134.2	161.0	221.5	303.9	269.6	232.8	204.1	214.1
87.5°	46.2	38.7	44.9	47.4	52.4	69.3	111.1	89.2	91.7	73.6	54.9
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)