

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: P596800

Luminaire Tested: **MSA-SA4C-827-U-T3**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596800
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-10)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4C-827-U-T3
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17663 lumens
Efficiency: N/A
Efficacy: 78.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

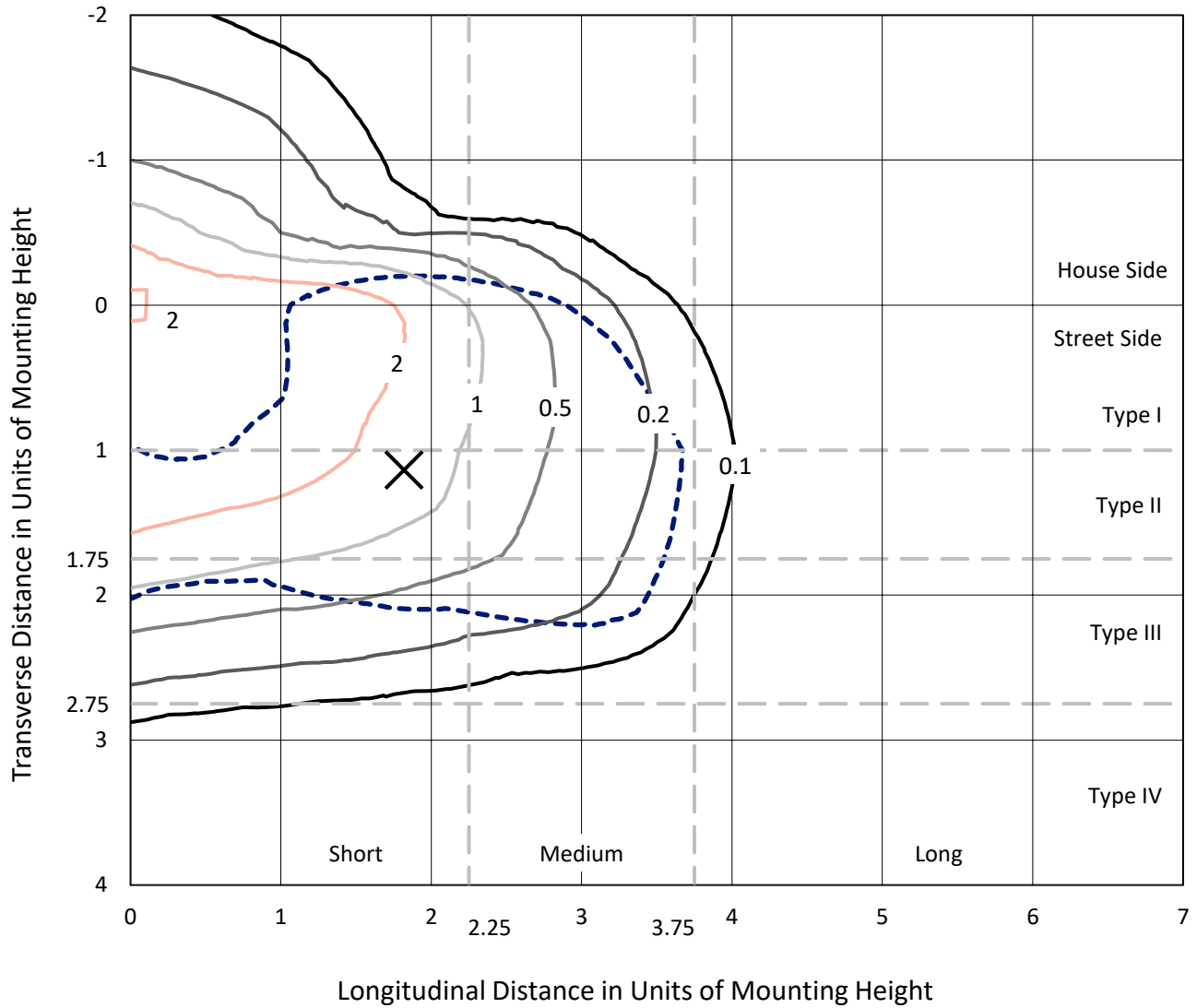
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

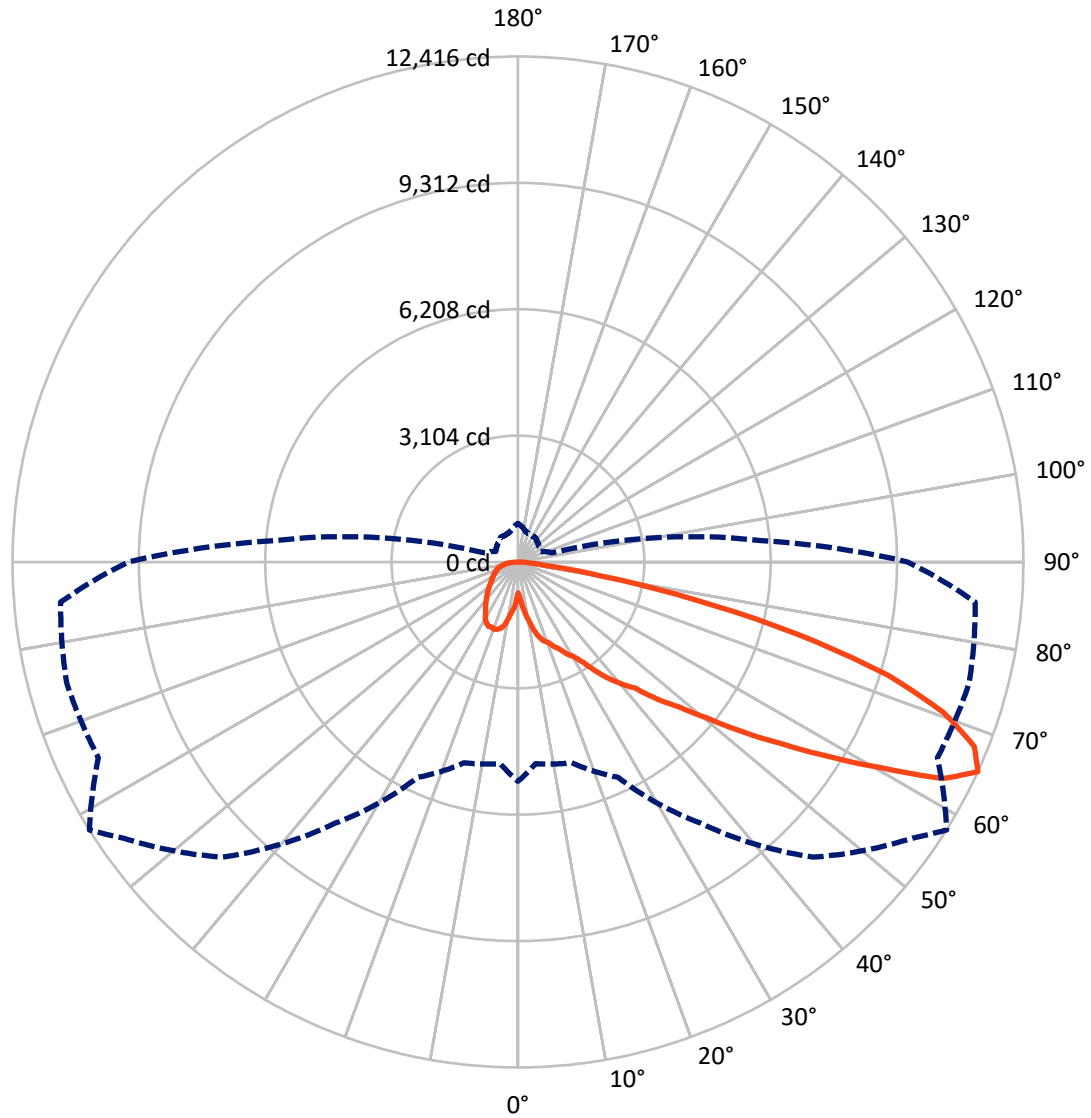
✕ Max cd
 - - - 1/2 Max cd



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 58-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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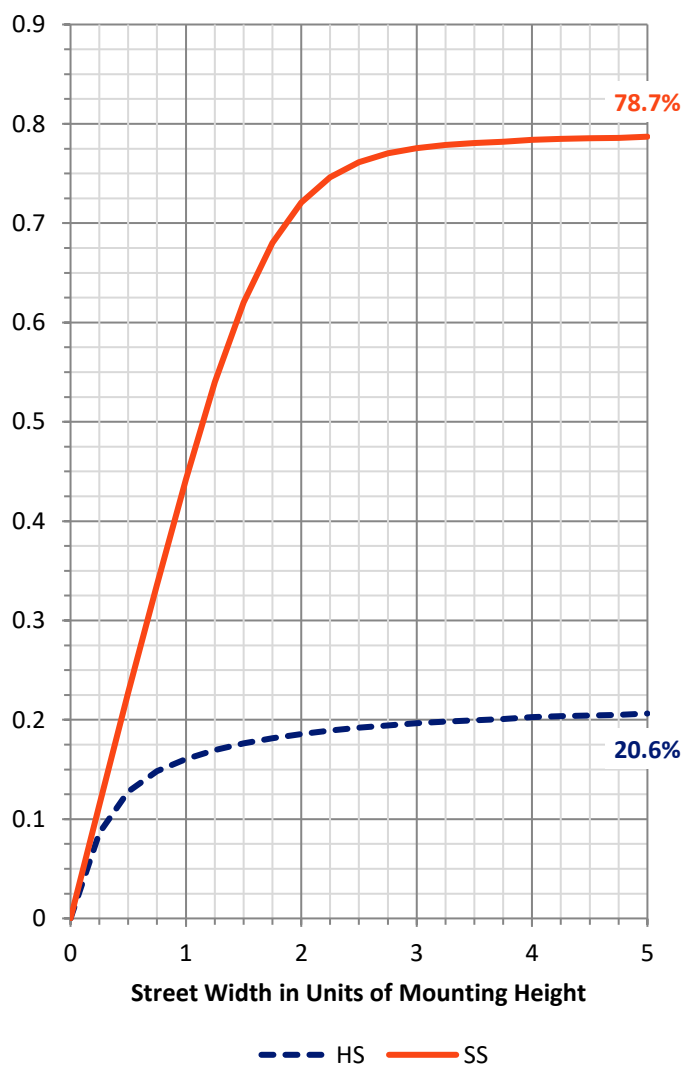
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3720.4	0.0	3720.4
	% Fixture	21.1	0.0	21.1
Street Side	Lumens	13942.7	0.0	13942.7
	% Fixture	78.9	0.0	78.9
Total	Lumens	17663.0	0.0	17663.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.5	0.7
10°-20°	504.1	2.9
20°-30°	967.3	5.5
30°-40°	1596.9	9.0
40°-50°	2654.2	15.0
50°-60°	4383.4	24.8
60°-70°	4917.4	27.8
70°-80°	2235.8	12.7
80°-90°	288.4	1.6
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°	17663.0	100.0
0°-180°	17663.0	100.0

Coefficient of Utilization

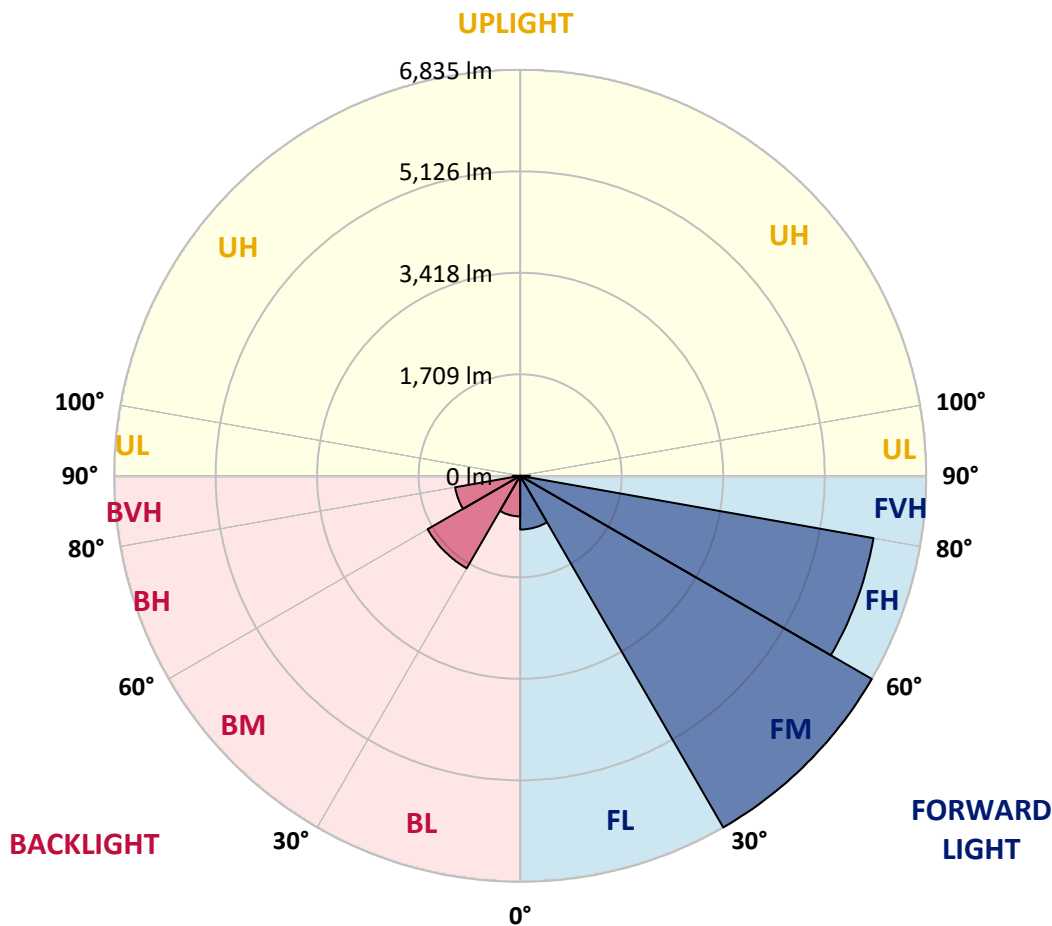


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	903.9	5.1			
FM (30°-60°)	6835.3	38.7			
FH (60°-80°)	6041.1	34.2			G3/7500
FVH (80°-90°)	162.4	0.9			G2/225
BL (0°-30°)	683.0	3.9	B2/1000		
BM (30°-60°)	1799.3	10.2	B2/2500		
BH (60°-80°)	1112.1	6.3	B3/2500		G3/2500
BVH (80°-90°)	126.0	0.7			G2/225
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 Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	758.4	758.4	758.4	758.4	758.4	758.4	758.4	758.4	758.4	758.4	758.4
2.5°	905.5	878.3	832.7	843.7	870.2	884.9	876.1	864.3	848.8	845.9	913.6
5°	1172.5	1120.3	1098.9	1090.1	1057.7	1038.6	1071.7	1067.3	1085.0	1117.3	1183.5
7.5°	1367.4	1330.6	1295.3	1291.7	1229.1	1207.1	1251.2	1274.7	1306.4	1307.1	1396.8
10°	1471.9	1440.2	1439.5	1406.4	1401.3	1443.2	1443.9	1461.6	1465.2	1502.8	1485.1
12.5°	1585.1	1582.9	1623.4	1622.7	1669.7	1738.9	1704.3	1704.3	1714.6	1669.0	1724.9
15°	1855.1	1878.6	1802.9	1815.4	1815.4	1883.0	1880.8	1894.1	1925.7	1913.9	1888.9
17.5°	2136.1	2150.8	2066.9	1989.0	1994.9	1980.1	2033.1	2038.3	2008.1	2144.9	2114.8
20°	2317.0	2374.4	2197.9	2100.0	2119.2	2136.1	2138.3	2106.7	2091.2	2301.6	2260.4
22.5°	2540.6	2492.1	2330.3	2222.1	2250.8	2228.0	2223.6	2247.9	2269.2	2348.7	2415.6
25°	2690.0	2686.3	2492.1	2373.7	2342.0	2335.4	2380.3	2370.7	2421.5	2565.7	2523.7
27.5°	2907.0	2974.6	2630.4	2659.8	2520.8	2374.4	2518.6	2562.0	2653.2	2629.6	2723.1
30°	3327.7	3276.9	2917.3	2909.2	2751.8	2628.9	2729.0	2692.2	2856.2	2851.1	2920.2
32.5°	3671.2	3706.5	3254.1	3169.6	3052.6	2904.8	2838.5	2940.8	3029.1	3174.0	3213.0
35°	4034.6	4026.5	3599.1	3428.5	3235.0	3174.0	3255.6	3298.3	3485.8	3619.0	3526.3
37.5°	4599.5	4535.5	4046.3	3723.4	3578.5	3556.5	3696.2	3634.4	3837.4	3869.1	3921.3
40°	5124.7	4932.0	4455.3	4085.3	3855.1	3937.5	3941.9	3950.0	4058.9	4144.9	4403.1
42.5°	5624.1	5488.8	4870.9	4592.9	4253.8	4173.6	4223.6	4240.5	4515.6	4691.4	5048.9
45°	6306.7	5944.1	5468.2	5182.8	4803.2	4701.0	4665.7	4811.3	5076.9	5477.0	5783.8
47.5°	6884.2	6556.8	6103.0	5727.1	5302.7	5594.7	5394.6	5313.0	5669.7	6165.5	6653.9
50°	7363.0	7002.6	6557.6	6340.6	6272.9	6533.3	6014.0	6023.6	6350.1	7049.7	7609.4
52.5°	7733.7	7349.0	6954.8	6844.4	7222.5	7372.6	6997.4	6940.8	7179.1	8005.9	8678.2
55°	8080.2	7672.0	7367.4	7592.5	8229.5	8246.4	8220.0	7905.9	8192.7	9030.5	9784.5
57.5°	8169.2	7729.3	7527.0	7850.0	8711.3	9381.4	9644.7	9028.3	9320.4	9962.5	10731.9
60°	7710.9	7334.3	7253.4	7691.8	8971.7	9951.5	10639.2	10270.7	10161.1	10710.6	11395.4
62.5°	6772.4	6335.4	6400.9	7009.9	8697.3	10177.3	11424.8	11712.4	11048.9	11305.7	11685.2
65°	5390.2	4973.2	5105.6	5838.2	7836.0	10252.3	11826.4	12416.4	11369.6	11474.1	11274.8
67.5°	3801.4	3422.6	3589.6	4537.0	6518.6	9291.7	11895.6	12088.3	11028.3	10993.8	10153.8
70°	2153.7	1916.1	2097.1	2887.1	4601.0	7402.0	11353.5	11099.7	10416.4	9926.5	8495.8
72.5°	987.9	906.2	993.0	1469.7	2648.8	4925.4	9268.9	9499.1	8975.4	8362.7	6463.4
75°	525.2	496.5	533.3	734.1	1239.4	2679.7	6585.5	7103.4	6824.6	6342.8	4216.3
77.5°	390.6	368.5	386.2	475.9	662.0	1048.2	3741.8	4395.0	4500.9	4057.4	2341.3
80°	299.4	281.7	299.4	359.7	458.3	498.0	1599.9	2048.6	2333.2	1885.3	930.5
82.5°	222.1	210.4	237.6	270.0	322.2	311.1	567.9	706.9	911.4	623.0	362.6
85°	176.5	161.8	172.1	183.2	206.0	170.7	259.7	290.5	307.5	257.4	133.9
87.5°	69.1	64.0	125.0	98.6	83.9	51.5	78.0	88.3	90.5	86.8	39.0
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°	758.4	758.4	758.4	758.4	758.4	758.4	758.4	758.4	758.4	758.4	758.4
2.5°	920.9	913.6	870.2	884.2	907.0	911.4	920.9	894.4	881.2	929.8	932.0
5°	1189.4	1149.7	1129.1	1131.3	1116.6	1093.8	1128.4	1151.2	1160.0	1196.0	1209.3
7.5°	1397.6	1349.8	1315.2	1275.5	1219.6	1183.5	1243.8	1288.0	1311.5	1386.5	1416.0
10°	1490.3	1452.0	1444.7	1394.6	1393.2	1392.4	1389.5	1374.0	1424.8	1417.4	1438.0
12.5°	1681.5	1673.4	1603.5	1583.7	1585.9	1583.7	1521.9	1518.9	1519.7	1587.4	1563.1
15°	1859.5	1861.0	1797.0	1724.9	1660.2	1640.3	1616.0	1605.0	1621.2	1659.4	1635.9
17.5°	2079.4	2086.8	1903.6	1789.6	1704.3	1702.1	1644.0	1575.6	1674.1	1697.7	1671.9
20°	2221.4	2190.5	1965.4	1774.2	1749.9	1683.7	1611.6	1517.5	1602.8	1660.2	1676.4
22.5°	2356.0	2302.3	2022.8	1801.4	1685.2	1606.5	1536.6	1475.5	1502.8	1566.8	1556.5
25°	2447.2	2432.5	2102.2	1866.9	1683.0	1507.9	1413.8	1374.8	1388.7	1488.1	1478.5
27.5°	2665.0	2506.1	2088.3	1883.8	1612.4	1373.3	1326.2	1284.3	1270.3	1377.7	1407.1
30°	2810.6	2745.1	2181.7	1857.3	1523.4	1263.0	1193.8	1185.0	1189.4	1311.5	1319.6
32.5°	3057.7	2887.8	2334.7	1755.8	1393.9	1181.3	1101.9	1105.6	1125.4	1214.4	1232.8
35°	3315.2	3213.7	2355.3	1683.0	1288.7	1094.5	1062.2	1036.4	1047.4	1125.4	1129.1
37.5°	3793.3	3442.4	2481.8	1570.4	1211.5	1061.4	999.6	976.8	982.7	1026.9	1058.5
40°	4214.1	3902.2	2423.0	1461.6	1115.9	1017.3	940.1	923.1	905.5	948.9	968.7
42.5°	4888.6	4230.2	2403.1	1341.7	1071.0	957.7	904.7	859.9	843.0	879.7	915.8
45°	5563.1	4578.2	2295.0	1220.3	1007.7	953.3	853.3	810.6	815.0	848.1	884.9
47.5°	6314.8	5045.2	2111.8	1102.6	938.6	932.0	801.8	783.4	796.6	833.4	870.2
50°	7203.4	5541.0	1960.3	996.7	889.3	868.0	795.1	773.1	785.6	829.0	865.0
52.5°	8175.1	6084.6	1849.9	898.9	833.4	817.2	804.0	782.6	797.4	834.9	872.4
55°	9140.9	6581.1	1774.9	831.9	785.6	795.9	822.4	806.9	814.3	842.2	879.7
57.5°	9857.3	6843.0	1624.1	760.6	746.6	783.4	824.6	798.8	803.2	842.2	882.7
60°	10273.7	6893.0	1376.2	702.5	715.7	758.4	801.8	768.7	765.7	829.7	880.5
62.5°	10228.0	6602.4	1091.6	649.5	680.4	720.9	767.2	735.6	743.7	831.2	884.9
65°	9574.9	6008.8	868.0	604.6	637.7	679.7	738.5	726.0	765.0	890.0	948.1
67.5°	8427.4	5141.6	697.3	562.7	598.0	651.7	758.4	791.5	808.4	950.4	1009.9
70°	6829.7	3994.9	581.1	525.9	566.4	665.0	815.7	809.1	795.1	921.7	968.7
72.5°	4934.2	2738.5	511.2	489.9	527.4	625.2	817.2	781.9	764.3	841.5	875.3
75°	3087.2	1633.7	446.5	444.3	467.8	560.5	780.4	748.8	701.0	739.2	783.4
77.5°	1763.2	836.3	375.9	395.7	409.7	486.2	698.8	670.1	627.4	643.6	687.0
80°	673.0	404.6	317.0	351.6	347.9	411.9	592.1	585.5	537.0	542.1	568.6
82.5°	317.0	226.6	263.3	302.3	282.5	328.1	481.1	478.9	436.2	395.0	416.3
85°	117.7	120.6	192.7	230.2	196.4	211.8	347.9	338.4	297.2	250.8	277.3
87.5°	26.5	43.4	94.9	119.9	68.4	65.5	140.5	122.1	117.7	69.9	73.6
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)