

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: P368354

Luminaire Tested: **MSA-SA4B-730-U-T3**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368354
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-10)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4B-730-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: 17669 lumens
Efficiency: N/A
Efficacy: 103.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

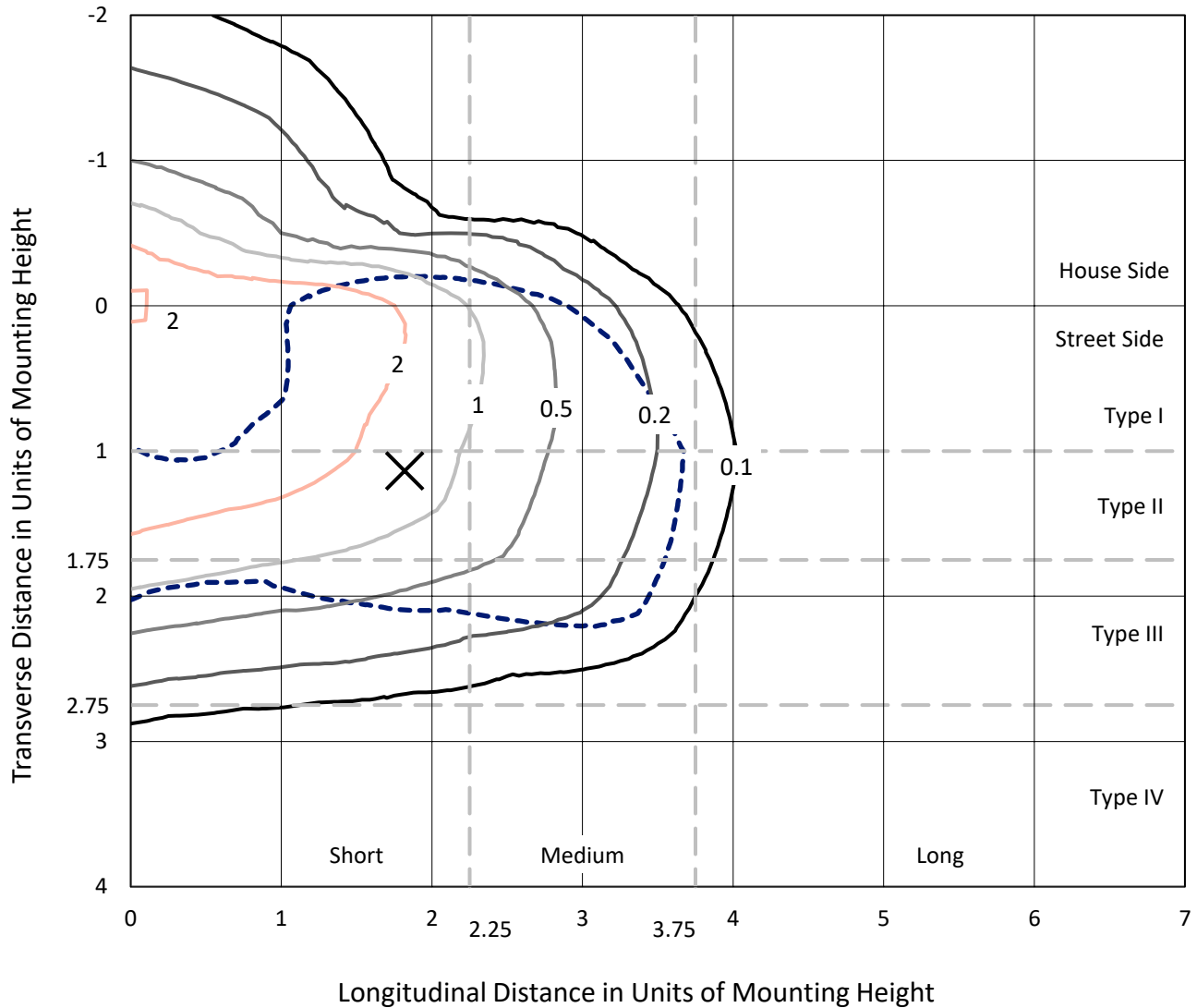
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P368354
 CATALOG NUMBER: MSA-SA4B-730-U-T3

Iso-Footcandle Lines of Horizontal Illumination

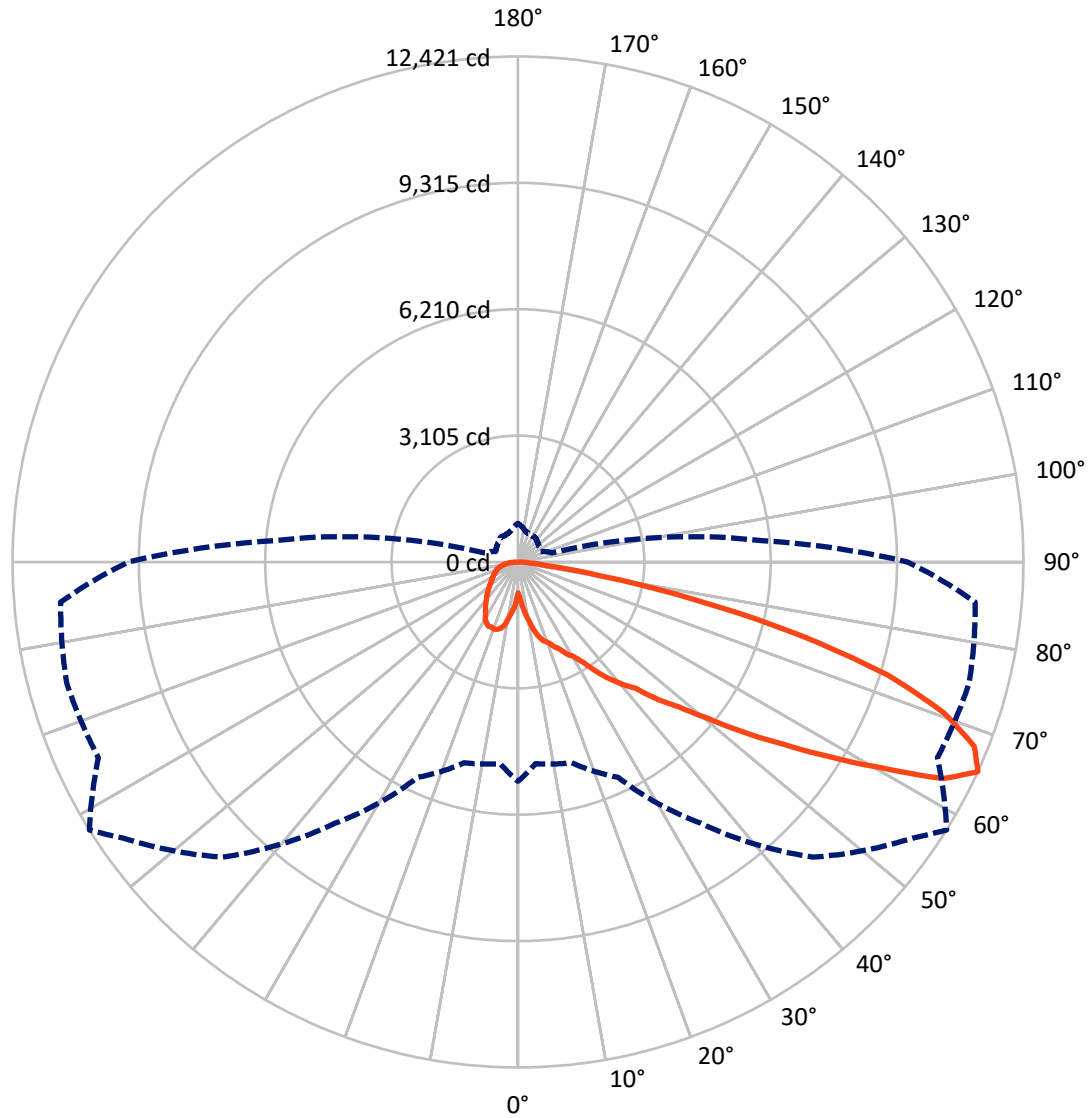
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 fc
 Type III - Short - N/A

REPORT NUMBER: P368354
CATALOG NUMBER: MSA-SA4B-730-U-T3

Luminous Intensity Polar Plot



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

REPORT NUMBER: P368354
 CATALOG NUMBER: MSA-SA4B-730-U-T3

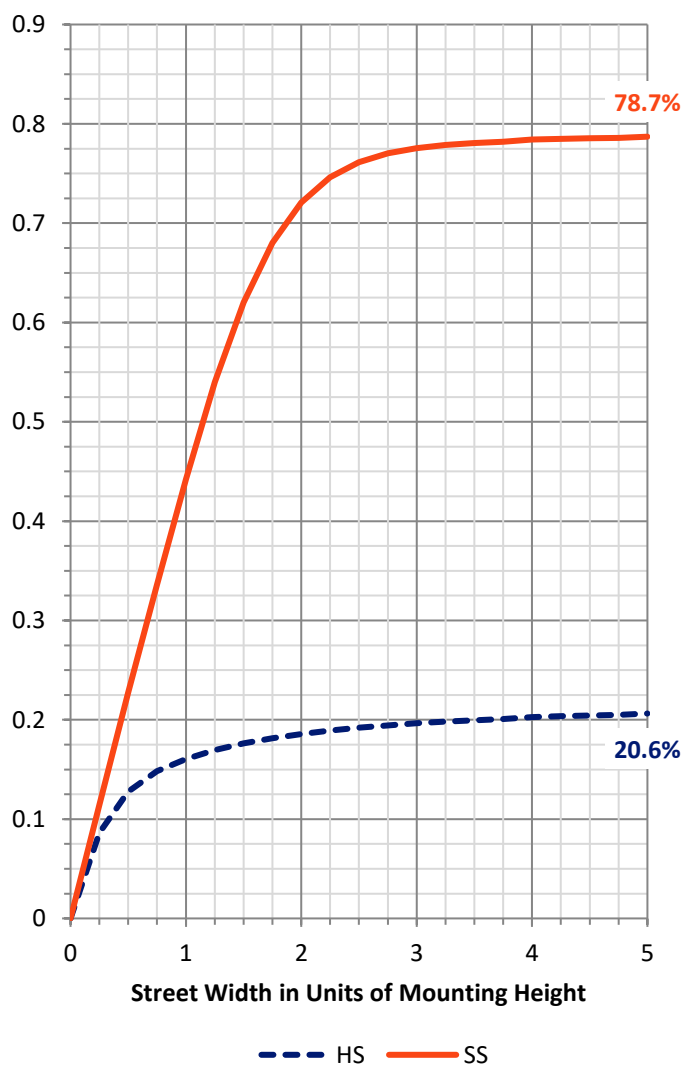
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3721.6	0.0	3721.6
	% Fixture	21.1	0.0	21.1
Street Side	Lumens	13947.4	0.0	13947.4
	% Fixture	78.9	0.0	78.9
Total	Lumens	17669.0	0.0	17669.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.6	0.7
10°-20°	504.2	2.9
20°-30°	967.6	5.5
30°-40°	1597.4	9.0
40°-50°	2655.1	15.0
50°-60°	4384.9	24.8
60°-70°	4919.1	27.8
70°-80°	2236.6	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°	17669.0	100.0
0°-180°	17669.0	100.0

Coefficient of Utilization



REPORT NUMBER: P368354

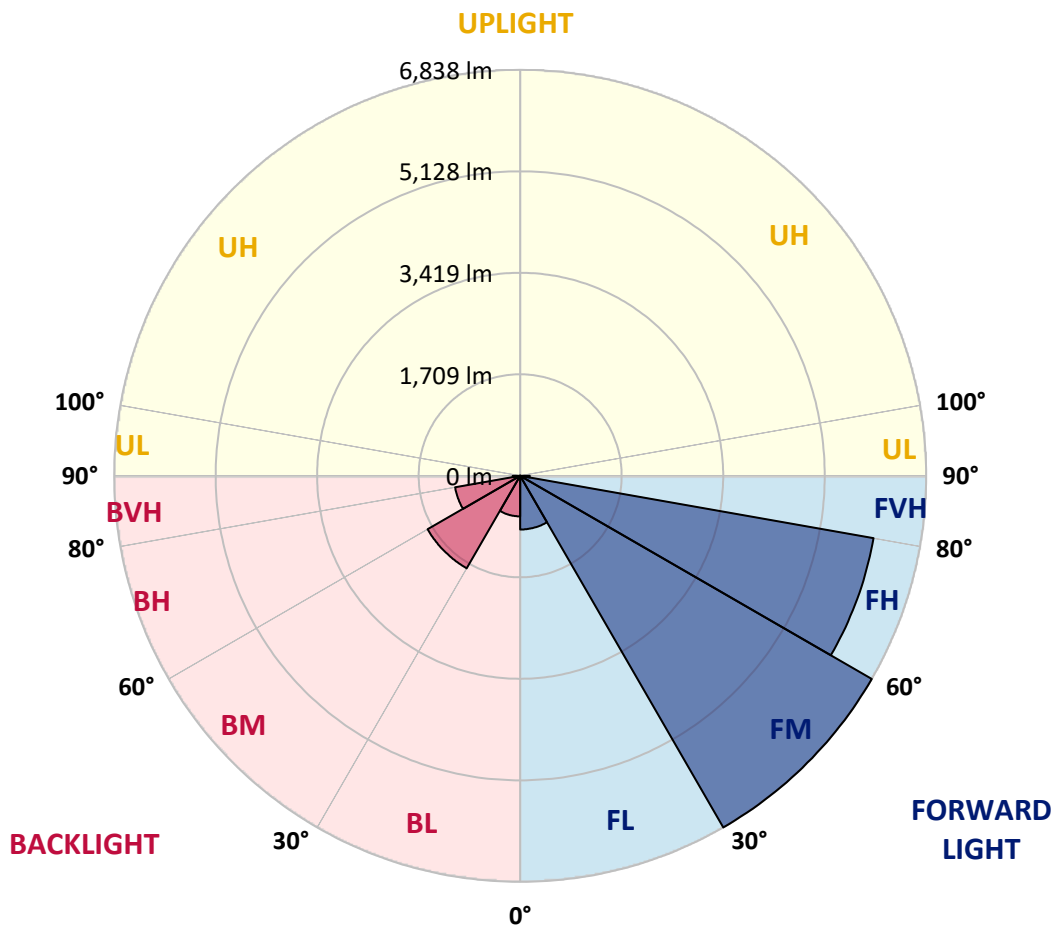
CATALOG NUMBER: MSA-SA4B-730-U-T3

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	904.2	5.1			
FM (30°-60°)	6837.6	38.7			
FH (60°-80°)	6043.2	34.2			G3/7500
FVH (80°-90°)	162.4	0.9			G2/225
BL (0°-30°)	683.2	3.9	B2/1000		
BM (30°-60°)	1799.9	10.2	B2/2500		
BH (60°-80°)	1112.5	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





REPORT NUMBER: P368354
 CATALOG NUMBER: MSA-SA4B-730-U-T3

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	758.6	758.6	758.6	758.6	758.6	758.6	758.6	758.6	758.6	758.6	758.6
2.5°	905.8	878.6	832.9	844.0	870.5	885.2	876.4	864.6	849.1	846.2	913.9
5°	1172.9	1120.6	1099.3	1090.5	1058.1	1039.0	1072.1	1067.7	1085.3	1117.7	1183.9
7.5°	1367.9	1331.1	1295.8	1292.1	1229.5	1207.5	1251.6	1275.2	1306.8	1307.5	1397.3
10°	1472.4	1440.7	1440.0	1406.9	1401.7	1443.7	1444.4	1462.1	1465.7	1503.3	1485.6
12.5°	1585.7	1583.5	1623.9	1623.2	1670.3	1739.5	1704.9	1704.9	1715.2	1669.6	1725.5
15°	1855.7	1879.3	1803.5	1816.0	1816.0	1883.7	1881.5	1894.7	1926.4	1914.6	1889.6
17.5°	2136.8	2151.5	2067.6	1989.6	1995.5	1980.8	2033.8	2038.9	2008.8	2145.6	2115.5
20°	2317.8	2375.2	2198.6	2100.8	2119.9	2136.8	2139.0	2107.4	2091.9	2302.4	2261.2
22.5°	2541.5	2492.9	2331.1	2222.9	2251.6	2228.8	2224.4	2248.7	2270.0	2349.5	2416.4
25°	2690.9	2687.2	2492.9	2374.5	2342.8	2336.2	2381.1	2371.5	2422.3	2566.5	2524.6
27.5°	2907.9	2975.6	2631.3	2660.7	2521.6	2375.2	2519.4	2562.8	2654.1	2630.5	2724.0
30°	3328.8	3278.1	2918.2	2910.2	2752.7	2629.8	2729.9	2693.1	2857.2	2852.0	2921.2
32.5°	3672.5	3707.8	3255.2	3170.6	3053.6	2905.7	2839.5	2941.8	3030.1	3175.0	3214.0
35°	4036.0	4027.9	3600.3	3429.6	3236.1	3175.0	3256.7	3299.4	3487.0	3620.2	3527.5
37.5°	4601.1	4537.0	4047.7	3724.7	3579.7	3557.7	3697.5	3635.7	3838.8	3870.4	3922.6
40°	5126.4	4933.6	4456.8	4086.7	3856.4	3938.8	3943.2	3951.3	4060.2	4146.3	4404.6
42.5°	5626.0	5490.7	4872.6	4594.4	4255.2	4175.0	4225.1	4242.0	4517.2	4693.0	5050.6
45°	6308.9	5946.1	5470.1	5184.6	4804.9	4702.6	4667.3	4813.0	5078.6	5478.9	5785.7
47.5°	6886.5	6559.1	6105.1	5729.1	5304.5	5596.6	5396.5	5314.8	5671.7	6167.6	6656.2
50°	7365.5	7005.0	6559.8	6342.7	6275.0	6535.5	6016.0	6025.6	6352.3	7052.1	7612.0
52.5°	7736.4	7351.5	6957.1	6846.8	7225.0	7375.1	6999.8	6943.2	7181.6	8008.6	8681.2
55°	8082.9	7674.6	7369.9	7595.1	8232.3	8249.2	8222.7	7908.6	8195.5	9033.6	9787.8
57.5°	8172.0	7732.0	7529.6	7852.6	8714.3	9384.6	9648.0	9031.4	9323.5	9965.9	10735.6
60°	7713.6	7336.8	7255.9	7694.4	8974.7	9954.9	10642.8	10274.2	10164.6	10714.2	11399.3
62.5°	6774.7	6337.6	6403.1	7012.3	8700.3	10180.8	11428.7	11716.4	11052.7	11309.5	11689.2
65°	5392.1	4974.9	5107.3	5840.2	7838.6	10255.8	11830.4	12420.6	11373.5	11478.0	11278.6
67.5°	3802.7	3423.8	3590.8	4538.5	6520.8	9294.8	11899.6	12092.4	11032.1	10997.5	10157.2
70°	2154.5	1916.8	2097.8	2888.1	4602.5	7404.5	11357.3	11103.5	10419.9	9929.8	8498.7
72.5°	988.2	906.5	993.4	1470.2	2649.7	4927.0	9272.0	9502.3	8978.4	8365.5	6465.6
75°	525.4	496.7	533.5	734.3	1239.8	2680.6	6587.8	7105.8	6826.9	6344.9	4217.7
77.5°	390.7	368.6	386.3	476.1	662.2	1048.5	3743.1	4396.5	4502.5	4058.8	2342.1
80°	299.5	281.8	299.5	359.8	458.4	498.1	1600.4	2049.2	2334.0	1885.9	930.8
82.5°	222.2	210.4	237.7	270.0	322.3	311.3	568.0	707.1	911.7	623.2	362.8
85°	176.6	161.9	172.2	183.2	206.0	170.7	259.7	290.6	307.6	257.5	133.9
87.5°	69.2	64.0	125.1	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



REPORT NUMBER: P368354

CATALOG NUMBER: MSA-SA4B-730-U-T3

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	758.6	758.6	758.6	758.6	758.6	758.6	758.6	758.6	758.6	758.6	758.6
2.5°	921.2	913.9	870.5	884.5	907.3	911.7	921.2	894.8	881.5	930.1	932.3
5°	1189.8	1150.1	1129.5	1131.7	1117.0	1094.2	1128.7	1151.6	1160.4	1196.4	1209.7
7.5°	1398.1	1350.2	1315.6	1275.9	1220.0	1183.9	1244.3	1288.4	1312.0	1387.0	1416.4
10°	1490.8	1452.5	1445.1	1395.1	1393.6	1392.9	1390.0	1374.5	1425.3	1417.9	1438.5
12.5°	1682.1	1674.0	1604.1	1584.2	1586.4	1584.2	1522.4	1519.5	1520.2	1587.9	1563.6
15°	1860.1	1861.6	1797.6	1725.5	1660.7	1640.9	1616.6	1605.6	1621.7	1660.0	1636.5
17.5°	2080.2	2087.5	1904.3	1790.2	1704.9	1702.7	1644.5	1576.1	1674.7	1698.3	1672.5
20°	2222.2	2191.3	1966.1	1774.8	1750.5	1684.3	1612.2	1518.0	1603.3	1660.7	1676.9
22.5°	2356.8	2303.1	2023.5	1802.0	1685.8	1607.0	1537.1	1476.0	1503.3	1567.3	1557.0
25°	2448.1	2433.3	2103.0	1867.5	1683.5	1508.4	1414.2	1375.2	1389.2	1488.6	1479.0
27.5°	2665.9	2506.9	2089.0	1884.4	1612.9	1373.8	1326.7	1284.7	1270.8	1378.2	1407.6
30°	2811.6	2746.1	2182.4	1857.9	1523.9	1263.4	1194.2	1185.4	1189.8	1312.0	1320.1
32.5°	3058.8	2888.8	2335.5	1756.4	1394.4	1181.7	1102.3	1105.9	1125.8	1214.8	1233.2
35°	3316.3	3214.8	2356.1	1683.5	1289.1	1094.9	1062.5	1036.8	1047.8	1125.8	1129.5
37.5°	3794.6	3443.6	2482.6	1571.0	1211.9	1061.8	1000.0	977.2	983.1	1027.2	1058.8
40°	4215.5	3903.5	2423.8	1462.1	1116.2	1017.6	940.4	923.4	905.8	949.2	969.1
42.5°	4890.2	4231.7	2403.9	1342.1	1071.3	958.0	905.1	860.2	843.2	880.0	916.1
45°	5565.0	4579.7	2295.7	1220.7	1008.1	953.6	853.5	810.9	815.3	848.4	885.2
47.5°	6317.0	5047.0	2112.5	1103.0	938.9	932.3	802.0	783.6	796.9	833.7	870.5
50°	7205.8	5542.9	1960.9	997.0	889.6	868.3	795.4	773.3	785.9	829.3	865.3
52.5°	8177.9	6086.7	1850.6	899.2	833.7	817.5	804.2	782.9	797.6	835.2	872.7
55°	9144.0	6583.3	1775.5	832.2	785.9	796.2	822.6	807.2	814.5	842.5	880.0
57.5°	9860.7	6845.3	1624.7	760.8	746.9	783.6	824.8	799.1	803.5	842.5	883.0
60°	10277.1	6895.3	1376.7	702.7	715.9	758.6	802.0	768.9	766.0	830.0	880.8
62.5°	10231.5	6604.7	1092.0	649.7	680.6	721.1	767.5	735.8	743.9	831.5	885.2
65°	9578.1	6010.9	868.3	604.8	638.0	679.9	738.8	726.3	765.2	890.3	948.5
67.5°	8430.2	5143.4	697.6	562.9	598.2	651.9	758.6	791.7	808.7	950.7	1010.3
70°	6832.1	3996.2	581.3	526.1	566.6	665.2	816.0	809.4	795.4	922.0	969.1
72.5°	4935.9	2739.4	511.4	490.1	527.6	625.4	817.5	782.2	764.5	841.8	875.6
75°	3088.2	1634.2	446.6	444.4	468.0	560.7	780.7	749.1	701.2	739.5	783.6
77.5°	1763.8	836.6	376.0	395.9	409.8	486.4	699.0	670.3	627.7	643.8	687.3
80°	673.3	404.7	317.1	351.7	348.0	412.1	592.3	585.7	537.1	542.3	568.8
82.5°	317.1	226.6	263.4	302.4	282.6	328.2	481.2	479.0	436.3	395.1	416.5
85°	117.7	120.7	192.8	230.3	196.5	211.9	348.0	338.5	297.3	250.9	277.4
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)