

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: P368530

Luminaire Tested: **MSA-SA4C-750-U-T3**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368530
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-SA4C-750-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: 24027 lumens
Efficiency: N/A
Efficacy: 106.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

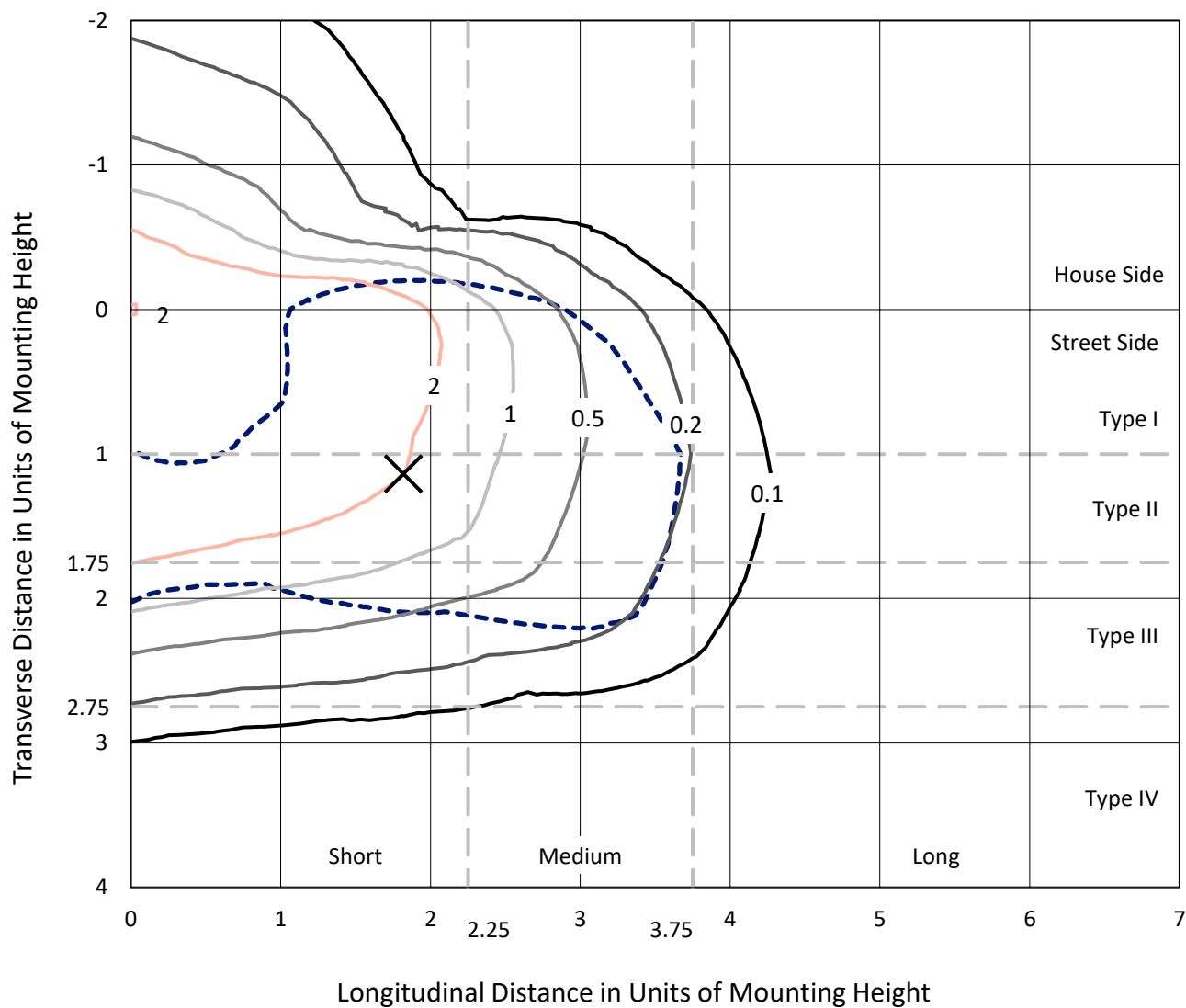
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P368530
 CATALOG NUMBER: MSA-SA4C-750-U-T3

Iso-Footcandle Lines of Horizontal Illumination

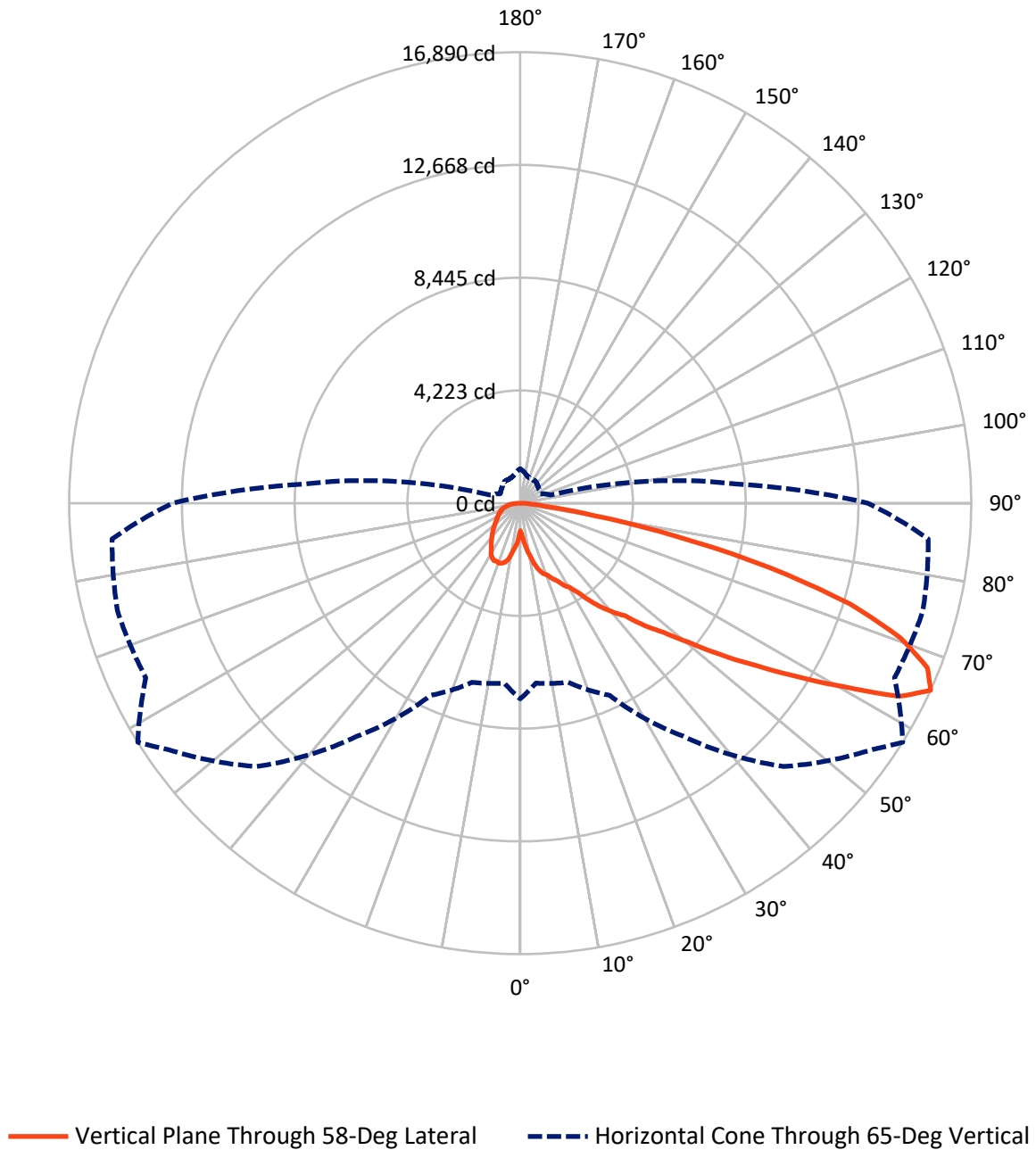
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5 fc
 Type III - Short - N/A

REPORT NUMBER: P368530
CATALOG NUMBER: MSA-SA4C-750-U-T3

Luminous Intensity Polar Plot



REPORT NUMBER: P368530

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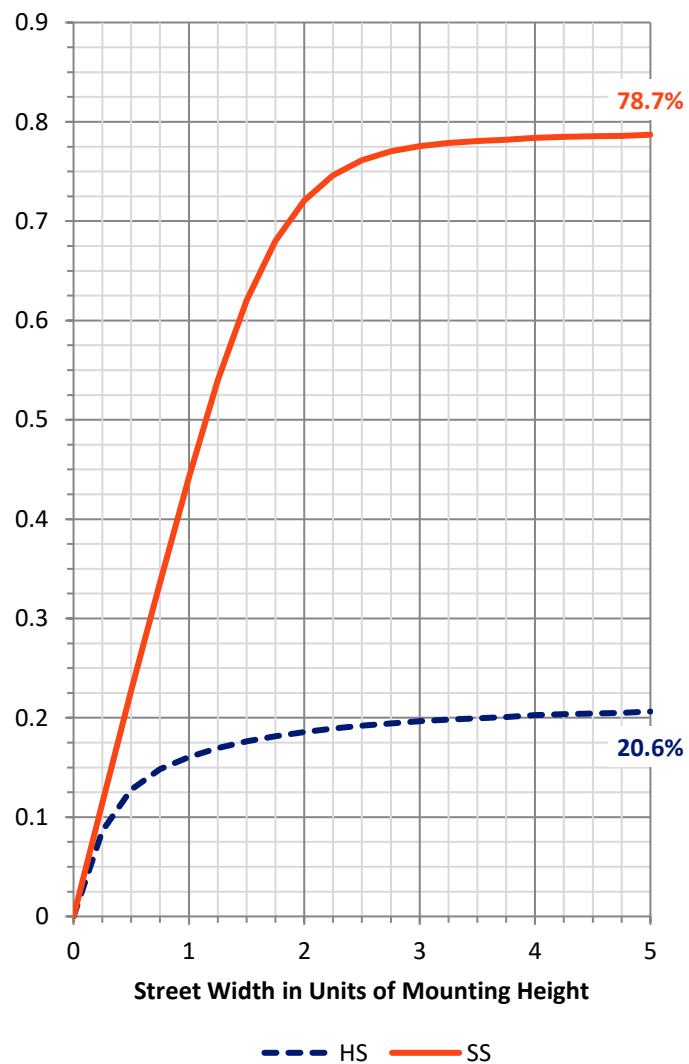
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5060.8	0.0	5060.8
	% Fixture	21.1	0.0	21.1
Street Side	Lumens	18966.2	0.0	18966.2
	% Fixture	78.9	0.0	78.9
Total	Lumens	24027.0	0.0	24027.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.2	0.7
10°-20°	685.7	2.9
20°-30°	1315.8	5.5
30°-40°	2172.2	9.0
40°-50°	3610.6	15.0
50°-60°	5962.8	24.8
60°-70°	6689.1	27.8
70°-80°	3041.4	12.7
80°-90°	392.3	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°	24027.0	100.0
0°-180°	24027.0	100.0

Coefficient of Utilization



REPORT NUMBER: P368530

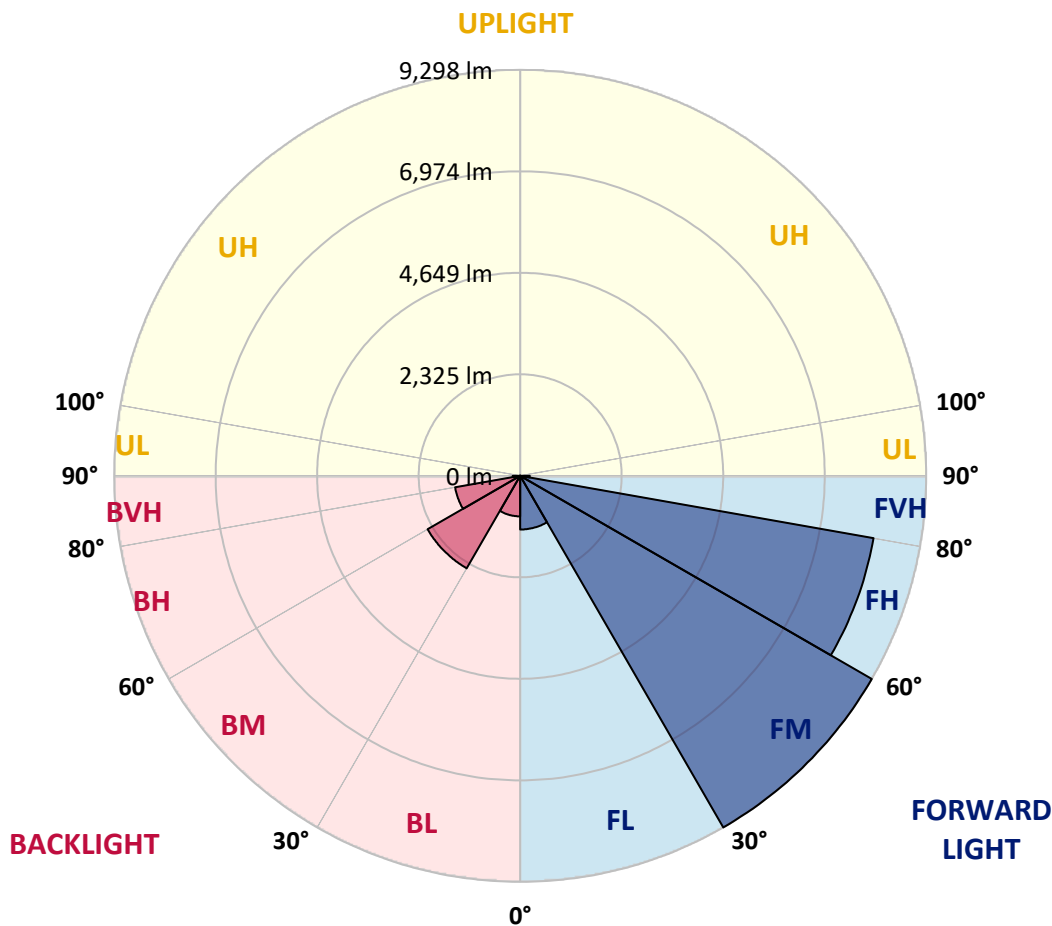
CATALOG NUMBER: MSA-SA4C-750-U-T3

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1229.5	5.1			
FM	(30°-60°)	9298.1	38.7			
FH	(60°-80°)	8217.7	34.2			G4/12000
FVH	(80°-90°)	220.9	0.9			G2/225
BL	(0°-30°)	929.1	3.9	B2/1000		
BM	(30°-60°)	2447.5	10.2	B2/2500		
BH	(60°-80°)	1512.8	6.3	B3/2500		G3/2500
BVH	(80°-90°)	171.4	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-G4

Type III Short



REPORT NUMBER: P368530

CATALOG NUMBER: MSA-SA4C-750-U-T3

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	1031.6	1031.6	1031.6	1031.6	1031.6	1031.6	1031.6	1031.6	1031.6	1031.6	1031.6
2.5°	1231.7	1194.7	1132.7	1147.7	1183.7	1203.7	1191.7	1175.7	1154.7	1150.7	1242.7
5°	1594.9	1523.9	1494.9	1482.9	1438.9	1412.8	1457.9	1451.9	1475.9	1519.9	1610.0
7.5°	1860.1	1810.1	1762.0	1757.0	1672.0	1642.0	1702.0	1734.0	1777.1	1778.1	1900.1
10°	2002.2	1959.2	1958.2	1913.1	1906.1	1963.2	1964.2	1988.2	1993.2	2044.2	2020.2
12.5°	2156.3	2153.3	2208.3	2207.3	2271.3	2365.4	2318.4	2318.4	2332.4	2270.3	2346.4
15°	2523.5	2555.5	2452.4	2469.5	2469.5	2561.5	2558.5	2576.5	2619.5	2603.5	2569.5
17.5°	2905.7	2925.7	2811.7	2705.6	2713.6	2693.6	2765.6	2772.6	2731.6	2917.7	2876.7
20°	3151.9	3229.9	2989.8	2856.7	2882.7	2905.7	2908.7	2865.7	2844.7	3130.9	3074.8
22.5°	3456.0	3390.0	3169.9	3022.8	3061.8	3030.8	3024.8	3057.8	3086.8	3194.9	3285.9
25°	3659.2	3654.2	3390.0	3228.9	3185.9	3176.9	3237.9	3224.9	3293.9	3490.1	3433.0
27.5°	3954.3	4046.4	3578.1	3618.1	3429.0	3229.9	3426.0	3485.1	3609.1	3577.1	3704.2
30°	4526.7	4457.6	3968.3	3957.3	3743.2	3576.1	3712.2	3662.2	3885.3	3878.3	3972.3
32.5°	4994.0	5042.0	4426.6	4311.5	4152.5	3951.3	3861.3	4000.4	4120.4	4317.6	4370.6
35°	5488.2	5477.2	4895.9	4663.8	4400.6	4317.6	4428.6	4486.7	4741.8	4922.9	4796.8
37.5°	6256.7	6169.6	5504.3	5065.0	4867.9	4837.9	5028.0	4943.9	5220.1	5263.1	5334.2
40°	6971.1	6709.0	6060.6	5557.3	5244.1	5356.2	5362.2	5373.2	5521.3	5638.3	5989.5
42.5°	7650.5	7466.4	6625.9	6247.7	5786.4	5677.4	5745.4	5768.4	6142.6	6381.8	6868.1
45°	8579.1	8085.8	7438.4	7050.2	6533.9	6394.8	6346.8	6544.9	6906.1	7450.4	7867.7
47.5°	9364.5	8919.3	8301.9	7790.6	7213.3	7610.5	7338.3	7227.3	7712.6	8387.0	9051.4
50°	10015.9	9525.6	8920.3	8625.1	8533.0	8887.3	8180.8	8193.8	8638.1	9589.7	10351.1
52.5°	10520.2	9996.9	9460.6	9310.5	9824.8	10028.9	9518.6	9441.6	9765.8	10890.4	11805.0
55°	10991.5	10436.2	10021.9	10328.1	11194.6	11217.6	11181.6	10754.4	11144.6	12284.3	13309.9
57.5°	11112.6	10514.2	10239.1	10678.3	11850.0	12761.5	13119.8	12281.3	12678.5	13552.0	14598.6
60°	10489.2	9976.9	9866.8	10463.2	12204.2	13537.0	14472.6	13971.3	13822.2	14569.6	15501.2
62.5°	9212.4	8618.1	8707.1	9535.6	11831.0	13844.2	15541.2	15932.4	15029.9	15379.1	15895.4
65°	7332.3	6765.0	6945.1	7941.7	10659.3	13946.2	16087.5	16890.0	15466.1	15608.2	15337.1
67.5°	5171.1	4655.8	4882.9	6171.6	8867.2	12639.5	16181.6	16443.7	15001.9	14954.8	13812.2
70°	2929.7	2606.5	2852.7	3927.3	6258.7	10069.0	15444.1	15098.9	14169.4	13503.0	11556.8
72.5°	1343.8	1232.7	1350.8	1999.2	3603.1	6700.0	12608.5	12921.6	12209.2	11375.7	8792.2
75°	714.4	675.4	725.4	998.6	1686.0	3645.2	8958.3	9662.7	9283.5	8628.1	5735.4
77.5°	531.3	501.3	525.3	647.4	900.5	1425.8	5090.0	5978.5	6122.6	5519.3	3184.9
80°	407.2	383.2	407.2	489.3	623.4	677.4	2176.3	2786.6	3173.9	2564.5	1265.7
82.5°	302.2	286.2	323.2	367.2	438.3	423.3	772.5	961.6	1239.7	847.5	493.3
85°	240.1	220.1	234.1	249.1	280.2	232.1	353.2	395.2	418.2	350.2	182.1
87.5°	94.1	87.1	170.1	134.1	114.1	70.0	106.1	120.1	123.1	118.1	53.0
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: P368530

CATALOG NUMBER: MSA-SA4C-750-U-T3

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1031.6	1031.6	1031.6	1031.6	1031.6	1031.6	1031.6	1031.6	1031.6	1031.6	1031.6
2.5°	1252.7	1242.7	1183.7	1202.7	1233.7	1239.7	1252.7	1216.7	1198.7	1264.7	1267.7
5°	1618.0	1563.9	1535.9	1538.9	1518.9	1487.9	1534.9	1565.9	1577.9	1627.0	1645.0
7.5°	1901.1	1836.1	1789.1	1735.0	1659.0	1610.0	1692.0	1752.0	1784.1	1886.1	1926.1
10°	2027.2	1975.2	1965.2	1897.1	1895.1	1894.1	1890.1	1869.1	1938.1	1928.1	1956.2
12.5°	2287.4	2276.3	2181.3	2154.3	2157.3	2154.3	2070.2	2066.2	2067.2	2159.3	2126.3
15°	2529.5	2531.5	2444.4	2346.4	2258.3	2231.3	2198.3	2183.3	2205.3	2257.3	2225.3
17.5°	2828.7	2838.7	2589.5	2434.4	2318.4	2315.4	2236.3	2143.3	2277.3	2309.4	2274.3
20°	3021.8	2979.8	2673.6	2413.4	2380.4	2290.4	2192.3	2064.2	2180.3	2258.3	2280.3
22.5°	3204.9	3131.9	2751.6	2450.4	2292.4	2185.3	2090.2	2007.2	2044.2	2131.3	2117.3
25°	3329.0	3309.0	2859.7	2539.5	2289.4	2051.2	1923.1	1870.1	1889.1	2024.2	2011.2
27.5°	3625.1	3409.0	2840.7	2562.5	2193.3	1868.1	1804.1	1747.0	1728.0	1874.1	1914.1
30°	3823.3	3734.2	2967.8	2526.5	2072.2	1718.0	1624.0	1612.0	1618.0	1784.1	1795.1
32.5°	4159.5	3928.3	3175.9	2388.4	1896.1	1606.9	1498.9	1503.9	1530.9	1652.0	1677.0
35°	4509.7	4371.6	3203.9	2289.4	1753.0	1488.9	1444.9	1409.8	1424.8	1530.9	1535.9
37.5°	5160.1	4682.8	3376.0	2136.3	1648.0	1443.9	1359.8	1328.8	1336.8	1396.8	1439.9
40°	5732.4	5308.1	3295.9	1988.2	1517.9	1383.8	1278.8	1255.7	1231.7	1290.8	1317.8
42.5°	6649.9	5754.4	3268.9	1825.1	1456.9	1302.8	1230.7	1169.7	1146.7	1196.7	1245.7
45°	7567.5	6227.7	3121.8	1660.0	1370.8	1296.8	1160.7	1102.7	1108.7	1153.7	1203.7
47.5°	8590.1	6863.1	2872.7	1499.9	1276.8	1267.7	1090.6	1065.6	1083.6	1133.7	1183.7
50°	9798.8	7537.5	2666.6	1355.8	1209.7	1180.7	1081.6	1051.6	1068.6	1127.7	1176.7
52.5°	11120.6	8276.9	2516.5	1222.7	1133.7	1111.7	1093.6	1064.6	1084.6	1135.7	1186.7
55°	12434.4	8952.3	2414.4	1131.7	1068.6	1082.6	1118.7	1097.6	1107.7	1145.7	1196.7
57.5°	13408.9	9308.5	2209.3	1034.6	1015.6	1065.6	1121.7	1086.6	1092.6	1145.7	1200.7
60°	13975.3	9376.5	1872.1	955.6	973.6	1031.6	1090.6	1045.6	1041.6	1128.7	1197.7
62.5°	13913.2	8981.3	1484.9	883.5	925.5	980.6	1043.6	1000.6	1011.6	1130.7	1203.7
65°	13024.7	8173.8	1180.7	822.5	867.5	924.5	1004.6	987.6	1040.6	1210.7	1289.8
67.5°	11463.8	6994.1	948.6	765.5	813.5	886.5	1031.6	1076.6	1099.7	1292.8	1373.8
70°	9290.5	5434.2	790.5	715.4	770.5	904.5	1109.7	1100.7	1081.6	1253.7	1317.8
72.5°	6712.0	3725.2	695.4	666.4	717.4	850.5	1111.7	1063.6	1039.6	1144.7	1190.7
75°	4199.5	2222.3	607.4	604.4	636.4	762.5	1061.6	1018.6	953.6	1005.6	1065.6
77.5°	2398.4	1137.7	511.3	538.3	557.3	661.4	950.6	911.5	853.5	875.5	934.6
80°	915.5	550.3	431.3	478.3	473.3	560.3	805.5	796.5	730.4	737.4	773.5
82.5°	431.3	308.2	358.2	411.2	384.2	446.3	654.4	651.4	593.4	537.3	566.3
85°	160.1	164.1	262.2	313.2	267.2	288.2	473.3	460.3	404.2	341.2	377.2
87.5°	36.0	59.0	129.1	163.1	93.1	89.1	191.1	166.1	160.1	95.1	100.1
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)