

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: P368036

Luminaire Tested: **MSA-SA3C-830-U-SL3**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368036
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-18)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3C-830-U-SL3
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14195 lumens
Efficiency: N/A
Efficacy: 85.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G3

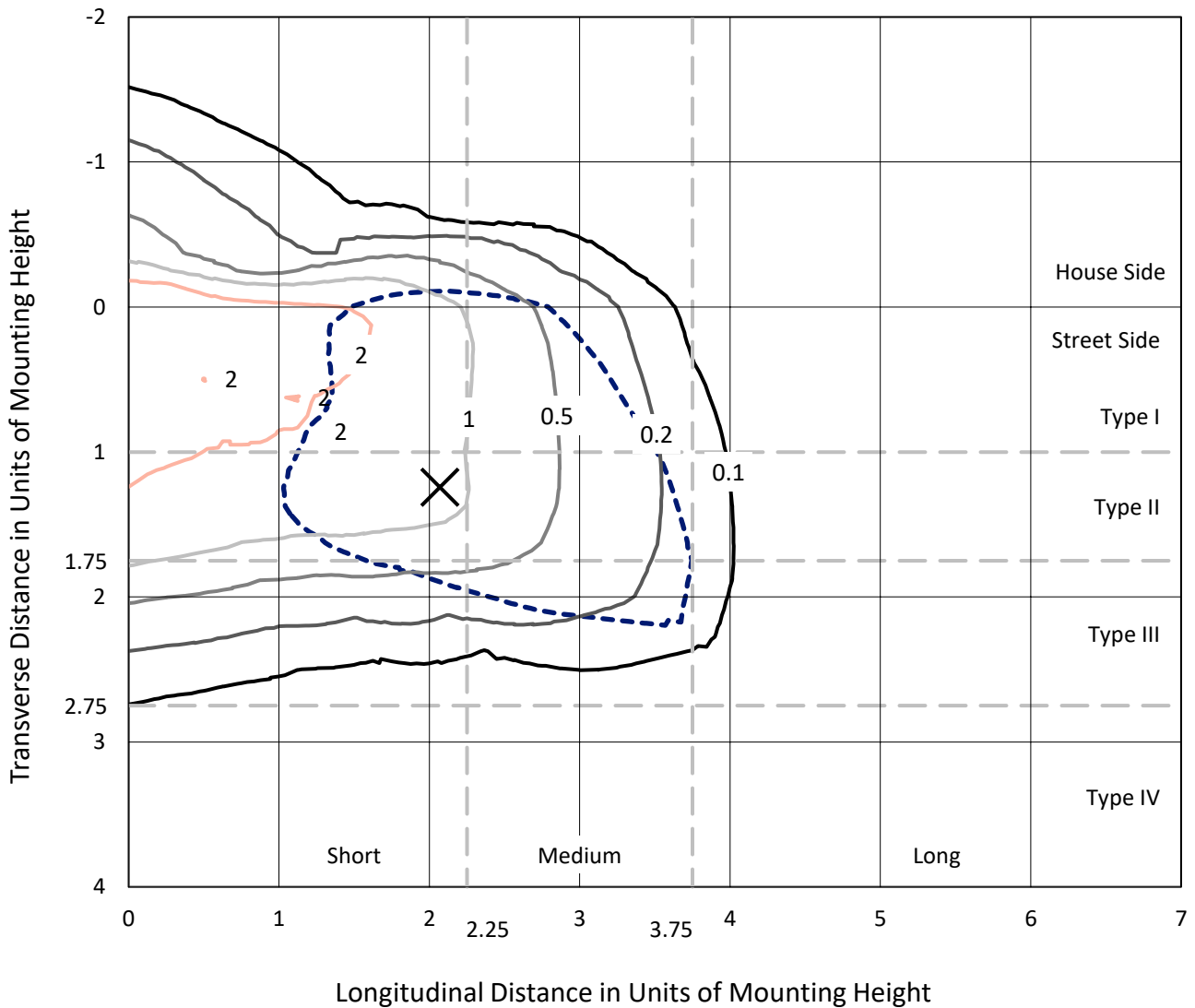
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P368036
 CATALOG NUMBER: MSA-SA3C-830-U-SL3

Iso-Footcandle Lines of Horizontal Illumination

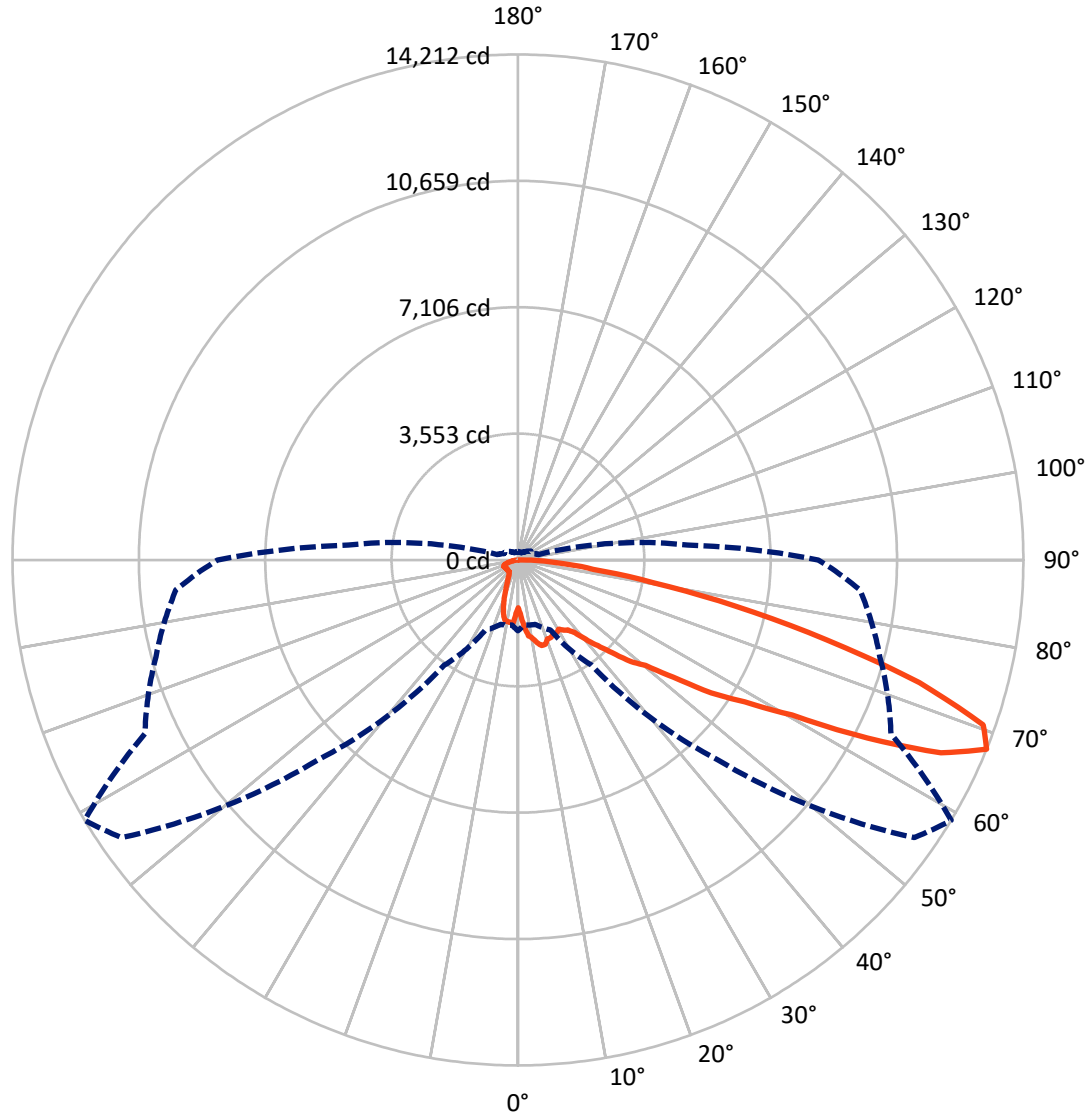
× Max cd
 - - - 1/2 Max cd



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

REPORT NUMBER: P368036
CATALOG NUMBER: MSA-SA3C-830-U-SL3

Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P368036
 CATALOG NUMBER: MSA-SA3C-830-U-SL3

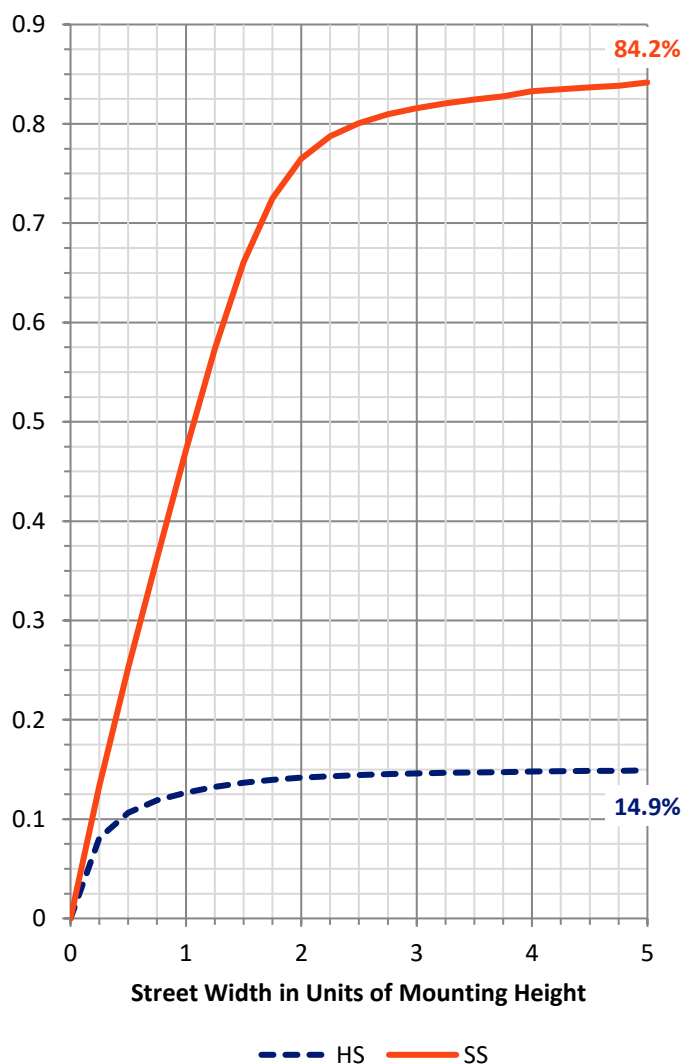
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2136.6	0.0	2136.6
	% Fixture	15.1	0.0	15.1
Street Side	Lumens	12058.4	0.0	12058.4
	% Fixture	84.9	0.0	84.9
Total	Lumens	14195.0	0.0	14195.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	175.4	1.2
10°-20°	519.1	3.7
20°-30°	741.4	5.2
30°-40°	1092.5	7.7
40°-50°	1845.7	13.0
50°-60°	3212.0	22.6
60°-70°	4093.0	28.8
70°-80°	2167.3	15.3
80°-90°	348.6	2.5
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°	14195.0	100.0
0°-180°	14195.0	100.0

Coefficient of Utilization



REPORT NUMBER: P368036

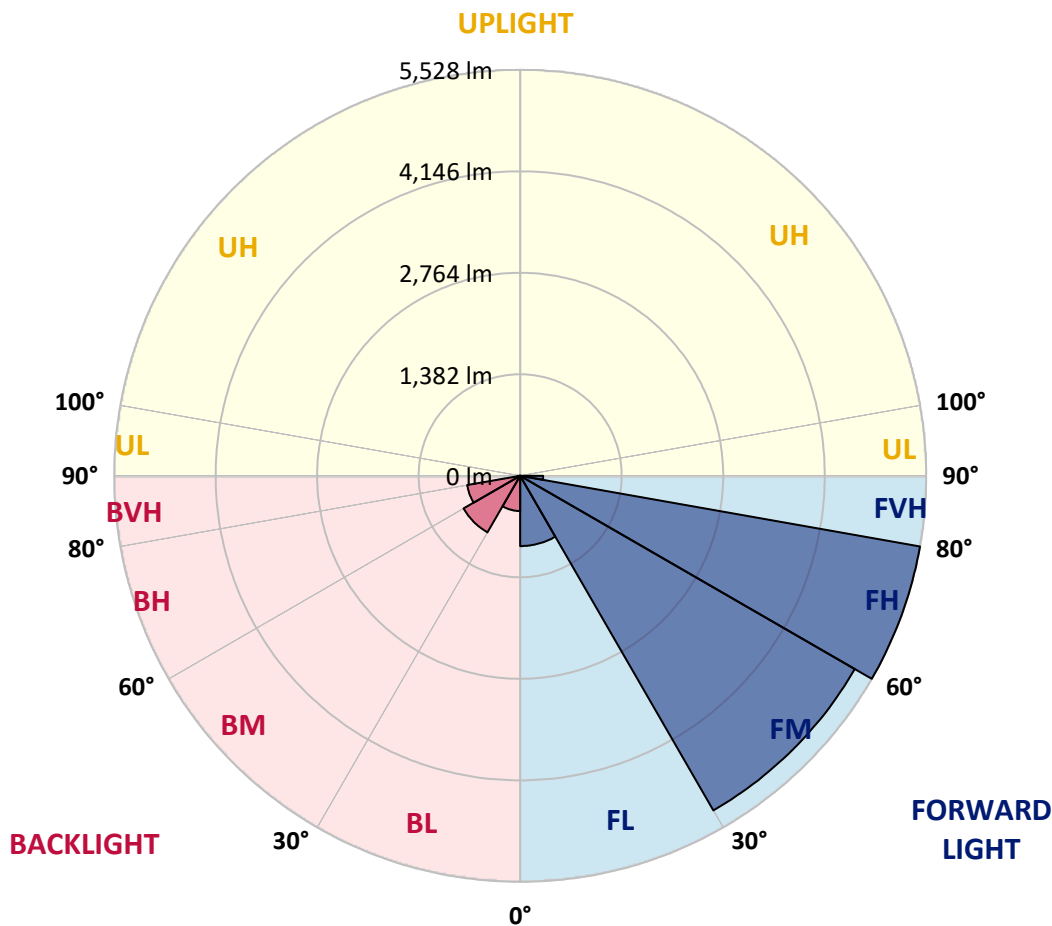
CATALOG NUMBER: MSA-SA3C-830-U-SL3

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	956.8	6.7			
FM (30°-60°)	5260.5	37.1			
FH (60°-80°)	5528.0	38.9			G3/7500
FVH (80°-90°)	313.1	2.2			G3/500
BL (0°-30°)	479.2	3.4	B1/500		
BM (30°-60°)	889.7	6.3	B1/1000		
BH (60°-80°)	732.3	5.2	B2/1000		G2/1000
BVH (80°-90°)	35.5	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type III Short





REPORT NUMBER: P368036

CATALOG NUMBER: MSA-SA3C-830-U-SL3

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1343.2	1343.2	1343.2	1343.2	1343.2	1343.2	1343.2	1343.2	1343.2	1343.2	1343.2
2.5°	1677.1	1598.9	1515.9	1539.3	1586.8	1608.5	1585.0	1562.2	1532.7	1497.8	1616.9
5°	2033.8	1917.7	1900.8	1900.2	1883.4	1816.0	1902.6	1896.6	1931.5	1967.6	2060.2
7.5°	2135.4	2092.1	2045.2	2067.5	1982.6	1979.0	2113.8	2152.3	2219.7	2197.4	2321.9
10°	2083.1	2034.4	2059.0	2050.0	2057.8	2146.9	2229.3	2231.7	2303.9	2374.8	2294.8
12.5°	1991.1	1994.7	2092.7	2089.1	2215.4	2380.9	2405.5	2386.3	2504.2	2456.1	2524.6
15°	2056.6	2100.6	2075.9	2096.9	2146.9	2357.4	2426.0	2495.8	2607.6	2651.0	2582.4
17.5°	2161.3	2184.8	2074.1	2062.7	2165.5	2265.4	2435.6	2495.2	2512.6	2821.2	2724.3
20°	2116.8	2164.3	2056.0	1917.1	2087.9	2220.3	2388.1	2370.0	2454.9	2834.4	2753.8
22.5°	2243.1	2164.3	2026.6	1927.9	1988.1	2109.6	2252.1	2370.6	2471.1	2756.8	2796.5
25°	2267.2	2229.9	2101.2	2003.1	1982.6	2026.0	2229.3	2306.9	2476.5	2862.7	2773.7
27.5°	2413.9	2358.0	2095.7	2098.7	1997.1	1920.7	2157.1	2320.1	2537.9	2797.1	2829.6
30°	2596.2	2553.5	2224.5	2236.5	2095.7	1955.0	2206.4	2255.7	2573.4	2899.4	2900.0
32.5°	2732.8	2808.0	2477.7	2314.1	2264.2	2158.9	2130.6	2352.6	2531.8	3084.7	3020.3
35°	2978.8	3037.1	2672.6	2541.5	2372.4	2253.9	2336.4	2416.4	2704.5	3328.3	3198.9
37.5°	3434.1	3366.8	3034.7	2828.4	2765.2	2594.4	2640.1	2584.2	2892.2	3602.0	3549.0
40°	3697.6	3639.3	3289.8	3175.5	2925.3	2946.9	2889.8	2930.7	3143.0	3893.1	3876.3
42.5°	3957.5	3879.3	3583.9	3504.5	3254.9	3149.0	3159.2	3291.6	3529.8	4363.5	4307.6
45°	4214.3	4014.0	3884.7	3905.7	3785.4	3568.3	3583.3	3707.8	3952.1	4901.3	4772.6
47.5°	4411.0	4245.6	4144.6	4118.7	4059.1	4349.7	4219.7	4270.3	4378.0	5380.1	5331.4
50°	4783.4	4590.3	4458.6	4421.3	4623.4	5027.6	4762.9	4654.1	4883.2	5999.1	5973.8
52.5°	5379.5	5138.9	4919.3	4916.9	5209.3	5471.5	5658.0	5470.3	5554.5	6633.1	6705.3
55°	5899.8	5621.3	5424.0	5532.9	5949.2	6109.8	6743.2	6596.4	6525.4	7273.1	7479.5
57.5°	6094.1	5768.7	5640.0	5800.6	6414.1	7239.4	7908.9	7522.8	7453.6	7997.4	8429.9
60°	5667.6	5323.6	5331.4	5633.9	6696.9	8069.0	9183.6	8855.8	8450.3	8899.1	9321.3
62.5°	4452.5	4141.5	4344.3	4804.4	6459.9	8875.0	10891.9	11030.3	9589.0	9646.8	9815.8
65°	3026.3	2811.0	2993.8	3444.4	5239.3	9314.7	12519.1	13073.7	10626.1	10136.4	10029.3
67.5°	1991.7	1839.5	1875.0	2174.5	3606.8	7940.8	13607.3	14211.8	11574.1	10538.2	9652.8
70°	1542.3	1419.6	1404.0	1561.0	2139.0	5516.7	12962.4	13881.6	12151.6	10161.7	8413.6
72.5°	1210.3	1117.0	1125.5	1276.5	1656.6	3060.6	10030.5	11804.5	11281.7	8763.7	6464.1
75°	943.8	867.4	910.1	1082.8	1532.1	1902.0	6920.6	8959.2	8722.2	6489.3	3686.8
77.5°	685.1	635.8	696.6	922.1	1440.1	1632.0	4308.2	6250.5	5587.6	3331.9	1265.0
80°	449.3	421.7	471.6	751.9	1305.9	1570.6	2662.4	3830.0	2761.0	936.0	478.8
82.5°	264.7	252.6	294.1	508.9	1049.7	1471.9	1775.7	2128.2	1129.7	395.8	254.4
85°	139.0	129.9	174.4	292.3	723.6	1343.8	1398.0	1274.0	545.6	172.0	121.5
87.5°	46.3	45.1	74.0	113.1	273.7	713.4	745.9	605.1	225.0	49.9	26.5
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: P368036
 CATALOG NUMBER: MSA-SA3C-830-U-SL3

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1343.2	1343.2	1343.2	1343.2	1343.2	1343.2	1343.2	1343.2	1343.2	1343.2	1343.2
2.5°	1633.2	1609.1	1470.7	1490.0	1508.0	1499.0	1493.6	1431.0	1425.0	1514.1	1506.8
5°	2057.8	1958.0	1840.1	1834.7	1757.1	1677.7	1693.3	1668.0	1675.3	1712.0	1715.6
7.5°	2282.2	2157.7	2045.2	1862.3	1707.1	1581.4	1601.3	1595.3	1579.0	1662.0	1684.3
10°	2278.0	2167.3	2040.4	1819.0	1714.4	1612.1	1489.4	1373.3	1339.0	1298.1	1301.7
12.5°	2428.4	2330.3	2053.6	1828.1	1686.1	1509.8	1280.1	1153.1	1031.6	1029.2	998.5
15°	2475.3	2403.1	2081.9	1776.3	1488.2	1235.5	997.9	860.2	772.4	754.9	729.1
17.5°	2593.8	2480.7	1995.9	1609.1	1258.4	966.1	750.1	653.9	646.6	658.7	645.4
20°	2601.6	2418.2	1840.7	1361.9	1011.2	732.1	611.8	563.6	589.5	619.0	617.8
22.5°	2595.0	2339.4	1706.5	1151.3	759.7	588.3	536.0	525.1	549.2	593.1	598.5
25°	2527.6	2313.5	1538.7	945.6	616.6	504.1	489.6	496.3	526.3	578.1	578.1
27.5°	2598.0	2208.2	1328.2	769.4	518.5	448.7	459.0	475.8	498.1	557.0	567.8
30°	2575.2	2243.1	1158.6	619.6	457.2	410.2	433.1	449.9	475.2	536.6	542.0
32.5°	2636.5	2149.9	1016.0	520.9	416.9	395.2	400.6	423.5	456.6	504.7	514.3
35°	2730.4	2184.2	852.4	468.6	397.0	377.8	388.0	406.0	439.1	486.0	493.9
37.5°	3029.9	2182.4	739.3	439.7	393.4	374.2	379.0	391.6	430.1	472.8	490.9
40°	3222.4	2307.5	636.4	433.1	389.2	372.3	368.1	382.0	412.7	463.2	475.8
42.5°	3583.9	2383.9	591.9	430.7	388.6	362.1	357.9	374.2	404.2	451.1	470.4
45°	3965.9	2492.7	556.4	429.5	386.8	360.3	347.7	368.1	393.4	438.5	460.8
47.5°	4415.2	2723.1	536.6	425.3	383.2	362.7	344.1	354.3	382.6	427.7	449.9
50°	5003.5	3028.1	540.8	419.3	388.6	363.3	338.7	343.5	369.3	413.3	436.1
52.5°	5718.8	3500.3	567.8	421.7	392.2	360.3	336.3	333.9	356.1	394.6	417.5
55°	6580.8	4170.4	649.1	433.1	392.2	359.7	332.6	321.8	338.7	369.9	392.2
57.5°	7620.8	4946.4	807.9	438.5	389.2	356.1	324.8	305.6	315.8	341.7	362.7
60°	8514.1	5572.6	971.5	442.1	395.2	347.7	309.2	285.1	291.7	311.6	330.2
62.5°	8969.4	5748.2	1020.8	439.1	411.4	342.3	290.5	263.5	264.1	280.9	297.8
65°	9054.9	5514.2	822.9	436.1	432.5	341.7	277.3	244.8	240.6	252.6	267.1
67.5°	8446.1	4786.4	593.7	429.5	434.9	338.1	268.3	229.8	219.0	227.4	239.4
70°	7171.5	3854.6	498.7	416.3	406.0	320.0	252.6	214.1	199.7	205.7	214.7
72.5°	5346.4	2851.9	434.9	388.0	353.7	273.7	228.6	196.7	181.7	185.9	192.5
75°	2970.4	1521.3	363.9	337.5	288.7	221.4	194.9	174.4	161.2	163.0	170.2
77.5°	986.5	561.2	267.1	267.7	218.4	170.8	160.6	149.2	139.0	139.6	145.6
80°	446.9	310.4	191.3	192.5	152.2	123.9	123.3	119.7	113.1	111.3	115.5
82.5°	259.3	188.3	131.1	125.1	98.0	80.6	89.6	87.8	86.0	79.4	80.6
85°	127.5	101.1	68.6	65.0	54.1	40.3	48.1	49.9	48.1	40.9	40.3
87.5°	31.3	33.1	16.8	15.6	9.0	4.2	7.2	7.2	9.0	6.0	3.0
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)