

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: P368038

Luminaire Tested: **MSA-SA3C-830-U-SL4**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368038
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-20)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3C-830-U-SL4
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14092 lumens
Efficiency: N/A
Efficacy: 84.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

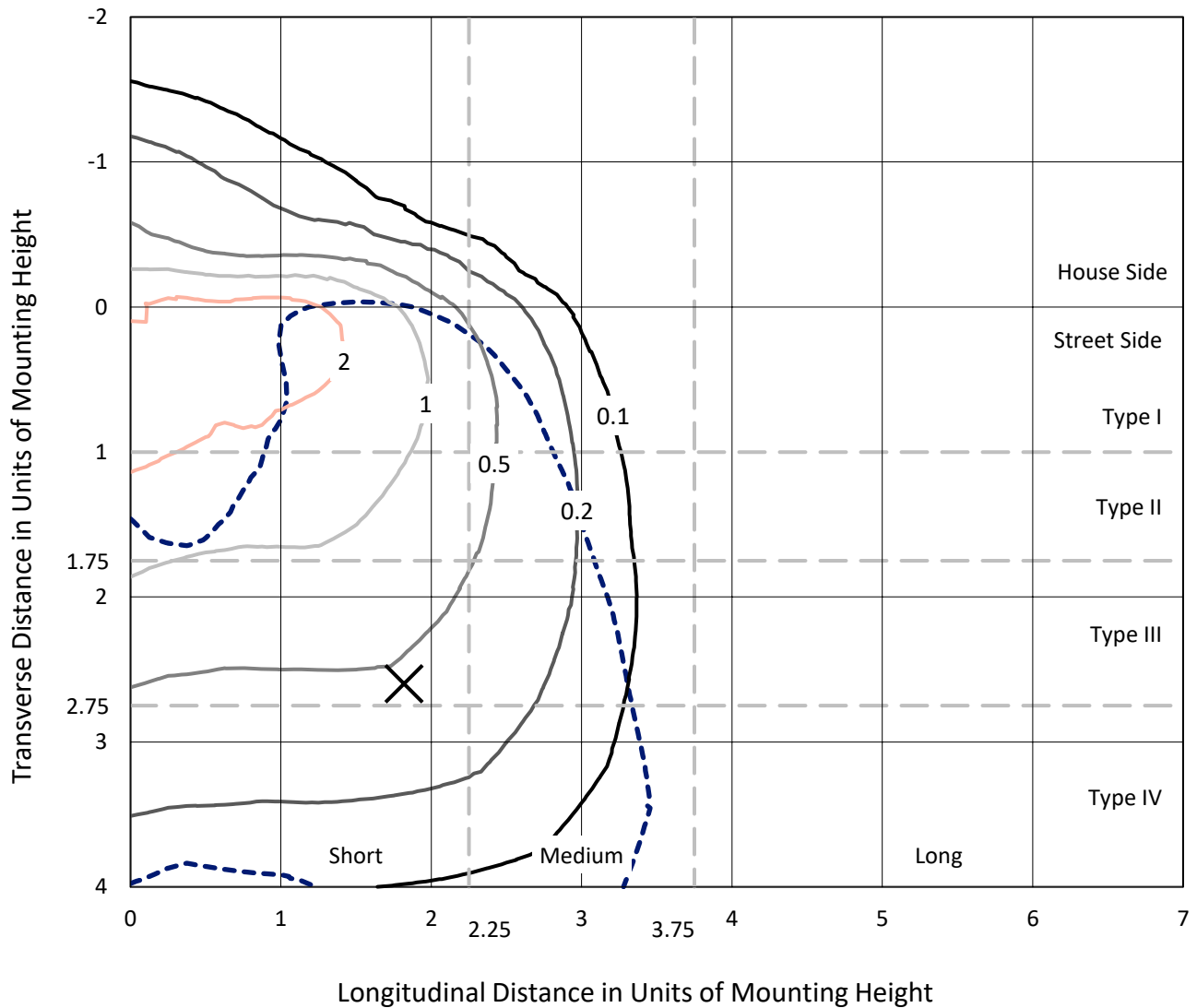
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P368038
 CATALOG NUMBER: MSA-SA3C-830-U-SL4

Iso-Footcandle Lines of Horizontal Illumination

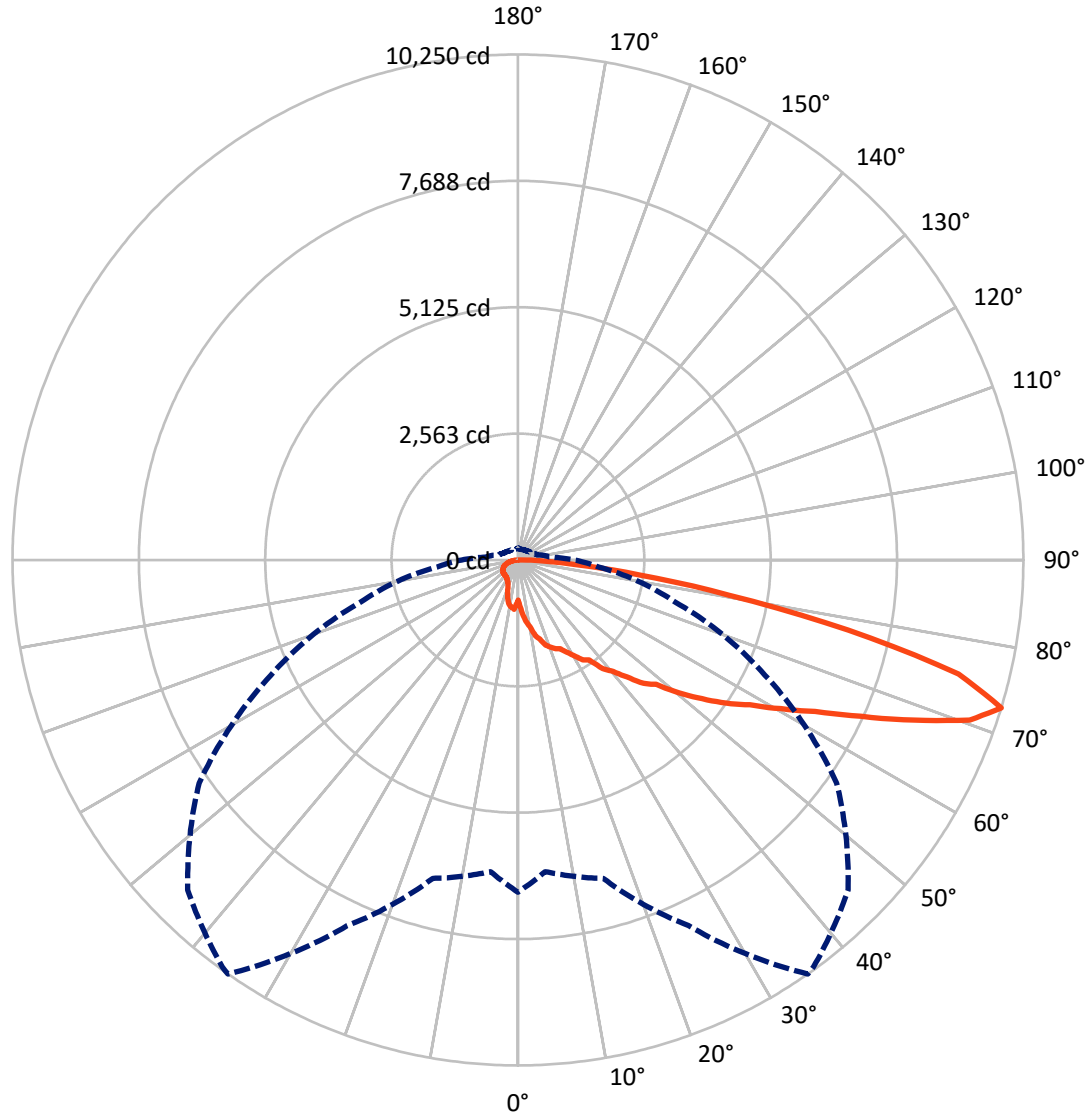
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 fc
 Type IV - Short - N/A

REPORT NUMBER: P368038
CATALOG NUMBER: MSA-SA3C-830-U-SL4

Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

REPORT NUMBER: P368038

CATALOG NUMBER: MSA-SA3C-830-U-SL4

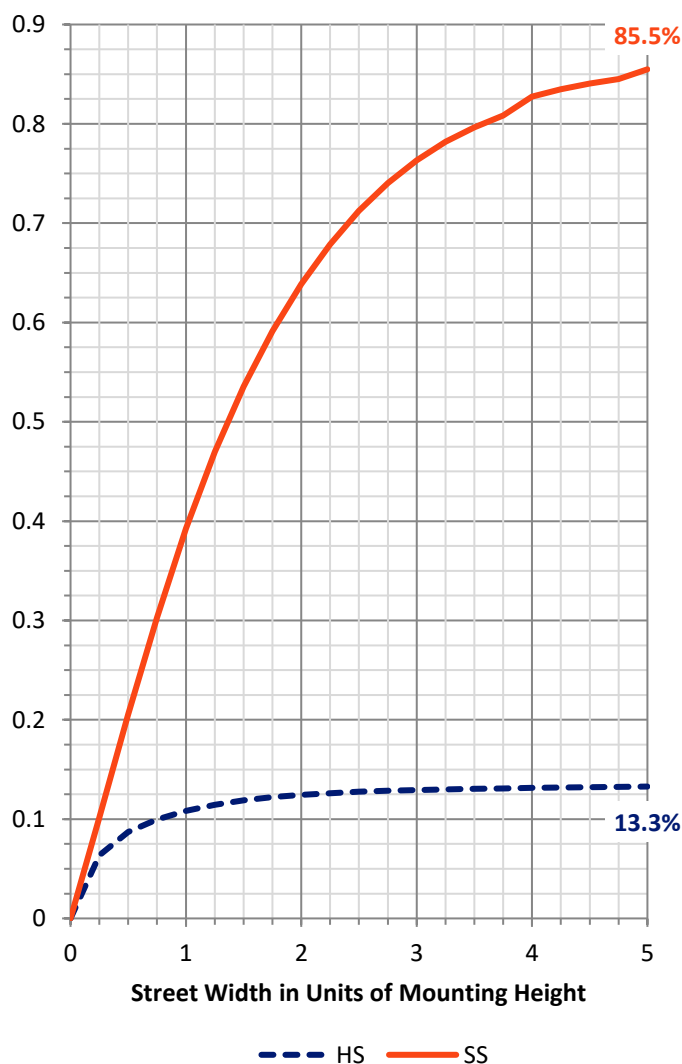
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1891.1	0.0	1891.1
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	12200.9	0.0	12200.9
	% Fixture	86.6	0.0	86.6
Total	Lumens	14092.0	0.0	14092.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.2	0.8
10°-20°	381.3	2.7
20°-30°	662.5	4.7
30°-40°	1107.2	7.9
40°-50°	1921.7	13.6
50°-60°	2905.1	20.6
60°-70°	3763.5	26.7
70°-80°	2777.1	19.7
80°-90°	465.4	3.3
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°	14092.0	100.0
0°-180°	14092.0	100.0

Coefficient of Utilization



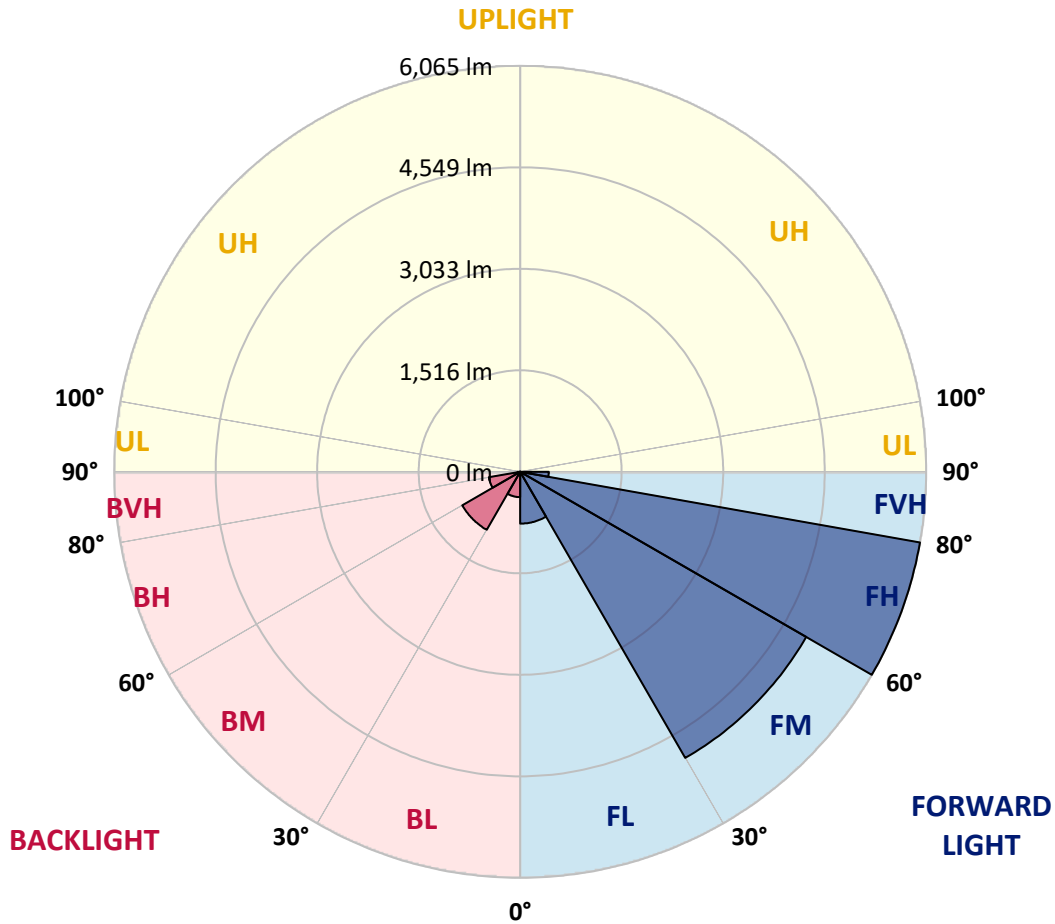
REPORT NUMBER: P368038
 CATALOG NUMBER: MSA-SA3C-830-U-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	774.0	5.5			
FM (30°-60°)	4934.5	35.0			
FH (60°-80°)	6065.1	43.0			G3/7500
FVH (80°-90°)	427.3	3.0			G3/500
BL (0°-30°)	378.0	2.7	B1/500		
BM (30°-60°)	999.5	7.1	B1/1000		
BH (60°-80°)	475.5	3.4	B1/500		G1/500
BVH (80°-90°)	38.1	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Short





REPORT NUMBER: P368038

CATALOG NUMBER: MSA-SA3C-830-U-SL4

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	814.4	814.4	814.4	814.4	814.4	814.4	814.4	814.4	814.4	814.4	814.4
2.5°	1015.9	967.2	925.1	923.2	962.3	977.4	971.4	958.1	942.5	909.4	981.6
5°	1272.7	1202.9	1189.7	1174.1	1138.6	1148.2	1090.5	1134.4	1148.2	1180.1	1228.2
7.5°	1424.3	1383.4	1351.5	1338.3	1276.9	1269.7	1227.0	1289.5	1316.0	1311.8	1383.4
10°	1483.8	1446.5	1448.9	1405.6	1385.8	1394.2	1399.0	1400.2	1416.4	1429.7	1393.6
12.5°	1514.5	1528.9	1581.9	1552.4	1577.6	1587.9	1638.4	1586.7	1588.5	1520.5	1557.8
15°	1669.1	1705.2	1674.5	1673.3	1665.5	1682.3	1725.6	1690.7	1717.8	1696.1	1648.0
17.5°	1855.5	1866.3	1807.4	1783.3	1814.6	1809.2	1798.4	1803.8	1736.4	1861.5	1802.6
20°	1912.7	1955.4	1877.8	1783.3	1886.8	1900.6	1898.2	1874.8	1759.3	1939.7	1882.6
22.5°	2078.7	2020.9	1959.6	1899.4	1952.4	1960.2	1946.9	1891.0	1852.5	1921.1	1966.2
25°	2153.8	2140.0	2061.8	2054.6	1996.3	1968.6	1991.4	1975.2	1937.3	2059.4	2009.5
27.5°	2325.9	2309.6	2129.8	2203.8	2119.0	2111.7	1990.8	2045.0	2082.9	2073.8	2148.4
30°	2520.7	2539.4	2276.5	2350.5	2252.5	2239.3	2117.8	2186.3	2212.2	2220.6	2313.8
32.5°	2737.3	2788.4	2527.4	2466.6	2414.3	2423.3	2320.4	2195.3	2295.8	2492.5	2532.8
35°	2971.8	2992.9	2719.2	2627.8	2491.3	2481.6	2483.4	2499.1	2600.7	2825.1	2856.4
37.5°	3405.5	3308.1	3068.1	2836.5	2790.8	2701.2	2761.9	2810.0	2911.7	3255.7	3386.8
40°	3672.5	3600.4	3234.7	3100.5	2974.2	2982.7	3096.3	3095.7	3335.7	3690.6	3890.9
42.5°	3919.7	3841.0	3496.3	3361.6	3241.9	3271.4	3303.8	3361.0	3821.1	4393.1	4484.5
45°	4118.8	3946.2	3698.4	3668.3	3569.7	3530.6	3668.3	3759.8	4401.5	4961.5	5014.4
47.5°	4254.2	4112.2	3869.8	3843.4	3770.6	3866.2	4242.1	4301.1	4851.4	5532.3	5528.1
50°	4459.9	4265.6	4046.7	4032.8	4237.9	4289.0	4747.4	4741.3	5289.3	6006.2	5907.0
52.5°	4696.8	4452.0	4214.5	4363.0	4675.8	4701.0	5098.6	5260.4	5767.4	6463.3	6204.1
55°	4969.3	4695.6	4465.9	4664.4	5129.9	5055.3	5457.7	5852.8	6365.9	6945.1	6418.8
57.5°	5306.7	4974.7	4788.9	5090.8	5544.3	5610.5	5971.9	6469.4	6847.7	7244.6	6575.2
60°	5662.8	5273.0	5102.8	5390.3	6124.7	6200.5	6554.2	6981.8	7387.8	7526.7	6545.7
62.5°	6002.6	5581.0	5427.0	5781.9	6768.3	6955.9	7217.0	7489.4	7837.1	7595.3	6189.1
65°	6380.9	5958.7	5861.9	6394.2	7641.0	7827.5	8168.5	8086.7	7991.1	7352.3	5599.0
67.5°	6781.5	6352.7	6370.7	7104.5	8670.1	8702.0	9225.9	8682.1	7810.0	6708.7	4608.4
70°	6996.8	6557.8	6743.6	7861.7	9717.3	9671.5	9778.6	8842.1	7072.0	5303.1	3176.3
72.5°	6735.8	6344.2	6684.7	8180.5	10250.2	10200.8	9468.3	7892.4	5529.3	3297.8	1646.8
75°	5703.1	5325.4	5846.2	7292.2	9227.7	9273.4	8057.8	5869.1	3165.5	1326.2	683.9
77.5°	3875.2	3680.4	4126.6	5435.4	6854.3	7012.5	5978.6	3432.0	1329.2	549.1	413.8
80°	2048.0	1955.4	2285.0	3131.2	4340.2	4458.1	3515.6	1709.4	680.9	355.5	295.3
82.5°	1112.7	1073.6	1250.4	1610.1	2466.0	2568.9	1823.0	1135.6	458.9	222.5	180.4
85°	747.6	732.6	849.9	864.9	1166.2	1199.9	955.1	874.5	275.5	108.9	119.1
87.5°	374.1	359.1	447.5	395.2	445.1	445.7	437.9	558.2	69.8	36.1	21.7
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: P368038
 CATALOG NUMBER: MSA-SA3C-830-U-SL4

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	814.4	814.4	814.4	814.4	814.4	814.4	814.4	814.4	814.4	814.4	814.4
2.5°	982.8	961.7	889.0	888.4	899.2	892.0	897.4	867.9	855.3	913.0	910.0
5°	1221.6	1158.4	1097.7	1076.6	1052.0	998.4	1001.4	1002.0	993.0	1027.3	1029.7
7.5°	1361.7	1285.9	1230.0	1118.1	1030.3	961.7	970.8	981.0	970.8	1016.5	1033.3
10°	1382.2	1322.0	1255.3	1130.8	1072.4	1010.5	947.9	892.6	886.0	864.9	871.5
12.5°	1503.7	1453.7	1314.2	1177.7	1109.7	1014.7	900.4	837.2	784.3	793.3	776.5
15°	1603.5	1568.0	1400.8	1222.2	1059.8	941.9	820.4	733.8	686.3	680.9	664.0
17.5°	1738.8	1688.3	1408.6	1191.5	995.4	854.1	716.9	618.9	598.5	590.0	581.6
20°	1803.8	1713.0	1380.4	1095.3	920.2	749.4	614.7	530.5	524.5	539.5	536.5
22.5°	1860.3	1733.4	1355.1	1036.9	803.0	643.6	544.9	489.6	483.0	502.2	505.8
25°	1893.4	1791.8	1327.4	977.4	730.2	564.8	492.6	461.3	462.5	487.8	484.8
27.5°	2042.6	1812.2	1257.7	907.0	646.6	506.4	467.3	451.1	444.5	479.4	482.4
30°	2136.4	1945.7	1242.0	832.4	584.6	463.7	444.5	437.9	436.7	478.8	481.8
32.5°	2310.8	1990.2	1249.2	751.2	528.7	450.5	427.6	427.0	439.1	479.4	484.2
35°	2552.6	2177.9	1214.4	704.9	498.0	430.0	414.4	419.2	439.7	483.6	490.2
37.5°	3024.2	2354.7	1225.2	661.6	487.8	423.4	410.8	413.8	446.9	494.4	512.4
40°	3397.7	2675.3	1208.3	640.0	474.0	422.2	403.0	415.0	446.3	500.4	516.7
42.5°	3939.0	2930.9	1210.1	618.3	473.4	417.4	401.8	416.2	445.1	495.0	517.3
45°	4403.3	3160.1	1236.0	605.7	467.3	425.2	400.0	418.0	437.3	475.8	500.4
47.5°	4784.0	3415.7	1262.5	593.6	464.9	432.5	398.2	405.4	424.0	454.1	476.4
50°	5094.4	3595.6	1296.2	591.2	464.9	428.8	393.4	392.8	408.4	432.5	453.5
52.5°	5336.2	3722.5	1319.0	594.2	464.9	415.0	387.3	382.5	392.2	409.6	430.6
55°	5511.2	3761.6	1300.4	602.1	464.3	402.4	376.5	372.3	377.1	389.1	409.0
57.5°	5581.6	3658.7	1189.1	588.2	464.3	393.4	363.3	358.5	363.3	372.3	392.2
60°	5405.4	3327.9	1028.5	552.7	455.3	381.3	348.2	345.2	352.5	360.3	379.5
62.5°	4963.3	2888.2	857.1	510.6	436.7	371.1	333.8	334.4	345.8	356.7	375.9
65°	4276.4	2356.5	714.5	467.9	413.2	354.9	318.8	323.0	339.2	353.7	372.9
67.5°	3365.2	1746.1	601.5	426.4	380.1	328.4	301.9	303.1	314.6	328.4	347.0
70°	2249.5	1110.9	494.4	377.7	336.8	294.1	276.1	271.9	268.9	280.9	297.1
72.5°	1141.0	656.2	406.0	323.0	289.9	256.8	243.0	232.2	223.7	231.0	243.6
75°	597.9	458.9	327.8	268.3	239.4	218.3	208.1	193.7	187.7	191.9	200.9
77.5°	422.8	359.1	265.2	212.3	194.9	173.2	175.0	160.0	155.2	157.6	167.2
80°	324.8	284.5	203.9	160.6	150.4	129.3	135.3	126.3	120.3	119.1	126.3
82.5°	221.3	214.1	145.0	112.5	105.3	90.2	98.6	95.0	87.2	82.4	86.0
85°	149.2	141.9	88.4	65.0	62.0	46.9	60.1	57.7	51.1	43.9	44.5
87.5°	25.9	47.5	25.3	16.2	15.0	5.4	13.8	13.2	12.0	6.0	4.8
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)