

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: P596966

Luminaire Tested: **MSA-SA2C-835-U-SL3**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596966
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-18)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2C-835-U-SL3
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) 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: 9979 lumens
Efficiency: N/A
Efficacy: 88.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

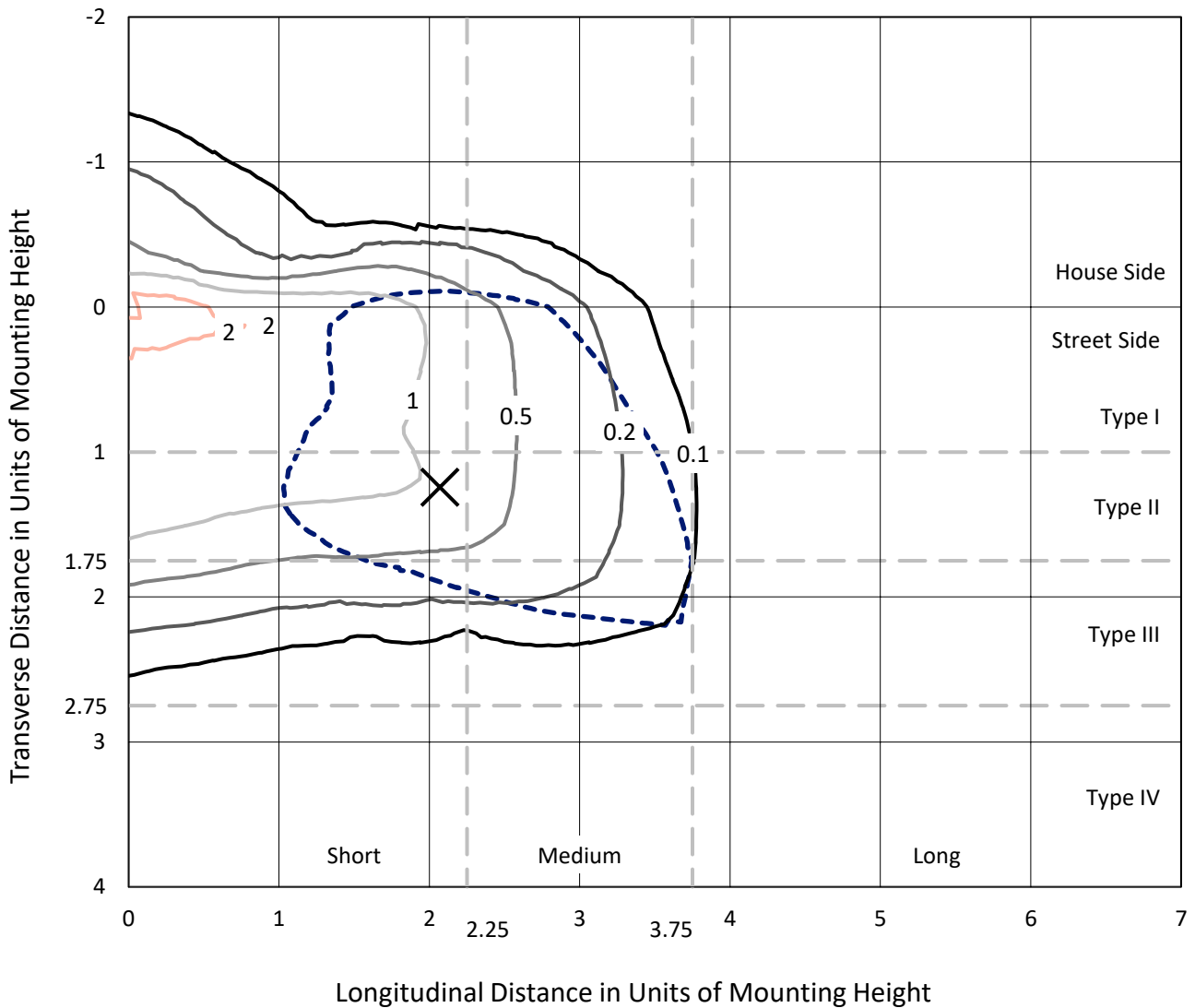
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

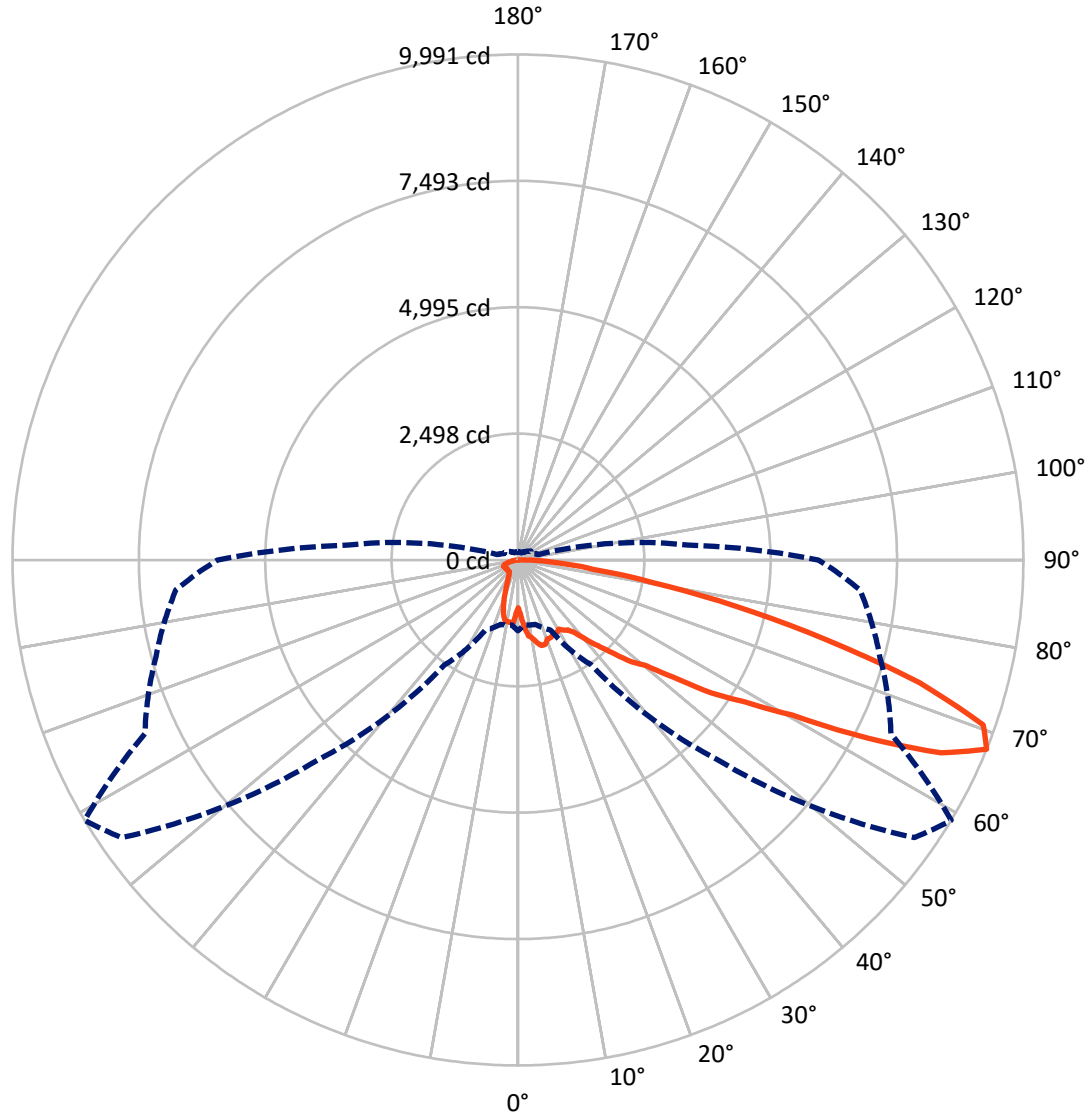
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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

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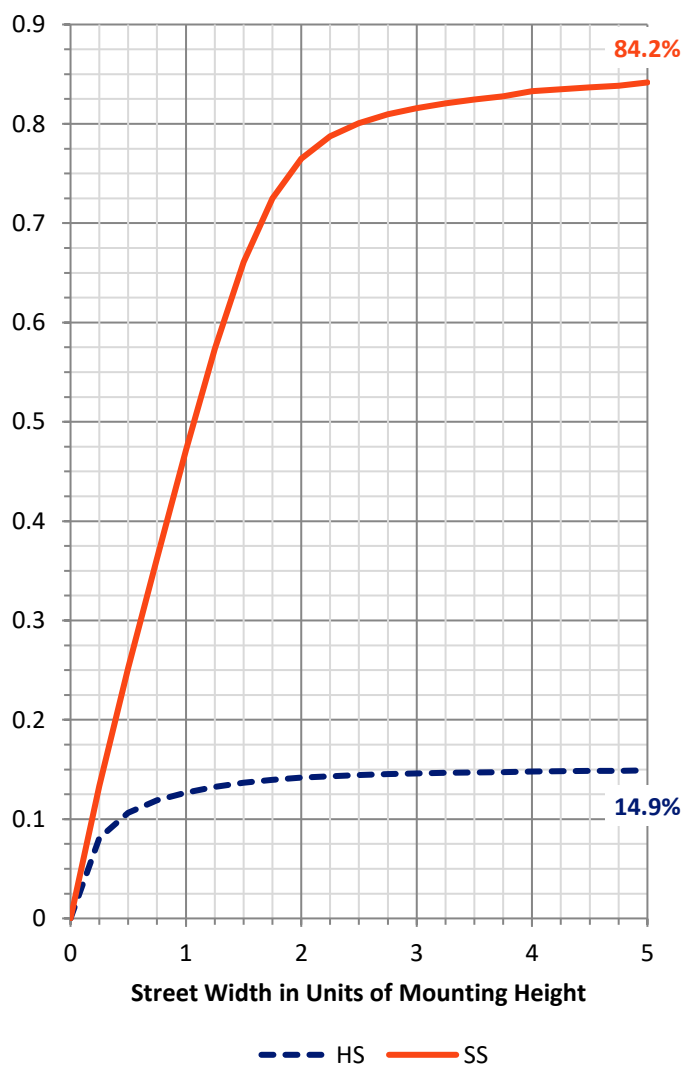
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1502.0	0.0	1502.0
	% Fixture	15.1	0.0	15.1
Street Side	Lumens	8477.0	0.0	8477.0
	% Fixture	84.9	0.0	84.9
Total	Lumens	9979.0	0.0	9979.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.3	1.2
10°-20°	364.9	3.7
20°-30°	521.2	5.2
30°-40°	768.0	7.7
40°-50°	1297.5	13.0
50°-60°	2258.0	22.6
60°-70°	2877.3	28.8
70°-80°	1523.6	15.3
80°-90°	245.1	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°	9979.0	100.0
0°-180°	9979.0	100.0

Coefficient of Utilization

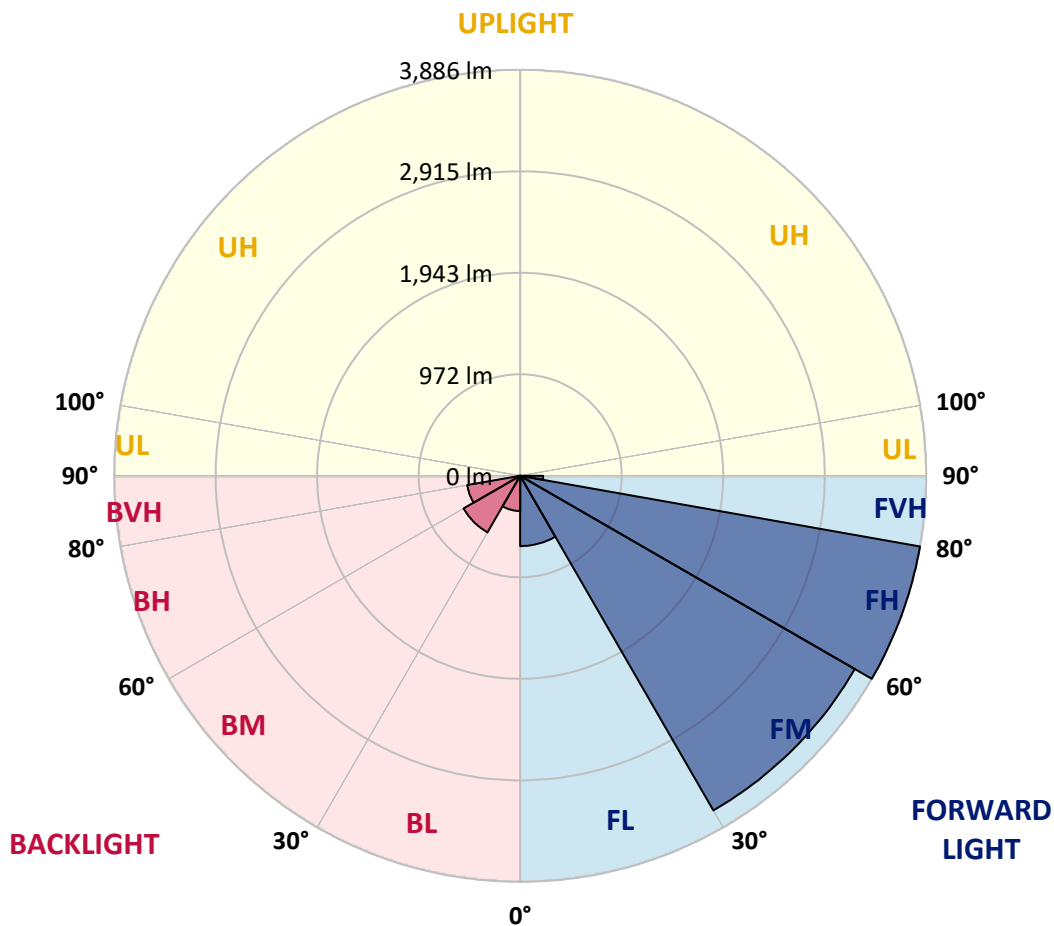


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	672.6	6.7			
FM (30°-60°)	3698.1	37.1			
FH (60°-80°)	3886.1	38.9			G2/5000
FVH (80°-90°)	220.1	2.2			G2/225
BL (0°-30°)	336.8	3.4	B1/500		
BM (30°-60°)	625.4	6.3	B1/1000		
BH (60°-80°)	514.8	5.2	B2/1000		G2/1000
BVH (80°-90°)	25.0	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-G2
 Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	944.3	944.3	944.3	944.3	944.3	944.3	944.3	944.3	944.3	944.3	944.3
2.5°	1179.0	1124.0	1065.6	1082.1	1115.5	1130.8	1114.3	1098.2	1077.5	1053.0	1136.7
5°	1429.7	1348.1	1336.3	1335.9	1324.0	1276.7	1337.5	1333.3	1357.8	1383.2	1448.3
7.5°	1501.2	1470.8	1437.8	1453.4	1393.8	1391.3	1486.0	1513.0	1560.4	1544.8	1632.3
10°	1464.4	1430.2	1447.5	1441.2	1446.7	1509.2	1567.2	1568.9	1619.6	1669.5	1613.3
12.5°	1399.7	1402.2	1471.2	1468.6	1557.4	1673.7	1691.1	1677.5	1760.4	1726.6	1774.8
15°	1445.8	1476.7	1459.3	1474.1	1509.2	1657.2	1705.4	1754.5	1833.2	1863.6	1815.4
17.5°	1519.4	1535.9	1458.1	1450.0	1522.3	1592.5	1712.2	1754.1	1766.3	1983.3	1915.2
20°	1488.1	1521.5	1445.4	1347.7	1467.8	1560.8	1678.8	1666.1	1725.7	1992.6	1935.9
22.5°	1576.9	1521.5	1424.7	1355.3	1397.6	1483.0	1583.2	1666.5	1737.2	1938.0	1965.9
25°	1593.8	1567.6	1477.1	1408.2	1393.8	1424.2	1567.2	1621.7	1741.0	2012.5	1949.9
27.5°	1697.0	1657.7	1473.3	1475.4	1403.9	1350.2	1516.4	1631.0	1784.1	1966.4	1989.2
30°	1825.1	1795.1	1563.8	1572.2	1473.3	1374.3	1551.1	1585.8	1809.1	2038.3	2038.7
32.5°	1921.1	1974.0	1741.8	1626.8	1591.7	1517.7	1497.8	1653.9	1779.9	2168.5	2123.2
35°	2094.1	2135.1	1878.8	1786.6	1667.8	1584.5	1642.4	1698.7	1901.2	2339.8	2248.8
37.5°	2414.2	2366.8	2133.4	1988.4	1943.9	1823.9	1856.0	1816.7	2033.2	2532.2	2495.0
40°	2599.4	2558.4	2312.7	2232.3	2056.4	2071.7	2031.5	2060.2	2209.5	2736.8	2725.0
42.5°	2782.1	2727.1	2519.5	2463.7	2288.2	2213.7	2220.9	2314.0	2481.4	3067.5	3028.2
45°	2962.7	2821.8	2730.9	2745.7	2661.1	2508.5	2519.1	2606.6	2778.3	3445.6	3355.1
47.5°	3100.9	2984.6	2913.6	2895.4	2853.6	3057.8	2966.5	3002.0	3077.7	3782.2	3747.9
50°	3362.7	3226.9	3134.3	3108.1	3250.2	3534.4	3348.3	3271.8	3432.9	4217.3	4199.6
52.5°	3781.8	3612.6	3458.3	3456.6	3662.1	3846.5	3977.5	3845.6	3904.8	4663.0	4713.8
55°	4147.5	3951.8	3813.1	3889.6	4182.2	4295.1	4740.4	4637.2	4587.3	5113.0	5258.0
57.5°	4284.1	4055.4	3964.9	4077.8	4509.1	5089.3	5559.9	5288.5	5239.8	5622.1	5926.1
60°	3984.3	3742.4	3747.9	3960.6	4707.9	5672.4	6456.0	6225.5	5940.5	6256.0	6552.8
62.5°	3130.1	2911.5	3054.0	3377.5	4541.2	6239.1	7657.0	7754.2	6741.0	6781.6	6900.4
65°	2127.5	1976.1	2104.6	2421.4	3683.2	6548.2	8800.8	9190.7	7470.1	7125.8	7050.6
67.5°	1400.1	1293.1	1318.1	1528.7	2535.5	5582.4	9565.8	9990.8	8136.5	7408.3	6785.9
70°	1084.2	998.0	987.0	1097.4	1503.7	3878.2	9112.5	9758.7	8542.5	7143.6	5914.7
72.5°	850.8	785.3	791.2	897.3	1164.6	2151.6	7051.4	8298.5	7931.0	6160.8	4544.2
75°	663.5	609.8	639.8	761.2	1077.1	1337.1	4865.2	6298.3	6131.7	4562.0	2591.8
77.5°	481.7	447.0	489.7	648.3	1012.4	1147.3	3028.6	4394.1	3928.1	2342.3	889.3
80°	315.9	296.4	331.5	528.6	918.1	1104.1	1871.6	2692.4	1941.0	658.0	336.6
82.5°	186.1	177.6	206.8	357.8	737.9	1034.8	1248.3	1496.1	794.2	278.3	178.9
85°	97.7	91.3	122.6	205.5	508.7	944.7	982.8	895.6	383.5	120.9	85.4
87.5°	32.6	31.7	52.0	79.5	192.4	501.5	524.4	425.4	158.2	35.1	18.6
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°	944.3	944.3	944.3	944.3	944.3	944.3	944.3	944.3	944.3	944.3	944.3
2.5°	1148.1	1131.2	1033.9	1047.5	1060.1	1053.8	1050.0	1006.0	1001.8	1064.4	1059.3
5°	1446.7	1376.5	1293.6	1289.8	1235.2	1179.4	1190.4	1172.6	1177.7	1203.5	1206.0
7.5°	1604.4	1516.8	1437.8	1309.2	1200.1	1111.7	1125.7	1121.5	1110.0	1168.4	1184.0
10°	1601.4	1523.6	1434.4	1278.8	1205.2	1133.3	1047.0	965.4	941.3	912.6	915.1
12.5°	1707.1	1638.2	1443.7	1285.1	1185.3	1061.4	899.9	810.6	725.2	723.5	702.0
15°	1740.1	1689.4	1463.6	1248.7	1046.2	868.6	701.5	604.7	543.0	530.7	512.5
17.5°	1823.4	1743.9	1403.1	1131.2	884.7	679.1	527.3	459.7	454.6	463.0	453.7
20°	1828.9	1700.0	1294.0	957.4	710.9	514.6	430.1	396.2	414.4	435.1	434.3
22.5°	1824.3	1644.6	1199.7	809.4	534.1	413.6	376.8	369.2	386.1	417.0	420.8
25°	1776.9	1626.4	1081.7	664.8	433.4	354.4	344.2	348.9	370.0	406.4	406.4
27.5°	1826.4	1552.4	933.7	540.9	364.5	315.5	322.7	334.5	350.1	391.6	399.2
30°	1810.3	1576.9	814.5	435.6	321.4	288.4	304.5	316.3	334.1	377.2	381.0
32.5°	1853.5	1511.3	714.2	366.2	293.1	277.8	281.6	297.7	321.0	354.8	361.6
35°	1919.4	1535.5	599.2	329.4	279.1	265.6	272.8	285.4	308.7	341.7	347.2
37.5°	2130.0	1534.2	519.7	309.1	276.6	263.0	266.4	275.3	302.4	332.4	345.1
40°	2265.3	1622.1	447.4	304.5	273.6	261.8	258.8	268.5	290.1	325.6	334.5
42.5°	2519.5	1675.8	416.1	302.8	273.2	254.6	251.6	263.0	284.2	317.2	330.7
45°	2788.0	1752.4	391.2	301.9	271.9	253.3	244.4	258.8	276.6	308.3	323.9
47.5°	3103.9	1914.3	377.2	299.0	269.4	255.0	241.9	249.1	268.9	300.7	316.3
50°	3517.5	2128.7	380.2	294.7	273.2	255.4	238.1	241.5	259.6	290.5	306.6
52.5°	4020.3	2460.7	399.2	296.4	275.7	253.3	236.4	234.7	250.3	277.4	293.5
55°	4626.2	2931.8	456.3	304.5	275.7	252.9	233.8	226.2	238.1	260.1	275.7
57.5°	5357.4	3477.3	567.9	308.3	273.6	250.3	228.4	214.8	222.0	240.2	255.0
60°	5985.4	3917.5	682.9	310.8	277.8	244.4	217.4	200.4	205.1	219.0	232.2
62.5°	6305.5	4041.0	717.6	308.7	289.2	240.6	204.2	185.2	185.6	197.5	209.3
65°	6365.5	3876.5	578.5	306.6	304.0	240.2	194.9	172.1	169.1	177.6	187.8
67.5°	5937.6	3364.8	417.4	301.9	305.7	237.7	188.6	161.5	153.9	159.8	168.3
70°	5041.5	2709.8	350.6	292.6	285.4	225.0	177.6	150.5	140.4	144.6	151.0
72.5°	3758.5	2004.8	305.7	272.8	248.6	192.4	160.7	138.3	127.7	130.7	135.3
75°	2088.1	1069.4	255.8	237.2	203.0	155.6	137.0	122.6	113.3	114.6	119.7
77.5°	693.5	394.5	187.8	188.2	153.5	120.1	112.9	104.9	97.7	98.1	102.3
80°	314.2	218.2	134.5	135.3	107.0	87.1	86.7	84.2	79.5	78.2	81.2
82.5°	182.3	132.4	92.2	88.0	68.9	56.7	63.0	61.7	60.5	55.8	56.7
85°	89.6	71.0	48.2	45.7	38.1	28.3	33.8	35.1	33.8	28.8	28.3
87.5°	22.0	23.3	11.8	11.0	6.3	3.0	5.1	5.1	6.3	4.2	2.1
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)