

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: P367530

Luminaire Tested: **MSA-SA2D-727-U-SL3**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367530
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-SA2D-727-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: 11068 lumens
Efficiency: N/A
Efficacy: 85.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G3

Input Watts (W): 129
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

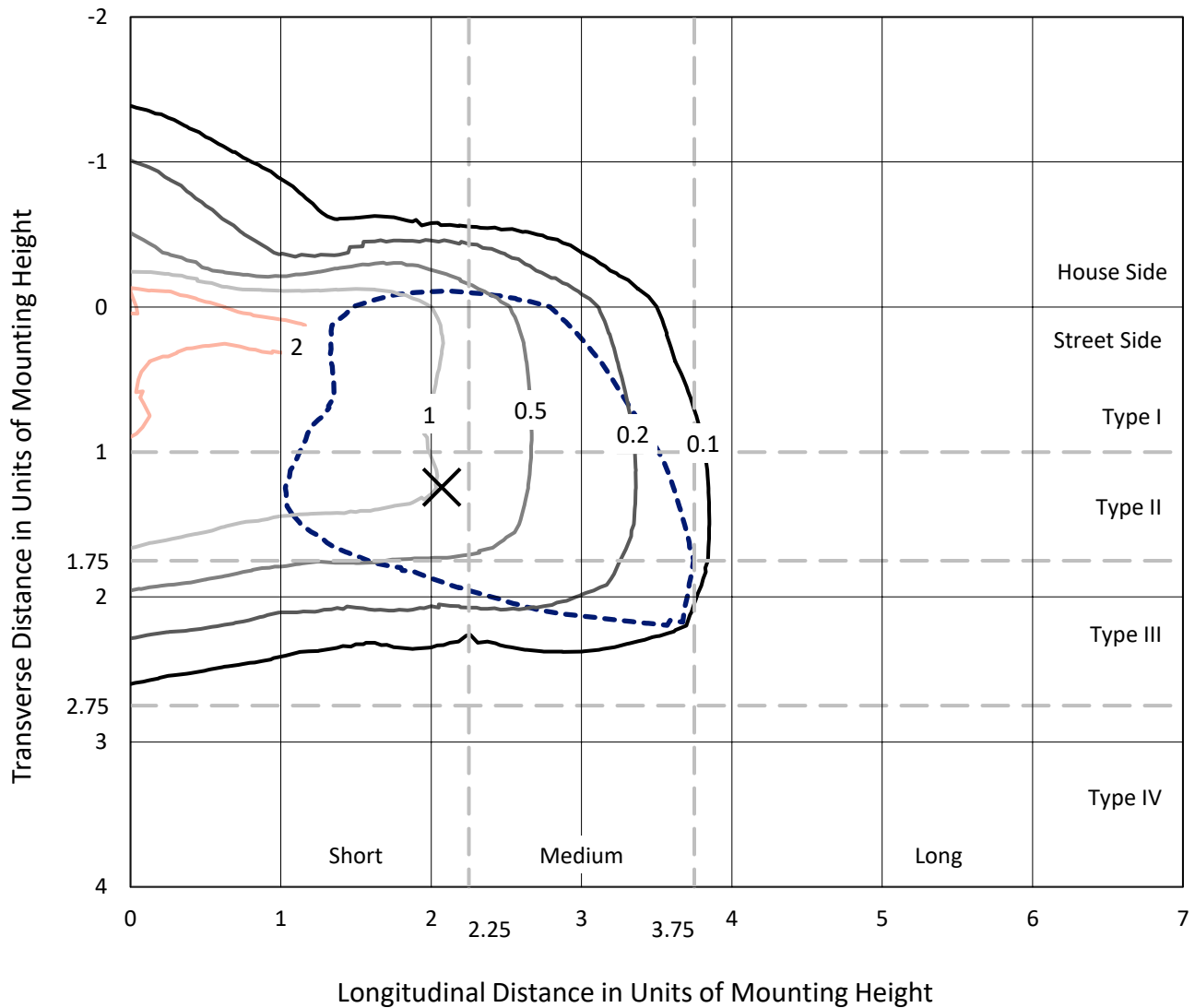


REPORT NUMBER: P367530

CATALOG NUMBER: MSA-SA2D-727-U-SL3

Iso-Footcandle Lines of Horizontal Illumination

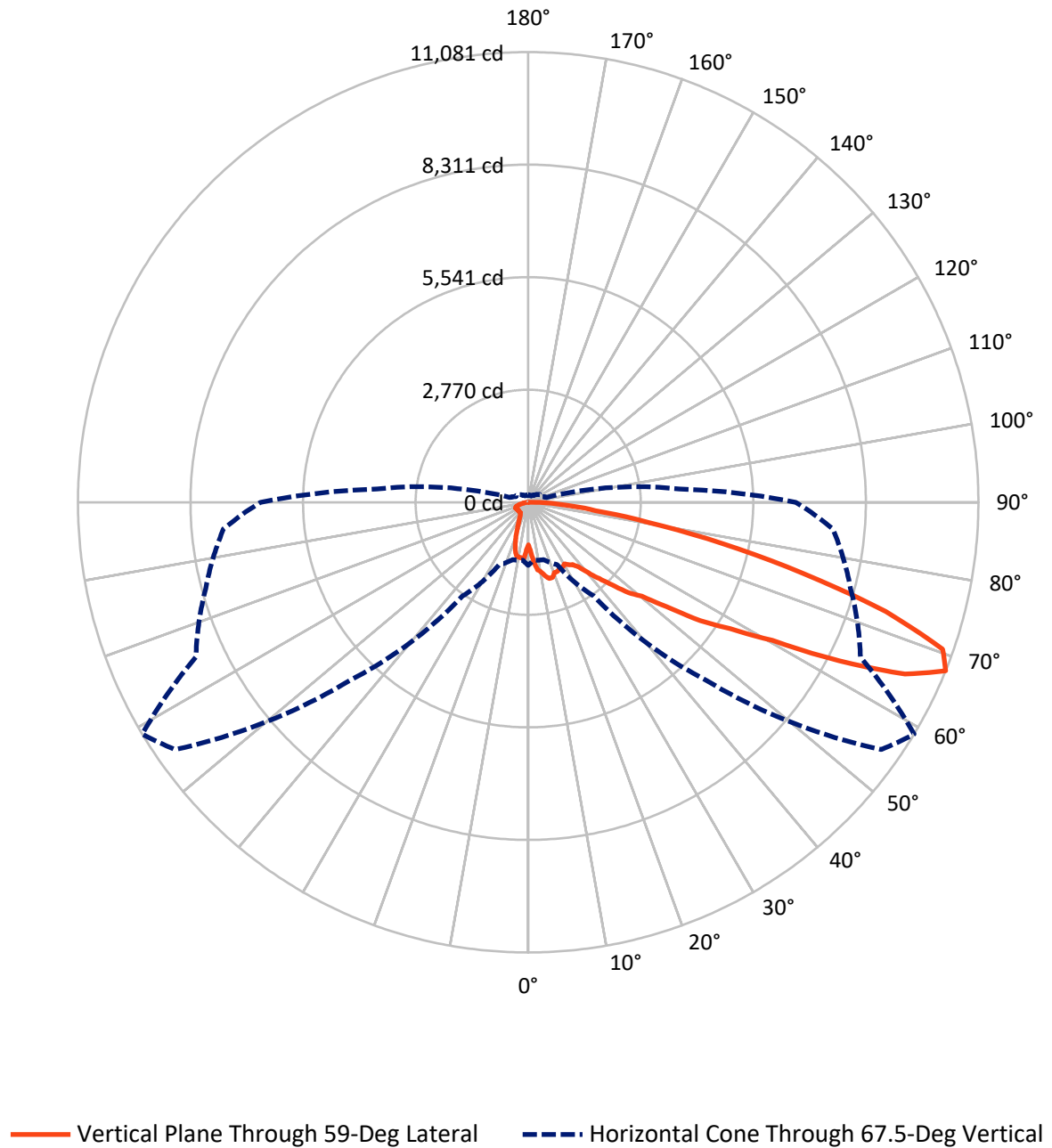
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
 Type III - Short - N/A

REPORT NUMBER: P367530
CATALOG NUMBER: MSA-SA2D-727-U-SL3

Luminous Intensity Polar Plot



REPORT NUMBER: P367530

CATALOG NUMBER: MSA-SA2D-727-U-SL3

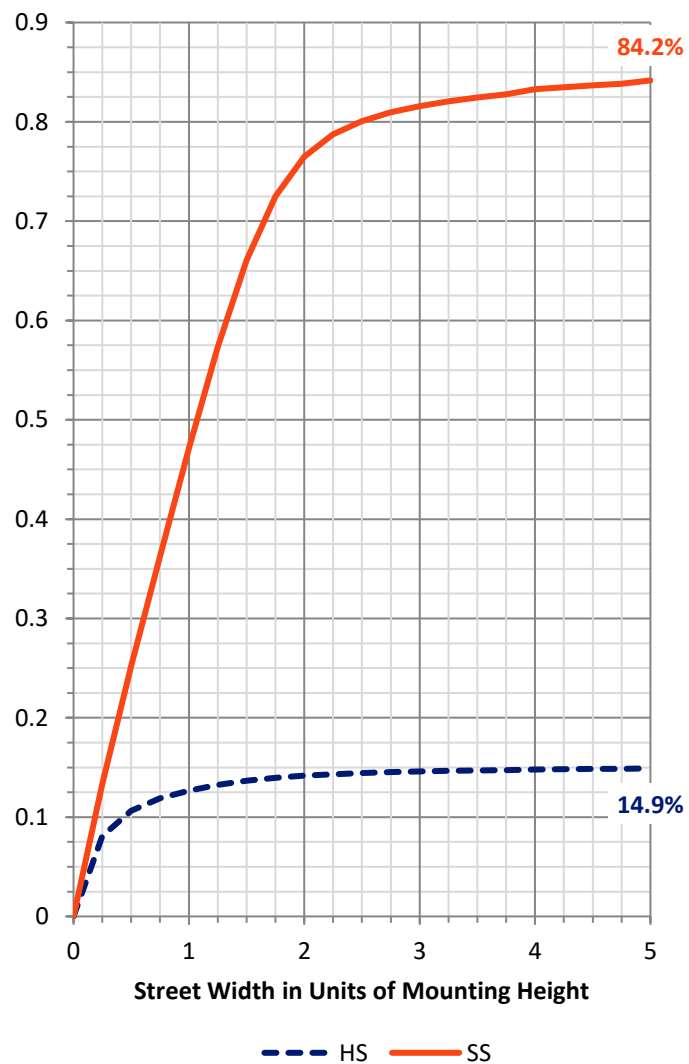
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1666.0	0.0	1666.0
	% Fixture	15.1	0.0	15.1
Street Side	Lumens	9402.0	0.0	9402.0
	% Fixture	84.9	0.0	84.9
Total	Lumens	11068.0	0.0	11068.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.8	1.2
10°-20°	404.8	3.7
20°-30°	578.1	5.2
30°-40°	851.8	7.7
40°-50°	1439.1	13.0
50°-60°	2504.4	22.6
60°-70°	3191.3	28.8
70°-80°	1689.9	15.3
80°-90°	271.8	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°	11068.0	100.0
0°-180°	11068.0	100.0

Coefficient of Utilization



REPORT NUMBER: P367530

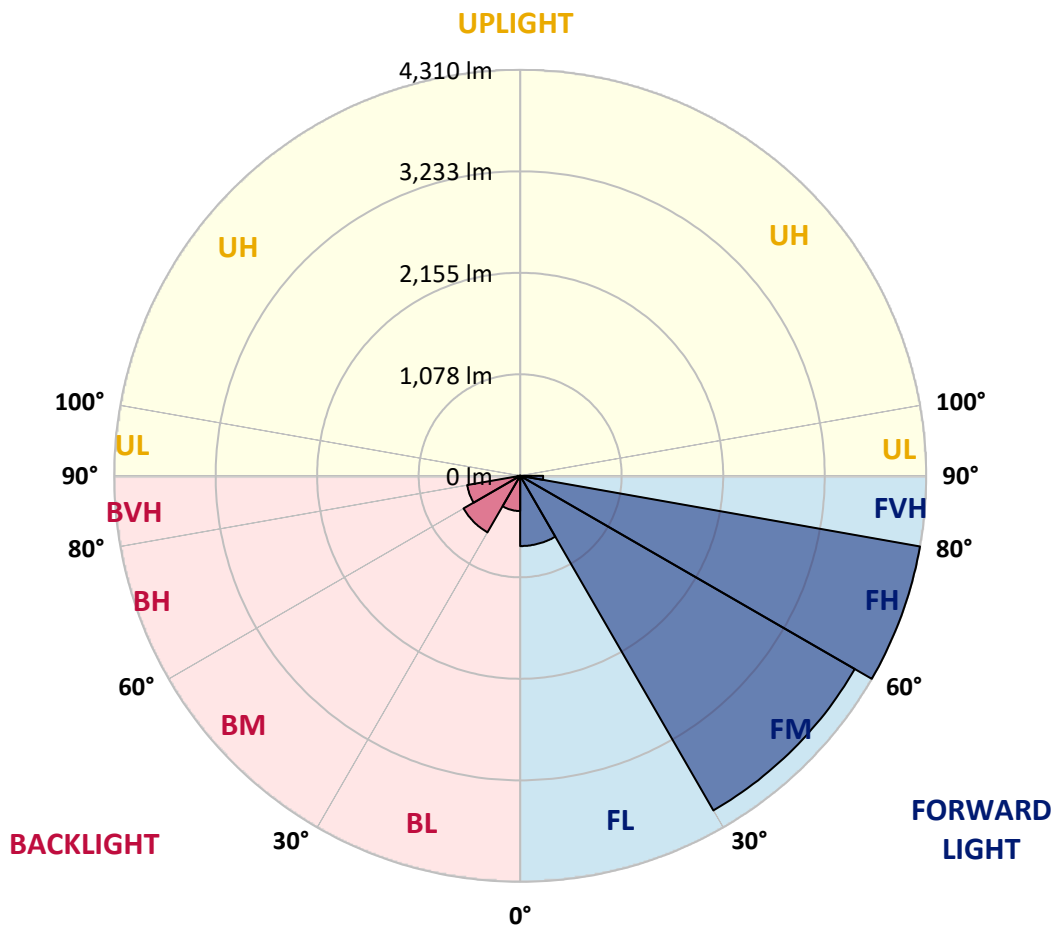
CATALOG NUMBER: MSA-SA2D-727-U-SL3

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	746.0	6.7			
FM	(30°-60°)	4101.6	37.1			
FH	(60°-80°)	4310.2	38.9			G2/5000
FVH	(80°-90°)	244.2	2.2			G3/500
BL	(0°-30°)	373.6	3.4	B1/500		
BM	(30°-60°)	693.7	6.3	B1/1000		
BH	(60°-80°)	571.0	5.2	B2/1000		G2/1000
BVH	(80°-90°)	27.7	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: P367530

CATALOG NUMBER: MSA-SA2D-727-U-SL3

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1047.3	1047.3	1047.3	1047.3	1047.3	1047.3	1047.3	1047.3	1047.3	1047.3	1047.3
2.5°	1307.6	1246.7	1181.9	1200.2	1237.3	1254.2	1235.9	1218.0	1195.1	1167.9	1260.7
5°	1585.8	1495.2	1482.1	1481.6	1468.5	1416.0	1483.5	1478.8	1506.0	1534.2	1606.4
7.5°	1665.0	1631.3	1594.7	1612.0	1545.9	1543.1	1648.1	1678.2	1730.7	1713.3	1810.4
10°	1624.2	1586.2	1605.5	1598.4	1604.5	1673.9	1738.2	1740.1	1796.4	1851.7	1789.3
12.5°	1552.5	1555.3	1631.7	1628.9	1727.4	1856.4	1875.6	1860.6	1952.5	1915.0	1968.5
15°	1603.6	1637.8	1618.6	1635.0	1673.9	1838.1	1891.6	1946.0	2033.2	2067.0	2013.5
17.5°	1685.2	1703.5	1617.2	1608.3	1688.5	1766.3	1899.1	1945.5	1959.1	2199.7	2124.2
20°	1650.5	1687.5	1603.1	1494.8	1628.0	1731.2	1862.0	1847.9	1914.1	2210.0	2147.2
22.5°	1749.0	1687.5	1580.1	1503.2	1550.1	1644.9	1756.0	1848.4	1926.7	2149.5	2180.5
25°	1767.7	1738.7	1638.3	1561.8	1545.9	1579.7	1738.2	1798.7	1931.0	2232.1	2162.7
27.5°	1882.2	1838.6	1634.1	1636.4	1557.2	1497.6	1681.9	1809.0	1978.8	2180.9	2206.3
30°	2024.3	1991.0	1734.4	1743.8	1634.1	1524.3	1720.4	1758.8	2006.5	2260.7	2261.2
32.5°	2130.8	2189.4	1931.9	1804.3	1765.4	1683.3	1661.3	1834.3	1974.1	2405.1	2355.0
35°	2322.6	2368.1	2083.9	1981.6	1849.8	1757.4	1821.7	1884.1	2108.7	2595.1	2494.3
37.5°	2677.6	2625.1	2366.2	2205.3	2156.1	2022.9	2058.5	2014.9	2255.1	2808.5	2767.2
40°	2883.1	2837.6	2565.1	2476.0	2280.9	2297.7	2253.2	2285.1	2450.6	3035.5	3022.4
42.5°	3085.7	3024.7	2794.4	2732.5	2537.9	2455.3	2463.3	2566.5	2752.2	3402.3	3358.7
45°	3286.0	3129.8	3028.9	3045.4	2951.6	2782.2	2794.0	2891.0	3081.5	3821.6	3721.2
47.5°	3439.3	3310.4	3231.6	3211.4	3165.0	3391.5	3290.2	3329.6	3413.5	4194.9	4156.9
50°	3729.7	3579.1	3476.4	3447.3	3604.9	3920.1	3713.7	3628.8	3807.5	4677.5	4657.9
52.5°	4194.5	4006.8	3835.7	3833.8	4061.7	4266.2	4411.6	4265.3	4330.9	5171.9	5228.2
55°	4600.2	4383.0	4229.2	4314.1	4638.6	4763.8	5257.7	5143.3	5087.9	5670.9	5831.8
57.5°	4751.7	4497.9	4397.5	4522.8	5001.2	5644.7	6166.7	5865.6	5811.6	6235.6	6572.9
60°	4419.1	4150.8	4156.9	4392.9	5221.6	6291.5	7160.5	6904.9	6588.8	6938.7	7268.0
62.5°	3471.7	3229.2	3387.3	3746.1	5036.8	6919.9	8492.6	8600.4	7476.7	7521.7	7653.5
65°	2359.6	2191.7	2334.3	2685.6	4085.2	7262.8	9761.3	10193.7	8285.3	7903.5	7820.0
67.5°	1552.9	1434.3	1461.9	1695.5	2812.3	6191.6	10609.7	11081.1	9024.4	8216.8	7526.4
70°	1202.6	1106.9	1094.7	1217.1	1667.8	4301.4	10106.9	10823.6	9474.7	7923.2	6560.2
72.5°	943.7	871.0	877.5	995.3	1291.7	2386.4	7820.9	9204.1	8796.5	6833.2	5040.1
75°	735.9	676.3	709.6	844.2	1194.6	1483.0	5396.1	6985.6	6800.8	5059.8	2874.6
77.5°	534.2	495.8	543.1	719.0	1122.8	1272.5	3359.1	4873.6	4356.7	2597.9	986.4
80°	350.4	328.8	367.7	586.3	1018.2	1224.6	2075.9	2986.3	2152.8	729.8	373.3
82.5°	206.4	197.0	229.4	396.8	818.4	1147.7	1384.6	1659.4	880.8	308.6	198.4
85°	108.3	101.3	136.0	227.9	564.2	1047.8	1090.0	993.4	425.4	134.1	94.7
87.5°	36.1	35.2	57.7	88.2	213.4	556.3	581.6	471.8	175.4	38.9	20.6
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: P367530

CATALOG NUMBER: MSA-SA2D-727-U-SL3

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1047.3	1047.3	1047.3	1047.3	1047.3	1047.3	1047.3	1047.3	1047.3	1047.3	1047.3
2.5°	1273.4	1254.6	1146.8	1161.8	1175.8	1168.8	1164.6	1115.8	1111.1	1180.5	1174.9
5°	1604.5	1526.7	1434.7	1430.5	1370.0	1308.1	1320.3	1300.6	1306.2	1334.8	1337.6
7.5°	1779.5	1682.4	1594.7	1452.1	1331.1	1233.1	1248.5	1243.8	1231.2	1295.9	1313.3
10°	1776.2	1689.9	1590.9	1418.3	1336.7	1257.0	1161.3	1070.8	1044.0	1012.1	1015.0
12.5°	1893.4	1817.0	1601.2	1425.4	1314.7	1177.2	998.1	899.1	804.4	802.5	778.6
15°	1930.0	1873.7	1623.3	1385.0	1160.4	963.4	778.1	670.7	602.2	588.6	568.5
17.5°	2022.4	1934.2	1556.2	1254.6	981.2	753.2	584.9	509.8	504.2	513.6	503.3
20°	2028.5	1885.5	1435.2	1061.9	788.4	570.8	477.0	439.5	459.6	482.6	481.7
22.5°	2023.4	1824.0	1330.6	897.7	592.4	458.7	417.9	409.5	428.2	462.5	466.7
25°	1970.8	1803.9	1199.8	737.3	480.7	393.0	381.8	386.9	410.4	450.7	450.7
27.5°	2025.7	1721.8	1035.6	599.9	404.3	349.9	357.9	371.0	388.3	434.3	442.8
30°	2007.9	1749.0	903.3	483.1	356.5	319.9	337.7	350.8	370.5	418.4	422.6
32.5°	2055.7	1676.3	792.2	406.2	325.0	308.1	312.4	330.2	356.0	393.5	401.0
35°	2128.9	1703.0	664.6	365.4	309.6	294.5	302.5	316.6	342.4	379.0	385.1
37.5°	2362.5	1701.6	576.4	342.9	306.7	291.7	295.5	305.3	335.4	368.7	382.7
40°	2512.5	1799.2	496.2	337.7	303.5	290.3	287.0	297.8	321.7	361.1	371.0
42.5°	2794.4	1858.7	461.5	335.8	303.0	282.4	279.1	291.7	315.2	351.8	366.8
45°	3092.3	1943.6	433.8	334.9	301.6	280.9	271.1	287.0	306.7	341.9	359.3
47.5°	3442.6	2123.3	418.4	331.6	298.8	282.8	268.3	276.3	298.3	333.5	350.8
50°	3901.3	2361.1	421.7	326.9	303.0	283.3	264.1	267.8	288.0	322.2	340.0
52.5°	4459.0	2729.2	442.8	328.8	305.8	280.9	262.2	260.3	277.7	307.7	325.5
55°	5131.1	3251.7	506.1	337.7	305.8	280.5	259.4	250.9	264.1	288.4	305.8
57.5°	5942.0	3856.8	629.9	341.9	303.5	277.7	253.3	238.3	246.2	266.4	282.8
60°	6638.5	4345.0	757.5	344.7	308.1	271.1	241.1	222.3	227.5	243.0	257.5
62.5°	6993.6	4482.0	795.9	342.4	320.8	266.9	226.5	205.4	205.9	219.0	232.2
65°	7060.2	4299.5	641.6	340.0	337.2	266.4	216.2	190.9	187.6	197.0	208.2
67.5°	6585.5	3732.0	462.9	334.9	339.1	263.6	209.2	179.2	170.7	177.3	186.7
70°	5591.7	3005.5	388.8	324.6	316.6	249.5	197.0	167.0	155.7	160.4	167.4
72.5°	4168.7	2223.6	339.1	302.5	275.8	213.4	178.2	153.4	141.6	144.9	150.1
75°	2316.0	1186.2	283.8	263.1	225.1	172.6	152.0	136.0	125.7	127.1	132.7
77.5°	769.2	437.6	208.2	208.7	170.3	133.2	125.2	116.3	108.3	108.8	113.5
80°	348.5	242.0	149.1	150.1	118.7	96.6	96.1	93.3	88.2	86.8	90.1
82.5°	202.1	146.8	102.2	97.6	76.5	62.8	69.9	68.5	67.1	61.9	62.8
85°	99.4	78.8	53.5	50.7	42.2	31.4	37.5	38.9	37.5	31.9	31.4
87.5°	24.4	25.8	13.1	12.2	7.0	3.3	5.6	5.6	7.0	4.7	2.3
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)