

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: STREETWORKS

Report Number: P157319

Luminaire Tested: **VST-E02-LED-E-U-5MQ-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157319
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33708)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E02-LED-E-U-5MQ-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (42) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5843.4 lumens
Efficiency: N/A
Efficacy: 112.2 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G1

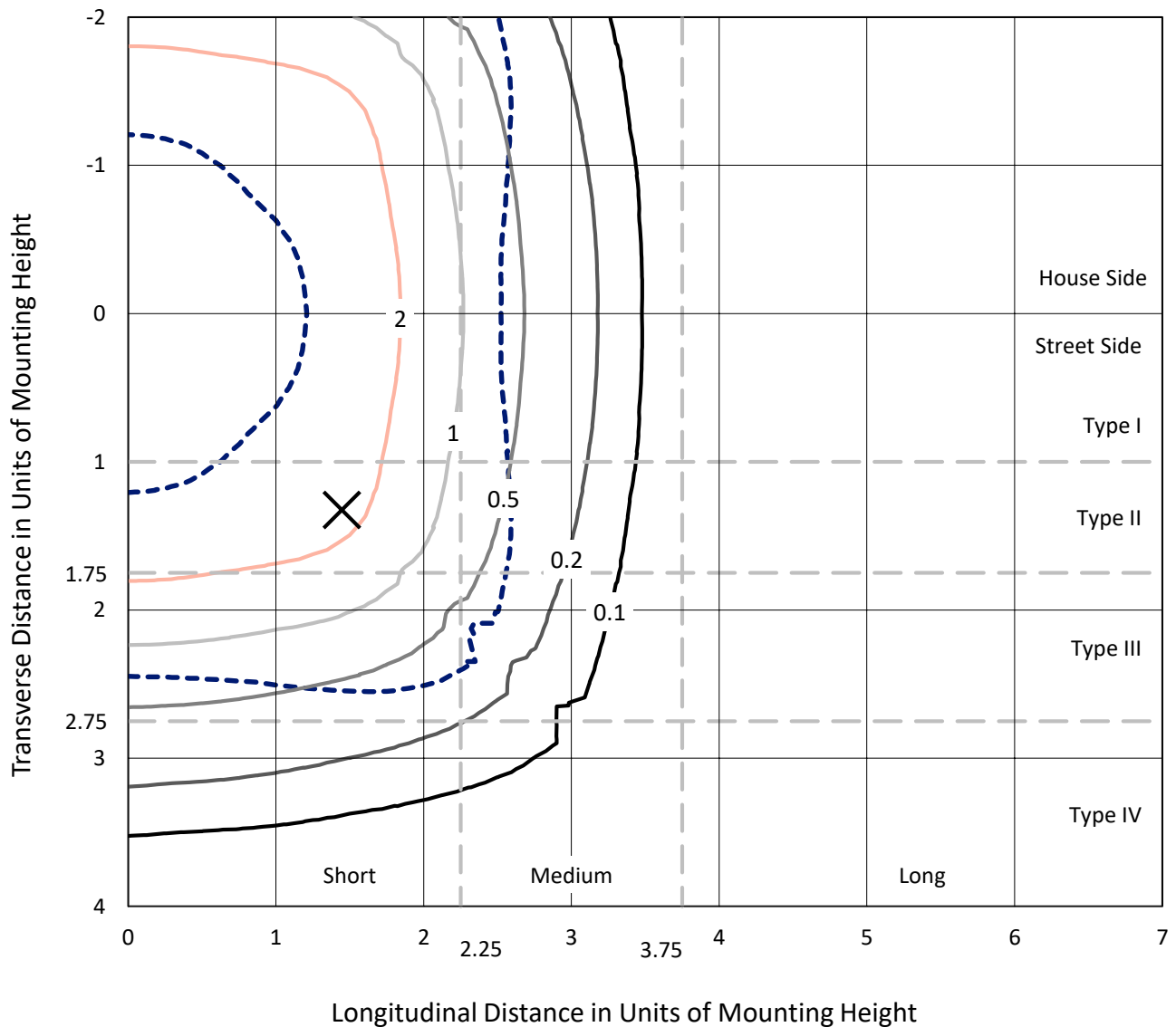
Input Watts (W): 52.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

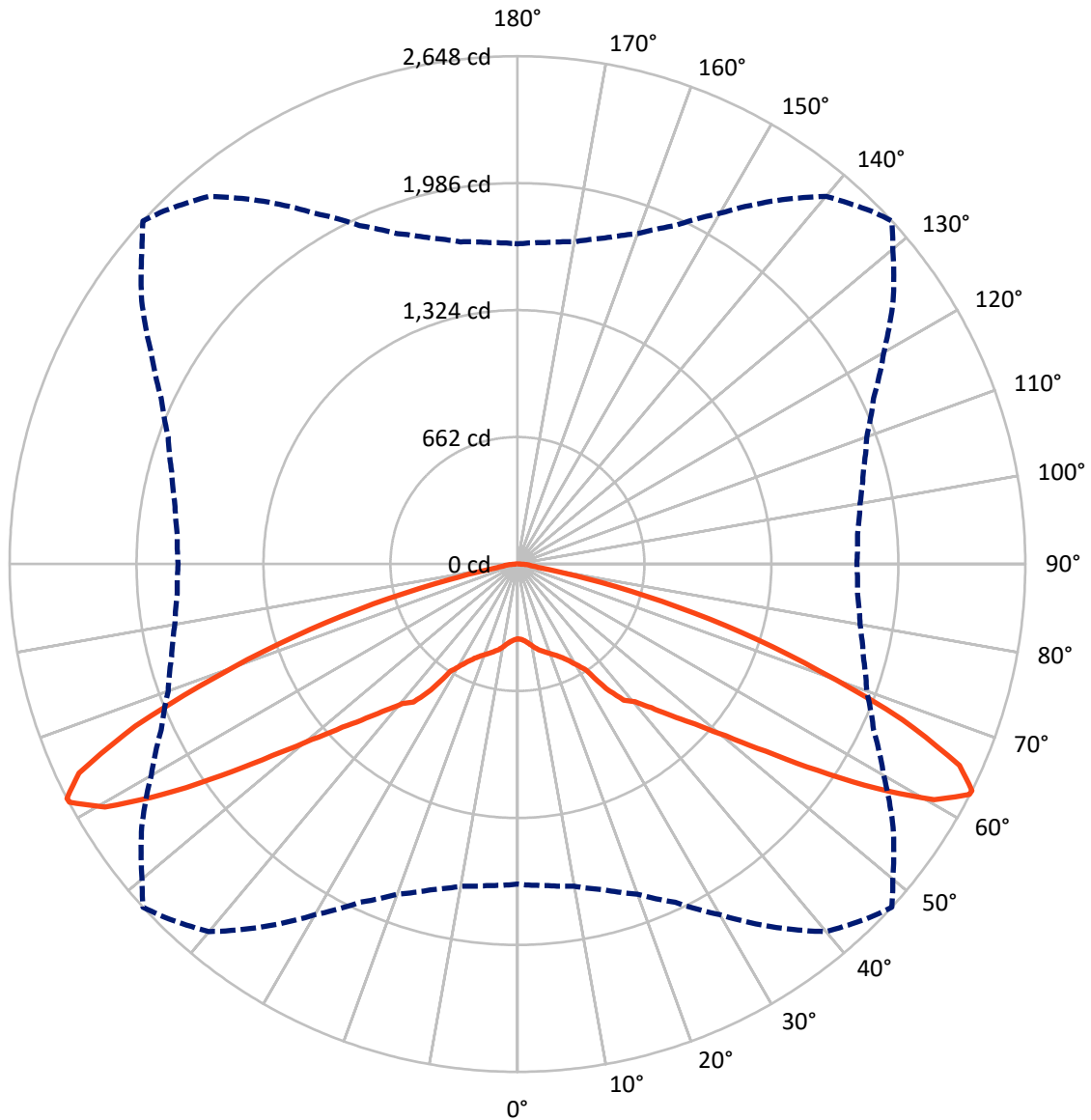
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.3 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 47.5-Deg Lateral - - - Horizontal Cone Through 63-Deg Vertical

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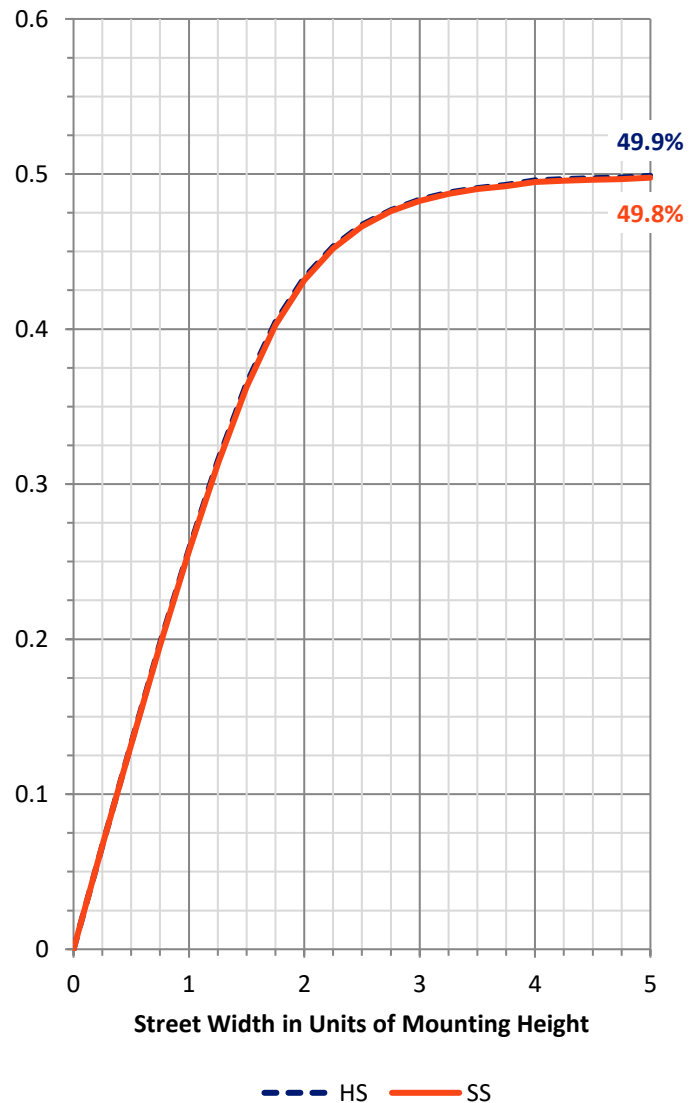
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2921.7	0.0	2921.7
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2921.7	0.0	2921.7
	% Fixture	50.0	0.0	50.0
Total	Lumens	5843.4	0.0	5843.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.2	0.7
10°-20°	133.2	2.3
20°-30°	254.7	4.4
30°-40°	487.2	8.3
40°-50°	843.1	14.4
50°-60°	1514.1	25.9
60°-70°	1841.2	31.5
70°-80°	664.9	11.4
80°-90°	65.9	1.1
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°	5843.4	100.0
0°-180°	5843.4	100.0



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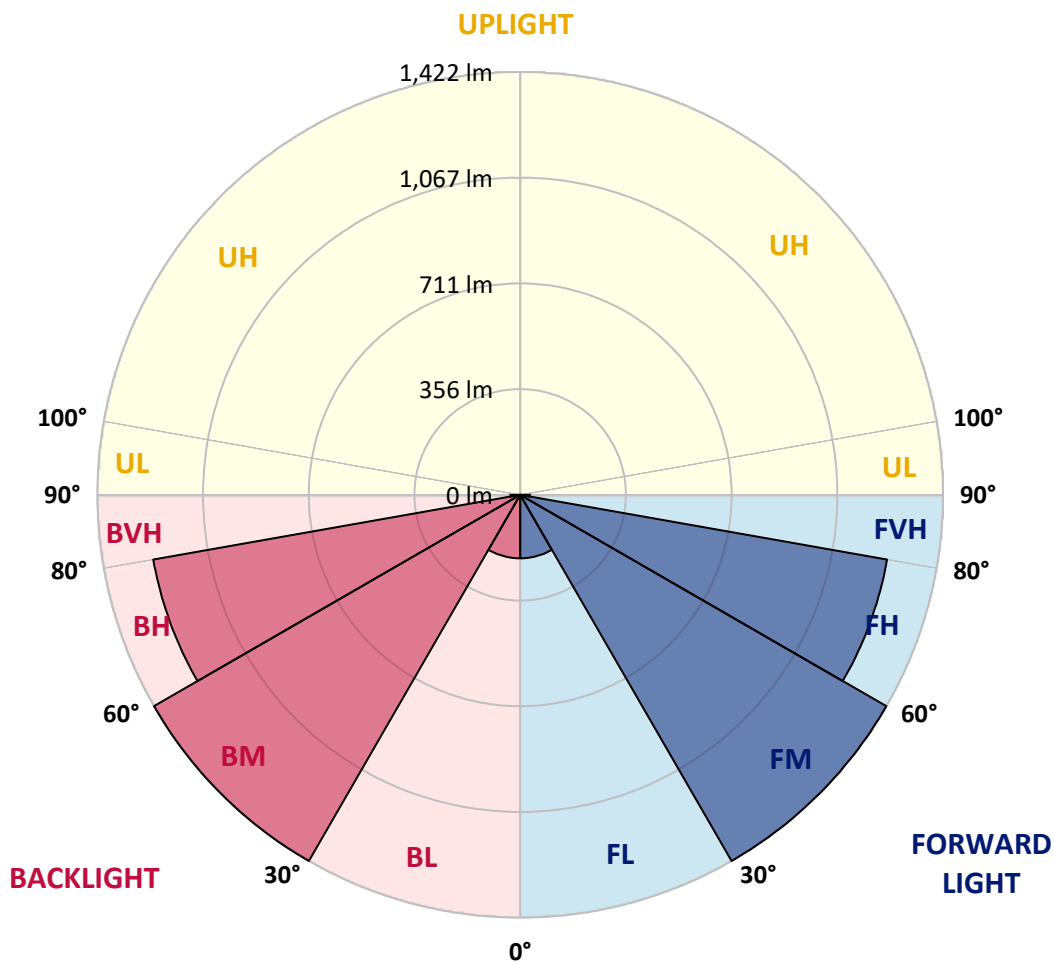
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	213.5	3.7			
FM (30°-60°)	1422.2	24.3			
FH (60°-80°)	1253.0	21.4			G1/1800
FVH (80°-90°)	32.9	0.6			G1/100
BL (0°-30°)	213.5	3.7	B1/500		
BM (30°-60°)	1422.2	24.3	B2/2500		
BH (60°-80°)	1253.0	21.4	B3/2500		G1/1800
BVH (80°-90°)	32.9	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	390.2	390.2	390.2	390.2	390.2	390.2	390.2	390.2	390.2	390.2	390.2
2.5°	392.8	392.0	392.4	392.8	392.4	392.0	392.0	392.0	392.8	392.0	393.8
5°	400.4	399.7	400.0	400.0	400.0	399.3	399.3	399.3	398.9	399.3	403.3
7.5°	415.0	413.9	413.6	414.3	413.6	413.2	412.9	412.9	412.1	412.1	417.2
10°	432.5	431.1	431.8	432.2	431.1	430.4	430.4	430.4	429.3	428.9	435.5
12.5°	451.9	451.2	451.2	450.5	450.1	449.3	449.0	449.3	447.9	447.9	454.5
15°	470.6	469.1	469.4	468.4	467.6	466.9	466.6	466.2	465.4	465.4	469.4
17.5°	487.7	486.7	486.2	485.2	484.1	483.0	482.2	481.9	480.8	480.8	484.4
20°	505.6	504.5	503.8	502.0	500.2	499.1	497.6	496.9	495.4	495.8	499.8
22.5°	526.1	524.3	522.8	521.3	518.0	515.9	514.0	512.6	511.9	511.9	517.3
25°	553.5	552.4	550.2	545.5	541.4	538.1	535.2	533.8	532.3	531.5	540.0
27.5°	587.1	586.0	583.1	578.3	572.9	567.4	564.1	561.5	559.7	558.6	570.7
30°	631.7	629.8	627.3	619.6	614.9	606.5	602.8	599.2	595.1	596.2	610.5
32.5°	719.0	716.5	708.4	700.0	685.4	674.0	662.3	653.6	645.2	644.1	659.5
35°	798.2	797.2	795.7	789.8	784.4	777.4	772.0	762.8	755.2	753.4	796.4
37.5°	841.0	843.6	841.4	840.7	840.7	844.0	854.2	864.4	871.7	876.1	900.2
40°	906.4	906.4	903.8	902.4	899.5	903.8	908.2	915.9	919.2	919.6	944.0
42.5°	980.6	980.9	978.4	974.0	972.5	976.6	982.4	989.7	994.1	995.2	1023.7
45°	1063.1	1062.1	1059.8	1058.4	1059.5	1063.1	1070.1	1084.3	1090.9	1096.0	1127.1
47.5°	1152.7	1160.0	1153.7	1154.8	1154.8	1166.2	1181.9	1193.6	1204.1	1214.0	1246.9
50°	1269.9	1271.0	1272.1	1275.4	1277.6	1292.6	1312.3	1326.2	1341.5	1354.3	1408.0
52.5°	1426.7	1424.5	1429.9	1433.6	1446.0	1454.0	1486.9	1504.5	1525.7	1542.1	1620.7
55°	1614.1	1613.0	1621.0	1624.0	1640.4	1660.1	1696.6	1735.0	1771.1	1791.2	1898.7
57.5°	1748.5	1751.5	1765.3	1784.7	1816.9	1858.9	1913.3	1998.1	2066.7	2088.7	2207.0
60°	1778.1	1787.6	1808.5	1847.2	1902.3	1980.5	2087.6	2217.2	2342.9	2384.9	2496.0
62.5°	1695.2	1706.2	1736.8	1783.2	1855.2	1971.0	2125.6	2308.6	2495.3	2588.8	2644.7
63°	1668.9	1682.4	1705.4	1759.1	1832.2	1946.5	2110.9	2308.2	2501.8	2603.8	2647.6
65°	1545.4	1547.9	1582.3	1636.0	1718.2	1837.0	2002.8	2230.7	2445.6	2563.2	2532.9
67.5°	1329.8	1340.5	1369.3	1423.4	1503.4	1626.8	1807.0	2017.8	2206.7	2300.5	2165.0
70°	1074.5	1073.8	1109.5	1153.0	1223.5	1332.1	1489.9	1680.2	1830.0	1898.3	1671.4
72.5°	767.6	748.6	774.9	823.1	880.9	967.4	1092.4	1240.3	1374.4	1433.6	1222.1
75°	349.6	344.5	367.9	415.7	474.2	551.3	653.9	781.8	910.4	979.9	778.6
77.5°	117.7	119.1	128.2	145.4	176.8	215.6	279.5	361.3	465.4	534.1	365.3
80°	78.9	81.1	84.0	86.6	90.2	96.1	110.0	131.2	163.3	197.6	115.4
82.5°	64.7	67.2	73.8	76.7	78.9	80.8	81.8	83.3	83.3	84.0	73.1
85°	46.4	50.8	59.6	65.0	67.2	68.7	70.5	72.7	69.4	66.5	56.6
87.5°	16.1	21.9	32.2	35.5	38.0	38.3	40.9	45.3	43.1	35.1	17.2
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°
0°	390.2	390.2	390.2	390.2	390.2	390.2	390.2	390.2	390.2
2.5°	392.0	391.6	392.0	392.4	392.4	392.4	392.8	393.1	393.1
5°	399.3	399.7	399.3	399.7	399.7	400.0	400.0	400.8	400.8
7.5°	411.7	412.4	412.1	412.9	412.9	413.6	413.2	414.3	414.3
10°	428.5	429.3	430.0	430.4	430.0	430.7	431.5	431.8	431.5
12.5°	447.5	447.9	447.5	448.3	448.3	449.0	449.0	450.1	450.1
15°	465.1	464.7	464.3	465.4	466.2	466.6	467.3	468.4	467.3
17.5°	480.8	481.1	480.4	481.5	483.0	484.1	484.8	486.2	485.9
20°	496.5	495.8	496.5	498.3	499.8	501.2	502.7	504.9	504.5
22.5°	511.9	512.6	514.4	515.9	518.4	520.6	522.4	525.4	526.4
25°	533.4	533.4	536.3	538.1	541.8	544.7	548.8	552.0	553.9
27.5°	560.8	560.8	564.1	568.1	573.6	578.7	583.1	587.5	586.7
30°	598.1	599.9	602.8	607.9	615.2	621.4	627.3	631.7	632.0
32.5°	647.0	649.2	658.0	671.1	686.5	698.2	706.9	717.5	719.0
35°	758.1	763.6	774.9	785.5	791.7	798.7	803.0	803.4	804.1
37.5°	875.0	865.5	856.7	848.7	845.0	844.3	844.3	845.8	846.5
40°	917.8	913.0	908.9	903.8	905.3	904.9	907.5	909.7	911.2
42.5°	990.8	987.1	983.5	976.9	980.6	979.5	983.2	986.4	988.3
45°	1092.7	1081.4	1073.3	1062.8	1066.4	1064.2	1064.2	1068.2	1069.0
47.5°	1205.3	1192.1	1175.6	1162.5	1158.1	1154.1	1157.8	1157.8	1153.7
50°	1340.0	1324.4	1305.0	1283.8	1276.5	1272.5	1273.9	1275.8	1264.4
52.5°	1523.1	1505.6	1478.2	1446.0	1439.1	1435.8	1435.1	1432.5	1429.6
55°	1771.1	1738.3	1704.7	1662.3	1649.5	1645.9	1646.2	1643.3	1650.2
57.5°	2063.8	2015.6	1938.1	1886.6	1855.9	1844.2	1833.7	1829.3	1829.6
60°	2353.5	2255.2	2139.4	2049.5	1985.3	1944.4	1912.2	1894.3	1889.2
62.5°	2540.2	2385.7	2211.8	2066.0	1960.4	1892.8	1842.1	1809.9	1799.6
63°	2554.8	2391.2	2205.2	2048.8	1937.8	1866.9	1813.6	1780.3	1769.3
65°	2523.1	2336.0	2119.3	1933.0	1811.3	1732.8	1675.1	1643.6	1635.2
67.5°	2276.0	2120.5	1899.8	1707.2	1584.5	1504.9	1438.7	1408.7	1399.3
70°	1851.5	1744.9	1564.0	1399.6	1285.3	1208.5	1141.7	1116.8	1116.5
72.5°	1372.6	1234.1	1126.3	1005.8	906.1	845.0	787.0	759.2	745.3
75°	907.9	759.5	639.0	537.4	438.1	383.2	317.8	289.7	273.3
77.5°	457.4	339.1	242.9	168.4	130.8	107.4	98.3	93.5	93.2
80°	152.3	114.4	98.3	92.0	90.2	90.6	89.5	87.7	85.5
82.5°	84.4	88.8	89.5	86.9	86.9	85.5	84.0	77.1	73.4
85°	72.4	79.6	80.4	78.9	78.5	76.4	73.8	64.3	58.8
87.5°	45.3	52.3	51.1	45.7	50.4	47.1	44.6	28.9	21.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)