

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: LUMARK

Report Number: P233525

Luminaire Tested: **VRDN-C028-D-UNV-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P233525
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1710-389-14)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: VRDN-C028-D-UNV-T3-7030
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 930mA LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9070 lumens
Efficiency: N/A
Efficacy: 124.2 lumens/watt
Luminous Opening: Rectangular (W 0.79' x L: 1.25' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B2 - U0 - G2

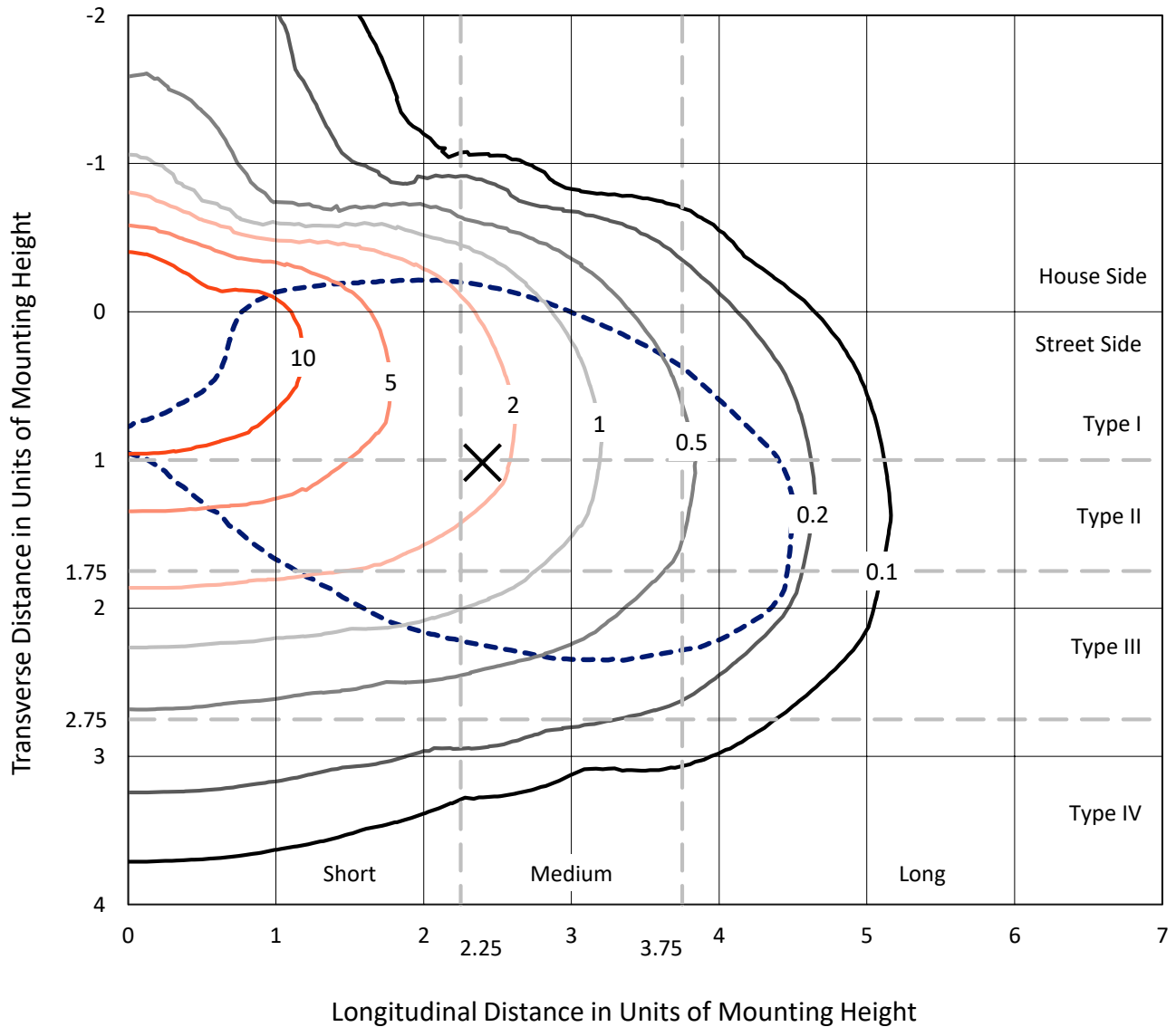
Input Watts (W): 73
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

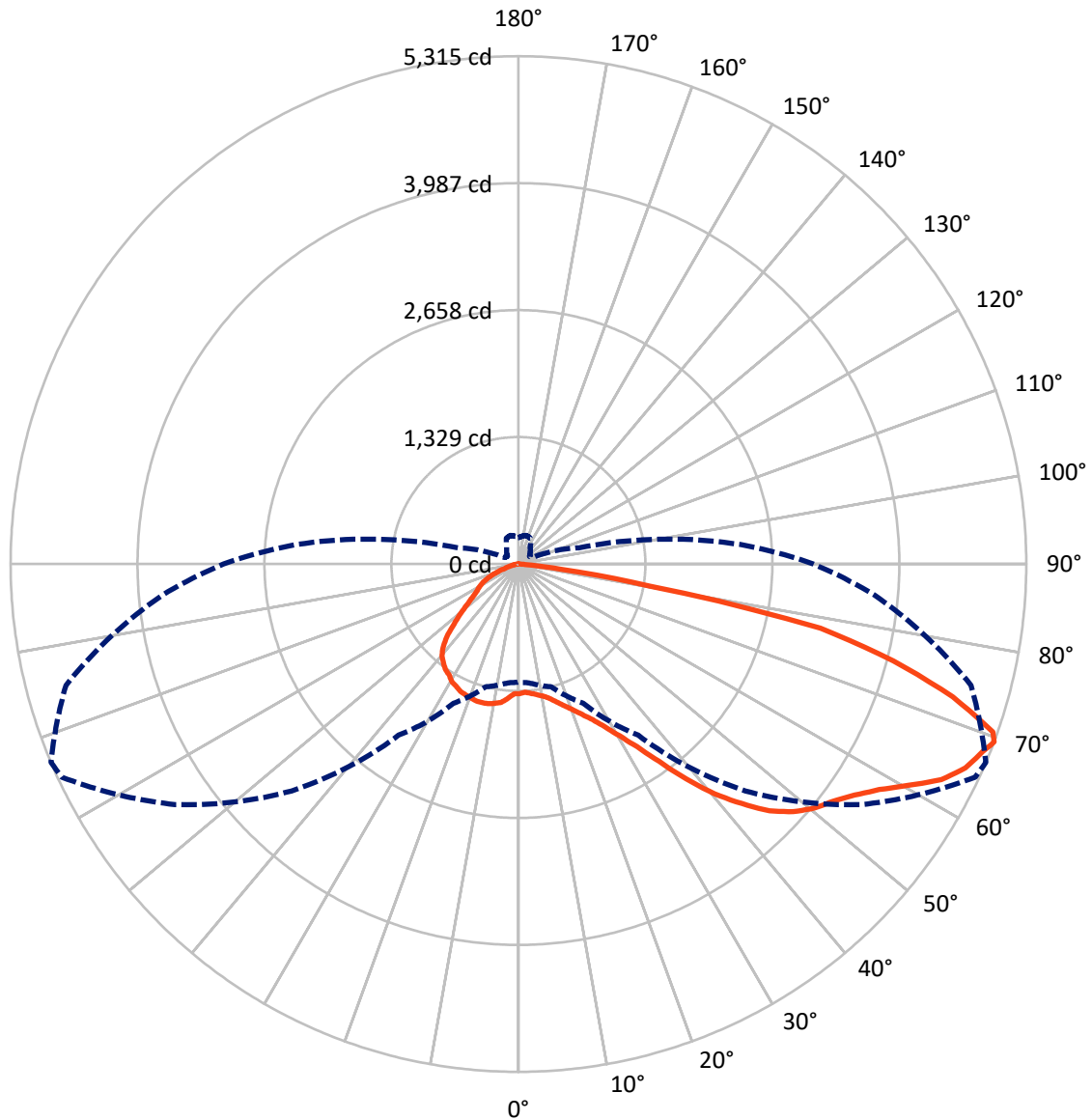
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 15.8 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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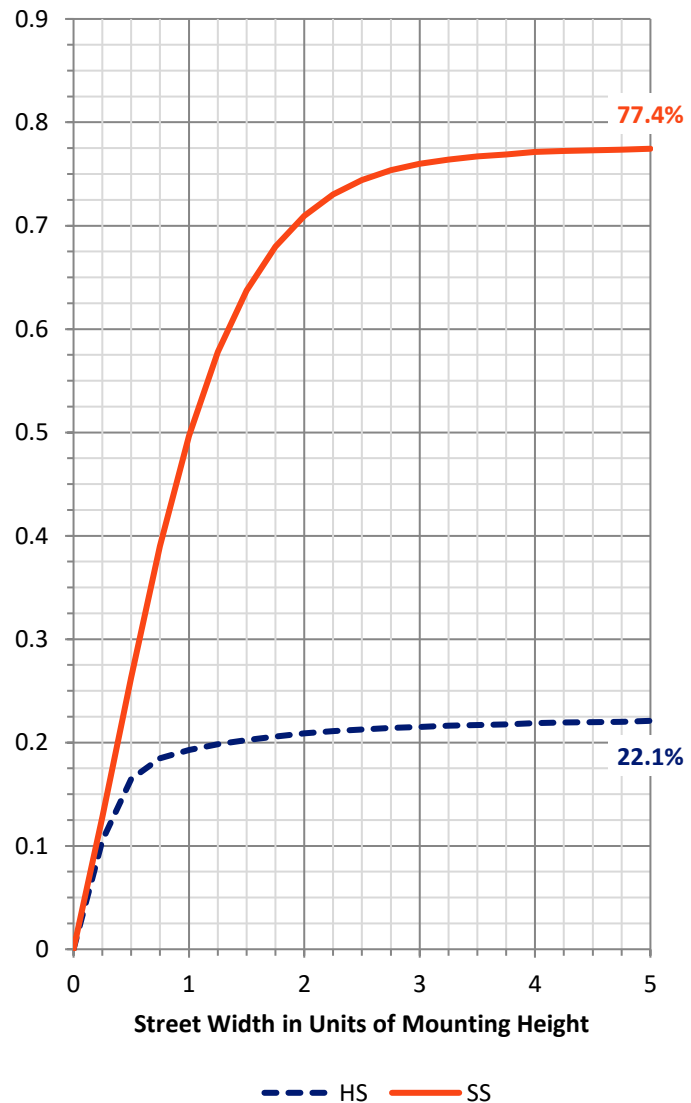
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2042.5	0.0	2042.5
	% Fixture	22.5	0.0	22.5
Street Side	Lumens	7027.5	0.0	7027.5
	% Fixture	77.5	0.0	77.5
Total	Lumens	9070.0	0.0	9070.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.4	1.5
10°-20°	437.9	4.8
20°-30°	754.4	8.3
30°-40°	1122.1	12.4
40°-50°	1545.4	17.0
50°-60°	1847.4	20.4
60°-70°	1949.6	21.5
70°-80°	1168.3	12.9
80°-90°	107.5	1.2
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°	9070.0	100.0
0°-180°	9070.0	100.0



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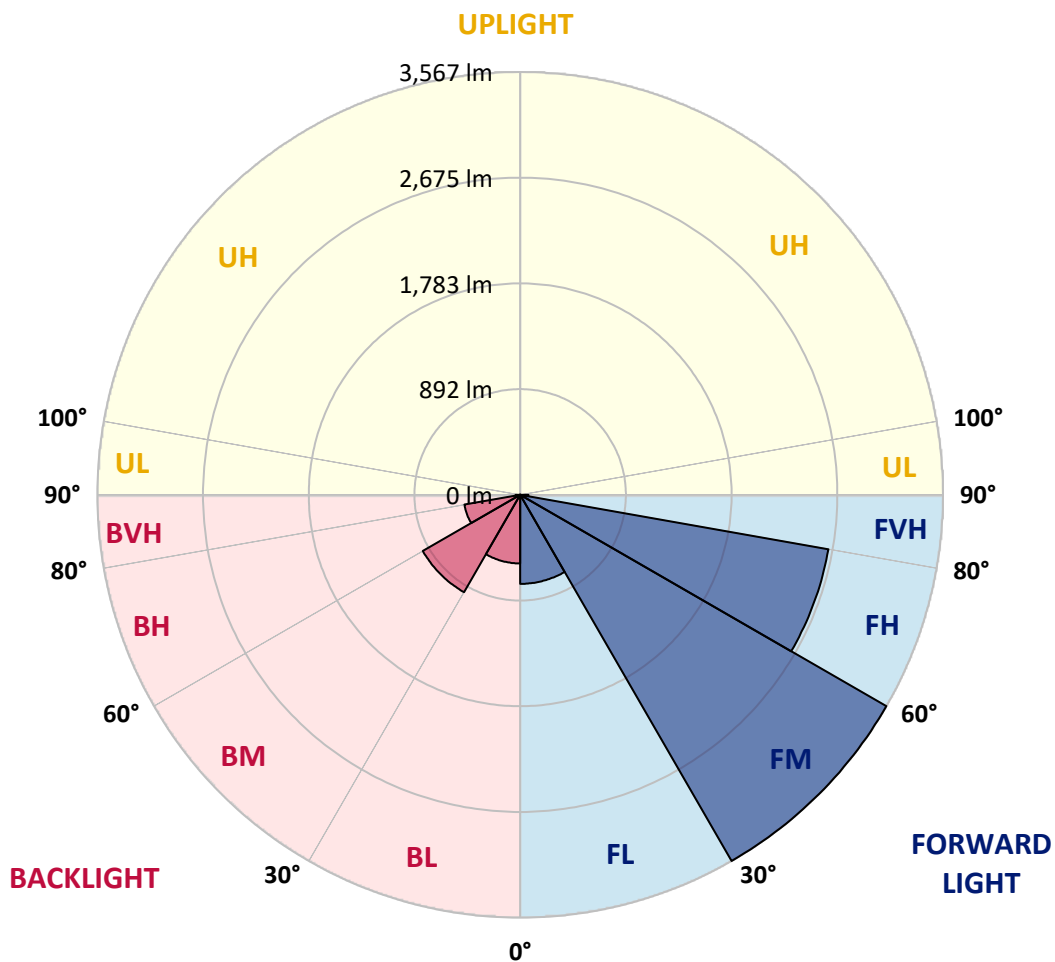
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	751.0	8.3			
FM (30°-60°)	3566.7	39.3			
FH (60°-80°)	2640.3	29.1			G2/5000
FVH (80°-90°)	69.5	0.8			G1/100
BL (0°-30°)	578.7	6.4	B2/1000		
BM (30°-60°)	948.2	10.5	B1/1000		
BH (60°-80°)	477.6	5.3	B1/500		G1/500
BVH (80°-90°)	38.0	0.4			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 Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	1356.7	1356.7	1356.7	1356.7	1356.7	1356.7	1356.7	1356.7	1356.7	1356.7	1356.7
2.5°	1379.0	1378.1	1374.0	1359.2	1357.5	1355.9	1346.0	1346.8	1344.3	1346.8	1347.6
5°	1416.9	1413.6	1409.5	1393.8	1388.0	1380.6	1365.8	1364.9	1359.2	1360.8	1362.5
7.5°	1463.9	1460.6	1457.3	1439.2	1433.4	1420.2	1397.1	1385.6	1380.6	1382.3	1384.7
10°	1527.4	1521.6	1516.7	1490.3	1481.2	1459.0	1430.9	1411.1	1404.5	1407.0	1413.6
12.5°	1600.0	1592.6	1584.3	1557.1	1544.7	1510.1	1477.1	1451.5	1441.6	1447.4	1452.4
15°	1675.0	1670.9	1667.6	1635.4	1618.1	1580.2	1539.0	1506.8	1497.7	1502.7	1505.1
17.5°	1774.0	1771.5	1765.8	1732.8	1699.8	1656.1	1602.5	1568.6	1559.6	1562.0	1556.3
20°	1882.0	1875.4	1872.1	1835.0	1800.4	1740.2	1678.3	1630.5	1628.0	1628.8	1610.7
22.5°	2003.3	1995.9	1989.3	1955.4	1912.6	1842.5	1761.6	1708.0	1709.7	1711.3	1670.9
25°	2127.0	2121.2	2115.4	2083.3	2040.4	1963.7	1866.4	1806.2	1805.3	1806.2	1750.1
27.5°	2256.5	2249.9	2249.0	2222.7	2179.8	2101.4	1989.3	1928.2	1928.2	1924.9	1840.0
30°	2371.9	2378.5	2378.5	2363.7	2323.3	2244.9	2139.4	2078.3	2086.6	2080.0	1971.9
32.5°	2498.1	2496.5	2508.0	2496.5	2463.5	2390.9	2302.7	2263.9	2277.9	2299.4	2191.3
35°	2571.5	2583.1	2611.9	2628.4	2612.8	2553.4	2489.0	2518.7	2537.7	2634.2	2504.7
37.5°	2656.5	2666.4	2705.9	2746.4	2753.0	2720.8	2720.8	2818.1	2855.2	2981.4	2830.5
40°	2715.0	2724.9	2767.8	2814.8	2879.1	2901.4	2959.1	3110.1	3162.8	3247.8	3073.0
42.5°	2680.4	2685.3	2777.7	2892.3	2987.2	3094.4	3185.9	3377.3	3427.6	3487.0	3272.5
45°	2619.4	2628.4	2730.7	2915.4	3078.7	3291.5	3407.0	3628.8	3686.6	3680.8	3425.9
47.5°	2551.7	2565.7	2679.6	2885.7	3157.1	3462.2	3609.0	3840.0	3872.9	3831.7	3532.3
50°	2476.7	2500.6	2621.8	2856.0	3214.0	3611.5	3759.1	3998.3	4015.6	3931.5	3625.5
52.5°	2390.9	2406.6	2541.0	2799.1	3253.6	3710.5	3878.7	4116.2	4123.7	4055.2	3723.7
55°	2272.1	2286.2	2435.4	2723.3	3259.3	3769.0	3955.4	4242.4	4267.2	4200.4	3812.7
57.5°	2144.3	2161.6	2315.0	2613.6	3206.6	3792.9	4047.8	4404.9	4452.7	4357.1	3884.5
60°	1995.9	2018.1	2173.2	2480.0	3102.6	3830.1	4220.2	4641.6	4701.0	4534.4	3952.9
62.5°	1841.6	1854.0	1996.7	2295.2	2941.0	3849.0	4376.9	4912.1	4969.0	4701.8	3985.1
65°	1624.7	1644.5	1771.5	2073.4	2713.4	3767.4	4450.3	5101.0	5142.2	4837.9	3953.8
67.5°	1394.6	1394.6	1502.7	1807.8	2409.9	3551.3	4420.6	5191.7	5241.2	4933.6	3854.8
69°	1235.4	1247.8	1330.3	1608.2	2187.2	3359.1	4388.4	5275.0	5315.4	4903.0	3741.0
70°	1113.4	1124.1	1207.4	1463.1	2021.4	3207.4	4319.1	5237.9	5267.6	4809.0	3621.4
72.5°	819.0	828.0	885.8	1019.4	1520.0	2588.0	3894.4	4735.6	4753.8	4324.9	3195.0
75°	558.3	563.3	607.0	688.7	886.6	1809.5	3181.8	4000.0	4053.6	3750.9	2616.1
77.5°	193.0	207.8	234.2	316.7	379.4	710.9	2156.7	3152.1	3232.1	2904.7	1830.1
80°	66.0	65.2	125.4	162.5	199.6	326.6	682.1	1321.2	1396.3	1197.5	659.0
82.5°	49.5	51.1	83.3	89.9	61.0	120.4	265.6	404.1	442.9	386.8	273.0
85°	31.3	30.5	37.1	38.8	28.0	51.1	64.3	65.2	67.6	58.6	59.4
87.5°	17.3	17.3	16.5	14.0	7.4	6.6	5.8	5.8	4.9	4.9	4.9
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°	1356.7	1356.7	1356.7	1356.7	1356.7	1356.7	1356.7	1356.7	1356.7	1356.7	1356.7
2.5°	1343.5	1355.0	1357.5	1360.8	1369.1	1379.8	1394.6	1394.6	1400.4	1417.7	1423.5
5°	1362.5	1376.5	1394.6	1413.6	1435.9	1459.8	1483.7	1491.9	1503.5	1526.6	1531.5
7.5°	1391.3	1407.0	1438.3	1463.9	1482.9	1506.8	1526.6	1529.9	1544.7	1566.2	1570.3
10°	1421.0	1435.0	1466.4	1479.6	1505.1	1531.5	1541.4	1546.4	1558.7	1575.2	1572.8
12.5°	1461.4	1465.5	1487.8	1496.9	1509.3	1525.8	1530.7	1530.7	1538.1	1564.5	1565.3
15°	1501.0	1501.0	1504.3	1499.4	1501.0	1509.3	1510.1	1499.4	1507.6	1520.8	1515.9
17.5°	1543.1	1531.5	1516.7	1495.2	1476.3	1475.4	1458.1	1432.6	1425.1	1444.1	1443.3
20°	1582.7	1562.9	1527.4	1478.7	1452.4	1416.9	1373.2	1358.3	1357.5	1360.8	1358.3
22.5°	1634.6	1594.2	1529.9	1463.1	1390.5	1334.4	1298.1	1247.8	1246.2	1238.7	1227.2
25°	1696.5	1638.7	1540.6	1445.8	1340.2	1267.6	1180.2	1126.6	1096.1	1102.7	1082.9
27.5°	1776.5	1706.4	1544.7	1407.8	1270.9	1148.0	1042.5	973.2	946.8	935.2	922.1
30°	1886.2	1778.1	1574.4	1375.7	1185.1	1022.7	893.2	792.6	754.6	764.5	766.2
32.5°	2061.8	1914.2	1590.1	1312.1	1086.2	885.8	717.5	608.7	586.4	614.4	621.8
35°	2367.8	2125.3	1627.2	1274.2	973.2	725.8	533.6	489.1	494.0	517.9	519.6
37.5°	2668.8	2392.5	1741.8	1191.7	837.9	537.7	414.0	390.1	414.0	444.5	448.7
40°	2880.0	2601.2	1843.3	1110.1	648.2	389.3	315.9	287.0	321.6	370.3	379.4
42.5°	3067.2	2767.0	1915.0	997.1	443.7	277.9	226.8	234.2	285.4	320.8	329.1
45°	3201.6	2880.8	1964.5	850.3	282.9	210.3	202.9	226.8	275.5	303.5	306.0
47.5°	3286.6	2947.6	1928.2	669.7	212.8	198.8	199.6	230.1	278.8	310.1	309.3
50°	3363.3	2983.1	1810.3	531.1	202.1	190.5	203.7	239.2	289.5	318.3	316.7
52.5°	3444.9	3017.7	1666.8	416.5	193.8	186.4	208.7	244.9	289.5	307.6	305.2
55°	3515.0	3048.2	1558.7	334.8	188.0	185.6	213.6	254.0	287.8	295.3	290.3
57.5°	3551.3	2996.3	1441.6	281.2	182.3	185.6	216.9	252.4	297.7	321.6	316.7
60°	3531.5	2947.6	1346.8	261.4	174.0	184.7	218.6	270.5	365.4	387.6	386.0
62.5°	3495.2	2894.0	1214.0	235.0	164.9	186.4	217.7	287.0	420.6	413.2	392.6
65°	3421.0	2786.8	1032.6	204.5	155.9	189.7	217.7	323.3	367.0	358.8	349.7
67.5°	3262.6	2555.0	826.4	175.7	146.0	179.8	214.4	307.6	315.9	294.4	283.7
69°	3085.3	2334.0	654.0	160.0	140.2	174.8	213.6	296.9	310.9	287.8	275.5
70°	2946.8	2161.6	528.7	148.5	134.4	173.2	212.8	289.5	308.4	282.9	269.7
72.5°	2454.4	1746.8	277.1	119.6	114.6	157.5	205.4	282.9	309.3	271.3	252.4
75°	1928.2	1242.9	183.9	91.5	88.2	137.7	188.0	272.2	291.1	244.1	215.3
77.5°	1189.3	544.3	127.0	63.5	64.3	107.2	161.6	243.3	293.6	246.6	209.5
80°	345.6	210.3	80.8	42.9	39.6	63.5	127.0	209.5	278.8	253.2	228.5
82.5°	199.6	136.9	54.4	27.2	23.9	28.9	80.0	162.5	245.8	231.7	236.7
85°	45.4	37.9	19.8	13.2	13.2	16.5	27.2	94.0	169.9	198.8	224.3
87.5°	4.9	4.9	4.9	4.9	4.9	4.1	4.9	25.6	74.2	105.6	122.9
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)