

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: P233681

Luminaire Tested: **VRDN-C028-D-UNV-T2-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P233681  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1710-389-32)  
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-T2-7030-HSS  
Description: VERDEON ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 930mA LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8233 lumens  
Efficiency: N/A  
Efficacy: 112.8 lumens/watt  
Luminous Opening: Rectangular (W 0.79' x L: 1.25' x H: 0')  
IES Classification: Type II - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G2

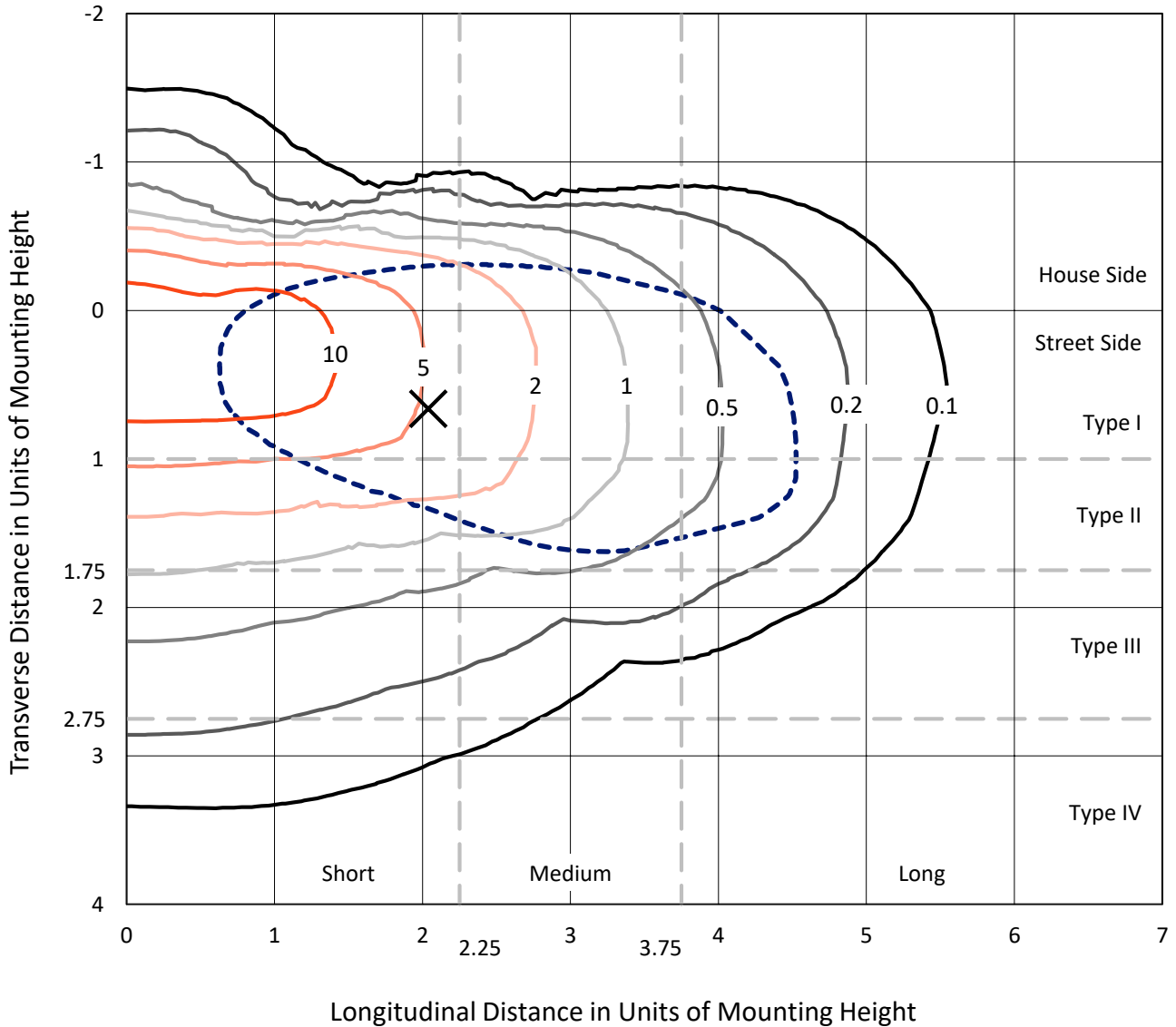
Input Watts (W): 73  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

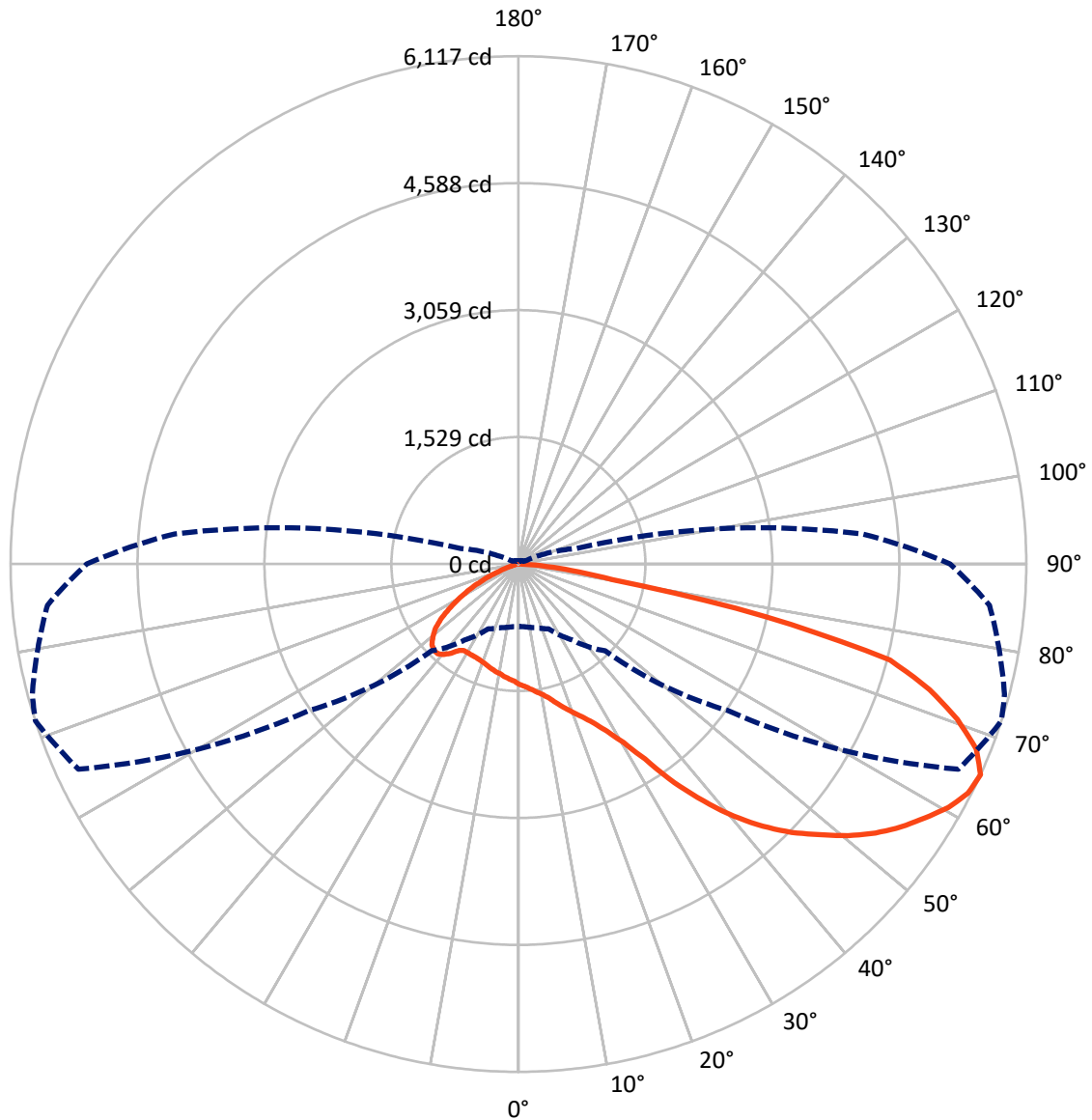
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 18.1 fc  
 Type II - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 72-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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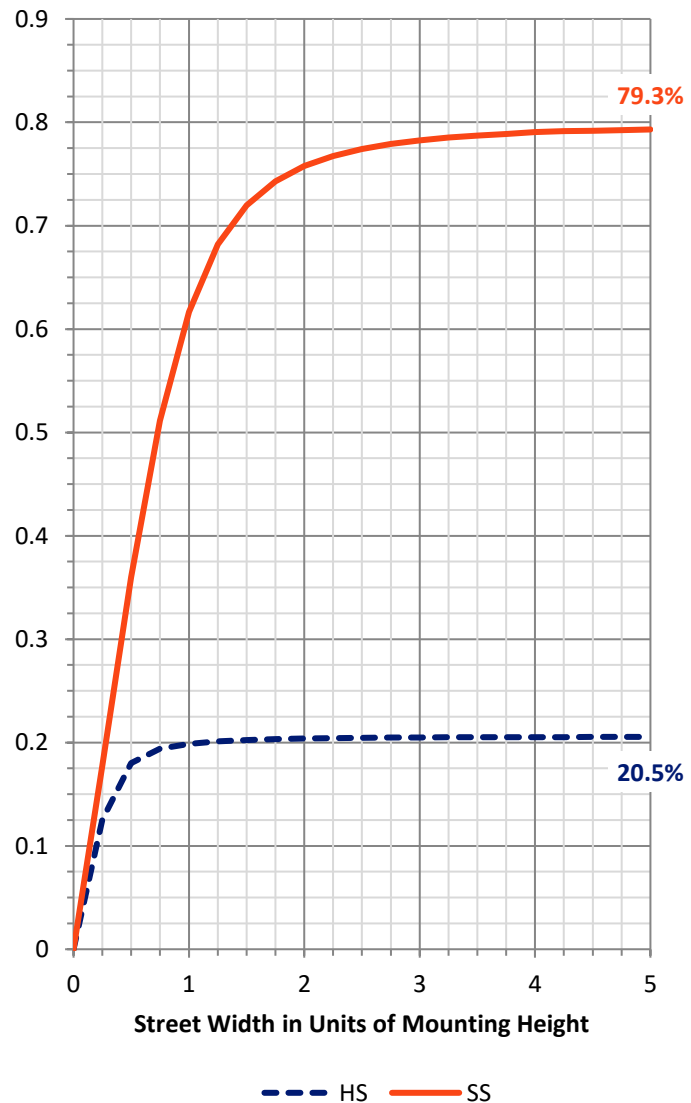
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1710.8	0.0	1710.8
	% Fixture	20.8	0.0	20.8
<b>Street Side</b>	Lumens	6522.1	0.0	6522.1
	% Fixture	79.2	0.0	79.2
<b>Total</b>	Lumens	8233.0	0.0	8233.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	139.1	1.7
10°-20°	422.1	5.1
20°-30°	705.4	8.6
30°-40°	1043.5	12.7
40°-50°	1442.6	17.5
50°-60°	1688.1	20.5
60°-70°	1677.9	20.4
70°-80°	1004.9	12.2
80°-90°	109.4	1.3
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°	8233.0	100.0
0°-180°	8233.0	100.0



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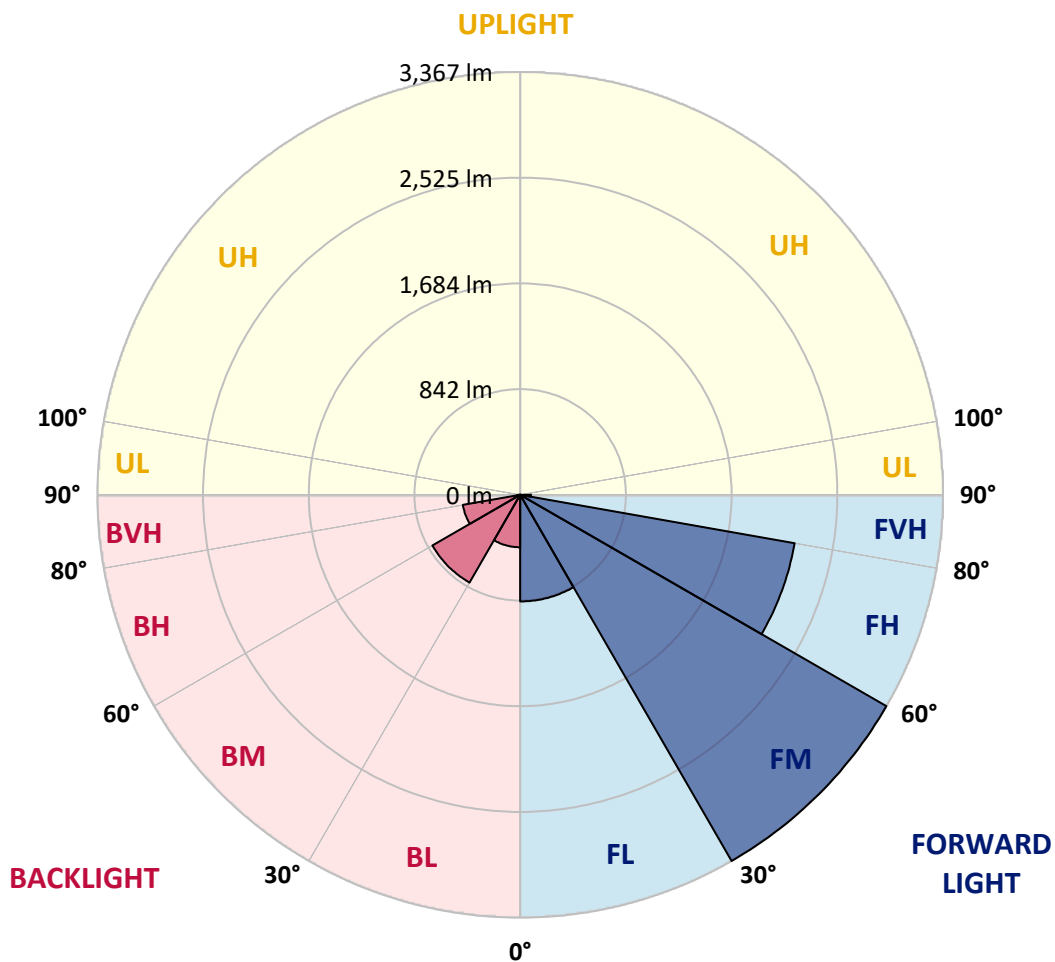
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	849.0	10.3			
FM (30°-60°)	3367.1	40.9			
FH (60°-80°)	2219.6	27.0			G2/5000
FVH (80°-90°)	86.5	1.1			G1/100
BL (0°-30°)	417.7	5.1	B1/500		
BM (30°-60°)	807.1	9.8	B1/1000		
BH (60°-80°)	463.2	5.6	B1/500		G1/500
BVH (80°-90°)	22.9	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-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	72°	75°	85°
0°	1451.0	1451.0	1451.0	1451.0	1451.0	1451.0	1451.0	1451.0	1451.0	1451.0	1451.0
2.5°	1573.2	1574.6	1575.3	1550.4	1537.0	1521.5	1506.7	1490.6	1473.8	1467.8	1445.6
5°	1670.0	1671.3	1667.3	1644.5	1619.6	1596.8	1568.5	1539.7	1511.4	1503.4	1465.8
7.5°	1763.4	1762.7	1759.3	1730.4	1699.5	1669.3	1629.7	1590.7	1553.8	1541.0	1485.2
10°	1840.6	1841.9	1844.0	1813.1	1782.8	1746.6	1698.2	1640.4	1598.1	1577.9	1505.4
12.5°	1925.2	1921.2	1926.6	1896.4	1854.7	1821.8	1778.1	1710.3	1659.9	1634.4	1544.4
15°	2022.0	2022.0	2014.6	1989.7	1947.4	1907.1	1863.4	1801.0	1740.5	1701.6	1596.8
17.5°	2088.5	2084.5	2082.4	2060.9	2024.7	1989.7	1956.1	1892.3	1826.5	1778.8	1645.8
20°	2116.7	2118.0	2127.4	2112.0	2092.5	2071.7	2034.7	1985.0	1912.5	1861.4	1698.2
22.5°	2171.1	2172.5	2183.9	2173.1	2167.7	2162.4	2128.1	2084.5	2007.2	1958.2	1764.0
25°	2174.5	2175.8	2206.7	2224.2	2251.7	2264.5	2241.0	2203.4	2124.8	2077.1	1862.1
27.5°	2184.5	2188.6	2220.1	2268.5	2341.1	2366.6	2353.2	2351.8	2285.3	2234.9	1989.7
30°	2175.8	2179.8	2225.5	2292.7	2393.5	2468.7	2484.1	2523.8	2496.9	2459.3	2167.1
32.5°	2114.0	2128.8	2183.2	2290.0	2438.5	2574.8	2624.5	2760.2	2800.5	2804.6	2523.1
35°	2001.8	2009.9	2108.6	2259.1	2468.7	2674.9	2812.0	3062.5	3233.2	3225.8	2917.4
37.5°	1916.5	1919.2	2020.6	2206.7	2485.5	2782.4	3025.6	3426.6	3622.8	3631.5	3273.5
40°	1807.0	1826.5	1923.9	2143.6	2476.1	2873.1	3237.9	3765.9	3994.2	3984.8	3585.8
42.5°	1704.9	1716.3	1813.1	2044.8	2441.8	2942.3	3446.1	4094.3	4318.7	4287.8	3885.4
45°	1598.8	1618.3	1706.9	1917.2	2374.0	2981.2	3634.9	4406.0	4611.6	4573.3	4149.4
47.5°	1492.6	1506.7	1600.8	1800.3	2246.3	2979.9	3820.3	4698.2	4871.6	4844.7	4399.3
50°	1135.9	1166.8	1414.0	1678.0	2067.0	2923.5	3970.1	4975.7	5144.3	5102.6	4643.2
52.5°	1041.2	1051.3	1120.5	1536.3	1875.5	2789.1	4087.0	5236.3	5384.8	5337.1	4872.9
55°	984.1	996.2	1024.4	1248.8	1718.3	2568.1	4135.3	5479.5	5590.3	5542.0	5077.8
57.5°	908.2	920.3	976.1	1075.5	1554.4	2231.6	4064.1	5695.1	5772.4	5719.3	5267.9
60°	855.8	861.2	914.9	992.9	1375.1	1891.7	3826.3	5870.5	5951.1	5887.9	5456.0
62.5°	807.4	813.5	851.8	929.0	1226.6	1642.4	3456.2	5913.4	6078.0	6029.0	5628.0
65°	751.7	757.1	792.0	860.5	1111.8	1479.9	3074.6	5847.6	6117.0	6061.2	5694.5
67.5°	677.8	685.2	712.7	774.5	961.3	1295.8	2507.0	5726.0	5946.4	5888.6	5558.1
70°	586.4	589.8	622.7	678.5	812.2	1124.5	1966.2	5293.4	5608.5	5544.7	5173.8
72.5°	473.6	479.6	515.2	573.7	667.1	926.3	1404.6	4574.0	5180.6	5156.4	4614.3
75°	316.4	339.9	424.5	483.7	551.5	723.5	943.1	3210.3	4625.0	4643.8	3941.9
77.5°	60.5	62.5	178.0	264.7	322.4	442.0	583.8	1577.3	3048.4	3378.3	2972.5
80°	39.6	43.0	75.9	185.4	213.6	219.0	299.6	691.2	1148.7	1453.0	1714.3
82.5°	20.8	24.9	45.7	107.5	98.1	54.4	98.1	356.7	636.8	731.5	864.5
85°	8.7	10.1	22.2	36.9	27.5	22.8	22.8	142.4	282.1	326.5	339.2
87.5°	1.3	1.3	4.7	6.7	4.0	2.7	2.0	0.7	0.7	0.7	0.7
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°	1451.0	1451.0	1451.0	1451.0	1451.0	1451.0	1451.0	1451.0	1451.0	1451.0	1451.0
2.5°	1445.6	1433.5	1416.7	1397.2	1383.1	1375.8	1369.7	1353.6	1348.2	1359.0	1356.3
5°	1451.7	1437.6	1399.3	1367.7	1336.1	1316.6	1295.1	1266.9	1254.8	1261.6	1259.5
7.5°	1455.7	1438.2	1381.1	1332.1	1279.0	1242.1	1213.9	1176.9	1158.8	1165.5	1157.4
10°	1461.7	1435.5	1359.6	1294.5	1225.3	1171.5	1129.9	1086.9	1068.1	1073.5	1066.7
12.5°	1487.3	1444.9	1349.6	1262.2	1177.6	1110.4	1058.0	1012.3	985.5	990.8	985.5
15°	1528.9	1463.8	1334.8	1221.2	1127.2	1050.6	990.2	937.8	906.9	914.3	907.5
17.5°	1572.6	1486.6	1321.3	1175.6	1073.5	988.2	925.0	880.7	831.0	835.7	825.6
20°	1610.2	1508.1	1314.0	1132.6	1023.1	921.6	845.7	815.5	747.0	729.5	718.1
22.5°	1662.6	1539.7	1307.9	1097.6	960.6	855.1	765.1	708.7	634.8	597.9	594.5
25°	1737.2	1586.7	1307.2	1070.1	904.2	785.3	659.7	564.9	499.8	456.1	450.1
27.5°	1831.9	1649.2	1314.6	1042.6	847.8	697.3	530.0	425.2	366.8	333.2	327.1
30°	1968.2	1731.1	1324.0	1011.0	784.6	583.1	395.0	313.0	264.7	240.5	235.8
32.5°	2260.5	1941.4	1338.1	978.1	708.7	439.3	286.8	227.1	190.1	175.3	182.7
35°	2612.5	2226.9	1401.3	935.8	609.3	313.0	206.9	161.9	136.4	139.7	143.8
37.5°	2920.1	2499.6	1543.0	881.3	476.3	229.7	142.4	120.9	120.9	131.7	141.1
40°	3210.3	2745.5	1670.0	807.4	333.9	158.5	110.2	112.2	110.2	116.9	114.9
42.5°	3484.4	2978.6	1769.4	719.4	218.3	109.5	100.1	104.1	100.8	102.1	96.1
45°	3743.7	3219.7	1824.5	589.8	145.1	95.4	92.0	98.7	98.1	96.7	90.7
47.5°	3983.5	3432.0	1852.0	425.2	100.1	86.0	86.7	91.4	93.4	92.0	88.7
50°	4218.6	3643.6	1827.2	254.6	90.0	78.6	83.3	83.3	87.3	79.9	77.3
52.5°	4443.7	3855.9	1748.6	154.5	82.6	73.2	77.3	75.9	77.9	70.5	69.2
55°	4655.3	4013.7	1593.4	121.6	77.9	69.9	70.5	71.9	68.5	60.5	63.1
57.5°	4878.9	4148.1	1377.1	110.2	75.9	65.2	66.5	65.8	60.5	53.1	53.1
60°	5063.0	4245.5	1160.1	100.1	74.6	63.8	59.1	57.8	49.7	45.7	45.0
62.5°	5190.0	4273.0	948.5	89.3	70.5	59.1	53.1	49.0	41.6	37.6	36.3
65°	5200.0	4155.5	722.1	80.6	66.5	55.1	49.0	40.3	32.9	29.6	28.2
67.5°	4993.8	3829.0	509.2	73.9	59.8	51.1	43.0	32.2	26.2	23.5	22.8
70°	4562.6	3423.3	311.7	64.5	54.4	47.7	44.3	26.2	21.5	18.1	18.1
72.5°	4003.7	2965.1	182.7	55.1	45.7	38.3	29.6	22.2	18.1	14.1	14.1
75°	3431.3	2353.8	112.2	41.6	33.6	30.2	22.8	18.8	14.8	10.7	10.7
77.5°	2470.7	1737.8	87.3	26.9	20.8	21.5	16.8	14.8	12.1	8.7	8.7
80°	1516.1	1058.0	62.5	18.1	12.1	12.1	12.1	11.4	8.7	7.4	6.7
82.5°	768.5	483.7	30.9	10.7	7.4	7.4	7.4	8.1	6.7	5.4	5.4
85°	270.0	135.7	9.4	5.4	4.7	4.7	4.0	4.0	3.4	2.7	2.7
87.5°	0.7	1.3	1.3	2.0	2.7	2.7	2.0	1.3	0.7	0.0	0.0
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)