

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: P233469

Luminaire Tested: **VRDN-C018-D-UNV-T2-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P233469
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1710-389-10)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: VRDN-C018-D-UNV-T2-7030
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 1210mA LED AND TYPE II OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5816 lumens
Efficiency: N/A
Efficacy: 116.3 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 - G1

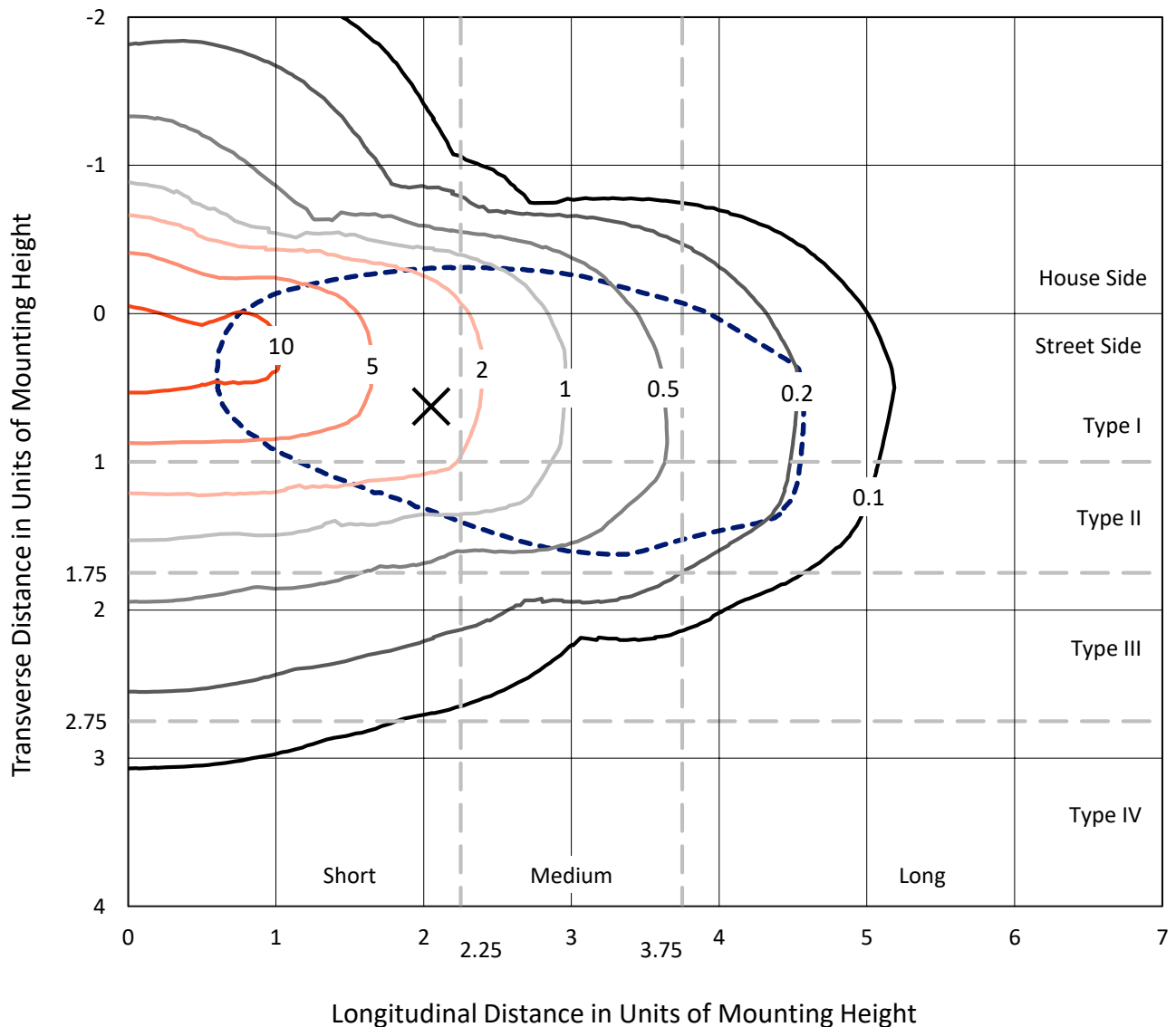
Input Watts (W): 50
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

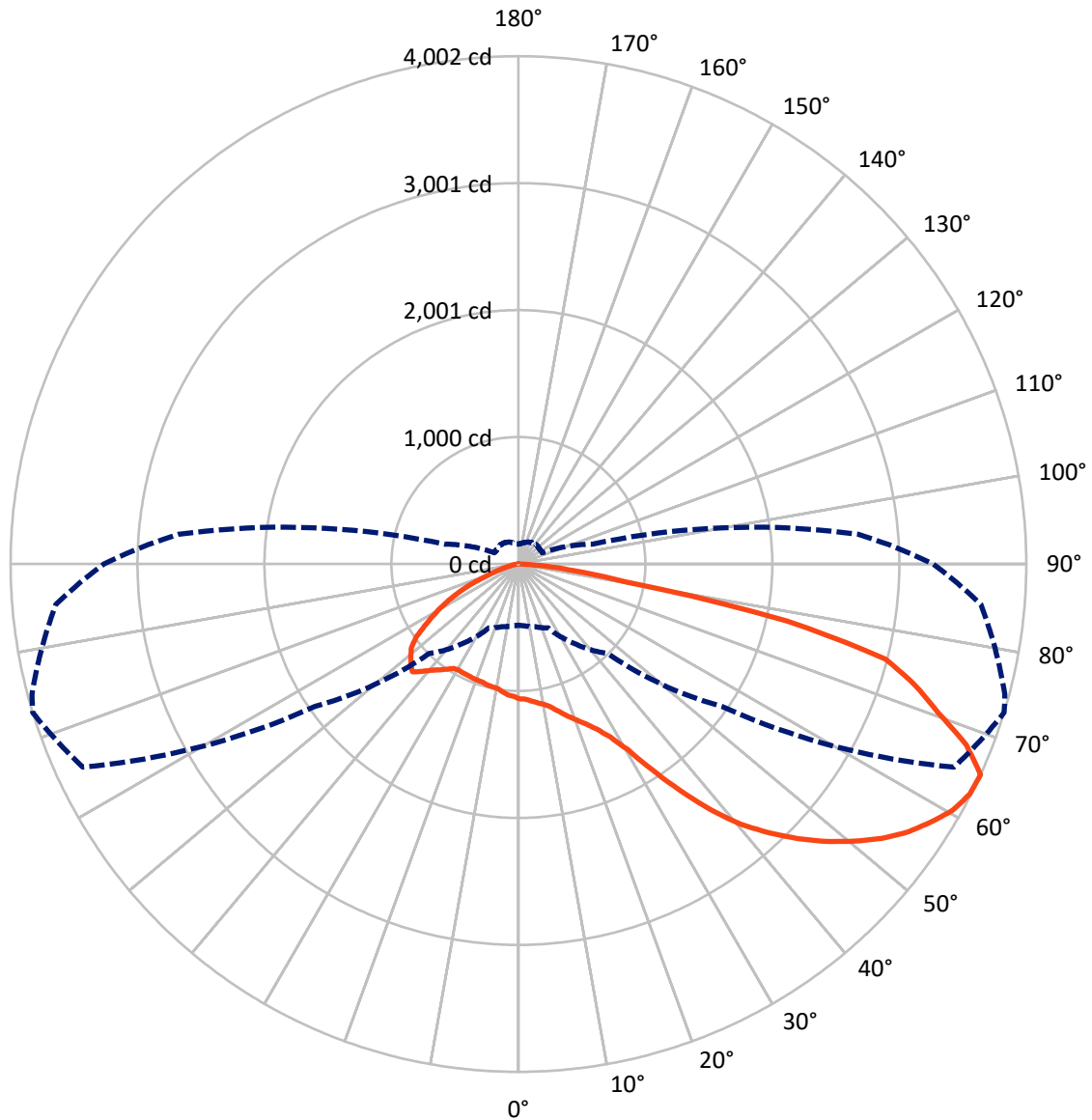
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.3 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 73-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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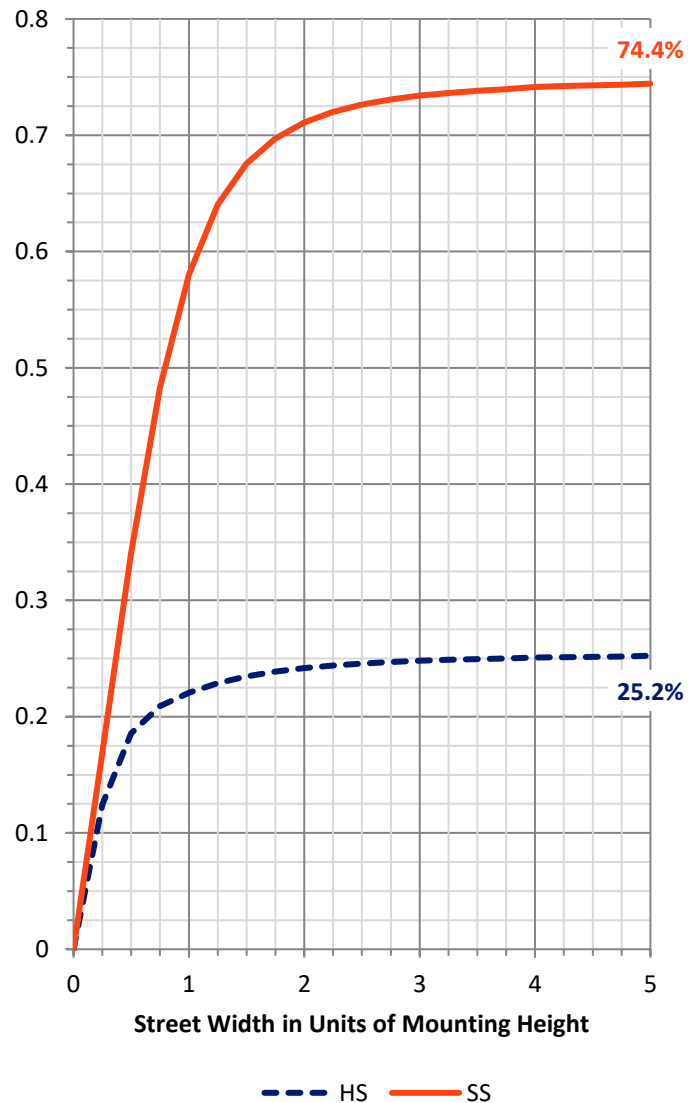
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1490.9	0.0	1490.9
	% Fixture	25.6	0.0	25.6
Street Side	Lumens	4325.1	0.0	4325.1
	% Fixture	74.4	0.0	74.4
Total	Lumens	5816.0	0.0	5816.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.5	1.7
10°-20°	306.8	5.3
20°-30°	514.7	8.8
30°-40°	754.8	13.0
40°-50°	1020.1	17.5
50°-60°	1181.7	20.3
60°-70°	1154.3	19.8
70°-80°	693.2	11.9
80°-90°	88.8	1.5
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°	5816.0	100.0
0°-180°	5816.0	100.0



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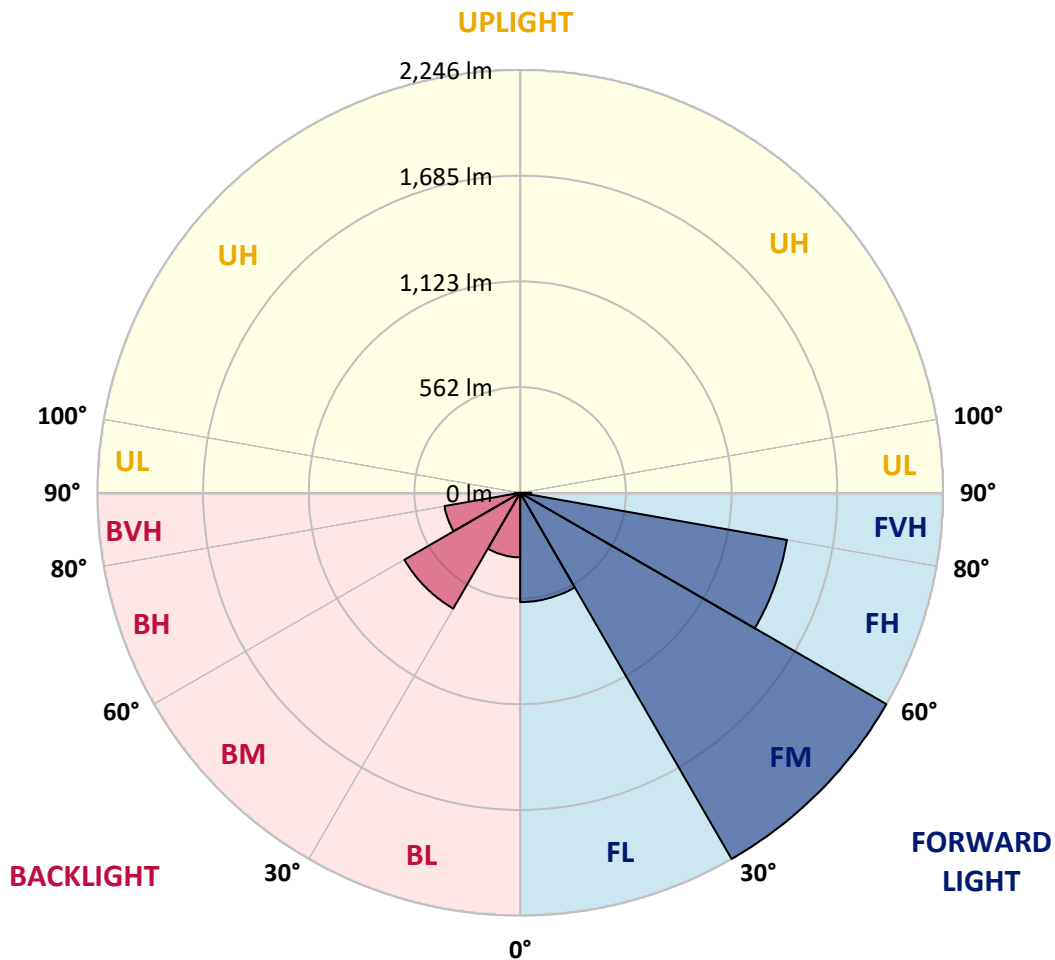
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	580.3	10.0			
FM (30°-60°)	2246.3	38.6			
FH (60°-80°)	1439.3	24.7			G1/1800
FVH (80°-90°)	59.1	1.0			G1/100
BL (0°-30°)	342.7	5.9	B1/500		
BM (30°-60°)	710.3	12.2	B1/1000		
BH (60°-80°)	408.2	7.0	B1/500		G1/500
BVH (80°-90°)	29.7	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	73°	75°	85°
0°	1063.5	1063.5	1063.5	1063.5	1063.5	1063.5	1063.5	1063.5	1063.5	1063.5	1063.5
2.5°	1128.9	1133.2	1128.4	1114.7	1107.8	1103.1	1088.8	1076.1	1066.1	1065.0	1055.5
5°	1172.2	1178.6	1170.6	1153.2	1146.4	1136.3	1120.5	1103.1	1085.1	1081.4	1062.4
7.5°	1227.1	1228.2	1224.0	1206.5	1192.3	1171.2	1143.7	1125.2	1104.6	1098.8	1068.7
10°	1273.6	1273.1	1267.8	1250.9	1236.6	1218.2	1179.6	1149.5	1125.2	1117.8	1076.1
12.5°	1318.0	1316.9	1311.6	1294.2	1276.2	1260.9	1231.9	1191.2	1158.5	1149.0	1097.2
15°	1372.9	1370.2	1361.8	1338.6	1324.3	1306.3	1285.2	1244.6	1207.1	1193.9	1127.9
17.5°	1415.1	1414.6	1408.3	1388.7	1371.8	1352.3	1332.7	1301.1	1260.4	1245.6	1158.0
20°	1439.4	1437.3	1435.7	1420.4	1416.2	1405.6	1377.6	1353.3	1312.7	1297.4	1191.8
22.5°	1465.3	1465.8	1466.3	1458.4	1470.6	1461.6	1441.0	1411.4	1370.2	1352.8	1239.3
25°	1471.1	1472.1	1482.7	1500.1	1514.9	1531.3	1516.5	1487.5	1443.1	1424.6	1304.2
27.5°	1454.7	1458.9	1490.6	1520.2	1572.5	1593.6	1591.0	1589.4	1544.0	1525.5	1393.5
30°	1469.5	1469.5	1491.2	1541.8	1607.9	1663.3	1675.4	1709.2	1695.5	1682.3	1543.4
32.5°	1425.2	1433.1	1471.6	1542.4	1646.9	1727.7	1782.6	1876.6	1931.0	1919.9	1755.7
35°	1341.7	1352.3	1408.8	1517.0	1666.5	1803.7	1902.0	2083.1	2188.2	2201.4	2011.3
37.5°	1277.3	1286.3	1357.0	1477.4	1673.9	1875.0	2039.8	2315.4	2451.1	2444.2	2227.8
40°	1198.6	1214.5	1285.8	1430.4	1656.4	1935.8	2189.2	2528.7	2695.6	2663.9	2433.7
42.5°	1127.9	1141.6	1201.3	1355.5	1632.1	1970.1	2324.4	2748.4	2894.7	2869.3	2628.5
45°	1052.9	1065.0	1120.5	1265.7	1575.6	1987.0	2451.1	2958.5	3085.8	3057.3	2809.1
47.5°	966.8	983.2	1049.2	1181.2	1492.7	1976.4	2543.5	3141.2	3267.4	3246.3	2958.5
50°	749.8	766.7	939.4	1102.0	1377.6	1932.6	2626.4	3323.9	3431.7	3411.6	3090.6
52.5°	680.6	688.0	741.9	1011.2	1257.8	1846.0	2678.2	3474.4	3591.7	3571.6	3215.2
55°	638.4	643.7	673.8	825.8	1155.9	1706.6	2684.5	3630.7	3726.3	3699.9	3347.7
57.5°	595.1	600.9	634.2	712.3	1053.4	1488.5	2617.4	3763.3	3835.6	3807.1	3474.4
60°	558.7	561.8	594.6	648.4	937.8	1272.0	2444.8	3853.6	3936.5	3899.5	3598.5
62.5°	525.4	529.6	553.4	602.5	840.6	1109.9	2204.0	3854.1	3991.9	3969.2	3661.4
65°	482.1	488.4	511.7	556.0	761.9	999.0	1954.8	3787.0	4001.9	3968.1	3658.2
67.5°	431.9	439.8	461.0	496.3	657.4	880.8	1607.3	3698.8	3806.0	3800.2	3507.2
70°	381.8	381.8	405.5	434.0	545.5	754.0	1269.9	3384.7	3507.2	3516.1	3236.3
72.5°	322.1	323.2	341.6	366.5	439.3	618.9	925.1	2893.6	3269.6	3160.8	2918.9
75°	270.4	269.3	288.3	308.9	357.5	487.4	603.5	2125.8	2988.1	3012.4	2568.9
77.5°	143.6	138.3	162.6	179.0	209.6	270.9	334.8	1066.1	2163.9	2211.4	2056.7
80°	40.7	41.2	107.7	120.4	137.8	134.1	155.2	406.6	855.9	964.7	1199.2
82.5°	24.3	28.0	61.3	71.8	53.9	34.8	59.1	226.0	443.0	496.3	595.1
85°	12.7	13.7	21.6	26.9	20.6	17.4	18.0	95.0	215.4	219.1	237.6
87.5°	5.8	5.8	7.9	8.4	5.3	3.2	2.1	1.6	1.6	1.1	1.1
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°	1063.5	1063.5	1063.5	1063.5	1063.5	1063.5	1063.5	1063.5	1063.5	1063.5	1063.5
2.5°	1048.1	1053.4	1044.4	1037.6	1032.3	1029.1	1025.4	1016.5	1019.1	1022.8	1022.3
5°	1053.4	1056.1	1040.2	1018.6	998.5	984.2	974.7	960.5	960.5	966.3	966.3
7.5°	1058.2	1054.5	1022.3	985.8	963.1	951.5	936.2	920.9	918.2	922.5	923.0
10°	1060.8	1045.0	1000.1	966.3	936.7	913.0	893.4	876.0	875.5	881.3	882.3
12.5°	1072.4	1041.8	998.5	952.0	907.7	882.3	859.1	839.6	832.7	833.2	834.3
15°	1090.4	1054.5	996.4	932.5	884.4	850.7	816.9	792.0	785.7	794.2	797.3
17.5°	1112.0	1075.1	986.4	914.5	855.9	815.3	781.5	759.3	739.2	730.3	728.7
20°	1140.5	1092.5	991.6	888.1	828.5	774.1	731.8	704.9	688.0	687.0	685.9
22.5°	1178.0	1112.0	992.7	870.7	785.2	728.7	676.4	661.1	631.0	619.9	624.7
25°	1227.7	1141.6	990.1	852.2	751.9	675.9	613.0	585.1	574.0	561.3	562.4
27.5°	1291.6	1188.6	996.9	828.0	697.5	611.5	541.2	511.1	494.2	483.7	485.3
30°	1421.5	1259.9	996.4	804.7	647.4	544.9	465.7	445.7	428.8	419.3	424.0
32.5°	1606.3	1414.6	1018.6	773.6	590.3	455.7	402.4	379.7	365.4	354.8	357.5
35°	1834.9	1583.0	1075.6	731.3	525.4	387.6	351.1	323.2	305.7	301.5	299.9
37.5°	2047.2	1731.9	1129.5	703.3	450.9	350.1	304.1	276.2	260.8	266.1	266.1
40°	2236.7	1929.4	1190.2	658.5	383.3	307.3	251.9	239.2	231.3	240.3	243.4
42.5°	2379.8	2119.0	1272.6	599.3	328.4	256.6	215.4	224.4	227.6	233.9	232.3
45°	2557.2	2227.2	1353.9	544.4	280.4	213.9	208.0	226.5	233.9	239.7	237.1
47.5°	2720.4	2311.2	1337.5	443.0	236.0	207.0	211.7	226.5	239.2	248.7	247.1
50°	2860.9	2416.3	1306.3	344.3	226.5	213.3	215.4	220.7	239.7	246.1	246.1
52.5°	2948.5	2520.3	1267.8	278.3	233.4	221.2	217.5	217.0	229.7	234.4	230.2
55°	3054.1	2628.0	1168.0	258.2	236.0	226.5	223.4	218.6	222.3	218.6	220.7
57.5°	3171.3	2734.1	1014.9	252.4	234.4	224.9	241.8	216.5	214.4	201.2	198.0
60°	3274.3	2775.9	880.8	239.2	226.0	220.7	224.9	213.9	203.3	185.9	179.0
62.5°	3312.9	2772.2	744.5	225.5	213.3	214.4	213.9	205.9	196.4	179.0	174.8
65°	3266.4	2687.7	603.5	209.1	203.3	207.5	202.2	190.6	174.8	160.5	156.8
67.5°	3109.0	2472.2	448.3	187.5	186.9	194.8	191.1	175.3	157.9	146.8	146.8
70°	2808.1	2207.2	290.4	155.8	167.4	181.1	181.1	164.2	141.5	132.0	134.6
72.5°	2478.6	1899.3	188.0	115.6	132.0	164.2	163.2	151.5	130.4	118.3	118.8
75°	2147.0	1507.0	121.4	79.7	85.5	139.9	144.7	123.6	101.4	86.6	84.0
77.5°	1632.1	1133.7	77.1	46.5	54.4	85.5	109.8	103.0	103.5	126.2	125.1
80°	1003.8	683.3	56.0	22.7	26.9	56.0	88.7	98.2	137.8	90.8	83.4
82.5°	502.7	319.5	29.6	13.7	15.3	24.8	52.8	117.8	100.3	60.2	57.0
85°	188.0	86.1	9.0	6.9	8.4	12.7	21.6	107.7	63.9	48.1	47.0
87.5°	1.1	1.6	1.6	2.1	3.2	3.7	7.9	51.2	32.2	23.2	22.2
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)