

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: P233482

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P233482
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
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 1210mA LED AND TYPE II OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5976 lumens
Efficiency: N/A
Efficacy: 119.5 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

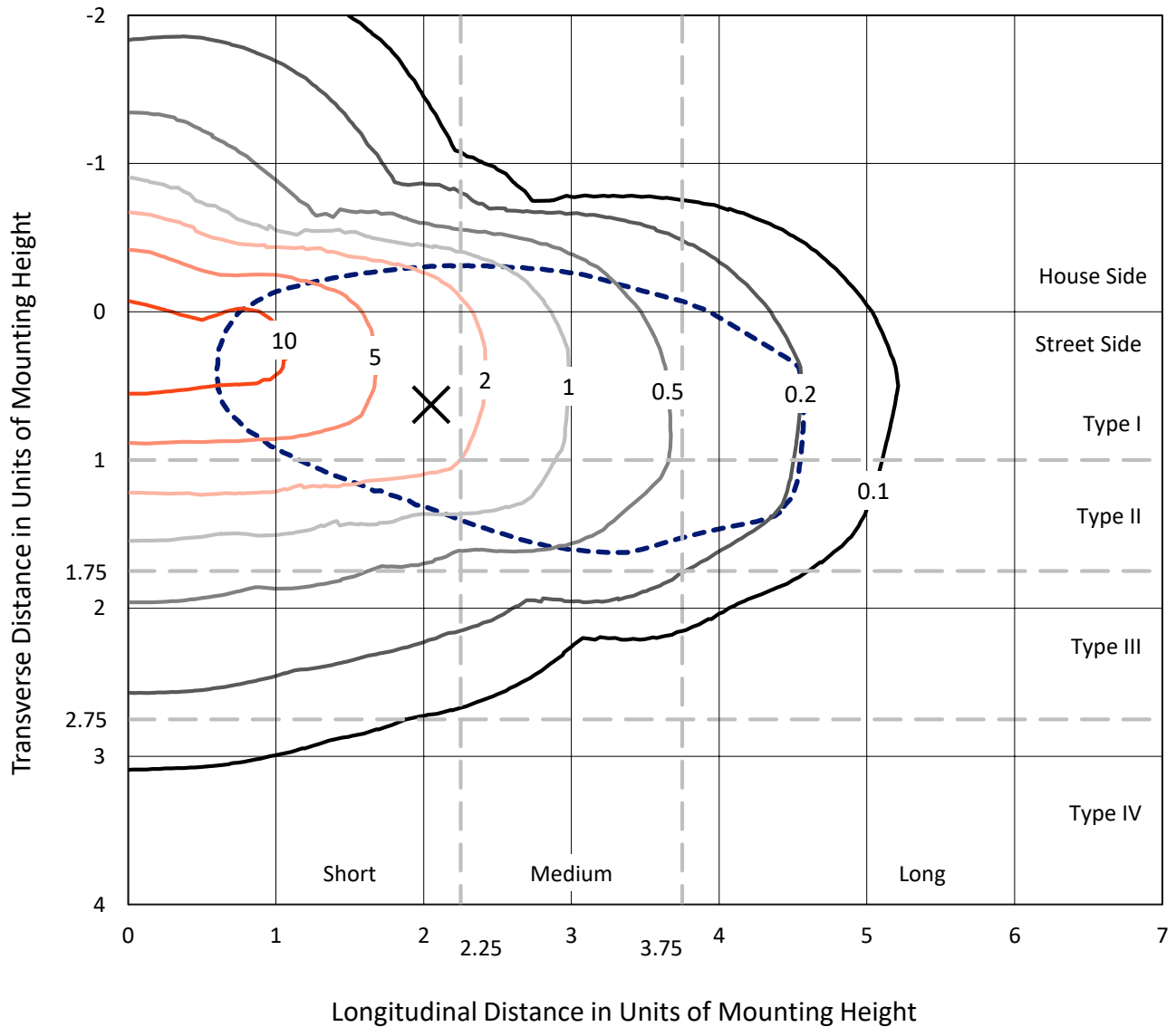


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

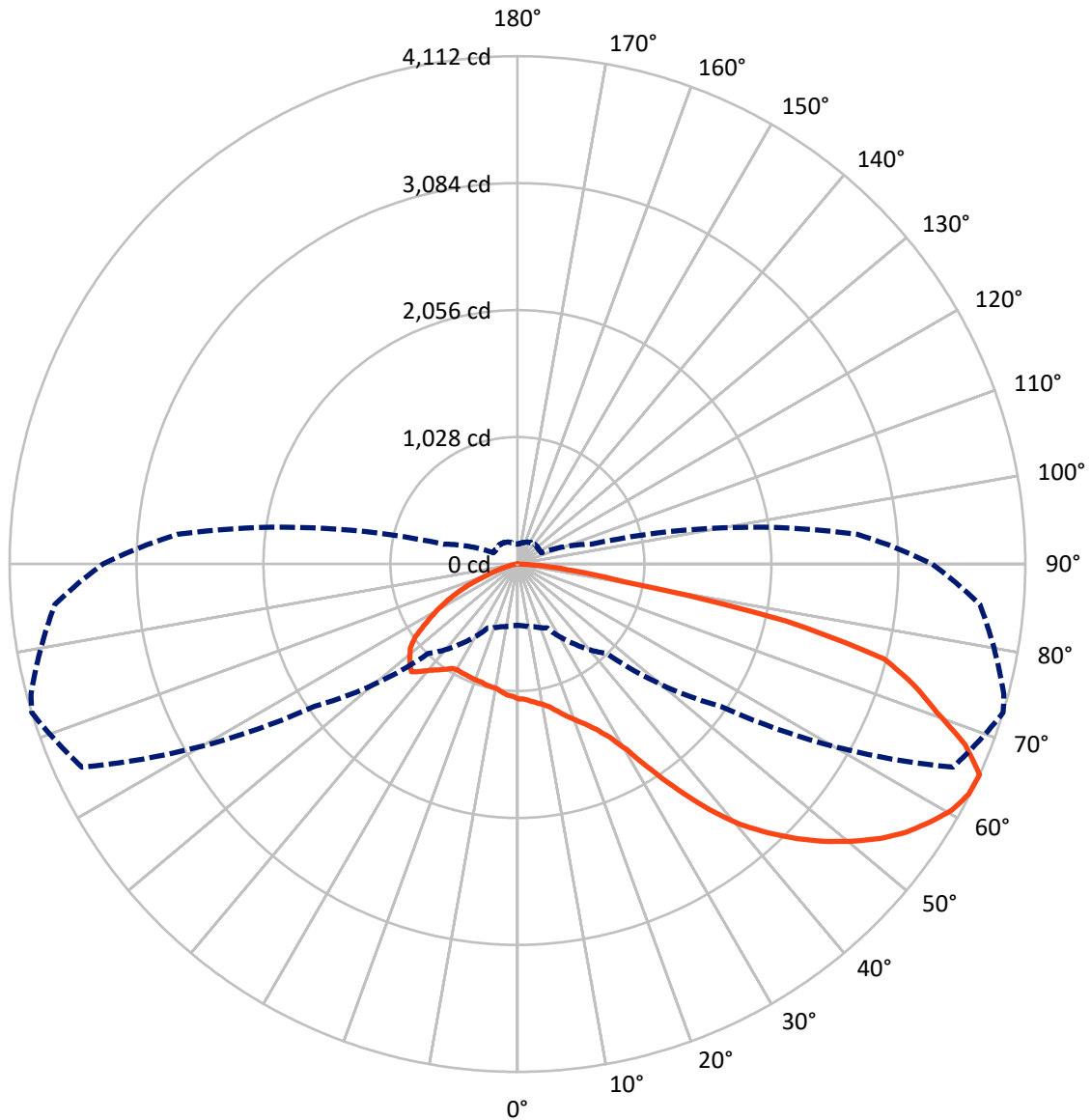


Based on 10 foot mounting height. Maximum calculated value = 12.7 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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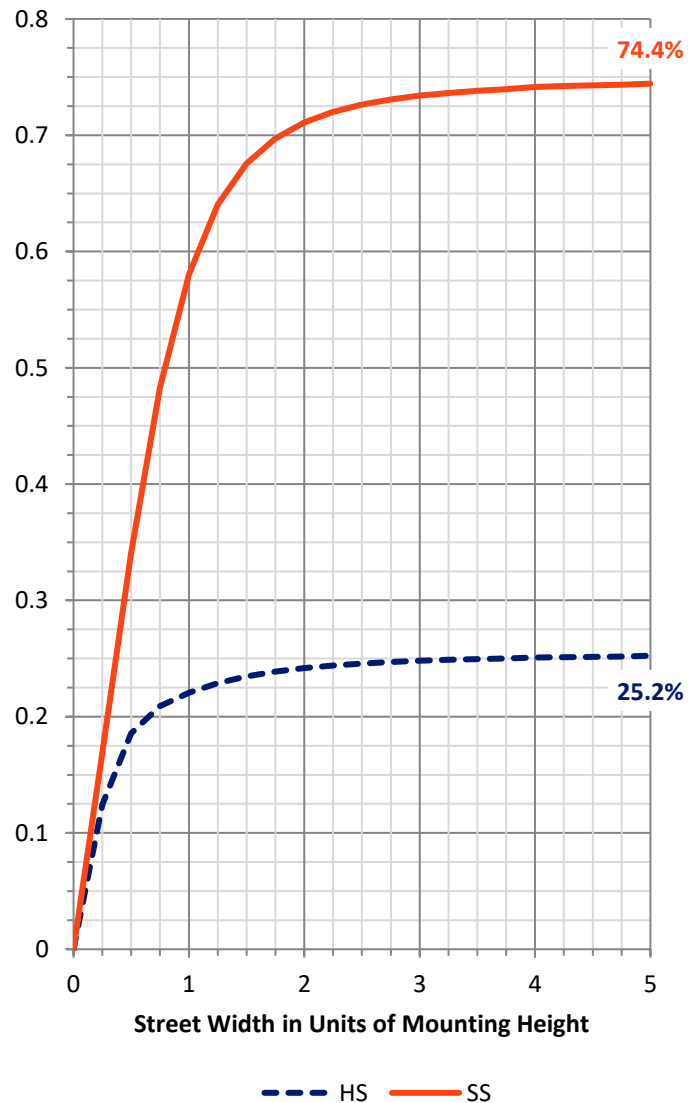
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1531.9	0.0	1531.9
	% Fixture	25.6	0.0	25.6
Street Side	Lumens	4444.1	0.0	4444.1
	% Fixture	74.4	0.0	74.4
Total	Lumens	5976.0	0.0	5976.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.3	1.7
10°-20°	315.3	5.3
20°-30°	528.9	8.8
30°-40°	775.6	13.0
40°-50°	1048.2	17.5
50°-60°	1214.2	20.3
60°-70°	1186.1	19.8
70°-80°	712.3	11.9
80°-90°	91.2	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°	5976.0	100.0
0°-180°	5976.0	100.0



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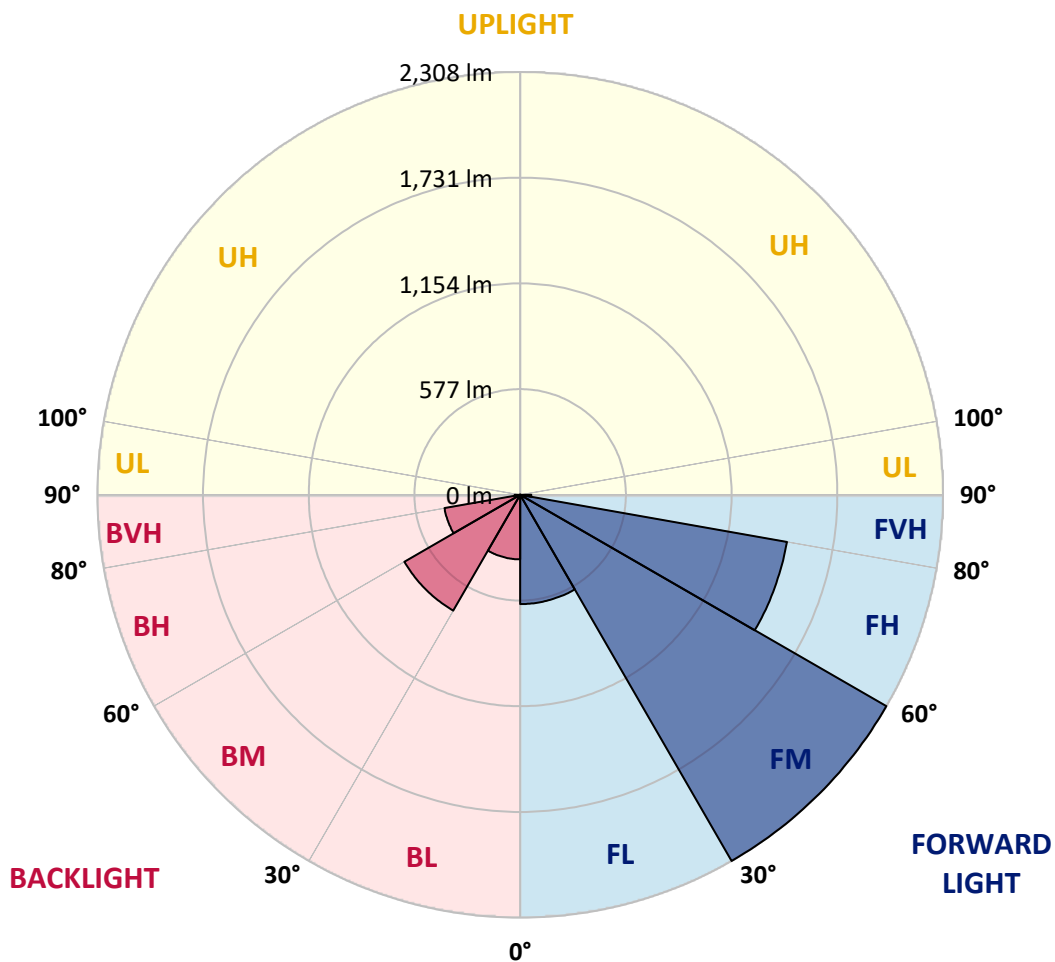
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	596.3	10.0			
FM	(30°-60°)	2308.1	38.6			
FH	(60°-80°)	1478.9	24.7			G1/1800
FVH	(80°-90°)	60.7	1.0			G1/100
BL	(0°-30°)	352.1	5.9	B1/500		
BM	(30°-60°)	729.9	12.2	B1/1000		
BH	(60°-80°)	419.4	7.0	B1/500		G1/500
BVH	(80°-90°)	30.5	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°	1092.7	1092.7	1092.7	1092.7	1092.7	1092.7	1092.7	1092.7	1092.7	1092.7	1092.7
2.5°	1160.0	1164.3	1159.4	1145.3	1138.3	1133.4	1118.8	1105.7	1095.4	1094.3	1084.6
5°	1204.5	1211.0	1202.8	1184.9	1177.9	1167.6	1151.3	1133.4	1115.0	1111.2	1091.6
7.5°	1260.9	1262.0	1257.6	1239.7	1225.1	1203.4	1175.2	1156.2	1135.0	1129.1	1098.1
10°	1308.6	1308.1	1302.7	1285.3	1270.7	1251.7	1212.1	1181.1	1156.2	1148.6	1105.7
12.5°	1354.2	1353.1	1347.7	1329.8	1311.4	1295.6	1265.8	1224.0	1190.4	1180.6	1127.4
15°	1410.6	1407.9	1399.3	1375.4	1360.7	1342.3	1320.6	1278.8	1240.3	1226.7	1158.9
17.5°	1454.0	1453.5	1447.0	1426.9	1409.6	1389.5	1369.4	1336.9	1295.1	1279.9	1189.8
20°	1479.0	1476.8	1475.2	1459.5	1455.1	1444.3	1415.5	1390.6	1348.8	1333.1	1224.5
22.5°	1505.6	1506.1	1506.7	1498.5	1511.0	1501.8	1480.6	1450.3	1407.9	1390.0	1273.4
25°	1511.6	1512.6	1523.5	1541.4	1556.6	1573.4	1558.2	1528.4	1482.8	1463.8	1340.1
27.5°	1494.7	1499.1	1531.6	1562.0	1615.7	1637.4	1634.7	1633.1	1586.4	1567.4	1431.8
30°	1509.9	1509.9	1532.2	1584.3	1652.1	1709.1	1721.5	1756.3	1742.1	1728.6	1585.9
32.5°	1464.4	1472.5	1512.1	1584.8	1692.2	1775.2	1831.7	1928.2	1984.1	1972.7	1804.0
35°	1378.6	1389.5	1447.5	1558.8	1712.3	1853.4	1954.3	2140.4	2248.4	2261.9	2066.6
37.5°	1312.4	1321.7	1394.4	1518.1	1719.9	1926.6	2095.9	2379.1	2518.5	2511.5	2289.0
40°	1231.6	1247.9	1321.1	1469.8	1702.0	1989.0	2249.4	2598.3	2769.7	2737.2	2500.6
42.5°	1158.9	1173.0	1234.3	1392.7	1677.0	2024.3	2388.3	2824.0	2974.3	2948.2	2700.8
45°	1081.9	1094.3	1151.3	1300.5	1619.0	2041.6	2518.5	3039.9	3170.7	3141.4	2886.4
47.5°	993.4	1010.2	1078.1	1213.7	1533.8	2030.8	2613.5	3227.7	3357.3	3335.6	3039.9
50°	770.4	787.8	965.2	1132.3	1415.5	1985.8	2698.7	3415.4	3526.1	3505.5	3175.6
52.5°	699.4	707.0	762.3	1039.0	1292.4	1896.8	2751.8	3570.0	3690.5	3669.8	3303.6
55°	656.0	661.4	692.3	848.6	1187.7	1753.5	2758.4	3730.6	3828.8	3801.7	3439.8
57.5°	611.5	617.4	651.6	731.9	1082.4	1529.5	2689.4	3866.8	3941.1	3911.8	3570.0
60°	574.0	577.3	610.9	666.3	963.6	1307.0	2512.0	3959.6	4044.8	4006.8	3697.5
62.5°	539.8	544.2	568.6	619.1	863.7	1140.5	2264.6	3960.1	4101.7	4078.4	3762.1
65°	495.4	501.9	525.7	571.3	782.9	1026.5	2008.5	3891.2	4112.0	4077.3	3758.8
67.5°	443.8	451.9	473.7	510.0	675.5	905.0	1651.5	3800.6	3910.7	3904.8	3603.7
70°	392.3	392.3	416.7	446.0	560.5	774.8	1304.8	3477.8	3603.7	3612.9	3325.3
72.5°	331.0	332.0	351.0	376.5	451.4	635.9	950.6	2973.2	3359.5	3247.7	2999.2
75°	277.8	276.7	296.2	317.4	367.3	500.8	620.1	2184.3	3070.3	3095.3	2639.5
77.5°	147.6	142.1	167.1	183.9	215.4	278.3	344.0	1095.4	2223.4	2272.2	2113.3
80°	41.8	42.3	110.7	123.7	141.6	137.8	159.5	417.8	879.5	991.2	1232.1
82.5°	25.0	28.8	62.9	73.8	55.3	35.8	60.8	232.2	455.2	510.0	611.5
85°	13.0	14.1	22.2	27.7	21.2	17.9	18.4	97.7	221.4	225.2	244.2
87.5°	6.0	6.0	8.1	8.7	5.4	3.3	2.2	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°	1092.7	1092.7	1092.7	1092.7	1092.7	1092.7	1092.7	1092.7	1092.7	1092.7	1092.7
2.5°	1077.0	1082.4	1073.2	1066.1	1060.7	1057.4	1053.6	1044.4	1047.1	1050.9	1050.4
5°	1082.4	1085.1	1068.8	1046.6	1026.0	1011.3	1001.6	986.9	986.9	992.9	992.9
7.5°	1087.3	1083.5	1050.4	1013.0	989.6	977.7	962.0	946.2	943.5	947.8	948.4
10°	1090.0	1073.7	1027.6	992.9	962.5	938.1	918.0	900.1	899.6	905.5	906.6
12.5°	1101.9	1070.5	1026.0	978.2	932.7	906.6	882.7	862.7	855.6	856.2	857.2
15°	1120.4	1083.5	1023.8	958.2	908.8	874.1	839.3	813.8	807.3	816.0	819.3
17.5°	1142.6	1104.6	1013.5	939.7	879.5	837.7	803.0	780.2	759.6	750.4	748.7
20°	1171.9	1122.5	1018.9	912.6	851.3	795.4	752.0	724.3	707.0	705.9	704.8
22.5°	1210.4	1142.6	1020.0	894.7	806.8	748.7	695.0	679.3	648.4	637.0	641.8
25°	1261.4	1173.0	1017.3	875.7	772.6	694.5	629.9	601.2	589.8	576.7	577.8
27.5°	1327.1	1221.3	1024.3	850.7	716.7	628.3	556.1	525.2	507.8	497.0	498.6
30°	1460.6	1294.5	1023.8	826.9	665.2	559.9	478.5	457.9	440.6	430.8	435.7
32.5°	1650.5	1453.5	1046.6	794.8	606.6	468.2	413.4	390.1	375.4	364.6	367.3
35°	1885.4	1626.6	1105.2	751.4	539.8	398.2	360.8	332.0	314.1	309.8	308.2
37.5°	2103.5	1779.6	1160.5	722.7	463.3	359.7	312.5	283.8	268.0	273.4	273.4
40°	2298.3	1982.5	1222.9	676.6	393.9	315.8	258.8	245.8	237.6	246.9	250.1
42.5°	2445.3	2177.3	1307.6	615.8	337.5	263.7	221.4	230.6	233.8	240.4	238.7
45°	2627.6	2288.5	1391.1	559.4	288.1	219.7	213.8	232.8	240.4	246.3	243.6
47.5°	2795.2	2374.8	1374.3	455.2	242.5	212.7	217.6	232.8	245.8	255.5	253.9
50°	2939.6	2482.7	1342.3	353.7	232.8	219.2	221.4	226.8	246.3	252.8	252.8
52.5°	3029.6	2589.6	1302.7	285.9	239.8	227.3	223.5	223.0	236.0	240.9	236.6
55°	3138.1	2700.3	1200.1	265.3	242.5	232.8	229.5	224.6	228.4	224.6	226.8
57.5°	3258.6	2809.4	1042.8	259.3	240.9	231.1	248.5	222.4	220.3	206.7	203.5
60°	3364.4	2852.2	905.0	245.8	232.2	226.8	231.1	219.7	208.9	191.0	183.9
62.5°	3404.0	2848.4	765.0	231.7	219.2	220.3	219.7	211.6	201.8	183.9	179.6
65°	3356.3	2761.6	620.1	214.9	208.9	213.2	207.8	195.9	179.6	164.9	161.1
67.5°	3194.6	2540.2	460.6	192.6	192.1	200.2	196.4	180.1	162.2	150.8	150.8
70°	2885.3	2267.9	298.4	160.1	172.0	186.1	186.1	168.7	145.4	135.6	138.4
72.5°	2546.8	1951.6	193.1	118.8	135.6	168.7	167.6	155.7	134.0	121.5	122.1
75°	2206.0	1548.5	124.8	81.9	87.9	143.8	148.7	127.0	104.2	89.0	86.3
77.5°	1677.0	1164.9	79.2	47.7	55.9	87.9	112.9	105.8	106.3	129.7	128.6
80°	1031.4	702.1	57.5	23.3	27.7	57.5	91.1	100.9	141.6	93.3	85.7
82.5°	516.5	328.2	30.4	14.1	15.7	25.5	54.3	121.0	103.1	61.9	58.6
85°	193.1	88.4	9.2	7.1	8.7	13.0	22.2	110.7	65.6	49.4	48.3
87.5°	1.1	1.6	1.6	2.2	3.3	3.8	8.1	52.6	33.1	23.9	22.8
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)