

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: P233690

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P233690
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-C018-D-UNV-T2-HSS
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 1210mA LED AND TYPE II OPTIC WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5416 lumens
Efficiency: N/A
Efficacy: 108.3 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

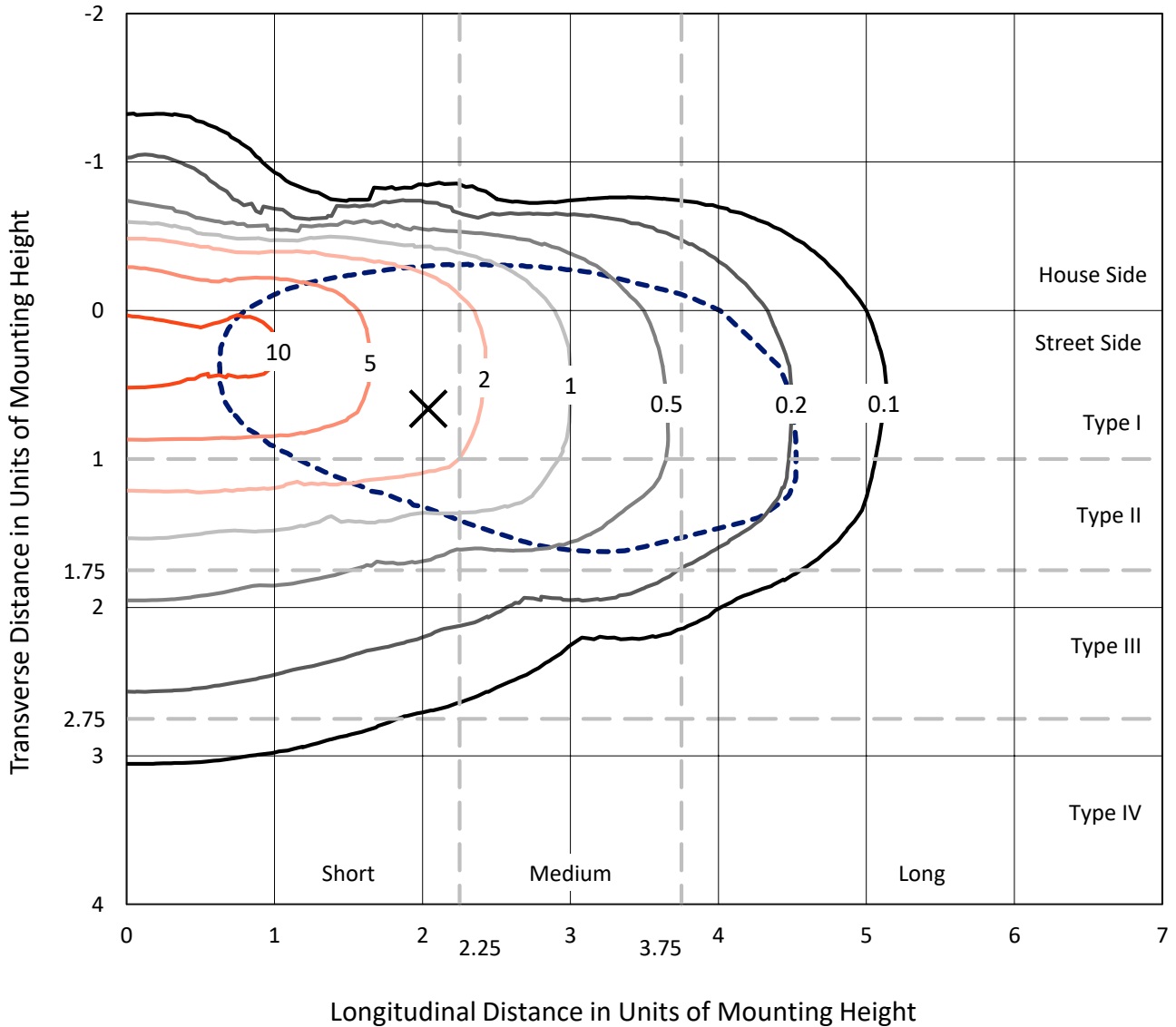
Input Watts (W): 50
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P233690
 CATALOG NUMBER: VRDN-C018-D-UNV-T2-HSS

Iso-Footcandle Lines of Horizontal Illumination

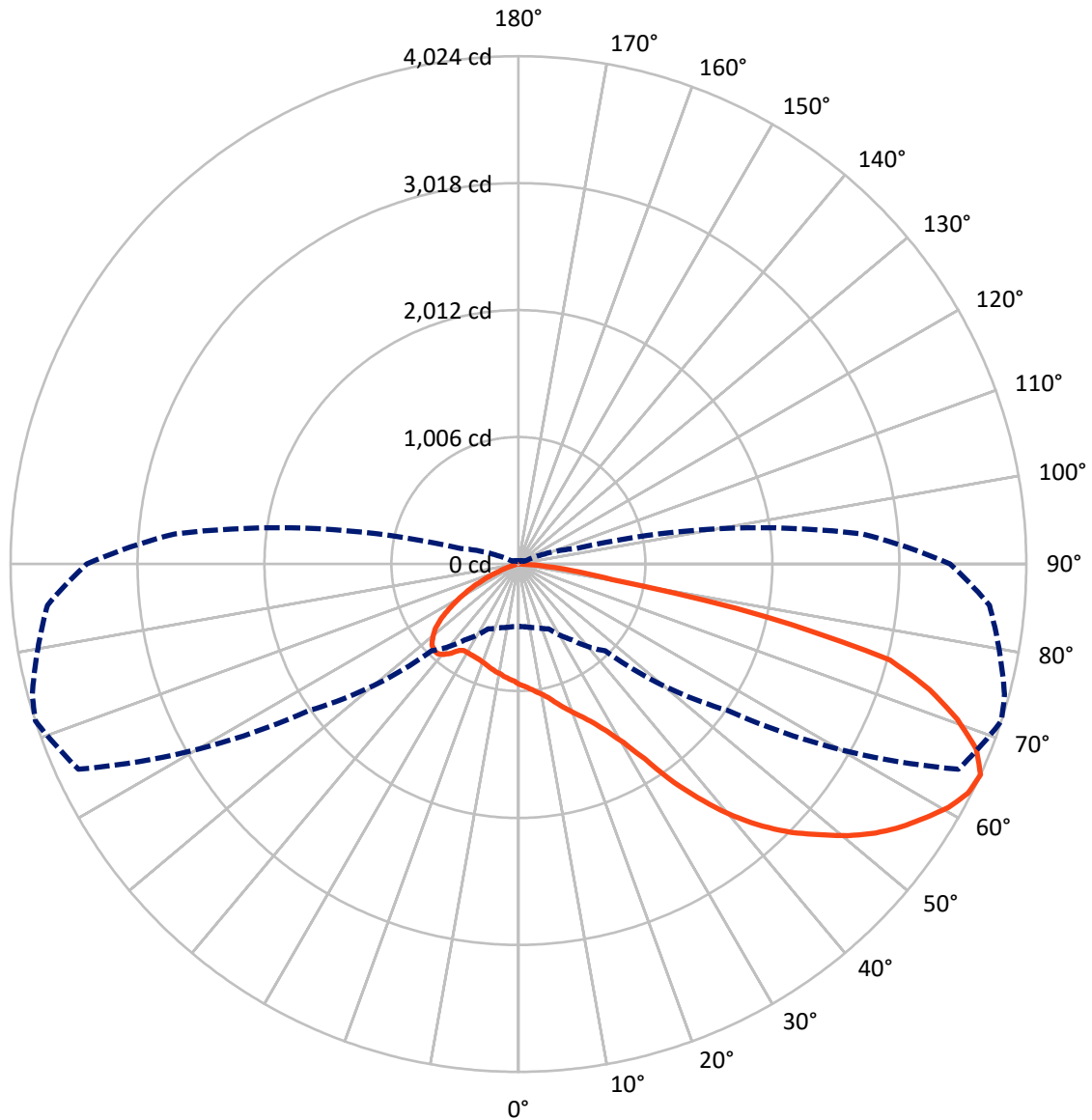
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.9 fc
 Type II - Short - Non-Cutoff

REPORT NUMBER: P233690
CATALOG NUMBER: VRDN-C018-D-UNV-T2-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P233690

CATALOG NUMBER: VRDN-C018-D-UNV-T2-HSS

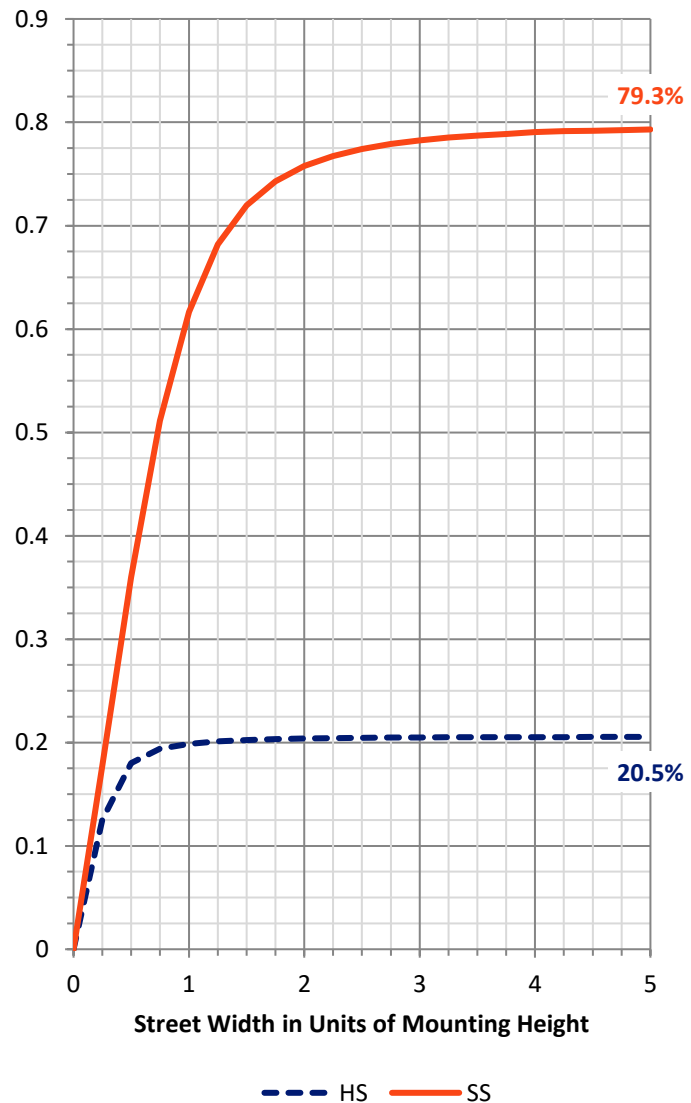
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1125.5	0.0	1125.5
	% Fixture	20.8	0.0	20.8
Street Side	Lumens	4290.5	0.0	4290.5
	% Fixture	79.2	0.0	79.2
Total	Lumens	5416.0	0.0	5416.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.5	1.7
10°-20°	277.7	5.1
20°-30°	464.1	8.6
30°-40°	686.4	12.7
40°-50°	949.0	17.5
50°-60°	1110.5	20.5
60°-70°	1103.8	20.4
70°-80°	661.1	12.2
80°-90°	72.0	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°	5416.0	100.0
0°-180°	5416.0	100.0



REPORT NUMBER: P233690

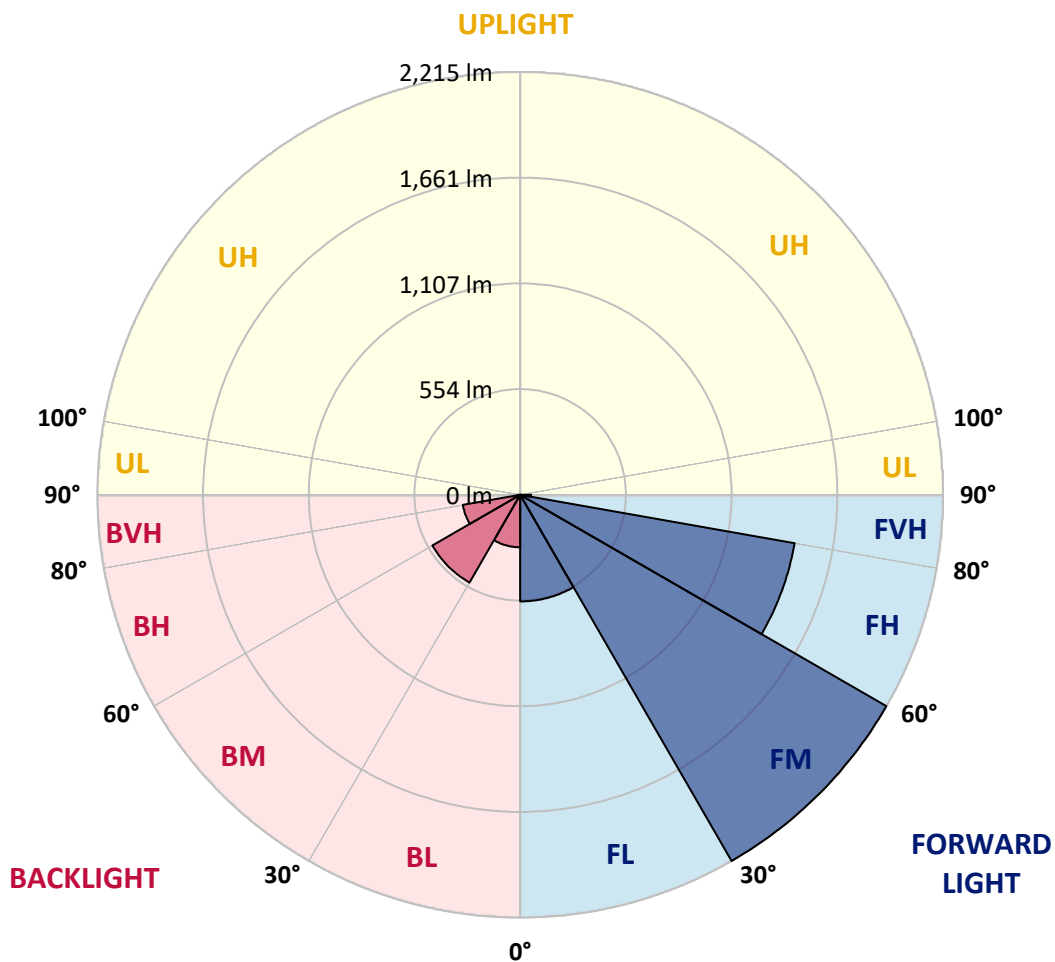
CATALOG NUMBER: VRDN-C018-D-UNV-T2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	558.5	10.3			
FM	(30°-60°)	2215.0	40.9			
FH	(60°-80°)	1460.2	27.0			G1/1800
FVH	(80°-90°)	56.9	1.1			G1/100
BL	(0°-30°)	274.8	5.1	B1/500		
BM	(30°-60°)	530.9	9.8	B1/1000		
BH	(60°-80°)	304.7	5.6	B1/500		G1/500
BVH	(80°-90°)	15.1	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-G1

Type II Short





REPORT NUMBER: P233690

CATALOG NUMBER: VRDN-C018-D-UNV-T2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	72°	75°	85°
0°	954.5	954.5	954.5	954.5	954.5	954.5	954.5	954.5	954.5	954.5	954.5
2.5°	1034.9	1035.8	1036.3	1019.9	1011.1	1000.9	991.2	980.6	969.5	965.6	951.0
5°	1098.6	1099.5	1096.8	1081.8	1065.4	1050.4	1031.9	1012.9	994.3	989.0	964.2
7.5°	1160.0	1159.6	1157.4	1138.4	1118.0	1098.1	1072.1	1046.4	1022.1	1013.7	977.1
10°	1210.8	1211.7	1213.0	1192.7	1172.8	1149.0	1117.1	1079.1	1051.3	1038.0	990.3
12.5°	1266.5	1263.9	1267.4	1247.5	1220.1	1198.5	1169.7	1125.1	1092.0	1075.2	1015.9
15°	1330.1	1330.1	1325.3	1308.9	1281.1	1254.6	1225.8	1184.8	1145.0	1119.4	1050.4
17.5°	1373.9	1371.2	1369.9	1355.8	1331.9	1308.9	1286.8	1244.9	1201.5	1170.2	1082.7
20°	1392.4	1393.3	1399.5	1389.4	1376.5	1362.8	1338.5	1305.8	1258.1	1224.5	1117.1
22.5°	1428.2	1429.1	1436.6	1429.6	1426.0	1422.5	1400.0	1371.2	1320.4	1288.2	1160.4
25°	1430.5	1431.3	1451.7	1463.2	1481.3	1489.7	1474.2	1449.5	1397.8	1366.4	1225.0
27.5°	1437.1	1439.7	1460.5	1492.3	1540.0	1556.8	1548.0	1547.1	1503.4	1470.2	1308.9
30°	1431.3	1434.0	1464.0	1508.2	1574.5	1624.0	1634.2	1660.2	1642.6	1617.8	1425.6
32.5°	1390.7	1400.4	1436.2	1506.5	1604.1	1693.8	1726.5	1815.8	1842.3	1845.0	1659.8
35°	1316.9	1322.2	1387.1	1486.1	1624.0	1759.7	1849.8	2014.7	2126.9	2122.0	1919.2
37.5°	1260.8	1262.5	1329.3	1451.7	1635.1	1830.4	1990.3	2254.2	2383.2	2388.9	2153.4
40°	1188.7	1201.5	1265.6	1410.1	1628.9	1890.0	2130.0	2477.3	2627.6	2621.4	2358.9
42.5°	1121.6	1129.1	1192.7	1345.2	1606.3	1935.6	2267.0	2693.4	2841.0	2820.7	2556.0
45°	1051.7	1064.6	1122.9	1261.2	1561.7	1961.2	2391.2	2898.5	3033.7	3008.5	2729.7
47.5°	981.9	991.2	1053.1	1184.3	1477.7	1960.3	2513.1	3090.7	3204.7	3187.0	2894.0
50°	747.3	767.6	930.2	1103.9	1359.7	1923.2	2611.7	3273.2	3384.1	3356.7	3054.5
52.5°	685.0	691.6	737.1	1010.6	1233.8	1834.8	2688.6	3444.7	3542.3	3511.0	3205.6
55°	647.4	655.3	673.9	821.5	1130.4	1689.4	2720.4	3604.6	3677.5	3645.7	3340.4
57.5°	597.5	605.4	642.1	707.5	1022.6	1468.0	2673.5	3746.5	3797.3	3762.4	3465.4
60°	563.0	566.5	601.9	653.1	904.6	1244.4	2517.1	3861.8	3914.9	3873.3	3589.2
62.5°	531.2	535.1	560.3	611.2	806.9	1080.5	2273.6	3890.1	3998.4	3966.1	3702.3
65°	494.5	498.0	521.0	566.1	731.4	973.5	2022.6	3846.8	4024.0	3987.3	3746.0
67.5°	445.9	450.7	468.9	509.5	632.4	852.4	1649.2	3766.8	3911.8	3873.8	3656.3
70°	385.8	388.0	409.6	446.3	534.3	739.8	1293.5	3482.2	3689.5	3647.5	3403.6
72.5°	311.5	315.5	338.9	377.4	438.8	609.4	924.0	3008.9	3408.0	3392.1	3035.5
75°	208.1	223.6	279.3	318.2	362.8	475.9	620.4	2111.9	3042.5	3054.9	2593.1
77.5°	39.8	41.1	117.1	174.1	212.1	290.8	384.0	1037.6	2005.4	2222.3	1955.4
80°	26.1	28.3	49.9	122.0	140.5	144.1	197.1	454.7	755.7	955.8	1127.7
82.5°	13.7	16.4	30.0	70.7	64.5	35.8	64.5	234.7	418.9	481.2	568.7
85°	5.7	6.6	14.6	24.3	18.1	15.0	15.0	93.7	185.6	214.8	223.2
87.5°	0.9	0.9	3.1	4.4	2.7	1.8	1.3	0.4	0.4	0.4	0.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P233690

CATALOG NUMBER: VRDN-C018-D-UNV-T2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	954.5	954.5	954.5	954.5	954.5	954.5	954.5	954.5	954.5	954.5	954.5
2.5°	951.0	943.0	932.0	919.2	909.9	905.0	901.0	890.4	886.9	894.0	892.2
5°	955.0	945.7	920.5	899.7	879.0	866.1	852.0	833.4	825.5	829.9	828.6
7.5°	957.6	946.1	908.6	876.3	841.4	817.1	798.5	774.2	762.3	766.7	761.4
10°	961.6	944.4	894.4	851.6	806.0	770.7	743.3	715.0	702.6	706.2	701.7
12.5°	978.4	950.5	887.8	830.3	774.7	730.5	696.0	666.0	648.3	651.8	648.3
15°	1005.8	962.9	878.1	803.4	741.5	691.1	651.4	616.9	596.6	601.4	597.0
17.5°	1034.5	977.9	869.2	773.3	706.2	650.0	608.5	579.3	546.6	549.7	543.1
20°	1059.3	992.1	864.4	745.1	673.0	606.3	556.4	536.5	491.4	479.9	472.4
22.5°	1093.7	1012.9	860.4	722.1	631.9	562.5	503.3	466.2	417.6	393.3	391.1
25°	1142.8	1043.8	860.0	704.0	594.8	516.6	434.0	371.6	328.8	300.1	296.1
27.5°	1205.1	1084.9	864.8	685.8	557.7	458.7	348.7	279.7	241.3	219.2	215.2
30°	1294.8	1138.8	871.0	665.1	516.1	383.6	259.8	205.9	174.1	158.2	155.1
32.5°	1487.0	1277.1	880.3	643.4	466.2	289.0	188.7	149.4	125.1	115.3	120.2
35°	1718.6	1464.9	921.8	615.6	400.8	205.9	136.1	106.5	89.7	91.9	94.6
37.5°	1921.0	1644.3	1015.1	579.8	313.3	151.1	93.7	79.5	79.5	86.6	92.8
40°	2111.9	1806.1	1098.6	531.2	219.6	104.3	72.5	73.8	72.5	76.9	75.6
42.5°	2292.2	1959.4	1164.0	473.3	143.6	72.0	65.8	68.5	66.3	67.2	63.2
45°	2462.7	2118.1	1200.2	388.0	95.5	62.8	60.5	65.0	64.5	63.6	59.7
47.5°	2620.5	2257.7	1218.3	279.7	65.8	56.6	57.0	60.1	61.4	60.5	58.3
50°	2775.2	2396.9	1202.0	167.5	59.2	51.7	54.8	54.8	57.4	52.6	50.8
52.5°	2923.2	2536.5	1150.3	101.6	54.4	48.2	50.8	49.9	51.3	46.4	45.5
55°	3062.4	2640.4	1048.2	80.0	51.3	46.0	46.4	47.3	45.1	39.8	41.5
57.5°	3209.6	2728.8	905.9	72.5	49.9	42.9	43.7	43.3	39.8	34.9	34.9
60°	3330.7	2792.9	763.2	65.8	49.1	42.0	38.9	38.0	32.7	30.0	29.6
62.5°	3414.2	2811.0	624.0	58.8	46.4	38.9	34.9	32.3	27.4	24.7	23.9
65°	3420.8	2733.6	475.0	53.0	43.7	36.2	32.3	26.5	21.7	19.4	18.6
67.5°	3285.1	2518.9	335.0	48.6	39.3	33.6	28.3	21.2	17.2	15.5	15.0
70°	3001.4	2252.0	205.0	42.4	35.8	31.4	29.2	17.2	14.1	11.9	11.9
72.5°	2633.8	1950.6	120.2	36.2	30.0	25.2	19.4	14.6	11.9	9.3	9.3
75°	2257.3	1548.4	73.8	27.4	22.1	19.9	15.0	12.4	9.7	7.1	7.1
77.5°	1625.3	1143.2	57.4	17.7	13.7	14.1	11.0	9.7	8.0	5.7	5.7
80°	997.4	696.0	41.1	11.9	8.0	8.0	8.0	7.5	5.7	4.9	4.4
82.5°	505.5	318.2	20.3	7.1	4.9	4.9	4.9	5.3	4.4	3.5	3.5
85°	177.6	89.3	6.2	3.5	3.1	3.1	2.7	2.7	2.2	1.8	1.8
87.5°	0.4	0.9	0.9	1.3	1.8	1.8	1.3	0.9	0.4	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)