

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: P233577

Luminaire Tested: **VRDN-C028-D-UNV-T4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P233577
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1710-389-15)
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-T4-7030
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 930mA LEDS AND TYPE IV OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8950 lumens
Efficiency: N/A
Efficacy: 122.6 lumens/watt
Luminous Opening: Rectangular (W 0.79' x L: 1.25' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U0 - G3

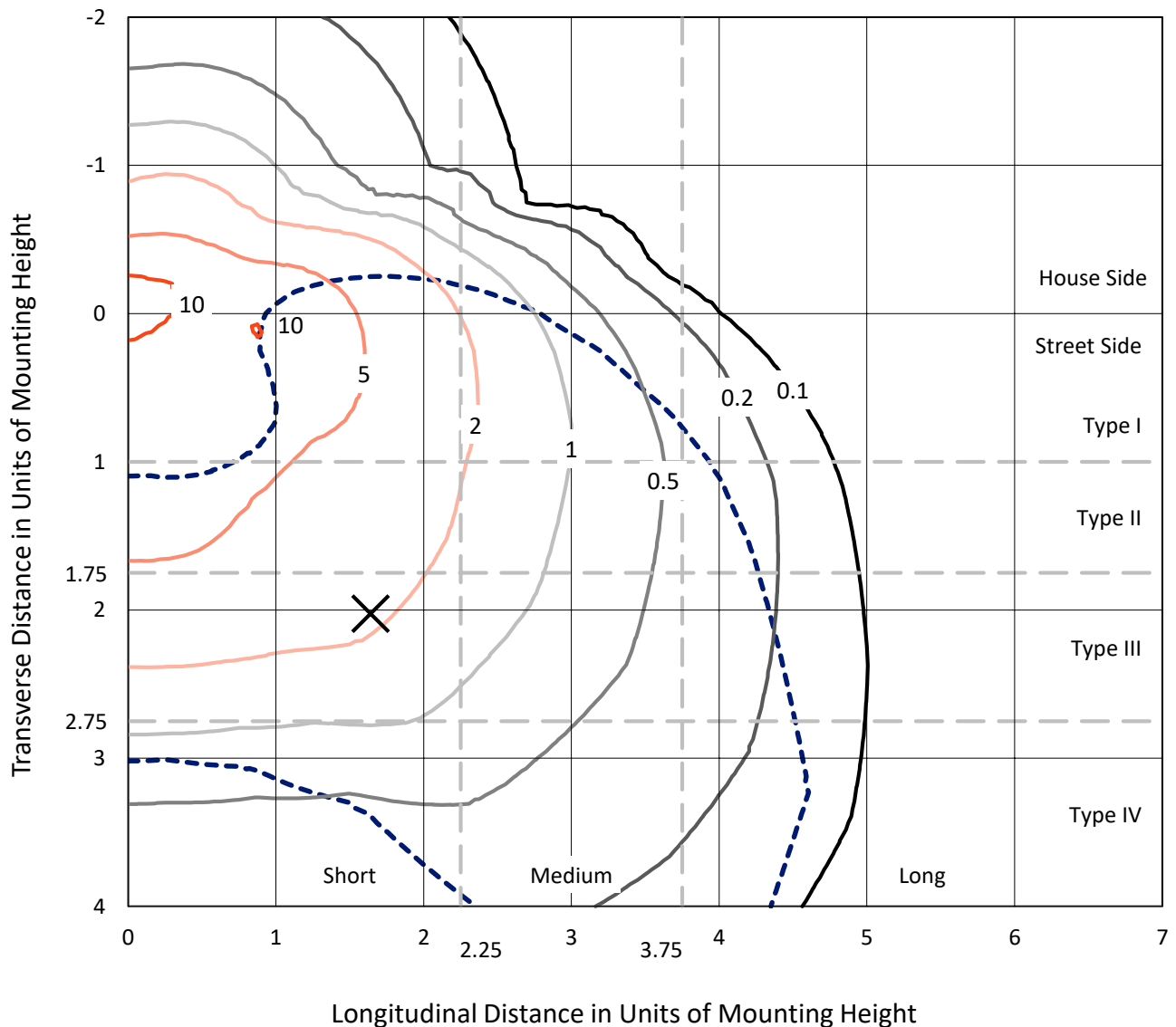
Input Watts (W): 73
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P233577
 CATALOG NUMBER: VRDN-C028-D-UNV-T4-7030

Iso-Footcandle Lines of Horizontal Illumination

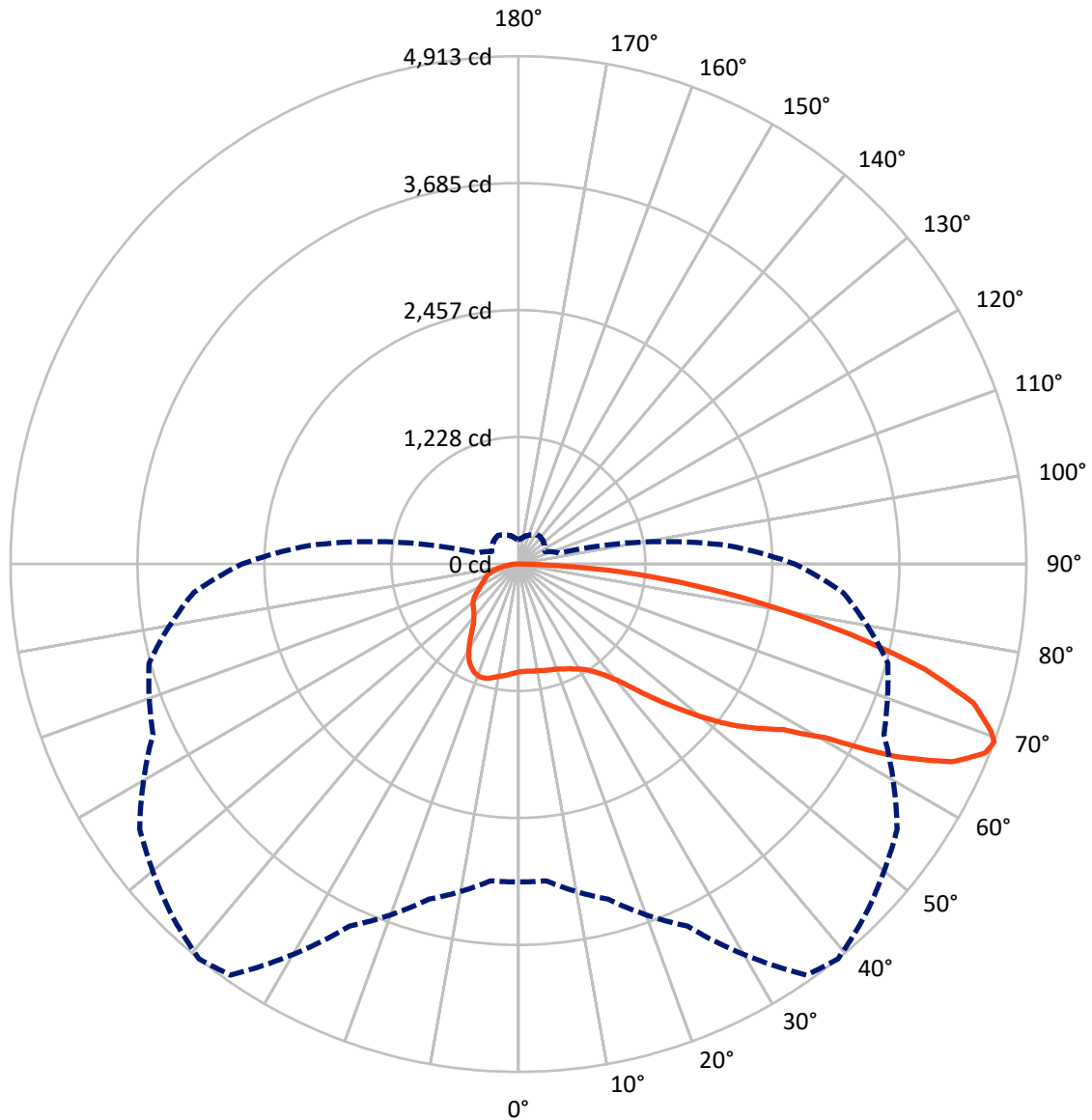
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.8 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P233577
CATALOG NUMBER: VRDN-C028-D-UNV-T4-7030

Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P233577

CATALOG NUMBER: VRDN-C028-D-UNV-T4-7030

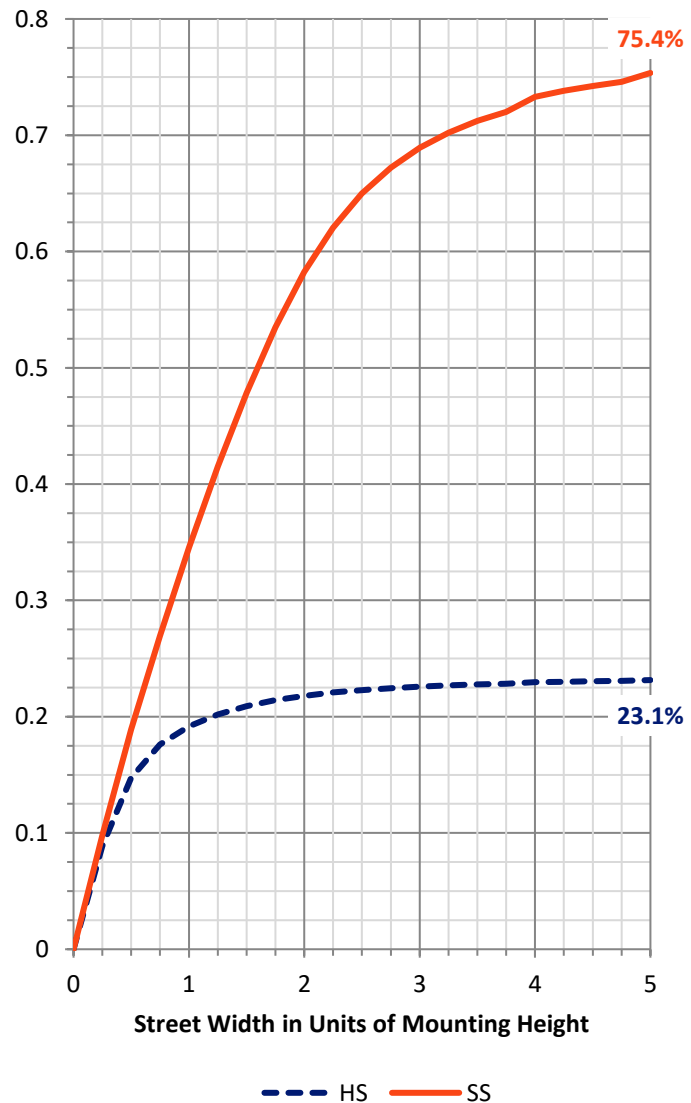
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2098.0	0.0	2098.0
	% Fixture	23.4	0.0	23.4
Street Side	Lumens	6852.0	0.0	6852.0
	% Fixture	76.6	0.0	76.6
Total	Lumens	8950.0	0.0	8950.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.3	1.1
10°-20°	313.1	3.5
20°-30°	527.1	5.9
30°-40°	763.7	8.5
40°-50°	1234.4	13.8
50°-60°	1807.2	20.2
60°-70°	2261.9	25.3
70°-80°	1617.0	18.1
80°-90°	324.2	3.6
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°	8950.0	100.0
0°-180°	8950.0	100.0



REPORT NUMBER: P233577

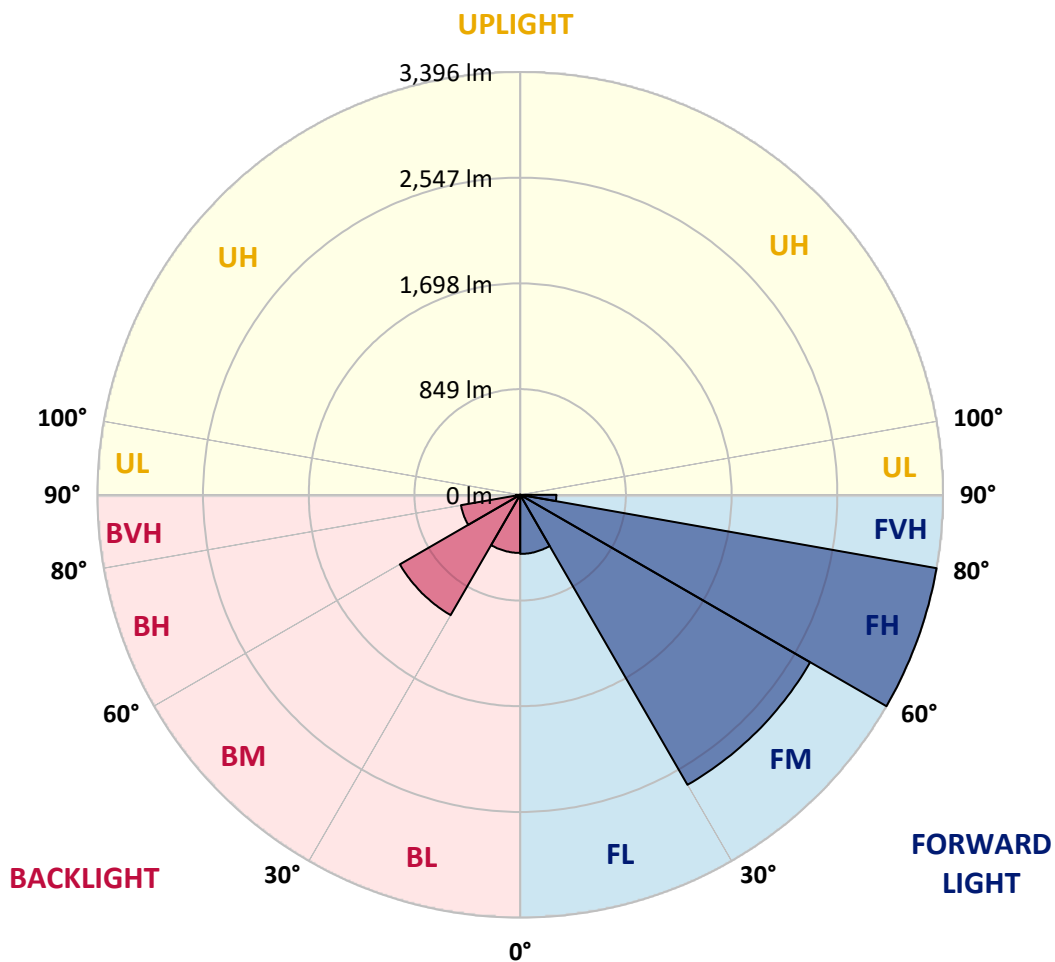
CATALOG NUMBER: VRDN-C028-D-UNV-T4-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	474.8	5.3			
FM	(30°-60°)	2689.6	30.1			
FH	(60°-80°)	3396.5	37.9			G2/5000
FVH	(80°-90°)	291.1	3.3			G3/500
BL	(0°-30°)	466.7	5.2	B1/500		
BM	(30°-60°)	1115.7	12.5	B2/2500		
BH	(60°-80°)	482.5	5.4	B1/500		G1/500
BVH	(80°-90°)	33.1	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-G3

Type IV Short





REPORT NUMBER: P233577

CATALOG NUMBER: VRDN-C028-D-UNV-T4-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	1042.5	1042.5	1042.5	1042.5	1042.5	1042.5	1042.5	1042.5	1042.5	1042.5	1042.5
2.5°	1060.6	1059.0	1055.7	1042.5	1040.9	1040.0	1041.7	1036.7	1035.9	1037.6	1035.9
5°	1061.5	1059.8	1055.7	1044.2	1042.5	1040.9	1041.7	1037.6	1038.4	1042.5	1042.5
7.5°	1063.1	1061.5	1057.3	1045.0	1048.3	1046.6	1049.9	1044.2	1044.2	1047.4	1048.3
10°	1059.0	1058.2	1055.7	1046.6	1051.6	1048.3	1051.6	1052.4	1055.7	1058.2	1057.3
12.5°	1048.3	1048.3	1048.3	1044.2	1058.2	1057.3	1063.1	1068.9	1077.1	1081.3	1083.7
15°	1041.7	1040.9	1046.6	1045.8	1063.1	1065.6	1075.5	1090.3	1102.7	1113.4	1116.7
17.5°	1048.3	1048.3	1055.7	1054.0	1071.4	1073.0	1083.7	1105.2	1125.8	1146.4	1155.5
20°	1055.7	1056.5	1065.6	1068.1	1084.6	1083.7	1094.5	1120.9	1148.9	1179.4	1195.1
22.5°	1078.8	1078.0	1085.4	1080.4	1099.4	1102.7	1111.8	1134.9	1174.5	1213.2	1238.8
25°	1096.1	1098.6	1106.0	1102.7	1118.4	1122.5	1137.3	1159.6	1206.6	1252.8	1298.2
27.5°	1112.6	1117.6	1123.3	1122.5	1143.9	1148.9	1160.4	1195.1	1249.5	1304.8	1368.3
30°	1137.3	1135.7	1139.8	1147.2	1175.3	1178.6	1192.6	1234.7	1300.7	1372.4	1457.4
32.5°	1170.3	1168.7	1172.8	1179.4	1213.2	1221.5	1240.4	1285.8	1369.1	1455.7	1559.6
35°	1222.3	1226.4	1229.7	1238.0	1271.0	1282.5	1308.1	1365.8	1462.3	1600.9	1749.3
37.5°	1402.9	1393.9	1375.7	1342.7	1351.8	1365.0	1401.3	1483.7	1624.0	1859.0	1995.1
40°	1685.0	1674.3	1617.4	1520.9	1477.2	1480.5	1515.9	1628.1	1819.4	2162.5	2287.9
42.5°	1950.6	1937.4	1869.7	1749.3	1662.7	1652.8	1656.1	1785.6	2033.9	2466.0	2532.8
45°	2201.3	2207.9	2104.8	2012.4	1913.5	1868.1	1854.1	1950.6	2272.2	2729.1	2749.8
47.5°	2441.3	2446.2	2330.0	2240.9	2145.2	2092.4	2065.2	2140.3	2491.6	2941.9	2923.0
50°	2686.3	2699.5	2540.3	2464.4	2376.1	2338.2	2311.8	2361.3	2734.1	3145.6	3087.1
52.5°	3031.8	2976.6	2767.9	2660.7	2598.0	2586.5	2559.2	2599.7	2991.4	3325.4	3203.4
55°	3416.2	3298.2	3078.8	2891.6	2805.0	2805.0	2781.1	2828.1	3257.0	3459.9	3298.2
57.5°	3540.7	3552.3	3476.4	3272.7	3040.1	3021.9	2998.8	3063.2	3484.6	3580.3	3333.7
60°	3758.4	3790.6	3849.2	3679.3	3564.6	3410.4	3270.2	3304.8	3680.9	3679.3	3371.6
62.5°	3866.5	3897.0	4080.1	3988.6	4096.6	4107.3	3845.0	3577.8	3826.1	3728.8	3389.8
65°	3764.2	3785.7	4029.8	4150.2	4463.6	4612.9	4483.4	3944.8	3902.8	3708.1	3322.1
67.5°	3428.5	3469.0	3671.0	4038.0	4791.1	4874.4	4753.1	4448.8	3935.8	3714.7	3267.7
69°	3075.5	3076.4	3356.8	3865.7	4855.4	4913.1	4764.7	4472.7	3901.1	3699.1	3151.4
70°	2876.8	2897.4	3105.2	3716.4	4831.5	4850.4	4736.6	4471.9	3877.2	3694.1	3040.9
72.5°	2245.0	2234.3	2441.3	3107.7	4560.9	4603.0	4477.6	4345.7	3857.4	3481.3	2572.4
75°	1569.5	1602.5	1805.4	2354.7	3930.0	4056.2	4056.2	4175.0	3550.6	2974.9	1859.8
77.5°	1167.9	1172.8	1335.3	1798.8	3162.1	3293.3	3413.7	3513.5	2775.3	2038.0	831.4
80°	790.9	798.4	946.8	1327.0	2343.2	2463.6	2654.1	2417.4	1651.2	705.2	94.8
82.5°	498.2	508.1	626.0	932.0	1670.1	1724.6	1783.1	1365.0	550.1	81.7	60.2
85°	296.1	297.7	377.7	595.5	1018.6	1021.9	959.2	628.5	147.6	48.7	37.9
87.5°	123.7	130.3	165.0	263.9	298.6	235.9	146.8	50.3	22.3	19.8	13.2
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: P233577

CATALOG NUMBER: VRDN-C028-D-UNV-T4-7030

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1042.5	1042.5	1042.5	1042.5	1042.5	1042.5	1042.5	1042.5	1042.5	1042.5	1042.5
2.5°	1031.0	1040.0	1038.4	1040.9	1044.2	1050.7	1058.2	1054.9	1059.0	1068.1	1068.1
5°	1040.0	1047.4	1049.9	1054.9	1059.0	1065.6	1070.5	1068.9	1078.0	1091.2	1091.2
7.5°	1047.4	1053.2	1061.5	1067.2	1071.4	1084.6	1089.5	1086.2	1092.8	1108.5	1109.3
10°	1058.2	1063.9	1076.3	1082.1	1090.3	1096.9	1103.5	1102.7	1109.3	1123.3	1125.8
12.5°	1084.6	1088.7	1106.0	1114.3	1114.3	1122.5	1117.6	1109.3	1112.6	1120.9	1122.5
15°	1119.2	1125.0	1147.2	1151.4	1147.2	1148.9	1137.3	1111.0	1097.8	1100.2	1101.1
17.5°	1158.8	1168.7	1194.3	1188.5	1183.5	1171.2	1141.5	1101.9	1062.3	1047.4	1049.9
20°	1200.9	1213.2	1242.9	1230.5	1212.4	1180.2	1132.4	1064.8	1003.7	968.3	966.6
22.5°	1249.5	1265.2	1293.2	1271.8	1231.4	1175.3	1101.9	1019.4	941.9	886.6	883.3
25°	1316.3	1333.6	1343.5	1300.7	1234.7	1157.1	1058.2	957.6	860.2	794.2	789.3
27.5°	1392.2	1401.3	1381.5	1317.1	1219.0	1118.4	1003.7	879.2	772.0	717.5	710.1
30°	1476.3	1468.9	1407.0	1308.9	1178.6	1057.3	918.8	779.4	693.6	649.9	643.3
32.5°	1573.6	1550.6	1426.8	1285.8	1125.0	977.3	826.4	715.9	647.4	603.7	600.4
35°	1733.7	1667.7	1459.0	1250.3	1054.0	883.3	741.5	661.5	607.9	553.4	545.2
37.5°	1965.4	1840.9	1506.0	1217.4	977.3	792.6	677.1	617.7	570.7	509.7	498.2
40°	2206.2	2044.6	1583.5	1181.1	905.6	725.8	641.7	599.6	553.4	495.7	480.0
42.5°	2426.5	2238.4	1674.3	1135.7	830.5	672.2	624.3	594.7	548.5	494.0	481.7
45°	2626.0	2420.7	1767.5	1083.7	748.1	629.3	610.3	585.6	538.6	486.6	476.7
47.5°	2794.3	2575.7	1861.5	1023.5	668.9	602.9	595.5	569.1	525.4	475.1	466.8
50°	2933.7	2687.1	1915.1	960.0	603.7	583.1	574.0	541.0	496.5	449.5	444.5
52.5°	3036.8	2756.4	1963.8	926.2	552.6	550.9	545.2	513.0	470.1	421.5	411.6
55°	3108.5	2813.3	1942.3	899.8	498.2	510.5	507.2	487.4	451.1	394.2	386.0
57.5°	3112.7	2818.2	1896.1	743.1	444.5	461.9	467.6	470.9	430.5	380.2	370.3
60°	3108.5	2781.9	1810.4	545.2	392.6	413.2	434.7	434.7	406.6	357.1	349.7
62.5°	3089.6	2710.2	1610.8	388.5	351.3	378.6	406.6	394.2	370.3	330.7	323.3
65°	3003.0	2590.6	1260.2	316.7	334.0	358.8	372.0	354.6	324.1	282.9	279.6
67.5°	2845.4	2316.8	729.1	290.3	319.2	341.5	352.2	325.8	296.9	257.3	255.7
69°	2672.2	2039.6	410.7	283.7	310.1	329.9	339.0	310.1	282.1	244.1	236.7
70°	2517.2	1792.2	267.2	277.9	301.0	322.5	329.1	299.4	273.0	234.2	229.3
72.5°	1906.9	1079.6	179.8	254.0	276.3	292.8	302.7	274.6	245.0	206.2	196.3
75°	1041.7	293.6	158.4	217.7	245.8	268.0	270.5	235.1	192.2	152.6	148.5
77.5°	202.9	100.6	136.1	179.8	195.5	221.9	220.2	196.3	166.6	129.5	124.5
80°	76.7	72.6	113.8	128.7	137.7	165.8	175.7	158.4	138.6	88.2	75.9
82.5°	52.0	53.6	85.0	75.9	84.1	98.1	123.7	120.4	109.7	60.2	53.6
85°	36.3	42.1	47.0	32.2	41.2	61.9	81.7	79.2	67.6	42.1	37.9
87.5°	10.7	11.5	13.2	16.5	25.6	46.2	66.8	55.3	37.1	31.3	27.2
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)