

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: P233746

Luminaire Tested: **VRDN-C028-D-UNV-T3-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P233746
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1710-389-33)
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-T3-HSS
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 930mA LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8606 lumens
Efficiency: N/A
Efficacy: 117.9 lumens/watt
Luminous Opening: Rectangular (W 0.79' x L: 1.25' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G2

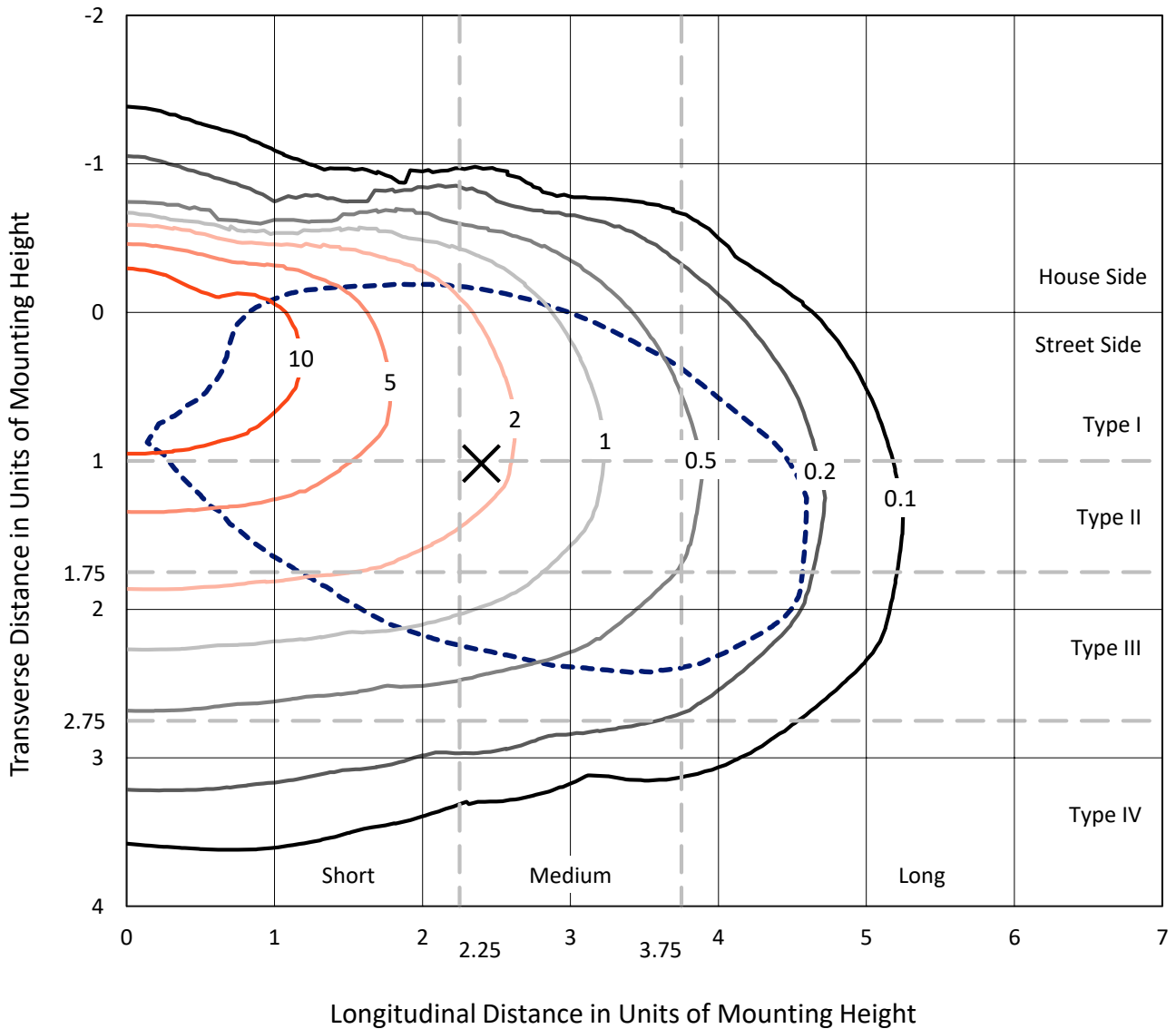
Input Watts (W): 73
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P233746
 CATALOG NUMBER: VRDN-C028-D-UNV-T3-HSS

Iso-Footcandle Lines of Horizontal Illumination

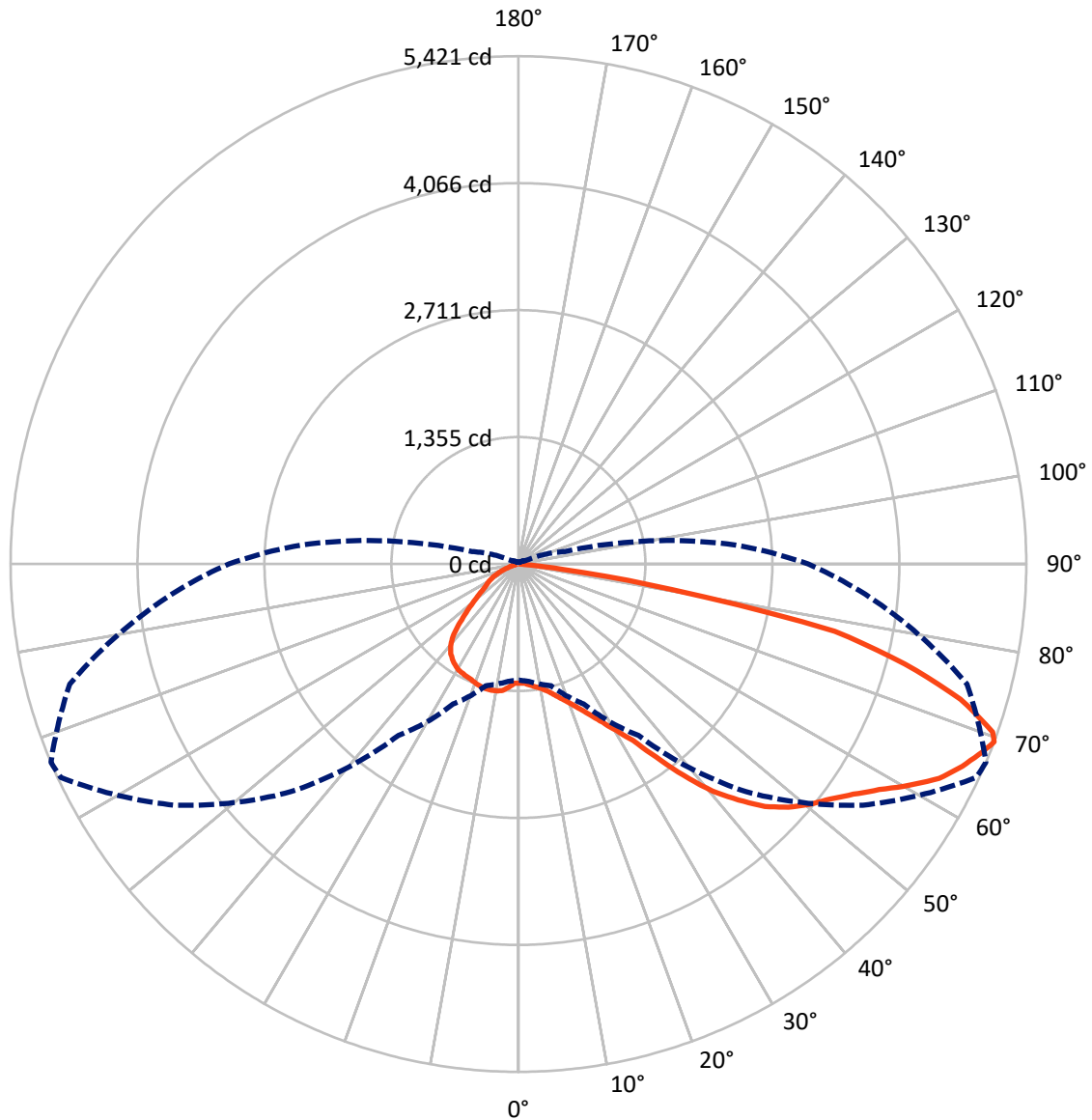
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 15.6 fc
 Type III - Medium - Semi-Cutoff

REPORT NUMBER: P233746
CATALOG NUMBER: VRDN-C028-D-UNV-T3-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P233746

CATALOG NUMBER: VRDN-C028-D-UNV-T3-HSS

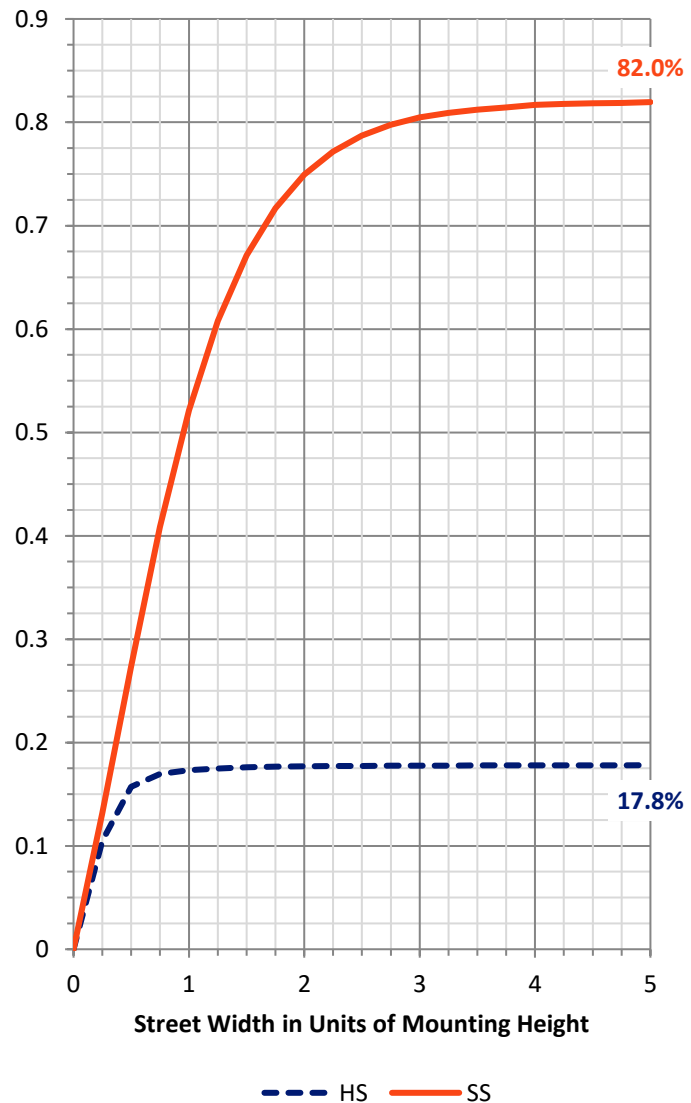
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1551.4	0.0	1551.4
	% Fixture	18.0	0.0	18.0
Street Side	Lumens	7054.6	0.0	7054.6
	% Fixture	82.0	0.0	82.0
Total	Lumens	8606.0	0.0	8606.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.5	1.5
10°-20°	404.0	4.7
20°-30°	689.6	8.0
30°-40°	1042.7	12.1
40°-50°	1473.0	17.1
50°-60°	1780.1	20.7
60°-70°	1878.4	21.8
70°-80°	1130.8	13.1
80°-90°	79.0	0.9
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°	8606.0	100.0
0°-180°	8606.0	100.0

Coefficient of Utilization



REPORT NUMBER: P233746

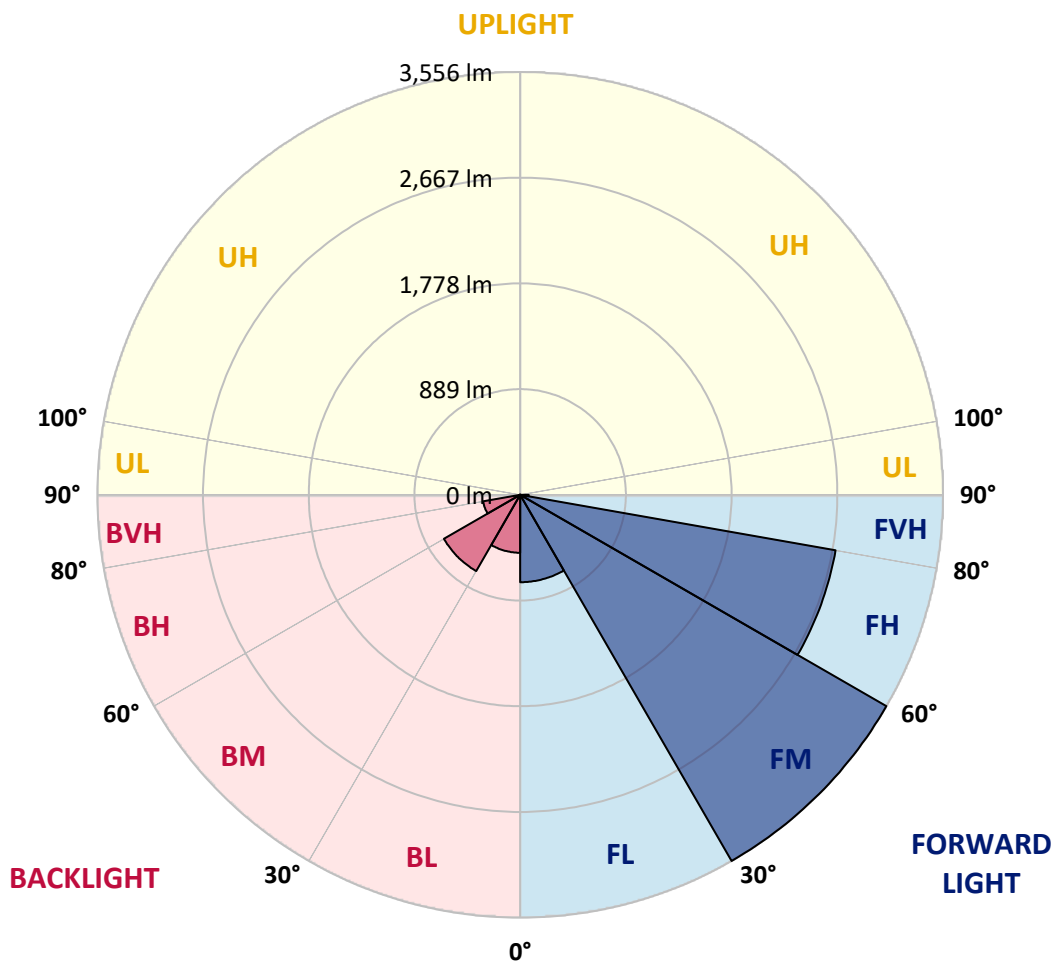
CATALOG NUMBER: VRDN-C028-D-UNV-T3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	734.9	8.5			
FM	(30°-60°)	3555.5	41.3			
FH	(60°-80°)	2692.8	31.3			G2/5000
FVH	(80°-90°)	71.4	0.8			G1/100
BL	(0°-30°)	487.2	5.7	B1/500		
BM	(30°-60°)	740.2	8.6	B1/1000		
BH	(60°-80°)	316.3	3.7	B1/500		G1/500
BVH	(80°-90°)	7.7	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Medium





REPORT NUMBER: P233746

CATALOG NUMBER: VRDN-C028-D-UNV-T3-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	1272.7	1272.7	1272.7	1272.7	1272.7	1272.7	1272.7	1272.7	1272.7	1272.7	1272.7
2.5°	1305.6	1303.6	1303.6	1291.9	1280.9	1278.2	1277.5	1274.1	1274.8	1270.0	1265.2
5°	1343.3	1343.3	1342.0	1326.9	1315.2	1307.7	1302.9	1296.7	1297.4	1294.0	1289.8
7.5°	1400.2	1400.9	1398.2	1378.3	1366.6	1348.1	1337.2	1325.5	1324.8	1320.7	1322.1
10°	1470.2	1472.2	1468.1	1442.8	1422.9	1397.5	1374.2	1353.6	1352.2	1347.4	1351.6
12.5°	1549.0	1551.8	1541.5	1515.4	1492.8	1453.0	1424.9	1397.5	1393.4	1392.7	1395.4
15°	1639.6	1640.9	1637.5	1599.1	1571.7	1535.3	1489.4	1454.4	1450.3	1451.0	1447.6
17.5°	1740.4	1743.8	1736.2	1702.0	1665.6	1615.6	1560.7	1517.5	1515.4	1513.4	1498.3
20°	1847.3	1850.8	1846.0	1813.7	1770.5	1707.4	1640.2	1590.9	1590.2	1585.4	1550.4
22.5°	1968.0	1972.8	1970.1	1931.0	1885.0	1816.5	1732.8	1681.4	1680.0	1664.9	1612.1
25°	2099.0	2097.6	2100.4	2058.5	2015.3	1943.3	1839.8	1786.3	1786.3	1767.8	1689.6
27.5°	2225.8	2225.2	2230.0	2200.5	2155.2	2087.3	1962.5	1908.4	1913.2	1886.4	1782.9
30°	2349.3	2349.3	2360.9	2341.7	2308.1	2236.8	2114.8	2057.8	2064.0	2035.9	1900.8
32.5°	2464.5	2470.0	2489.9	2478.2	2452.8	2388.4	2284.1	2232.0	2246.4	2258.1	2120.2
35°	2549.5	2555.0	2600.9	2605.1	2598.9	2555.7	2478.2	2511.8	2528.9	2620.8	2467.2
37.5°	2624.3	2631.1	2686.0	2720.3	2740.1	2713.4	2718.2	2830.7	2862.9	2971.2	2763.5
40°	2679.1	2694.2	2748.4	2795.7	2865.6	2897.2	2975.3	3135.1	3187.2	3230.4	2967.1
42.5°	2641.4	2651.7	2747.0	2873.9	2976.0	3087.1	3214.0	3403.9	3443.0	3429.3	3146.8
45°	2585.9	2598.2	2698.3	2894.4	3063.8	3285.3	3440.3	3646.0	3690.5	3614.4	3301.7
47.5°	2523.5	2540.6	2648.9	2867.0	3137.2	3467.7	3645.3	3853.8	3879.8	3779.7	3432.0
50°	2460.4	2479.6	2602.3	2844.4	3194.1	3619.9	3794.8	4023.1	4030.7	3916.8	3549.3
52.5°	2375.3	2395.2	2529.6	2797.1	3233.9	3720.0	3925.8	4162.3	4167.1	4065.0	3660.4
55°	2267.7	2293.1	2435.0	2727.1	3243.5	3778.3	4008.7	4307.0	4339.2	4225.4	3751.6
57.5°	2140.8	2164.1	2320.5	2626.3	3195.5	3798.2	4124.6	4498.3	4542.9	4387.9	3827.0
60°	1994.8	2021.5	2178.5	2496.0	3098.8	3853.8	4316.6	4768.5	4795.2	4558.0	3893.5
62.5°	1845.3	1864.5	2007.1	2312.9	2947.9	3887.4	4486.7	5022.2	5040.0	4721.9	3933.3
65°	1632.7	1656.7	1795.9	2103.1	2730.5	3822.9	4551.8	5195.7	5206.7	4859.0	3914.1
67.5°	1401.6	1420.8	1522.3	1850.1	2445.3	3618.5	4525.1	5311.6	5346.6	4966.0	3827.0
69°	1237.7	1256.9	1344.7	1647.8	2233.4	3437.5	4487.4	5390.5	5421.3	4958.4	3715.9
70°	1110.2	1129.4	1212.4	1496.9	2067.4	3284.6	4427.7	5350.7	5370.6	4874.1	3607.6
72.5°	794.1	813.3	881.2	1052.6	1566.2	2699.7	4058.1	4909.1	4935.8	4468.8	3224.3
75°	415.5	461.5	583.5	680.2	927.8	1900.8	3373.7	4222.0	4261.1	3921.6	2651.7
77.5°	53.5	56.2	164.6	276.3	383.3	801.6	2396.6	3390.2	3451.9	3138.5	1833.6
80°	43.2	43.9	56.9	137.8	190.6	325.0	850.3	1586.8	1661.5	1394.8	674.1
82.5°	30.2	31.5	44.6	72.7	62.4	118.6	295.5	448.5	462.2	399.8	268.8
85°	17.1	17.1	21.3	28.1	19.9	44.6	61.0	65.1	58.3	57.6	43.2
87.5°	4.8	5.5	6.2	4.8	2.1	2.1	2.7	2.7	2.7	2.1	2.1
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: P233746

CATALOG NUMBER: VRDN-C028-D-UNV-T3-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1272.7	1272.7	1272.7	1272.7	1272.7	1272.7	1272.7	1272.7	1272.7	1272.7	1272.7
2.5°	1272.7	1271.3	1272.0	1274.8	1278.9	1294.0	1304.2	1305.6	1310.4	1328.2	1326.2
5°	1294.6	1302.9	1307.7	1322.1	1331.7	1352.2	1364.6	1366.0	1372.8	1391.3	1392.0
7.5°	1325.5	1339.2	1346.1	1362.5	1366.0	1375.6	1379.0	1375.6	1376.2	1392.7	1394.1
10°	1352.2	1369.4	1369.4	1373.5	1367.3	1368.0	1357.0	1346.8	1341.3	1355.7	1359.1
12.5°	1393.4	1398.2	1387.2	1374.9	1356.4	1339.9	1321.4	1304.9	1291.9	1300.1	1295.3
15°	1435.9	1428.4	1401.6	1369.4	1336.5	1308.4	1270.0	1246.0	1223.3	1228.1	1224.0
17.5°	1478.4	1453.7	1411.9	1358.4	1310.4	1256.9	1203.4	1165.7	1124.6	1121.2	1115.0
20°	1519.6	1483.9	1414.6	1335.8	1268.6	1193.2	1110.2	1045.7	984.7	968.9	958.6
22.5°	1568.9	1517.5	1418.1	1313.8	1223.3	1120.5	995.0	894.9	829.0	807.1	796.8
25°	1632.0	1564.1	1427.7	1297.4	1177.4	1030.6	858.5	744.0	672.7	635.0	631.5
27.5°	1706.8	1620.4	1444.1	1276.1	1112.2	910.6	717.3	597.9	521.8	483.4	471.1
30°	1804.8	1690.3	1459.2	1259.7	1020.4	779.7	569.1	436.1	345.6	320.9	307.9
32.5°	1990.6	1804.1	1478.4	1221.3	912.0	636.3	403.2	268.8	207.1	190.6	190.6
35°	2293.1	2054.4	1526.4	1168.5	781.7	463.5	242.1	150.9	123.4	113.8	109.0
37.5°	2566.0	2306.8	1646.4	1086.9	623.3	274.3	138.5	93.3	84.3	85.7	85.7
40°	2758.7	2479.6	1778.8	976.5	423.1	146.7	87.8	74.7	76.1	76.8	76.8
42.5°	2923.9	2627.0	1851.4	845.5	230.4	95.3	75.4	67.9	69.9	69.3	68.6
45°	3062.4	2747.0	1875.4	665.1	111.8	84.3	68.6	62.4	62.4	61.7	61.7
47.5°	3181.1	2853.3	1830.9	494.4	90.5	77.5	65.1	57.6	56.9	60.3	60.3
50°	3289.4	2935.6	1719.8	374.4	87.8	71.3	61.7	53.5	54.2	59.0	59.0
52.5°	3379.9	2984.3	1555.2	280.5	81.6	65.8	56.9	50.1	50.1	54.9	54.9
55°	3447.1	2984.3	1429.7	209.8	78.2	60.3	52.8	48.0	45.3	46.6	47.3
57.5°	3480.7	2928.0	1328.9	170.1	74.1	54.9	48.7	41.8	37.0	38.4	37.7
60°	3471.8	2895.8	1213.0	151.5	69.3	50.7	43.2	35.7	30.9	29.5	29.5
62.5°	3455.3	2859.5	1068.4	131.7	64.5	47.3	35.7	28.8	26.1	24.7	25.4
65°	3392.9	2741.5	885.3	109.7	59.7	45.9	30.2	25.4	22.6	21.3	21.3
67.5°	3242.1	2528.9	669.3	92.6	55.5	37.0	26.1	21.9	19.2	17.8	17.8
69°	3092.6	2326.0	513.6	84.3	52.8	33.6	24.0	19.9	17.8	15.8	15.8
70°	2963.7	2168.9	402.5	78.9	50.7	32.2	23.3	19.2	17.1	15.1	15.1
72.5°	2523.5	1720.5	204.3	68.6	42.5	28.1	20.6	17.1	14.4	12.3	12.3
75°	1957.7	1185.6	135.1	54.2	32.9	25.4	18.5	15.1	12.3	10.3	9.6
77.5°	1178.1	463.5	96.7	35.0	21.3	19.9	15.1	12.3	10.3	8.2	8.2
80°	325.0	198.9	65.1	23.3	12.3	13.0	11.0	8.9	7.5	6.2	6.2
82.5°	195.4	128.9	43.2	15.1	8.2	8.2	6.2	6.2	4.8	4.8	4.8
85°	33.6	26.1	10.3	6.2	4.8	4.8	3.4	2.1	2.1	2.1	2.1
87.5°	2.1	2.1	2.1	2.7	2.7	2.1	1.4	0.7	0.0	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)