

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: P233520

Luminaire Tested: **VRDN-C016-D-UNV-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P233520
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1710-389-14)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: VRDN-C016-D-UNV-T3-7030
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 950mA LED AND TYPE III OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4732 lumens
Efficiency: N/A
Efficacy: 121.3 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 - G1

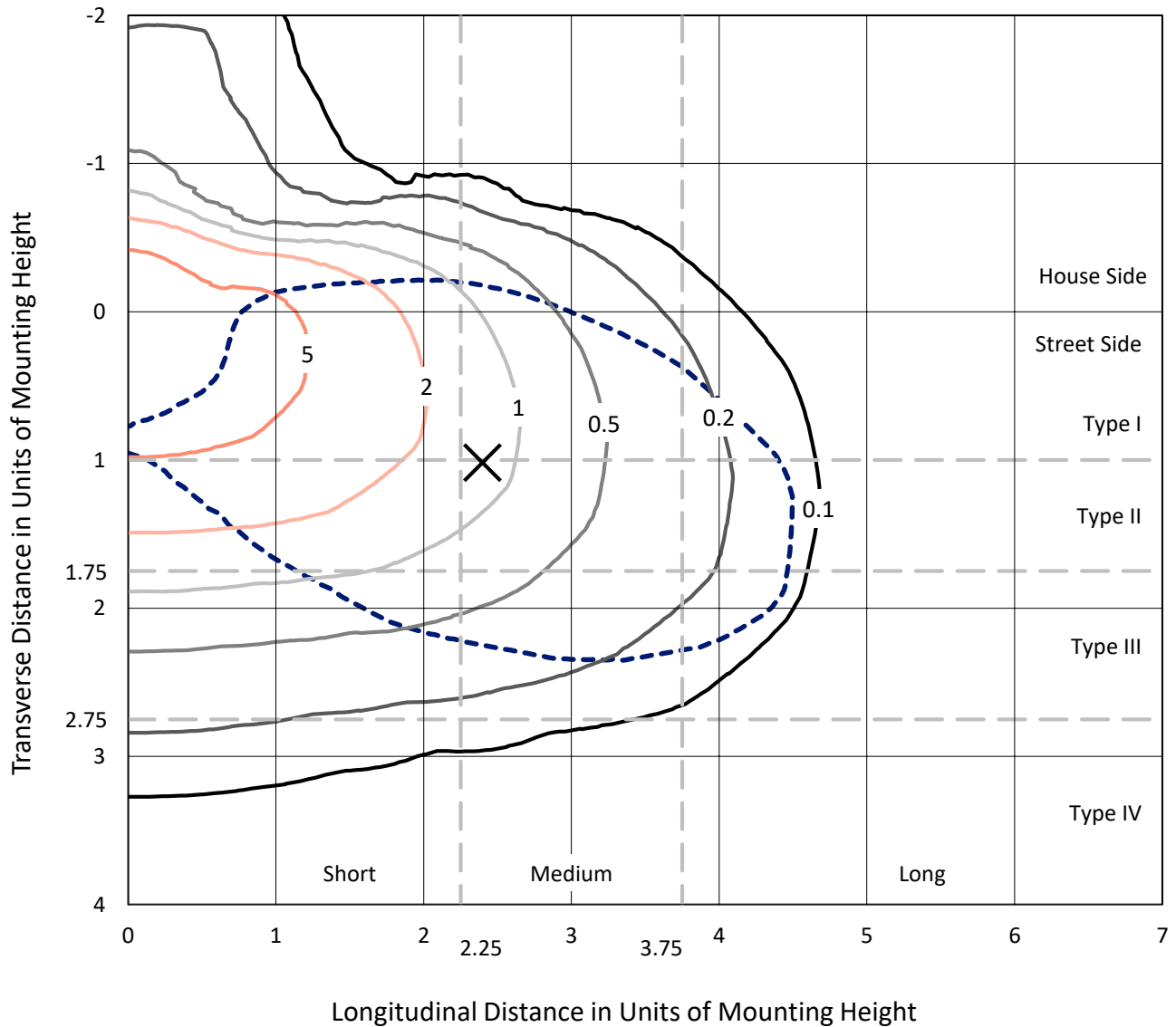
Input Watts (W): 39
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

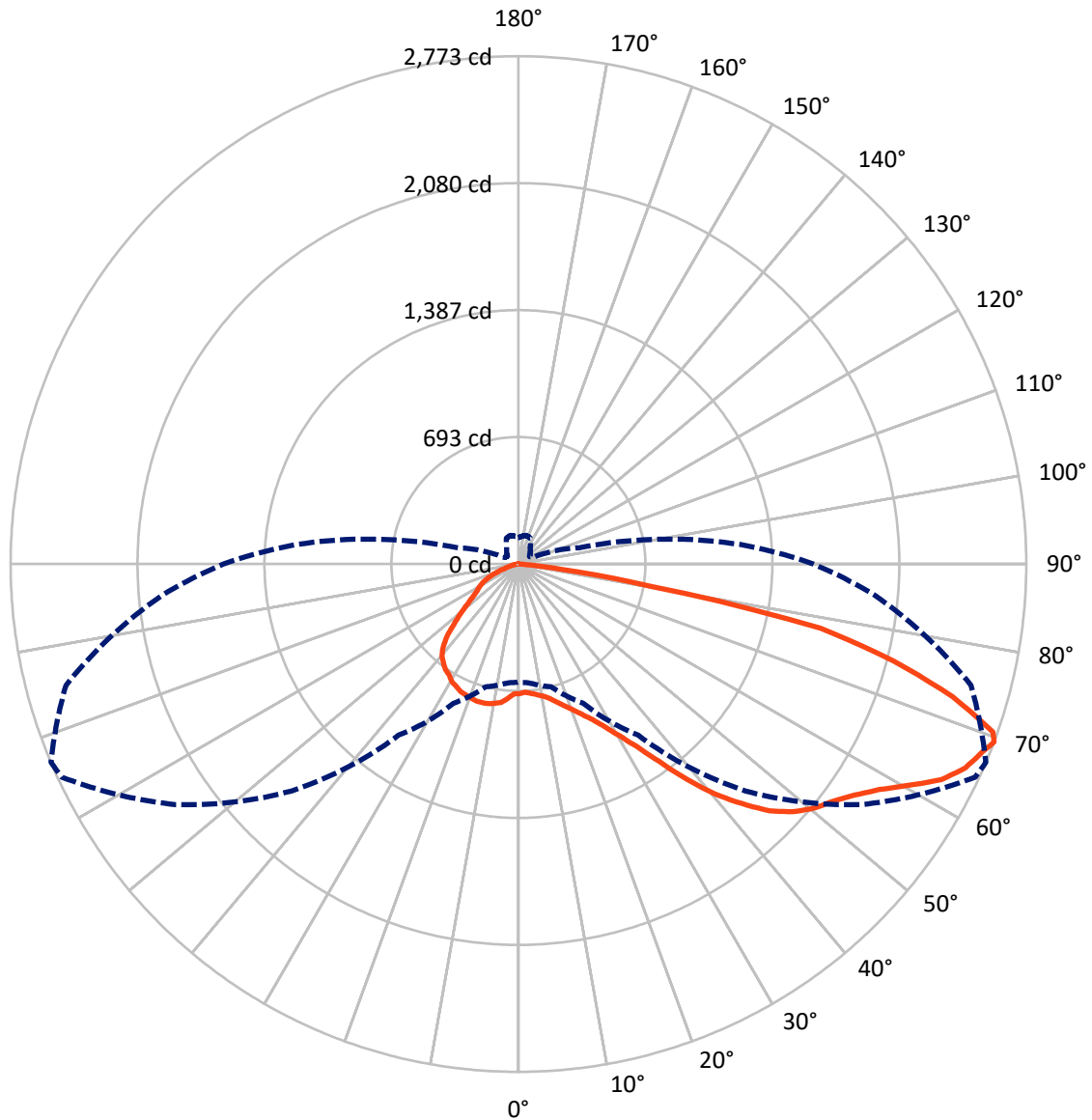
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.2 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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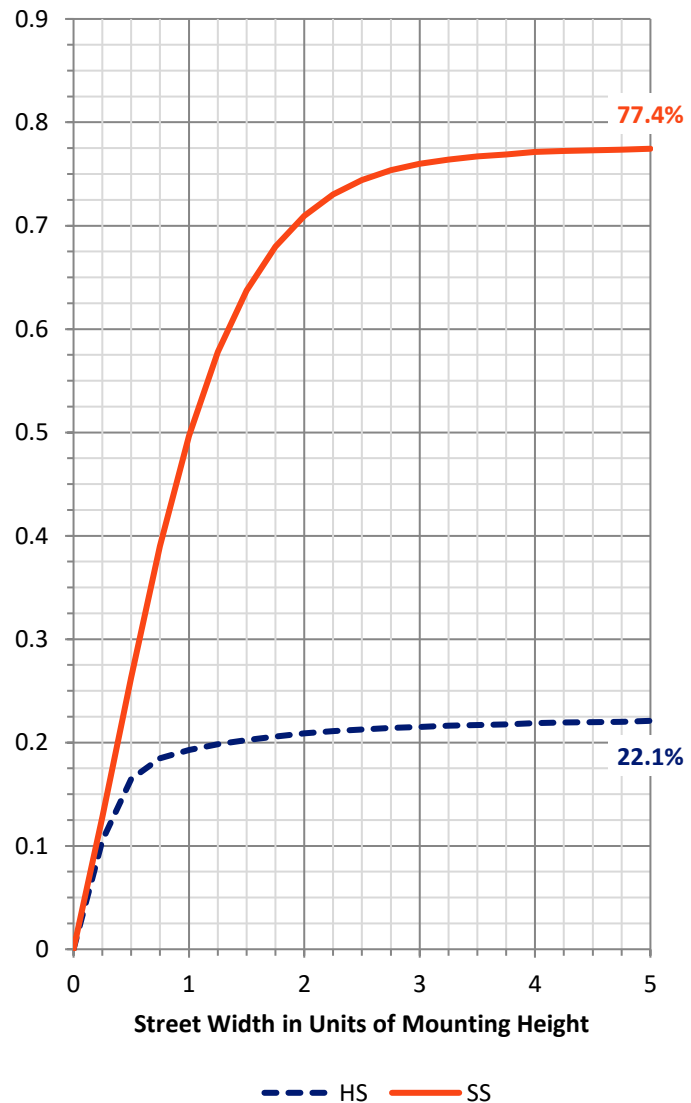
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1065.6	0.0	1065.6
	% Fixture	22.5	0.0	22.5
Street Side	Lumens	3666.4	0.0	3666.4
	% Fixture	77.5	0.0	77.5
Total	Lumens	4732.0	0.0	4732.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.7	1.5
10°-20°	228.5	4.8
20°-30°	393.6	8.3
30°-40°	585.4	12.4
40°-50°	806.3	17.0
50°-60°	963.8	20.4
60°-70°	1017.1	21.5
70°-80°	609.5	12.9
80°-90°	56.1	1.2
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°	4732.0	100.0
0°-180°	4732.0	100.0



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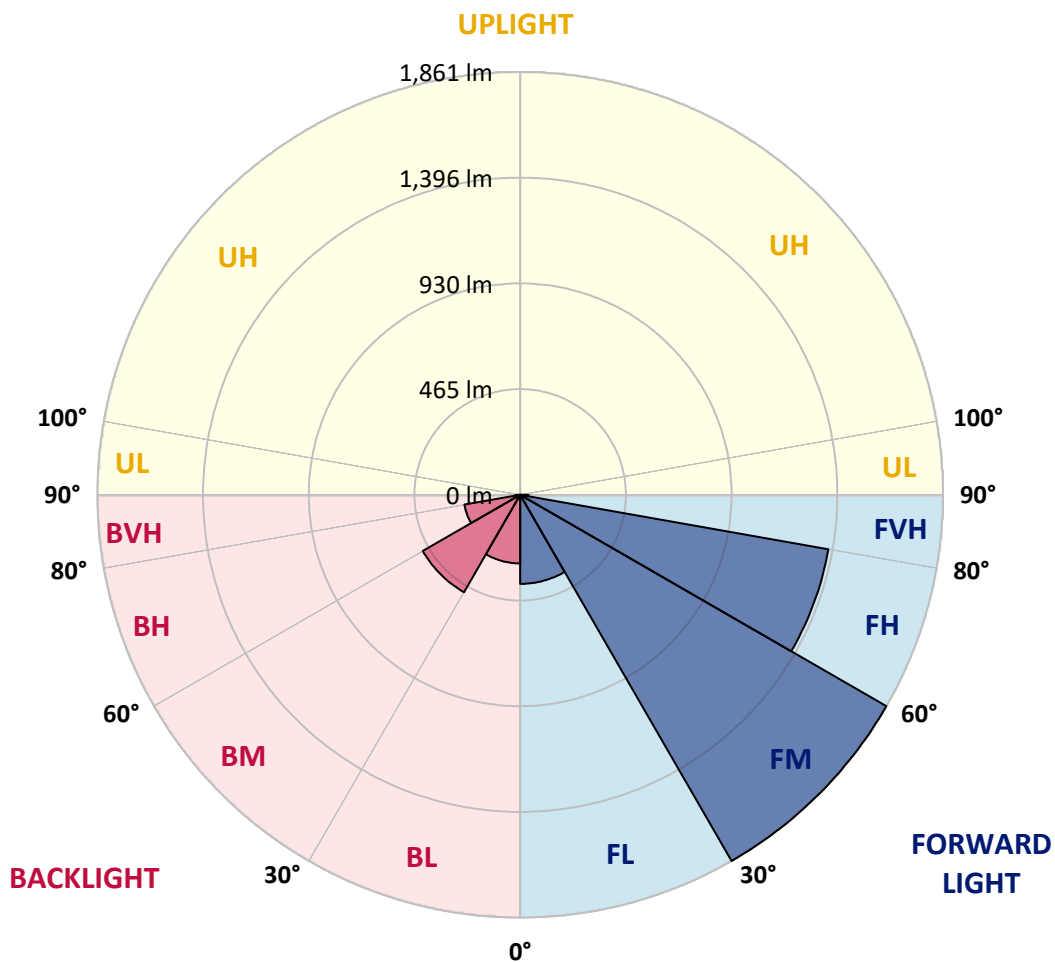
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	391.8	8.3			
FM	(30°-60°)	1860.8	39.3			
FH	(60°-80°)	1377.5	29.1			G1/1800
FVH	(80°-90°)	36.3	0.8			G1/100
BL	(0°-30°)	301.9	6.4	B1/500		
BM	(30°-60°)	494.7	10.5	B1/1000		
BH	(60°-80°)	249.2	5.3	B1/500		G1/500
BVH	(80°-90°)	19.8	0.4			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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8
2.5°	719.4	719.0	716.8	709.1	708.2	707.4	702.2	702.6	701.4	702.6	703.1
5°	739.2	737.5	735.3	727.2	724.2	720.3	712.5	712.1	709.1	710.0	710.8
7.5°	763.7	762.0	760.3	750.8	747.8	740.9	728.9	722.9	720.3	721.1	722.4
10°	796.9	793.9	791.3	777.5	772.8	761.2	746.5	736.2	732.8	734.1	737.5
12.5°	834.7	830.9	826.6	812.4	805.9	787.8	770.6	757.3	752.1	755.1	757.7
15°	873.9	871.7	870.0	853.2	844.2	824.4	802.9	786.1	781.4	784.0	785.3
17.5°	925.5	924.2	921.2	904.0	886.8	864.0	836.0	818.4	813.7	814.9	811.9
20°	981.9	978.5	976.7	957.4	939.3	907.9	875.6	850.7	849.4	849.8	840.3
22.5°	1045.1	1041.3	1037.8	1020.2	997.8	961.2	919.1	891.1	892.0	892.8	871.7
25°	1109.7	1106.7	1103.7	1086.9	1064.5	1024.5	973.7	942.3	941.9	942.3	913.1
27.5°	1177.2	1173.8	1173.4	1159.6	1137.2	1096.4	1037.8	1006.0	1006.0	1004.3	960.0
30°	1237.5	1240.9	1240.9	1233.2	1212.1	1171.2	1116.1	1084.3	1088.6	1085.2	1028.8
32.5°	1303.3	1302.5	1308.5	1302.5	1285.2	1247.4	1201.3	1181.1	1188.4	1199.6	1143.3
35°	1341.6	1347.6	1362.7	1371.3	1363.1	1332.1	1298.6	1314.1	1324.0	1374.3	1306.8
37.5°	1385.9	1391.1	1411.7	1432.8	1436.3	1419.5	1419.5	1470.3	1489.6	1555.5	1476.7
40°	1416.5	1421.6	1444.0	1468.5	1502.1	1513.7	1543.8	1622.6	1650.1	1694.4	1603.2
42.5°	1398.4	1401.0	1449.2	1509.0	1558.5	1614.4	1662.2	1762.0	1788.2	1819.2	1707.3
45°	1366.6	1371.3	1424.7	1521.0	1606.2	1717.2	1777.5	1893.2	1923.3	1920.3	1787.4
47.5°	1331.3	1338.6	1398.0	1505.5	1647.1	1806.3	1882.9	2003.4	2020.6	1999.1	1842.9
50°	1292.1	1304.6	1367.9	1490.1	1676.8	1884.2	1961.2	2086.0	2095.0	2051.1	1891.5
52.5°	1247.4	1255.6	1325.7	1460.4	1697.5	1935.8	2023.6	2147.5	2151.4	2115.7	1942.7
55°	1185.4	1192.7	1270.6	1420.8	1700.5	1966.4	2063.6	2213.4	2226.3	2191.4	1989.2
57.5°	1118.7	1127.8	1207.8	1363.6	1672.9	1978.9	2111.8	2298.1	2323.1	2273.2	2026.6
60°	1041.3	1052.9	1133.8	1293.9	1618.7	1998.2	2201.7	2421.6	2452.6	2365.7	2062.3
62.5°	960.8	967.3	1041.7	1197.5	1534.4	2008.1	2283.5	2562.7	2592.4	2453.0	2079.1
65°	847.7	858.0	924.2	1081.7	1415.6	1965.5	2321.8	2661.3	2682.8	2524.0	2062.8
67.5°	727.6	727.6	784.0	943.2	1257.3	1852.8	2306.3	2708.6	2734.4	2573.9	2011.1
69°	644.6	651.0	694.0	839.0	1141.1	1752.5	2289.5	2752.1	2773.2	2558.0	1951.7
70°	580.9	586.5	629.9	763.3	1054.6	1673.4	2253.4	2732.7	2748.2	2509.0	1889.4
72.5°	427.3	432.0	462.1	531.8	793.0	1350.2	2031.8	2470.7	2480.1	2256.4	1666.9
75°	291.3	293.9	316.7	359.3	462.6	944.0	1660.0	2086.9	2114.8	1956.9	1364.8
77.5°	100.7	108.4	122.2	165.2	197.9	370.9	1125.2	1644.5	1686.3	1515.4	954.8
80°	34.4	34.0	65.4	84.8	104.1	170.4	355.8	689.3	728.5	624.8	343.8
82.5°	25.8	26.7	43.5	46.9	31.8	62.8	138.5	210.8	231.1	201.8	142.4
85°	16.4	15.9	19.4	20.2	14.6	26.7	33.6	34.0	35.3	30.5	31.0
87.5°	9.0	9.0	8.6	7.3	3.9	3.4	3.0	3.0	2.6	2.6	2.6
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°	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8
2.5°	700.9	706.9	708.2	710.0	714.3	719.9	727.6	727.6	730.6	739.7	742.7
5°	710.8	718.1	727.6	737.5	749.1	761.6	774.1	778.4	784.4	796.4	799.0
7.5°	725.9	734.1	750.4	763.7	773.6	786.1	796.4	798.2	805.9	817.1	819.3
10°	741.4	748.7	765.0	771.9	785.3	799.0	804.2	806.8	813.2	821.8	820.5
12.5°	762.5	764.6	776.2	781.0	787.4	796.0	798.6	798.6	802.5	816.2	816.7
15°	783.1	783.1	784.8	782.2	783.1	787.4	787.8	782.2	786.6	793.4	790.9
17.5°	805.1	799.0	791.3	780.1	770.2	769.8	760.7	747.4	743.5	753.4	753.0
20°	825.7	815.4	796.9	771.5	757.7	739.2	716.4	708.7	708.2	710.0	708.7
22.5°	852.8	831.7	798.2	763.3	725.5	696.2	677.3	651.0	650.2	646.3	640.3
25°	885.1	855.0	803.8	754.3	699.2	661.3	615.7	587.8	571.8	575.3	565.0
27.5°	926.8	890.2	805.9	734.5	663.1	598.9	543.9	507.7	494.0	487.9	481.1
30°	984.0	927.7	821.4	717.7	618.3	533.5	466.0	413.5	393.7	398.9	399.7
32.5°	1075.7	998.7	829.6	684.6	566.7	462.1	374.3	317.5	305.9	320.6	324.4
35°	1235.3	1108.8	848.9	664.8	507.7	378.6	278.4	255.2	257.7	270.2	271.1
37.5°	1392.4	1248.2	908.8	621.8	437.2	280.5	216.0	203.5	216.0	231.9	234.1
40°	1502.5	1357.1	961.7	579.2	338.2	203.1	164.8	149.7	167.8	193.2	197.9
42.5°	1600.2	1443.6	999.1	520.2	231.5	145.0	118.3	122.2	148.9	167.4	171.7
45°	1670.3	1503.0	1024.9	443.6	147.6	109.7	105.8	118.3	143.7	158.3	159.6
47.5°	1714.7	1537.8	1006.0	349.4	111.0	103.7	104.1	120.0	145.4	161.8	161.4
50°	1754.7	1556.3	944.5	277.1	105.4	99.4	106.3	124.8	151.0	166.1	165.2
52.5°	1797.3	1574.4	869.6	217.3	101.1	97.2	108.9	127.8	151.0	160.5	159.2
55°	1833.9	1590.3	813.2	174.7	98.1	96.8	111.4	132.5	150.2	154.0	151.5
57.5°	1852.8	1563.2	752.1	146.7	95.1	96.8	113.2	131.7	155.3	167.8	165.2
60°	1842.5	1537.8	702.6	136.4	90.8	96.4	114.0	141.1	190.6	202.2	201.4
62.5°	1823.5	1509.9	633.4	122.6	86.1	97.2	113.6	149.7	219.4	215.6	204.8
65°	1784.8	1453.9	538.7	106.7	81.3	99.0	113.6	168.7	191.5	187.2	182.4
67.5°	1702.2	1333.0	431.1	91.6	76.2	93.8	111.9	160.5	164.8	153.6	148.0
69°	1609.7	1217.7	341.2	83.5	73.1	91.2	111.4	154.9	162.2	150.2	143.7
70°	1537.4	1127.8	275.8	77.5	70.1	90.4	111.0	151.0	160.9	147.6	140.7
72.5°	1280.5	911.3	144.6	62.4	59.8	82.2	107.1	147.6	161.4	141.6	131.7
75°	1006.0	648.4	96.0	47.8	46.0	71.9	98.1	142.0	151.9	127.4	112.3
77.5°	620.5	284.0	66.3	33.1	33.6	55.9	84.3	126.9	153.2	128.7	109.3
80°	180.3	109.7	42.2	22.4	20.7	33.1	66.3	109.3	145.4	132.1	119.2
82.5°	104.1	71.4	28.4	14.2	12.5	15.1	41.7	84.8	128.2	120.9	123.5
85°	23.7	19.8	10.3	6.9	6.9	8.6	14.2	49.1	88.6	103.7	117.0
87.5°	2.6	2.6	2.6	2.6	2.6	2.2	2.6	13.3	38.7	55.1	64.1
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)