

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: P196994

Luminaire Tested: **NAV-AF-02-D-UNV-RW-8030-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196994  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24161)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-02-D-UNV-RW-8030-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(2) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6692 lumens  
Efficiency: N/A  
Efficacy: 101.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B3 - U0 - G3

Input Watts (W): 66  
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

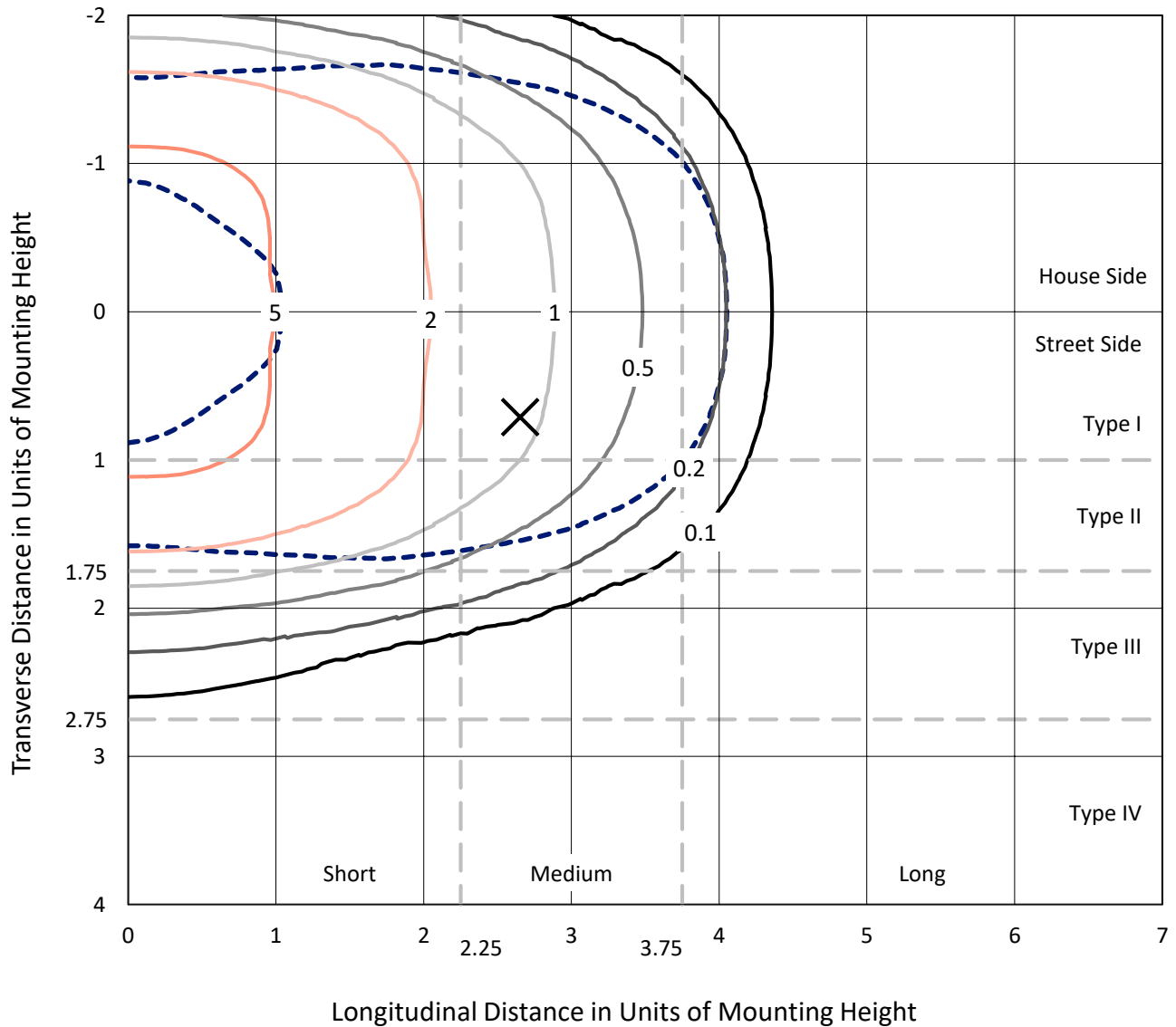


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### Iso-Footcandle Lines of Horizontal Illumination

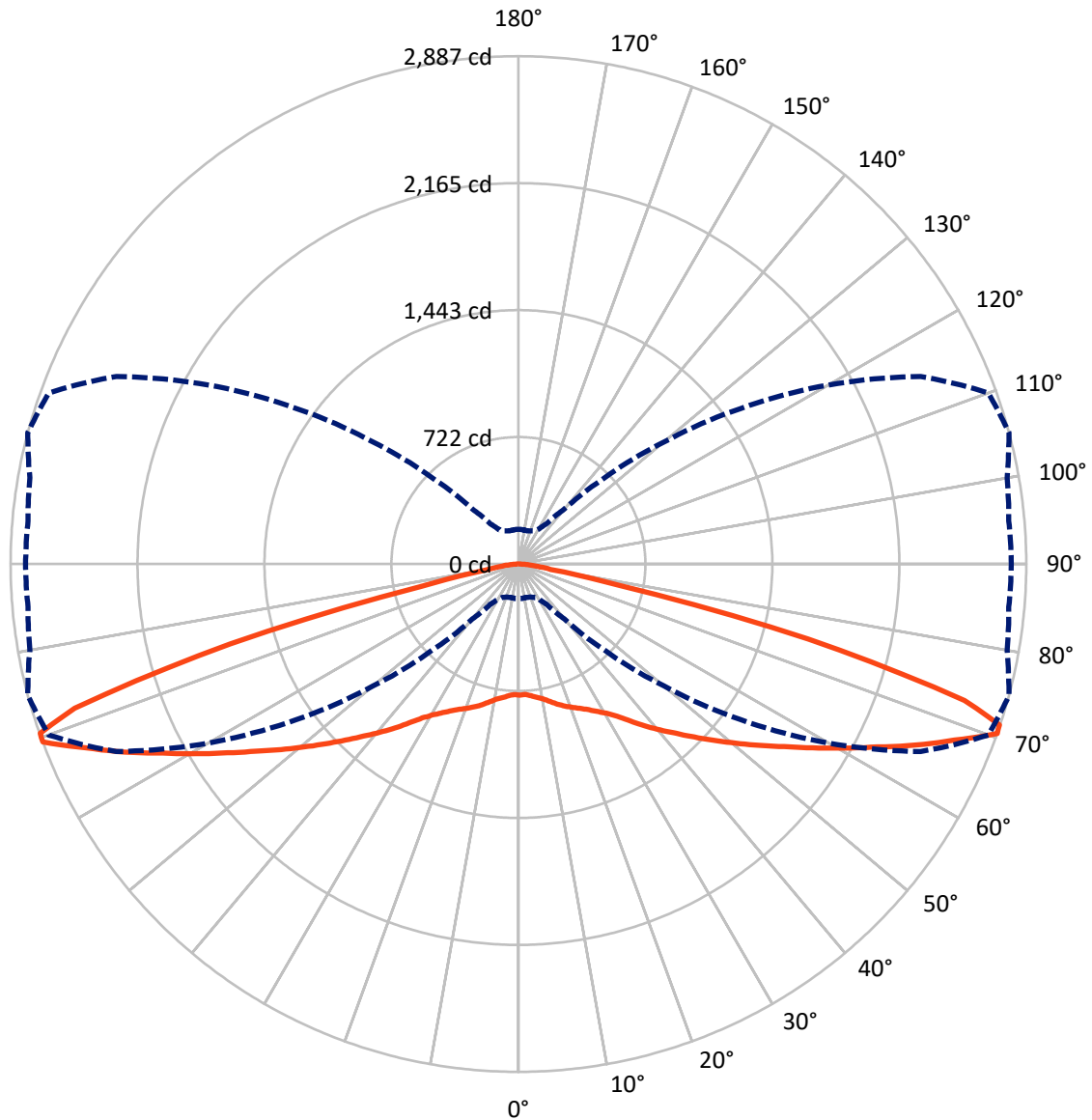
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.5 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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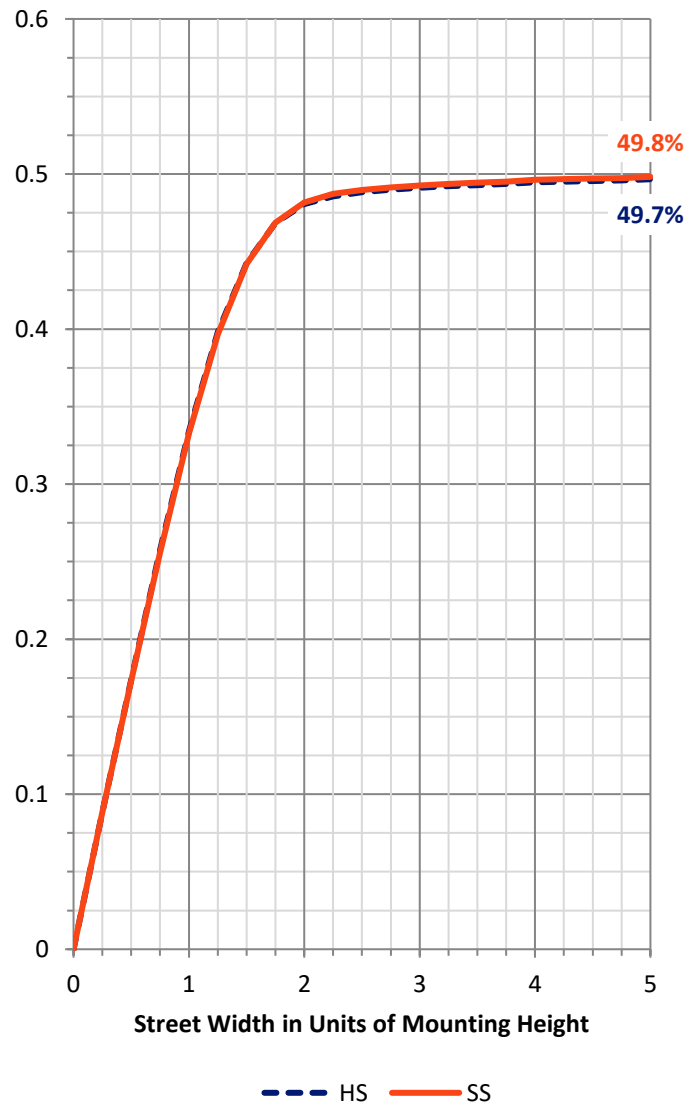
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3346.0	0.0	3346.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	3346.0	0.0	3346.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	6692.0	0.0	6692.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.5	1.1
10°-20°	221.7	3.3
20°-30°	416.4	6.2
30°-40°	733.4	11.0
40°-50°	1215.5	18.2
50°-60°	1691.0	25.3
60°-70°	1596.3	23.9
70°-80°	681.8	10.2
80°-90°	64.4	1.0
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°	6692.0	100.0
0°-180°	6692.0	100.0



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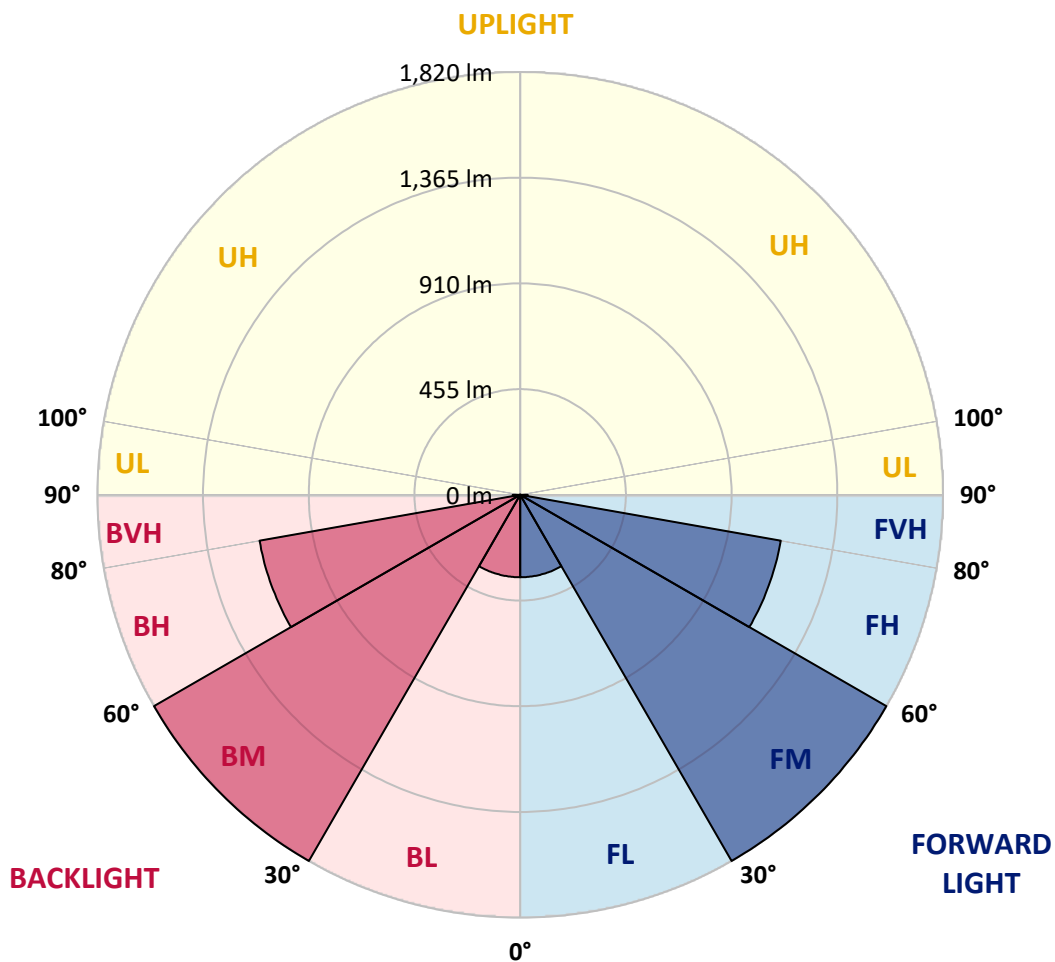
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	354.8	5.3			
FM	(30°-60°)	1820.0	27.2			
FH	(60°-80°)	1139.1	17.0			G1/1800
FVH	(80°-90°)	32.2	0.5			G1/100
BL	(0°-30°)	354.8	5.3	B1/500		
BM	(30°-60°)	1820.0	27.2	B2/2500		
BH	(60°-80°)	1139.1	17.0	B3/2500		G3/2500
BVH	(80°-90°)	32.2	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	745.2	745.2	745.2	745.2	745.2	745.2	745.2	745.2	745.2	745.2	745.2
2.5°	749.8	749.4	749.8	748.6	749.0	748.6	748.6	746.9	746.9	746.1	744.8
5°	741.4	742.3	742.3	742.3	743.5	743.5	745.2	745.6	746.9	748.2	749.0
7.5°	727.6	728.0	729.3	730.1	732.6	736.0	739.3	743.1	746.5	750.7	755.3
10°	715.9	716.7	718.8	720.9	725.5	729.7	735.6	741.4	747.3	754.4	761.6
12.5°	709.6	710.8	714.2	717.5	724.7	730.1	738.1	747.3	755.3	762.0	770.0
15°	710.4	710.8	715.4	720.1	730.1	737.7	749.0	759.9	769.5	777.1	786.3
17.5°	722.6	723.4	728.0	734.7	744.4	754.0	766.2	777.5	790.5	799.3	810.2
20°	746.5	747.7	752.8	759.9	770.4	780.4	793.0	804.8	818.2	828.7	839.6
22.5°	777.5	779.6	785.1	793.9	804.4	816.5	829.5	841.7	854.3	864.7	874.0
25°	819.0	821.5	827.4	836.2	846.7	859.7	873.1	885.7	898.7	906.7	914.2
27.5°	874.8	879.0	885.3	892.4	901.6	915.5	928.1	938.5	951.1	959.9	965.0
30°	949.9	955.7	960.8	968.3	975.0	989.7	999.8	1008.2	1017.8	1022.8	1024.1
32.5°	1041.7	1047.2	1052.2	1057.6	1066.9	1080.3	1089.9	1094.6	1099.6	1098.7	1094.1
35°	1145.3	1149.5	1152.4	1162.1	1177.2	1186.0	1193.1	1194.8	1195.6	1186.8	1178.0
37.5°	1254.3	1259.4	1261.9	1277.0	1291.2	1301.3	1304.7	1308.4	1305.9	1291.2	1275.3
40°	1372.2	1377.6	1385.2	1398.2	1415.0	1424.6	1428.8	1428.4	1426.3	1409.1	1383.1
42.5°	1487.9	1494.6	1500.9	1523.6	1537.4	1553.8	1555.9	1555.4	1550.8	1531.1	1500.9
45°	1586.1	1594.0	1607.0	1632.2	1654.4	1674.1	1682.1	1685.0	1680.4	1659.4	1625.1
47.5°	1667.0	1672.4	1688.8	1719.4	1747.9	1776.9	1792.8	1804.1	1803.7	1788.6	1752.1
50°	1722.4	1728.6	1748.8	1783.2	1818.8	1852.8	1884.2	1909.8	1922.0	1911.1	1877.1
52.5°	1738.3	1746.3	1772.7	1813.8	1855.3	1901.0	1948.0	1993.3	2020.5	2027.2	2000.8
55°	1671.2	1680.0	1718.6	1775.6	1844.0	1911.5	1982.8	2047.4	2103.6	2129.6	2119.1
57.5°	1475.8	1482.1	1531.1	1604.9	1702.6	1821.3	1941.3	2059.5	2156.0	2223.5	2235.2
60°	1167.1	1175.1	1228.8	1306.8	1417.9	1568.0	1735.8	1929.5	2118.7	2273.4	2350.1
62.5°	787.6	793.0	844.6	915.9	1037.5	1182.2	1369.2	1614.6	1884.2	2160.6	2377.0
65°	413.5	413.5	448.3	498.2	595.1	724.7	916.3	1167.9	1488.8	1833.9	2195.8
67.5°	239.9	239.5	247.4	258.8	289.4	341.8	447.5	632.4	936.0	1337.8	1749.6
70°	197.9	196.7	195.4	195.4	200.0	208.0	228.1	278.9	408.0	689.9	1076.5
71°	189.1	188.3	184.9	183.7	185.8	190.0	198.8	222.3	289.8	470.5	803.9
72.5°	178.7	176.6	171.5	169.4	169.8	171.5	174.0	183.3	203.8	267.6	458.4
75°	162.7	157.7	151.4	148.5	147.2	146.8	146.8	149.3	153.9	161.5	187.9
77.5°	144.3	137.1	130.4	127.5	125.4	124.1	123.3	121.6	120.8	124.1	133.8
80°	122.0	114.5	109.0	107.4	106.1	103.6	100.2	96.9	94.8	96.5	102.3
82.5°	94.4	86.8	87.6	88.1	86.0	81.8	78.4	74.6	70.9	70.0	73.0
85°	75.1	71.3	68.8	74.2	69.6	64.6	60.0	53.7	44.9	36.9	40.3
87.5°	32.3	32.7	47.0	70.9	62.1	49.9	41.5	33.5	21.4	15.9	16.4
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):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	745.2	745.2	745.2	745.2	745.2	745.2	745.2	745.2
2.5°	744.4	744.4	743.1	742.3	742.3	742.3	741.4	741.9
5°	749.4	750.3	751.1	750.7	751.9	753.2	752.8	752.3
7.5°	757.8	760.3	762.8	764.1	765.8	767.4	767.9	766.6
10°	766.2	771.2	775.0	778.3	780.4	782.1	783.4	783.0
12.5°	776.7	783.8	790.5	797.2	801.8	804.4	806.9	806.0
15°	793.9	801.8	810.2	819.0	826.2	829.9	833.7	832.9
17.5°	817.4	824.5	831.2	840.0	848.8	853.0	857.2	856.8
20°	846.7	852.2	855.9	861.0	869.4	874.0	877.7	876.5
22.5°	880.3	881.9	882.4	884.0	890.7	896.2	901.2	902.5
25°	916.7	915.5	913.0	911.7	916.3	922.2	928.5	930.2
27.5°	962.0	957.8	951.5	946.5	947.8	955.3	962.5	964.1
30°	1019.1	1009.4	996.0	986.4	984.7	992.6	1000.2	1002.7
32.5°	1084.1	1071.1	1052.6	1037.9	1031.6	1038.8	1045.5	1049.3
35°	1161.2	1147.0	1124.7	1105.9	1095.8	1100.4	1112.2	1116.4
37.5°	1252.7	1232.9	1208.2	1184.3	1167.5	1168.4	1180.9	1186.0
40°	1353.7	1325.2	1293.8	1264.0	1239.7	1238.0	1249.3	1253.1
42.5°	1459.0	1422.5	1385.6	1346.6	1316.4	1310.9	1325.6	1326.0
45°	1572.2	1525.2	1479.5	1434.2	1402.8	1393.1	1407.4	1409.1
47.5°	1693.0	1634.3	1580.2	1531.1	1497.1	1482.1	1495.9	1498.4
50°	1818.8	1758.0	1695.1	1640.6	1600.7	1582.3	1598.6	1600.3
52.5°	1943.4	1885.9	1823.4	1760.9	1712.7	1691.7	1711.0	1716.9
55°	2068.7	2013.4	1954.7	1892.2	1831.4	1812.9	1833.9	1840.2
57.5°	2199.2	2145.9	2092.7	2029.7	1970.6	1942.5	1965.2	1974.0
60°	2343.0	2296.0	2245.7	2182.4	2124.1	2091.4	2110.7	2120.8
62.5°	2484.3	2474.7	2429.0	2363.1	2289.3	2256.6	2273.0	2280.1
65°	2496.1	2652.5	2650.4	2585.0	2481.8	2426.9	2431.5	2434.9
67.5°	2178.6	2537.6	2767.0	2787.5	2672.6	2586.7	2576.6	2578.7
70°	1542.4	2035.2	2522.1	2841.6	2886.9	2820.3	2798.5	2801.8
71°	1235.9	1746.3	2282.2	2712.1	2883.6	2864.3	2852.1	2860.9
72.5°	788.8	1286.6	1808.3	2322.5	2651.7	2746.0	2759.9	2765.3
75°	286.4	553.6	936.9	1342.4	1701.4	1948.4	2084.3	2095.2
77.5°	153.9	198.4	306.6	458.0	575.4	638.3	645.8	648.8
80°	113.2	131.3	150.1	171.5	184.9	187.5	182.8	173.2
82.5°	80.1	90.6	98.1	105.7	111.1	106.5	88.5	67.5
85°	46.6	51.2	55.4	59.1	60.0	56.6	37.3	30.6
87.5°	18.5	20.1	19.7	22.2	21.4	19.7	14.7	12.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)