

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: P270698

Luminaire Tested: **NAV-AF-06-D-UNV-T2-7027-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270698  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24136)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-06-D-UNV-T2-7027-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20183.2 lumens  
Efficiency: N/A  
Efficacy: 104.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B3 - U0 - G3

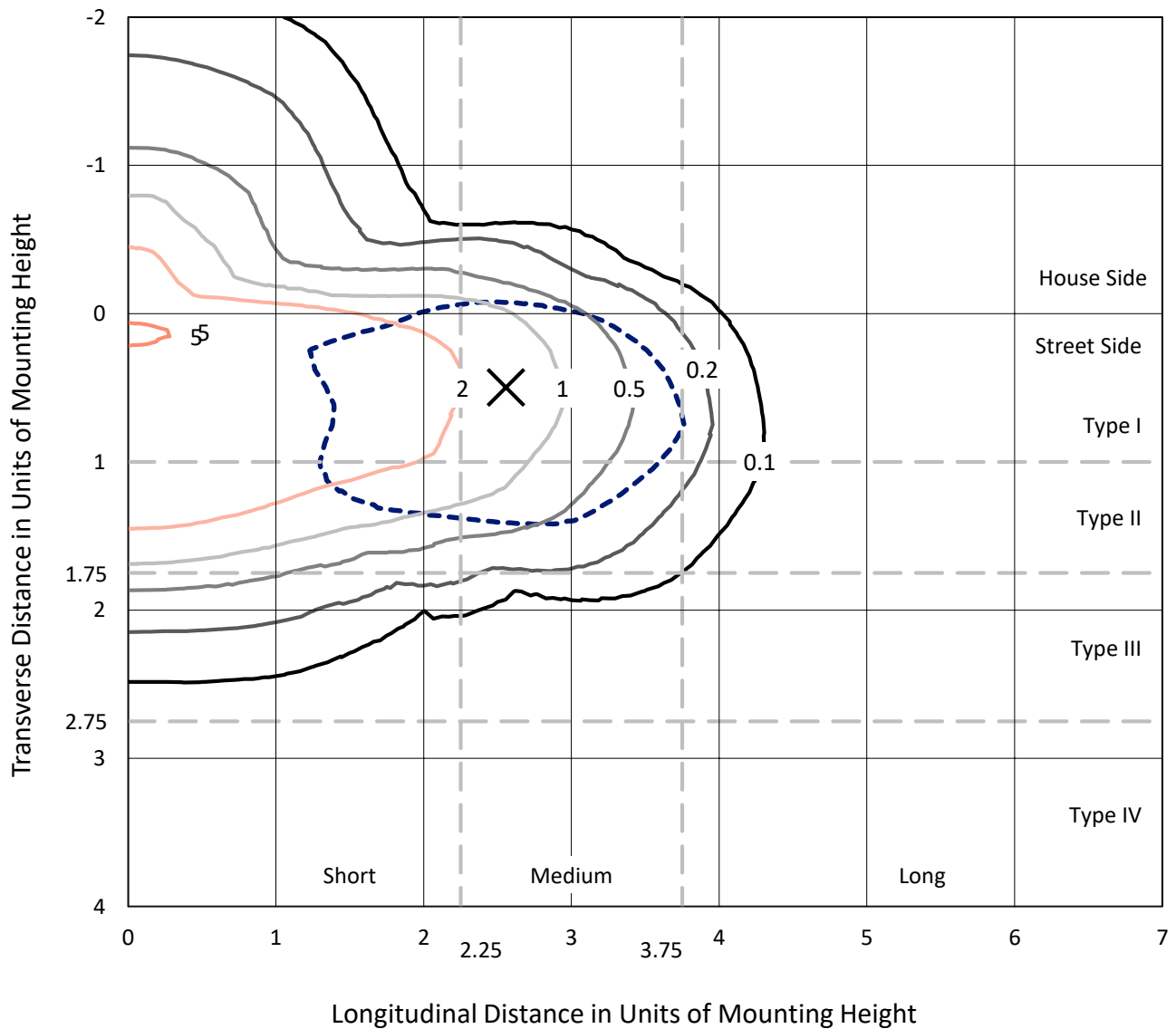
Input Watts (W): 193  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P270698  
 CATALOG NUMBER: NAV-AF-06-D-UNV-T2-7027-600

### Iso-Footcandle Lines of Horizontal Illumination

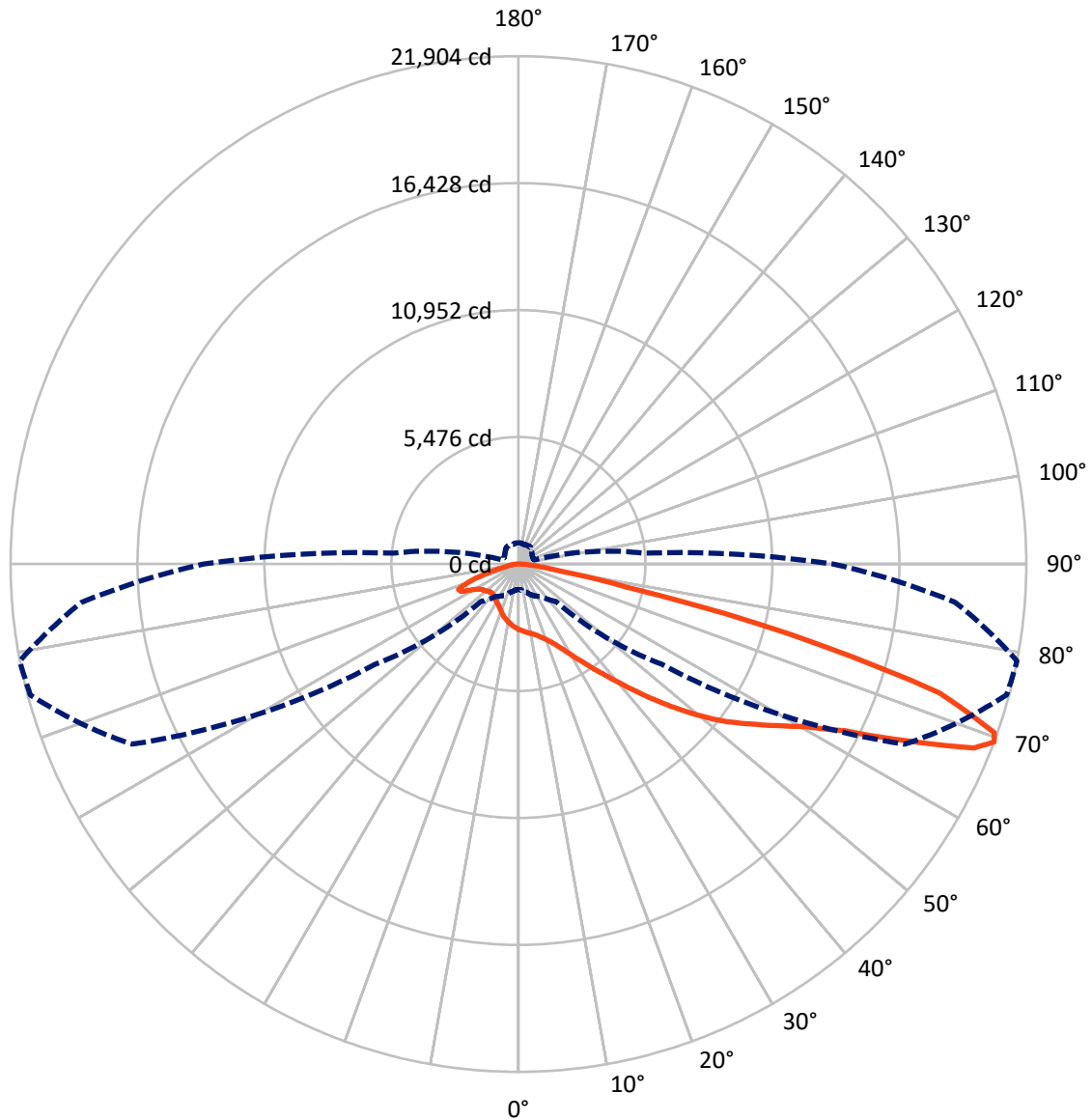
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.5 fc  
 Type II - Medium - Full Cutoff

REPORT NUMBER: P270698  
CATALOG NUMBER: NAV-AF-06-D-UNV-T2-7027-600

### Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P270698

CATALOG NUMBER: NAV-AF-06-D-UNV-T2-7027-600

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3796.8	0.0	3796.8
	% Fixture	18.8	0.0	18.8
<b>Street Side</b>	Lumens	16386.4	0.0	16386.4
	% Fixture	81.2	0.0	81.2
<b>Total</b>	Lumens	20183.2	0.0	20183.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	262.6	1.3
10°-20°	752.8	3.7
20°-30°	1243.9	6.2
30°-40°	2014.2	10.0
40°-50°	3217.7	15.9
50°-60°	4608.1	22.8
60°-70°	5134.1	25.4
70°-80°	2568.5	12.7
80°-90°	381.2	1.9
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°	20183.2	100.0
0°-180°	20183.2	100.0

**Coefficient of Utilization**



REPORT NUMBER: P270698

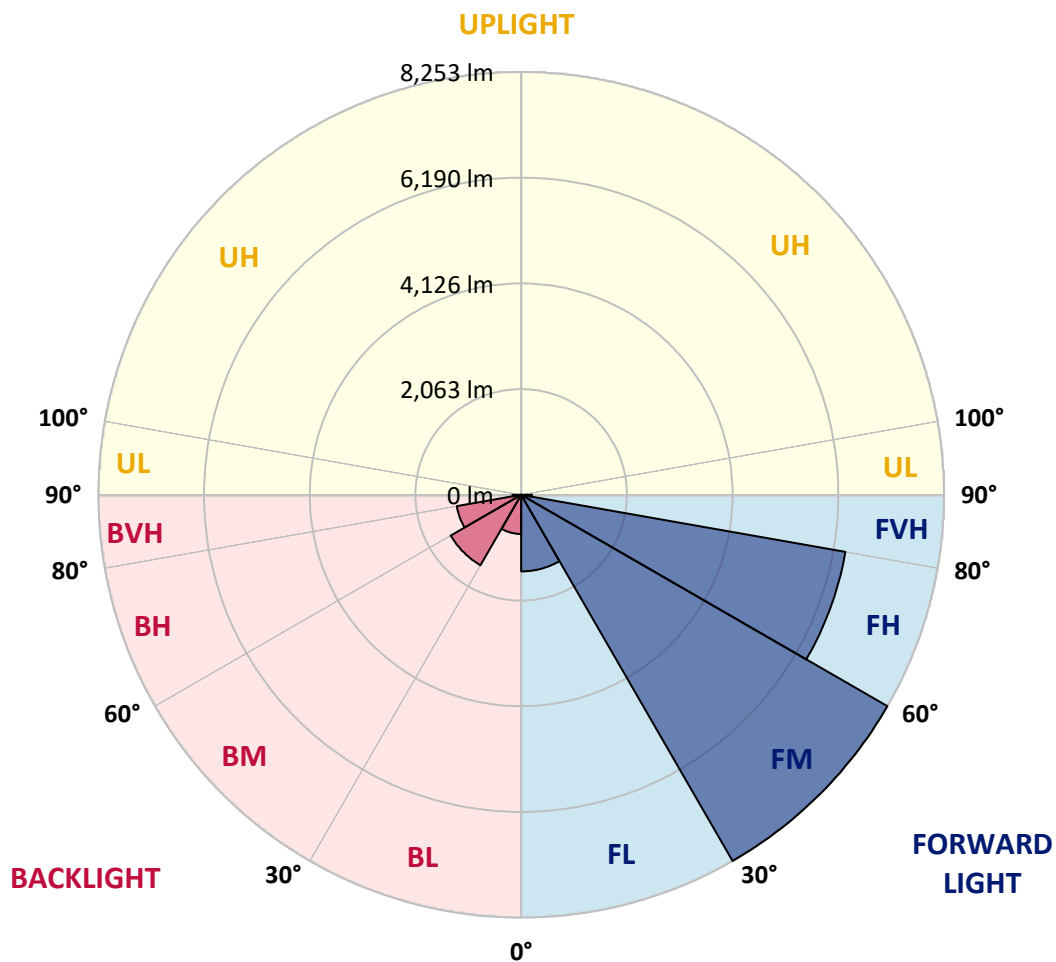
CATALOG NUMBER: NAV-AF-06-D-UNV-T2-7027-600

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1494.4	7.4			
FM (30°-60°)	8252.9	40.9			
FH (60°-80°)	6426.0	31.8			G3/7500
FVH (80°-90°)	213.0	1.1			G2/225
BL (0°-30°)	764.9	3.8	B2/1000		
BM (30°-60°)	1587.1	7.9	B2/2500		
BH (60°-80°)	1276.6	6.3	B3/2500		G3/2500
BVH (80°-90°)	168.2	0.8			G2/225
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





REPORT NUMBER: P270698  
 CATALOG NUMBER: NAV-AF-06-D-UNV-T2-7027-600

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	2832.4	2832.4	2832.4	2832.4	2832.4	2832.4	2832.4	2832.4	2832.4	2832.4	2832.4
2.5°	3109.7	3103.0	3101.7	3081.9	3071.3	3048.8	2996.0	2941.9	2891.7	2865.4	2837.7
5°	3369.7	3356.5	3350.0	3316.9	3287.8	3237.8	3154.5	3068.7	2978.9	2932.6	2877.2
7.5°	3526.8	3528.3	3528.3	3501.9	3472.8	3412.0	3306.4	3188.9	3055.4	2994.8	2907.6
10°	3540.1	3541.4	3561.2	3567.8	3574.4	3542.7	3445.0	3297.0	3125.5	3046.2	2932.6
12.5°	3409.3	3418.6	3451.6	3499.2	3566.5	3600.9	3558.5	3413.3	3215.3	3118.8	2980.2
15°	3233.8	3243.1	3285.2	3357.9	3466.1	3581.1	3640.4	3546.7	3332.8	3219.3	3050.3
17.5°	3147.9	3158.5	3187.5	3245.7	3351.2	3505.7	3683.9	3689.2	3471.4	3340.6	3133.4
20°	3107.0	3115.0	3152.0	3199.5	3280.0	3427.8	3688.0	3839.9	3636.5	3484.6	3235.1
22.5°	3200.8	3203.4	3222.0	3248.4	3302.3	3416.0	3685.3	3995.7	3842.5	3665.5	3365.8
25°	3475.5	3458.2	3445.0	3412.0	3425.1	3505.7	3727.5	4161.9	4106.5	3903.2	3540.1
27.5°	3800.2	3797.6	3763.3	3686.6	3637.7	3689.2	3847.8	4348.2	4430.1	4205.5	3768.5
30°	4161.9	4163.4	4127.7	4033.8	3934.8	3940.1	4039.1	4563.4	4816.9	4570.0	4049.7
32.5°	4541.0	4564.7	4498.7	4405.0	4284.8	4246.6	4313.9	4823.5	5264.5	5000.4	4376.0
35°	4993.9	4997.9	4925.2	4787.8	4667.8	4607.0	4669.1	5148.4	5780.9	5506.3	4773.4
37.5°	5464.0	5466.6	5391.4	5215.6	5063.8	5024.3	5092.9	5543.3	6327.5	6082.0	5240.8
40°	5848.2	5876.0	5816.5	5651.4	5498.3	5474.5	5573.5	6015.9	7026.1	6763.2	5796.8
42.5°	6284.0	6315.7	6244.4	6072.7	5951.2	5943.2	6097.8	6554.7	7720.7	7551.6	6426.6
45°	6775.1	6820.0	6720.9	6528.3	6425.2	6599.6	6608.8	7151.4	8520.9	8433.6	7135.6
47.5°	7311.2	7348.2	7267.6	7060.4	6948.1	7200.4	7109.2	7797.2	9385.8	9379.1	7902.7
50°	7724.5	7765.5	7773.5	7682.3	7564.7	7596.4	7658.5	8475.9	10248.0	10350.9	8696.4
52.5°	7649.2	7689.0	7867.1	8106.1	8294.9	8213.2	8288.4	9196.8	11081.1	11299.1	9450.3
55°	7042.0	7063.1	7397.2	7964.9	8769.1	9159.8	9165.1	9981.2	11873.3	12178.4	10166.1
57.5°	5947.3	5950.0	6384.3	7221.5	8493.0	9773.9	10548.9	10966.1	12700.0	13150.3	11053.4
60°	4208.2	4218.8	4724.5	5819.2	7504.0	9700.0	12037.1	12729.1	13657.3	14242.3	12196.8
62.5°	2498.2	2522.0	2903.6	3781.8	5573.5	8749.2	12916.5	15865.1	15067.5	15843.9	14027.0
65°	1625.5	1645.2	1873.8	2314.8	3293.1	6365.7	12627.4	18902.0	17736.1	18363.3	16657.4
67.5°	1251.8	1267.6	1447.2	1714.0	2020.3	3441.0	10096.1	19538.6	20984.3	21179.8	18877.0
69°	1100.0	1113.1	1245.2	1501.3	1700.8	2277.7	7523.8	18383.2	21796.5	21903.5	18904.7
70°	1019.3	1029.9	1154.1	1375.9	1562.2	1818.2	5758.4	17041.6	21499.3	21772.7	18359.4
72.5°	839.7	849.1	937.6	1107.8	1276.9	1295.4	2551.0	12443.9	18103.3	18977.4	15536.2
75°	701.1	706.4	764.5	888.7	1033.9	1031.3	1303.4	7048.6	11046.7	12088.6	9593.0
77.5°	584.9	588.8	627.1	703.8	816.0	812.1	917.7	3042.3	4877.6	4706.0	3302.3
80°	516.3	519.0	538.8	558.6	629.8	625.8	680.0	1397.0	1984.6	1834.1	1249.2
82.5°	392.2	397.5	497.8	507.1	488.6	471.4	474.0	813.3	1016.7	925.7	670.8
85°	221.8	223.1	319.5	373.6	425.2	319.5	307.7	419.9	501.8	439.7	293.1
87.5°	99.1	102.9	153.3	177.0	229.7	187.4	175.6	178.3	216.5	179.7	116.2
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: P270698

CATALOG NUMBER: NAV-AF-06-D-UNV-T2-7027-600

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2832.4	2832.4	2832.4	2832.4	2832.4	2832.4	2832.4	2832.4	2832.4	2832.4	2832.4
2.5°	2811.2	2788.8	2736.0	2681.8	2627.6	2593.3	2557.7	2524.6	2511.5	2510.1	2485.2
5°	2823.2	2770.3	2650.1	2518.0	2392.6	2294.9	2213.1	2160.2	2108.7	2099.5	2077.1
7.5°	2827.1	2741.2	2545.7	2334.5	2143.0	2008.4	1926.5	1890.8	1865.8	1859.2	1851.2
10°	2825.8	2704.3	2429.6	2140.4	1922.6	1820.9	1790.5	1798.4	1808.9	1814.2	1814.2
12.5°	2846.9	2687.1	2313.4	1958.2	1779.9	1731.2	1754.8	1795.8	1827.5	1840.6	1843.3
15°	2885.1	2676.5	2185.3	1799.8	1679.7	1691.5	1749.5	1808.9	1853.9	1873.8	1879.0
17.5°	2932.6	2661.9	2037.4	1669.1	1621.5	1662.5	1737.7	1813.0	1867.0	1892.2	1896.1
20°	2985.4	2640.8	1884.3	1571.3	1570.0	1621.5	1696.8	1781.2	1839.4	1867.0	1865.8
22.5°	3056.8	2621.1	1741.6	1500.0	1513.3	1560.7	1622.8	1699.5	1753.5	1778.6	1773.3
25°	3152.0	2602.6	1613.5	1436.6	1448.5	1480.1	1523.7	1581.8	1620.2	1633.4	1624.1
27.5°	3280.0	2588.0	1513.3	1378.4	1377.2	1391.7	1418.2	1449.9	1468.3	1464.3	1449.9
30°	3437.2	2573.6	1439.3	1327.1	1308.6	1307.3	1319.2	1337.5	1349.4	1325.7	1313.9
32.5°	3612.8	2548.4	1373.2	1282.2	1249.2	1237.2	1242.5	1267.6	1316.5	1292.8	1283.5
35°	3820.0	2519.3	1307.3	1233.4	1208.2	1185.8	1189.7	1243.9	1391.7	1374.5	1365.3
37.5°	4069.6	2492.9	1246.5	1180.5	1179.1	1151.4	1148.8	1213.5	1411.5	1374.5	1366.6
40°	4369.4	2487.6	1192.4	1122.3	1143.5	1132.9	1123.7	1163.3	1302.0	1226.6	1212.2
42.5°	4731.2	2511.5	1152.7	1066.8	1102.6	1127.6	1110.5	1119.7	1176.5	1109.1	1097.3
45°	5153.7	2576.2	1123.7	1018.0	1059.0	1123.7	1103.8	1095.9	1105.3	1068.3	1060.3
47.5°	5646.1	2691.1	1103.8	977.1	1018.0	1113.1	1101.2	1085.4	1081.4	1060.3	1055.0
50°	6173.1	2845.6	1090.7	940.2	981.0	1094.7	1100.0	1077.4	1070.9	1061.6	1059.0
52.5°	6696.0	3013.3	1074.8	908.5	950.8	1072.1	1101.2	1069.5	1060.3	1055.0	1052.4
55°	7216.2	3187.5	1045.7	880.7	928.3	1045.7	1100.0	1059.0	1048.4	1048.4	1048.4
57.5°	7890.9	3452.9	1007.4	858.3	899.3	1011.4	1082.7	1047.2	1032.6	1033.9	1035.2
60°	8865.5	3897.9	965.3	833.2	860.9	971.8	1056.3	1026.0	1008.7	1014.0	1015.4
62.5°	10493.6	4675.7	907.2	797.5	821.3	929.6	1022.0	996.8	981.0	990.3	991.6
65°	12664.3	5617.1	830.6	752.7	780.4	882.0	978.4	962.7	945.5	967.8	966.5
67.5°	13988.8	5893.2	750.1	705.1	740.7	831.9	924.3	917.7	905.9	945.5	942.9
69°	13554.3	5394.1	703.8	674.7	713.1	797.5	890.0	887.3	878.2	916.5	913.8
70°	12879.5	4927.9	674.7	655.0	698.5	776.5	867.6	867.6	858.3	891.3	884.7
72.5°	10345.6	3654.9	607.4	604.7	648.3	718.4	806.8	813.3	808.1	820.1	813.3
75°	6074.0	2202.5	541.4	549.4	587.6	656.2	739.5	744.8	739.5	738.1	739.5
77.5°	2106.0	987.6	478.0	489.8	523.0	592.9	665.6	676.1	668.1	658.8	661.5
80°	823.9	574.3	409.4	426.4	454.3	521.6	591.5	598.1	586.2	584.9	574.3
82.5°	495.1	349.9	318.2	345.9	380.3	452.9	511.0	508.4	499.1	553.3	484.5
85°	215.2	194.2	232.4	260.1	277.2	339.4	431.7	419.9	397.5	349.9	342.0
87.5°	87.1	100.3	128.1	154.5	166.4	219.1	295.8	285.2	289.2	237.7	236.3
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)