

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: P270712

Luminaire Tested: **NAV-AF-06-D-UNV-T3R-7027-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270712  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24250)  
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-T3R-7027-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 34919.2 lumens  
Efficiency: N/A  
Efficacy: 91.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type III - Medium - Full Cutoff  
BUG Rating: B3 - U0 - G5

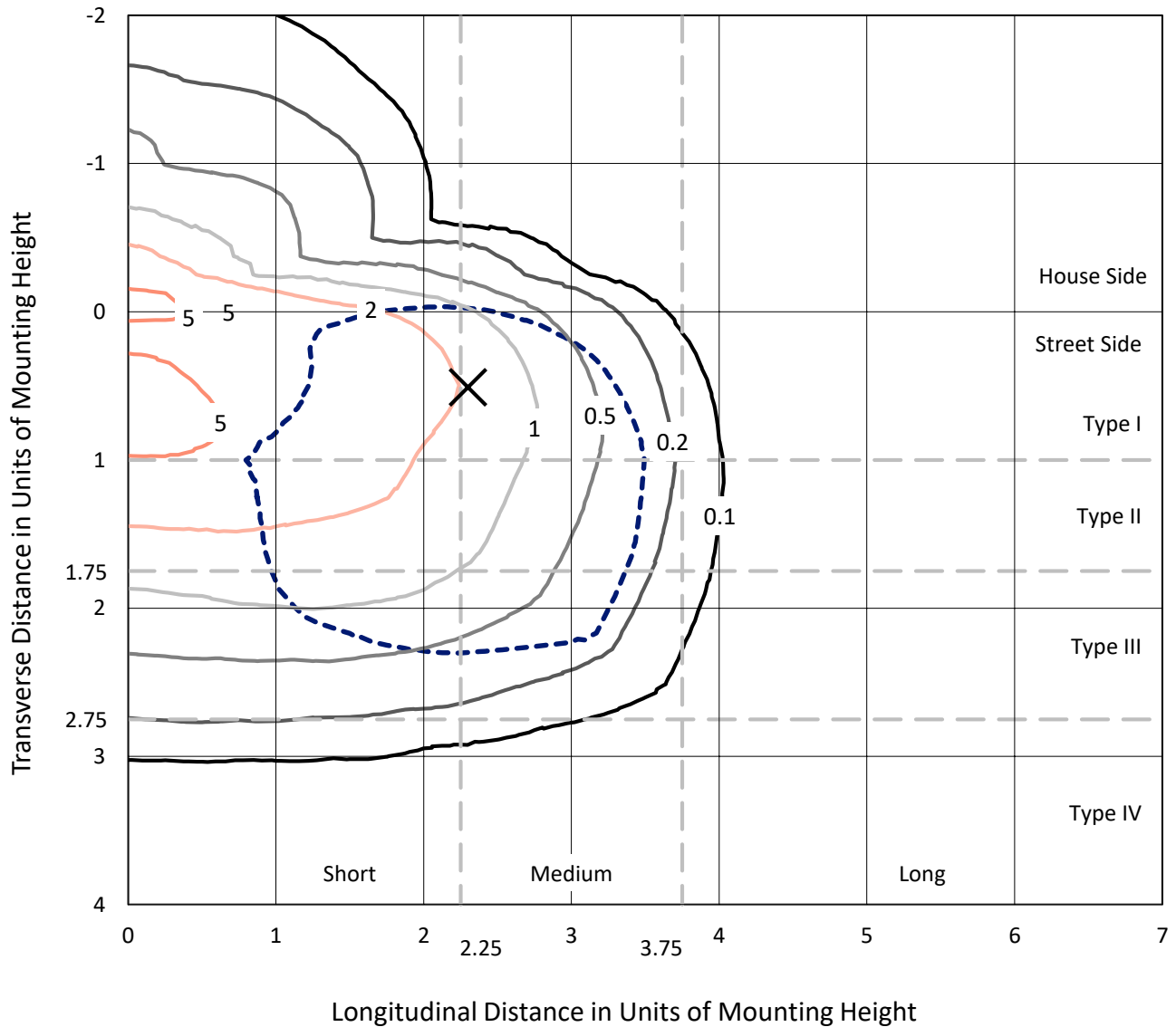
Input Watts (W): 382  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P270712  
 CATALOG NUMBER: NAV-AF-06-D-UNV-T3R-7027-1200

### Iso-Footcandle Lines of Horizontal Illumination

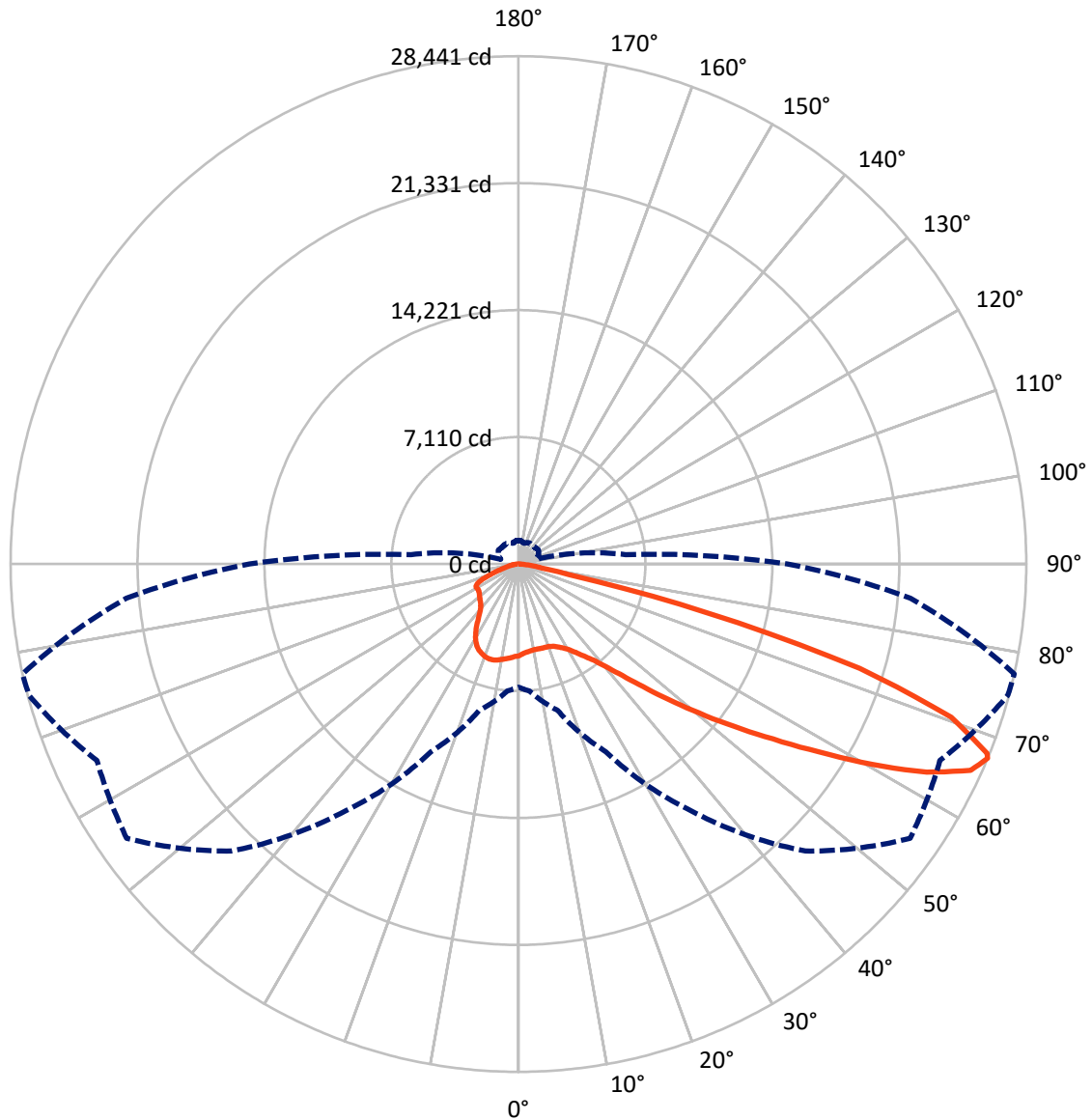
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.9 fc  
 Type III - Medium - Full Cutoff

REPORT NUMBER: P270712  
CATALOG NUMBER: NAV-AF-06-D-UNV-T3R-7027-1200

### Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral    - - - Horizontal Cone Through 67-Deg Vertical

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CATALOG NUMBER: NAV-AF-06-D-UNV-T3R-7027-1200

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6000.9	0.0	6000.9
	% Fixture	17.2	0.0	17.2
<b>Street Side</b>	Lumens	28918.3	0.0	28918.3
	% Fixture	82.8	0.0	82.8
<b>Total</b>	Lumens	34919.2	0.0	34919.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	457.7	1.3
10°-20°	1267.6	3.6
20°-30°	2153.7	6.2
30°-40°	3445.5	9.9
40°-50°	5304.4	15.2
50°-60°	7359.3	21.1
60°-70°	9816.8	28.1
70°-80°	4671.8	13.4
80°-90°	442.4	1.3
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°	34919.2	100.0
0°-180°	34919.2	100.0

**Coefficient of Utilization**



REPORT NUMBER: P270712

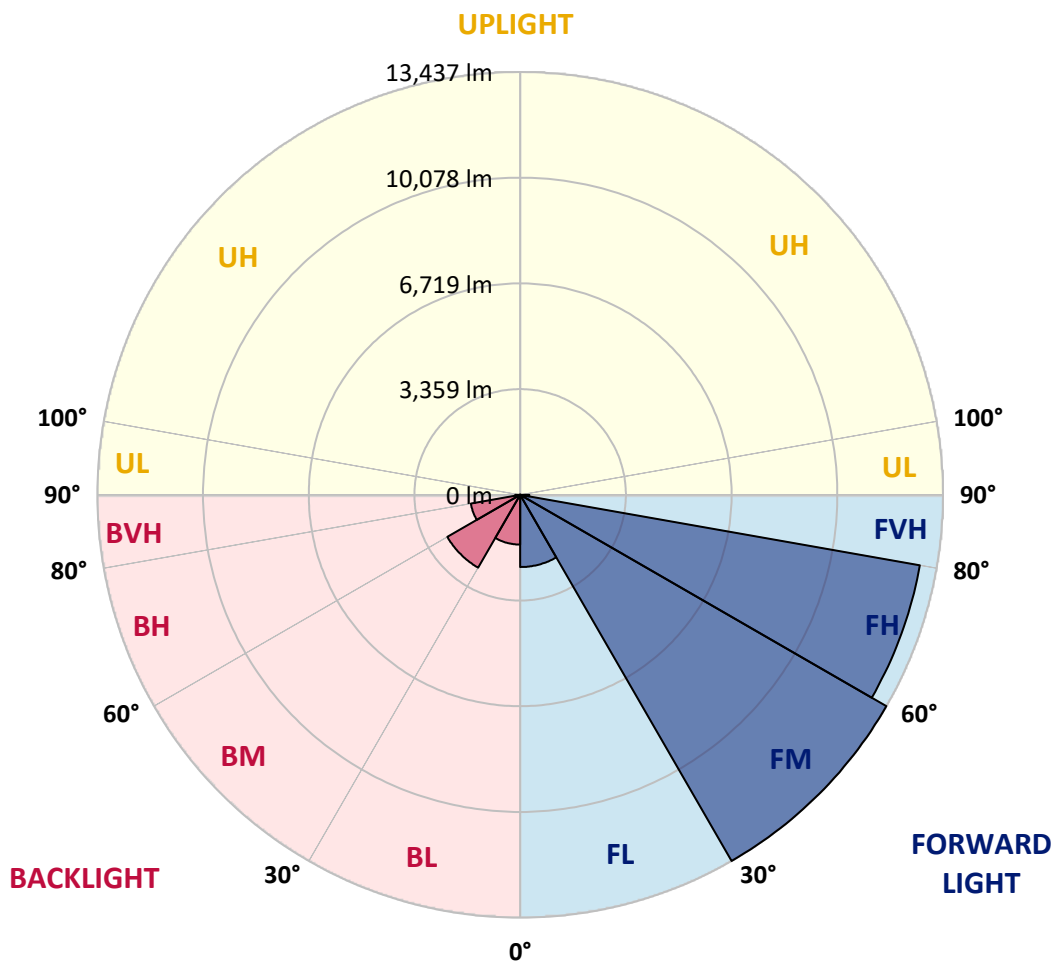
CATALOG NUMBER: NAV-AF-06-D-UNV-T3R-7027-1200

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2296.3	6.6			
FM (30°-60°)	13437.2	38.5			
FH (60°-80°)	12897.5	36.9			G5
FVH (80°-90°)	287.3	0.8			G3/500
BL (0°-30°)	1582.8	4.5	B3/2500		
BM (30°-60°)	2671.9	7.7	B3/5000		
BH (60°-80°)	1591.1	4.6	B3/2500		G3/2500
BVH (80°-90°)	155.0	0.4			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G5**

Type III Medium





REPORT NUMBER: P270712

CATALOG NUMBER: NAV-AF-06-D-UNV-T3R-7027-1200

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	5139.2	5139.2	5139.2	5139.2	5139.2	5139.2	5139.2	5139.2	5139.2	5139.2	5139.2
2.5°	4608.2	4629.9	4631.9	4694.5	4722.6	4793.9	4871.6	4940.6	5001.0	5022.7	5061.5
5°	4146.2	4146.2	4152.8	4193.7	4273.6	4388.0	4549.9	4726.9	4912.6	4957.8	5072.3
7.5°	3904.6	3908.9	3913.1	3954.2	4016.9	4118.3	4280.2	4521.9	4830.5	4906.1	5106.9
10°	3926.1	3919.7	3898.0	3889.4	3915.4	3980.1	4120.4	4368.6	4761.5	4878.1	5169.3
12.5°	4265.1	4252.0	4180.8	4077.2	3982.2	3958.6	4055.7	4290.9	4729.0	4878.1	5275.1
15°	4845.6	4854.4	4713.9	4498.2	4249.9	4081.5	4068.7	4262.8	4718.3	4890.9	5398.2
17.5°	5601.1	5605.5	5411.1	5098.2	4685.9	4338.5	4157.0	4262.8	4718.3	4903.8	5516.9
20°	6403.9	6373.8	6153.6	5760.8	5225.5	4694.5	4319.1	4288.8	4731.3	4923.3	5629.1
22.5°	7092.6	7064.5	6833.5	6421.3	5808.4	5115.5	4537.0	4375.1	4802.5	5003.2	5786.7
25°	7694.7	7711.9	7487.6	7023.5	6388.8	5590.3	4863.0	4573.7	4951.4	5147.7	5980.9
27.5°	8426.5	8394.0	8135.1	7692.5	6986.7	6082.5	5270.9	4824.1	5128.5	5322.6	6218.3
30°	9272.6	9257.5	8907.8	8452.3	7645.0	6632.8	5674.5	5093.8	5359.4	5562.2	6516.2
32.5°	10300.0	10297.8	9922.1	9363.3	8385.4	7254.4	6151.5	5463.0	5696.1	5901.1	6911.2
35°	11463.4	11461.1	11072.7	10334.6	9238.0	7943.0	6712.7	5911.8	6112.6	6328.5	7381.8
37.5°	12270.6	12257.6	12054.7	11338.1	10181.2	8743.7	7414.2	6516.2	6585.4	6827.1	7949.5
40°	12426.0	12503.7	12678.5	12255.4	11210.8	9633.1	8117.9	7165.9	7230.6	7541.5	8663.9
42.5°	12257.6	12359.2	12939.6	13058.4	12240.3	10710.0	8998.4	8066.1	8147.9	8534.3	9503.4
45°	12110.9	12199.3	12926.7	13503.1	13256.9	11884.2	10097.0	9164.6	9320.0	9799.3	10461.8
47.5°	11860.5	11942.4	12672.0	13582.9	13837.6	13015.3	11420.2	10485.6	10753.3	11333.8	11554.0
50°	11847.6	11884.2	12324.6	13315.2	14038.4	13874.3	12885.7	12031.0	12441.0	13110.3	12762.7
52.5°	11519.4	11776.3	12175.5	12888.0	14042.7	14375.0	14329.8	13725.4	14357.8	15098.2	14087.9
55°	9512.2	9807.9	11679.1	12678.5	14016.8	14804.5	15648.5	15527.7	16516.1	17295.3	15572.9
57.5°	8881.9	9007.0	10246.0	12741.1	14232.6	15514.6	16967.2	17463.7	18985.4	19835.8	17353.6
60°	8709.2	8840.8	9958.9	12771.4	14817.5	16807.6	18756.6	19650.2	21888.6	22790.7	19376.1
62.5°	8517.1	8687.6	9980.4	12799.4	15844.9	18719.9	21130.9	22022.3	24869.2	25674.3	21271.1
65°	7955.8	8182.5	9581.2	12622.4	16969.4	21120.1	24269.1	24495.8	27332.0	27843.5	22415.0
67°	6891.7	7140.0	8484.8	11599.4	16865.9	22736.7	26779.5	26043.4	28378.8	28441.3	22043.9
67.5°	6555.1	6811.9	8113.5	11174.0	16570.1	22948.2	27224.0	26257.1	28370.2	28301.1	21698.5
70°	4413.9	4703.2	5745.6	8204.1	13291.5	21357.6	27116.1	25598.8	26509.6	25717.4	18642.3
72.5°	2190.7	2199.4	2866.4	4493.9	8053.0	15318.3	22620.2	21899.3	21489.2	19993.3	13680.0
75°	1055.5	1074.9	1353.3	1985.8	3395.1	7908.4	15426.1	14776.5	12581.4	10893.4	6846.5
77.5°	805.2	824.6	1051.1	1292.9	1415.9	2579.4	7640.8	6175.2	3645.5	2911.6	1929.6
80°	621.6	658.3	887.0	992.8	936.8	1033.9	2402.2	1890.8	1418.1	1301.6	956.2
82.5°	485.7	507.3	753.3	753.3	647.5	692.9	1118.1	1092.2	880.6	794.3	513.7
85°	343.2	386.4	606.5	561.3	425.2	429.5	669.1	641.0	453.3	364.8	200.7
87.5°	153.3	196.4	431.6	367.0	226.6	174.8	274.2	235.3	179.1	138.1	92.9
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: P270712

CATALOG NUMBER: NAV-AF-06-D-UNV-T3R-7027-1200

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5139.2	5139.2	5139.2	5139.2	5139.2	5139.2	5139.2	5139.2	5139.2	5139.2	5139.2
2.5°	5104.7	5139.2	5193.1	5225.5	5268.6	5285.9	5303.2	5333.4	5357.2	5350.8	5340.0
5°	5152.0	5210.3	5277.4	5298.9	5298.9	5277.4	5264.3	5266.6	5260.0	5255.8	5242.8
7.5°	5221.2	5301.1	5348.6	5326.9	5260.0	5175.9	5096.1	5048.6	5003.2	4975.2	4983.7
10°	5318.3	5406.8	5409.0	5314.1	5154.3	4970.9	4813.3	4711.8	4614.8	4571.6	4584.5
12.5°	5458.6	5547.2	5471.5	5266.6	4986.0	4698.9	4409.6	4200.3	4012.5	3967.2	3954.2
15°	5609.7	5678.7	5510.5	5165.1	4744.2	4271.5	3785.8	3472.8	3263.5	3226.8	3213.9
17.5°	5741.3	5780.2	5491.0	4983.7	4362.2	3617.6	3052.0	2840.5	2797.3	2818.9	2818.9
20°	5857.9	5845.0	5406.8	4703.2	3759.9	2892.3	2564.2	2562.1	2620.4	2674.3	2678.6
22.5°	6004.7	5903.2	5273.1	4286.6	3041.2	2413.0	2357.1	2413.0	2477.9	2538.3	2544.8
25°	6179.5	5968.0	5093.8	3693.0	2445.5	2190.7	2214.5	2262.0	2303.1	2350.5	2352.8
27.5°	6354.4	6017.7	4841.3	2995.8	2121.7	2048.3	2074.2	2093.7	2104.5	2134.6	2134.6
30°	6557.3	6056.6	4476.6	2400.1	1972.8	1923.1	1908.0	1899.3	1908.0	1949.1	1951.2
32.5°	6811.9	6125.6	3978.0	2059.2	1903.7	1834.7	1756.9	1713.7	1744.0	1817.5	1830.3
35°	7101.2	6207.6	3380.1	1923.1	1880.0	1791.5	1649.0	1582.2	1593.0	1659.8	1670.6
37.5°	7463.7	6313.4	2790.9	1890.8	1903.7	1787.2	1599.4	1504.4	1457.0	1459.0	1457.0
40°	7927.8	6419.1	2324.6	1899.3	1955.5	1798.0	1575.6	1426.7	1327.4	1331.7	1340.5
42.5°	8413.4	6488.2	2028.9	1925.2	2018.1	1813.0	1567.1	1351.2	1264.9	1338.3	1405.0
45°	8981.2	6468.8	1875.8	1949.1	2065.7	1819.5	1534.7	1342.5	1271.3	1491.5	1616.7
47.5°	9633.1	6384.6	1789.3	1959.8	2078.6	1817.5	1510.9	1370.6	1325.3	1707.3	1849.8
50°	10341.0	6252.9	1720.3	1942.6	2072.1	1808.7	1536.8	1405.0	1346.9	1754.7	1864.9
52.5°	11115.8	6132.1	1649.0	1903.7	2039.7	1782.9	1569.2	1389.9	1286.5	1616.7	1700.9
55°	12033.2	6104.1	1569.2	1836.9	1985.8	1754.7	1551.9	1342.5	1219.4	1433.2	1485.0
57.5°	13082.1	6278.9	1465.6	1754.7	1912.3	1698.7	1510.9	1316.6	1195.7	1303.7	1331.7
60°	14413.8	6665.2	1355.5	1668.4	1821.8	1614.6	1474.2	1323.2	1202.2	1284.2	1290.8
62.5°	15454.3	7012.7	1256.2	1562.7	1700.9	1513.0	1435.3	1329.6	1221.7	1310.2	1299.4
65°	15832.0	6842.2	1133.1	1405.0	1530.4	1400.7	1381.4	1334.0	1221.7	1325.3	1301.6
67°	15057.1	6028.4	1016.6	1247.6	1368.5	1301.6	1329.6	1316.6	1200.0	1323.2	1282.2
67.5°	14687.9	5741.3	986.3	1221.7	1325.3	1271.3	1316.6	1308.0	1193.6	1318.8	1271.3
70°	12113.0	4118.3	833.2	1025.2	1109.4	1120.2	1236.7	1251.9	1141.7	1238.9	1152.5
72.5°	8618.6	2577.1	718.7	794.3	895.7	958.3	1128.8	1176.3	1072.8	1077.1	1005.8
75°	4265.1	1383.5	641.0	613.1	697.2	798.7	984.3	1072.8	971.2	897.9	874.2
77.5°	1439.7	783.5	541.8	494.2	541.8	641.0	815.9	936.8	857.0	759.7	744.7
80°	744.7	569.9	423.0	397.1	427.4	496.5	638.9	779.2	731.7	736.0	606.5
82.5°	464.1	347.6	304.3	302.2	323.7	379.9	470.5	632.3	628.0	537.5	390.7
85°	215.9	200.7	194.3	200.7	207.1	215.9	306.5	451.0	477.0	289.3	256.8
87.5°	90.6	88.6	77.8	84.3	92.9	90.6	123.1	192.1	267.6	181.3	166.1
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)