

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: P197322

Luminaire Tested: **NAV-AF-06-D-UNV-T4FT-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197322  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24256)  
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-T4FT-8030  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 29627 lumens  
Efficiency: N/A  
Efficacy: 89.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G5

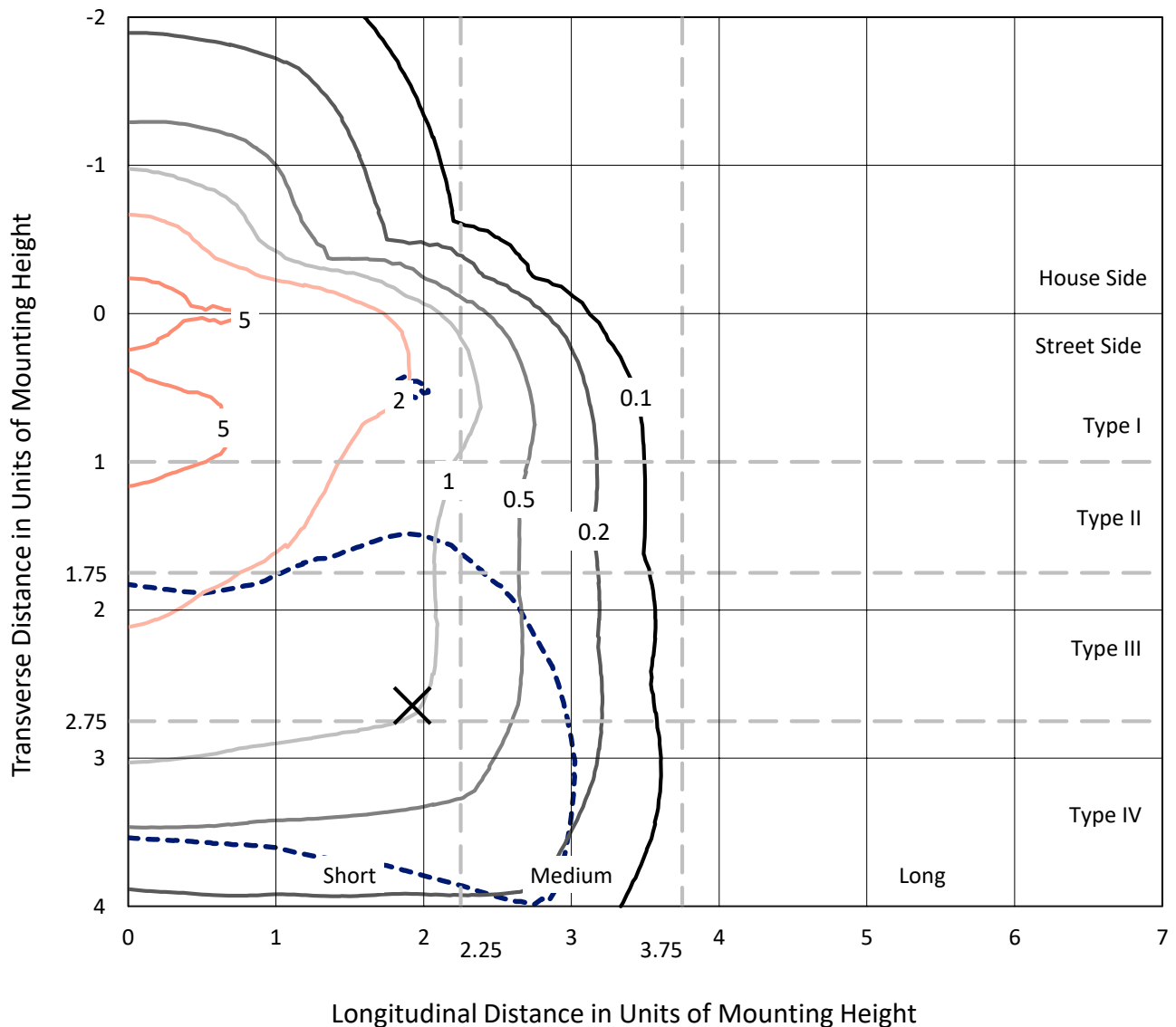
Input Watts (W): 333  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

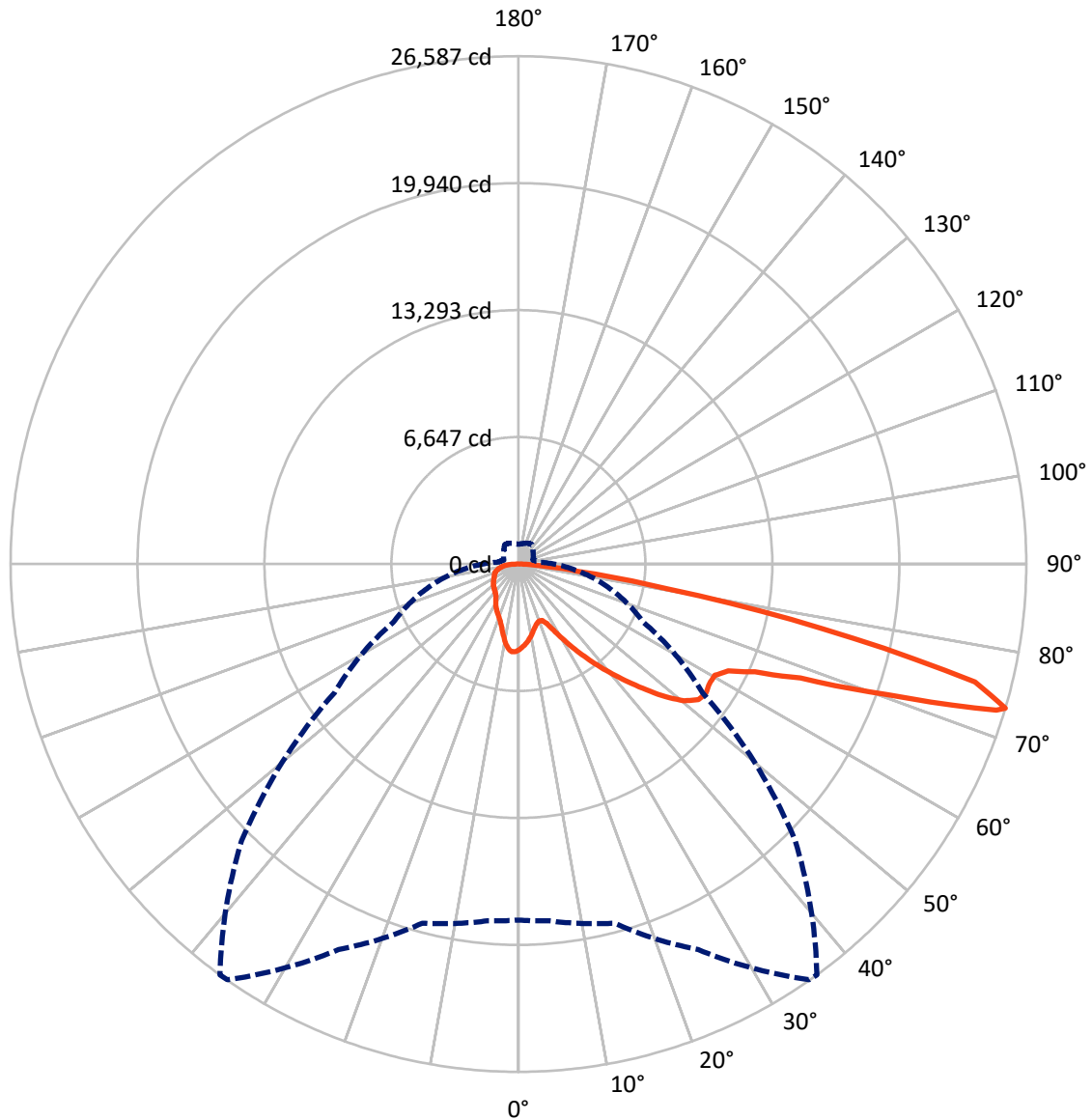
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.2 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral    - - - Horizontal Cone Through 73-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5713.0	0.0	5713.0
	% Fixture	19.3	0.0	19.3
<b>Street Side</b>	Lumens	23914.0	0.0	23914.0
	% Fixture	80.7	0.0	80.7
<b>Total</b>	Lumens	29627.0	0.0	29627.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	407.6	1.4
10°-20°	1023.7	3.5
20°-30°	1641.3	5.5
30°-40°	2714.8	9.2
40°-50°	4200.9	14.2
50°-60°	5623.7	19.0
60°-70°	7346.4	24.8
70°-80°	6000.7	20.3
80°-90°	667.9	2.3
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°	29627.0	100.0
0°-180°	29627.0	100.0



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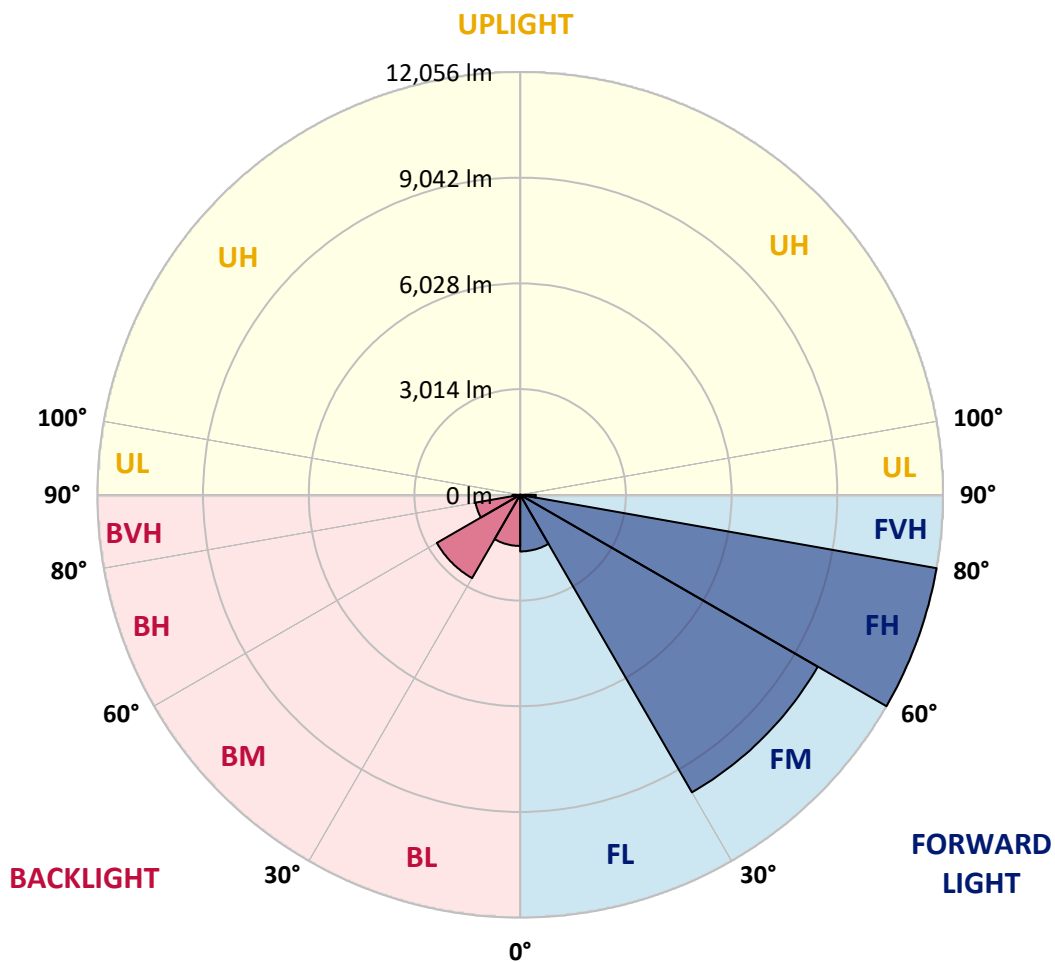
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1614.3	5.4			
FM (30°-60°)	9795.7	33.1			
FH (60°-80°)	12056.0	40.7			G5
FVH (80°-90°)	448.0	1.5			G3/500
BL (0°-30°)	1458.3	4.9	B3/2500		
BM (30°-60°)	2743.7	9.3	B3/5000		
BH (60°-80°)	1291.0	4.4	B3/2500		G3/2500
BVH (80°-90°)	220.0	0.7			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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	4487.6	4487.6	4487.6	4487.6	4487.6	4487.6	4487.6	4487.6	4487.6	4487.6	4487.6
2.5°	4316.3	4327.6	4329.5	4342.7	4342.7	4340.8	4346.4	4369.0	4380.3	4406.7	4429.3
5°	4103.6	4116.8	4122.4	4145.0	4173.3	4175.2	4195.9	4239.2	4280.6	4338.9	4387.9
7.5°	3864.6	3879.6	3894.7	3941.7	3983.1	3986.9	4026.4	4096.1	4150.7	4222.2	4310.7
10°	3633.0	3636.8	3651.8	3712.1	3766.7	3772.3	3828.8	3907.9	3981.3	4081.0	4180.8
12.5°	3442.9	3454.2	3450.4	3495.6	3542.7	3546.4	3621.7	3721.5	3828.8	3941.7	4060.3
15°	3377.0	3375.1	3335.6	3333.7	3354.4	3358.2	3431.6	3548.3	3668.8	3808.1	3960.6
17.5°	3422.2	3407.1	3303.6	3239.6	3226.4	3230.2	3284.8	3412.8	3540.8	3700.8	3883.4
20°	3670.7	3612.3	3369.5	3215.1	3171.8	3171.8	3203.8	3307.4	3448.5	3634.9	3864.6
22.5°	4259.9	4169.5	3651.8	3377.0	3224.5	3209.5	3185.0	3264.1	3420.3	3644.3	3941.7
25°	5001.5	4958.2	4169.5	3808.1	3493.7	3444.8	3282.9	3311.1	3478.7	3746.0	4152.6
27.5°	5688.6	5613.3	4849.0	4434.9	3990.7	3915.4	3572.8	3458.0	3618.0	3934.2	4457.5
30°	6089.5	6038.7	5547.4	5152.1	4623.2	4527.2	4035.9	3747.8	3866.4	4244.8	4890.5
32.5°	6526.3	6496.1	6247.7	5888.1	5308.4	5197.3	4634.5	4220.3	4246.7	4657.0	5411.9
35°	6949.8	6989.3	6848.2	6584.6	6046.3	5942.7	5438.2	4837.8	4715.4	5120.1	5969.1
37.5°	7458.0	7467.5	7379.0	7207.7	6821.8	6737.1	6321.1	5496.6	5225.5	5613.3	6507.4
40°	8472.7	8323.9	7977.6	7842.1	7612.4	7559.7	7085.3	6100.8	5699.9	6119.7	7015.7
42.5°	9570.1	9338.6	8796.4	8574.3	8482.1	8433.1	7721.6	6503.7	6144.1	6626.0	7514.5
45°	10454.8	10266.6	9735.7	9460.9	9472.2	9393.1	8276.9	6863.2	6626.0	7134.3	8071.7
47.5°	11326.4	11012.0	10417.2	10377.6	10509.4	10392.7	8807.7	7222.7	7128.6	7687.7	8628.9
50°	11382.8	11096.7	10855.8	11172.0	11397.9	11253.0	9289.6	7693.3	7650.1	8357.8	9348.0
52.5°	10695.8	10654.4	11021.4	11554.1	11928.7	11798.8	9683.0	8177.1	8182.8	9195.5	10223.3
55°	10445.4	10392.7	10833.2	11488.3	11994.6	11917.4	9976.7	8723.0	8773.8	10212.0	11162.6
57.5°	10867.1	10735.3	10821.9	11364.0	11840.3	11795.1	10281.6	9329.1	9421.4	11382.8	12030.4
60°	12175.3	11906.1	11446.8	11548.5	11845.9	11819.6	10718.4	10004.9	10159.3	12602.6	12580.0
62.5°	14134.9	13830.0	12894.4	12442.6	12376.7	12325.9	11439.3	10835.1	10912.2	13483.6	12260.0
65°	16284.6	15957.1	14844.6	14104.8	13717.0	13607.8	12602.6	11836.5	11352.7	13481.7	11013.9
67.5°	18697.8	18351.5	17242.7	16536.8	16117.1	15930.7	14490.7	12645.9	11209.7	12341.0	8813.4
70°	21169.4	20840.0	20331.7	20578.3	20762.8	20478.6	17464.9	12915.1	10181.9	9675.5	5918.2
72.5°	19857.4	19831.0	20216.9	22554.9	26110.7	26167.2	20435.3	12154.6	7866.5	5750.7	3154.9
73°	18639.5	18750.5	19465.8	22263.1	26568.1	26586.9	20493.6	11761.2	7222.7	4954.5	2770.9
75°	9656.7	10409.6	13063.8	18052.2	24601.0	24689.5	18065.3	8903.7	4305.0	2752.1	1867.3
77.5°	2586.4	2552.5	4209.0	8794.5	16401.3	16284.6	11414.8	4310.7	2063.1	1726.2	1310.1
80°	886.6	897.9	1432.5	3217.0	7655.7	7928.6	4954.5	1880.5	1357.2	1202.9	928.0
82.5°	451.8	466.8	749.2	1368.5	3202.0	3134.2	1594.4	1106.8	909.2	730.4	519.5
85°	240.9	248.5	412.2	709.7	1174.6	1187.8	561.0	591.1	577.9	414.1	256.0
87.5°	118.6	122.4	197.7	312.5	434.8	419.8	195.8	256.0	284.2	233.4	141.2
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°	4487.6	4487.6	4487.6	4487.6	4487.6	4487.6	4487.6	4487.6	4487.6	4487.6	4487.6
2.5°	4457.5	4457.5	4482.0	4523.4	4553.5	4581.7	4600.6	4630.7	4647.6	4645.8	4643.9
5°	4427.4	4446.2	4495.2	4546.0	4579.9	4602.5	4602.5	4615.6	4615.6	4610.0	4602.5
7.5°	4357.7	4389.7	4461.3	4506.5	4515.9	4491.4	4442.5	4404.8	4357.7	4333.3	4323.9
10°	4246.7	4288.1	4378.4	4399.2	4350.2	4263.6	4145.0	4043.4	3953.0	3911.6	3898.4
12.5°	4137.5	4192.1	4276.8	4244.8	4128.1	3958.7	3776.1	3636.8	3535.1	3495.6	3482.4
15°	4047.1	4113.0	4178.9	4079.1	3875.9	3640.6	3439.1	3309.2	3232.1	3202.0	3194.4
17.5°	3986.9	4064.1	4086.7	3900.3	3618.0	3354.4	3175.6	3090.9	3057.0	3043.8	3040.1
20°	3990.7	4077.3	4022.7	3727.1	3369.5	3104.1	2985.5	2961.0	2961.0	2961.0	2959.1
22.5°	4094.2	4169.5	3996.3	3565.3	3130.4	2893.2	2842.4	2863.1	2878.2	2878.2	2876.3
25°	4308.8	4350.2	4015.1	3409.0	2906.4	2710.6	2712.5	2752.1	2765.2	2765.2	2761.5
27.5°	4636.3	4602.5	4049.0	3235.8	2686.2	2545.0	2571.4	2607.1	2616.5	2610.9	2609.0
30°	5046.7	4911.2	4077.3	3032.5	2479.1	2390.6	2413.2	2433.9	2426.4	2413.2	2411.3
32.5°	5506.0	5225.5	4060.3	2804.8	2296.5	2230.6	2243.8	2255.1	2243.8	2211.8	2211.8
35°	5961.5	5509.8	3968.1	2556.3	2151.6	2076.3	2074.4	2110.2	2108.3	2070.6	2072.5
37.5°	6360.6	5733.8	3789.3	2328.5	2027.3	1963.3	1970.9	1993.5	2004.8	1953.9	1948.3
40°	6708.9	5888.1	3537.0	2134.6	1927.6	1931.3	1910.6	1874.9	1861.7	1839.1	1835.3
42.5°	7036.4	5995.4	3269.7	1972.7	1876.7	1920.0	1850.4	1765.7	1729.9	1750.6	1763.8
45°	7358.3	6115.9	3011.8	1839.1	1812.7	1886.2	1790.2	1696.0	1654.6	1664.0	1677.2
47.5°	7751.7	6283.4	2701.2	1696.0	1714.9	1824.0	1752.5	1650.9	1588.7	1551.1	1539.8
50°	8269.4	6526.3	2298.4	1541.7	1611.3	1756.3	1720.5	1585.0	1517.2	1441.9	1423.1
52.5°	8916.9	6755.9	1891.8	1417.4	1526.6	1697.9	1667.8	1528.5	1445.7	1355.3	1340.3
55°	9562.6	6787.9	1541.7	1310.1	1430.6	1618.9	1603.8	1483.3	1366.6	1293.2	1278.1
57.5°	10014.3	6484.8	1306.4	1219.8	1338.4	1521.0	1545.4	1428.7	1300.7	1244.3	1234.9
60°	10021.9	5760.1	1163.3	1159.6	1268.7	1436.3	1485.2	1364.7	1259.3	1221.7	1214.1
62.5°	9225.6	4642.0	1071.1	1114.4	1217.9	1366.6	1440.0	1329.0	1249.9	1234.9	1227.3
65°	7732.9	3429.7	997.7	1073.0	1170.8	1308.3	1402.4	1317.7	1246.1	1240.5	1234.9
67.5°	5709.3	2351.1	935.6	1020.3	1118.1	1248.0	1366.6	1300.7	1223.6	1246.1	1238.6
70°	3591.6	1569.9	877.2	960.0	1048.5	1178.4	1319.6	1270.6	1195.3	1182.1	1157.7
72.5°	2027.3	1135.1	807.5	882.8	958.1	1086.1	1255.6	1219.8	1131.3	1078.6	1054.1
73°	1831.6	1074.8	790.6	864.0	937.4	1067.3	1240.5	1204.7	1112.5	1054.1	1031.6
75°	1340.3	879.1	713.4	786.8	850.8	980.7	1169.0	1129.4	1029.7	960.0	945.0
77.5°	971.3	677.7	613.7	679.5	736.0	860.3	1061.7	1016.5	918.6	881.0	865.9
80°	700.3	513.9	508.2	572.2	621.2	747.3	946.8	899.8	805.7	916.7	892.3
82.5°	417.9	329.4	372.7	444.2	495.1	626.8	822.6	768.0	677.7	685.2	583.5
85°	199.5	186.4	231.5	291.8	327.5	429.2	685.2	641.9	542.1	444.2	434.8
87.5°	88.5	84.7	111.1	129.9	175.1	257.9	468.7	416.0	393.4	235.3	184.5
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)