

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: P196818

Luminaire Tested: **NAV-AF-06-D-UNV-T3R-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196818  
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-7030  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 35436.1 lumens  
Efficiency: N/A  
Efficacy: 106.4 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

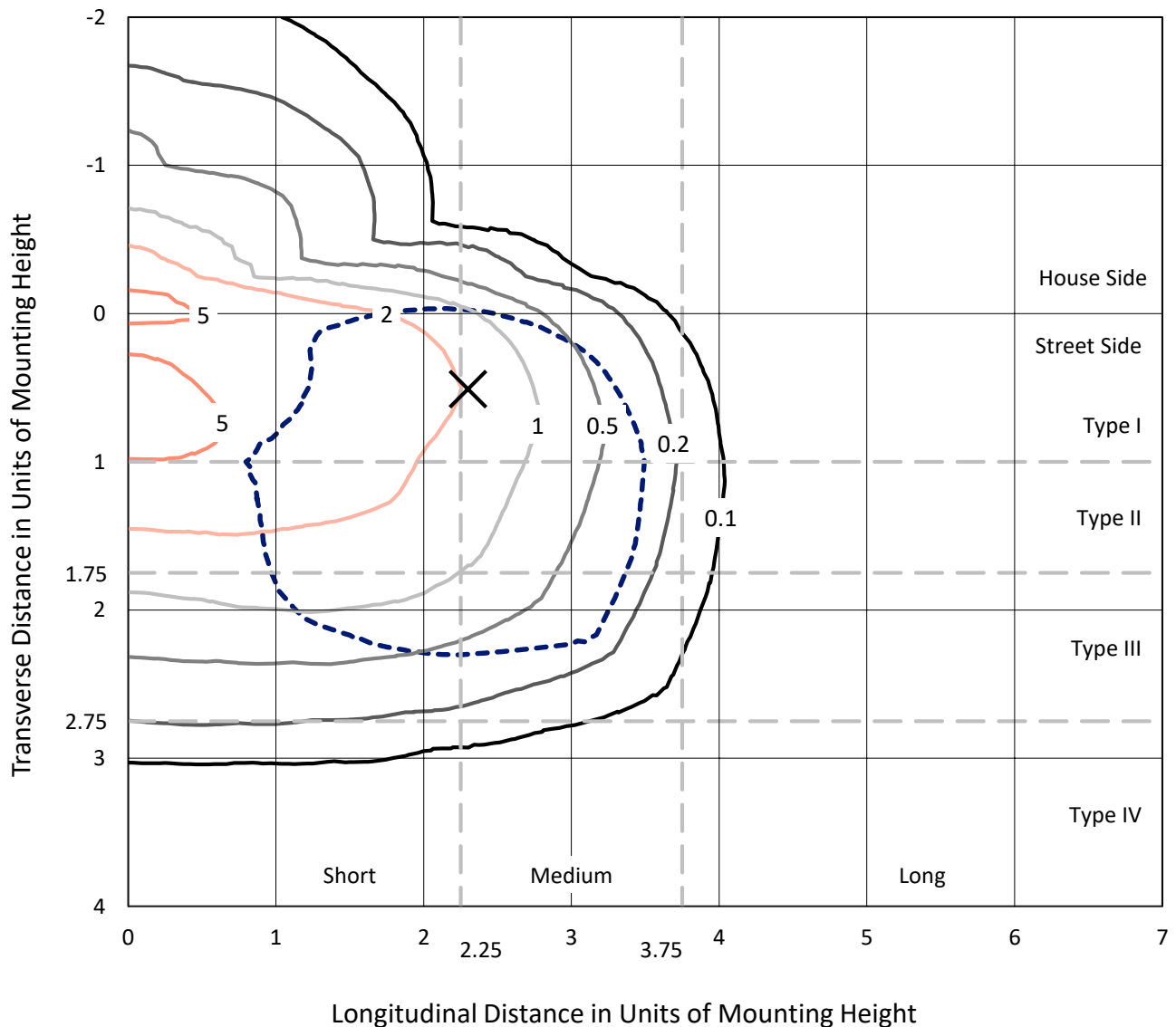
Input Watts (W): 333  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

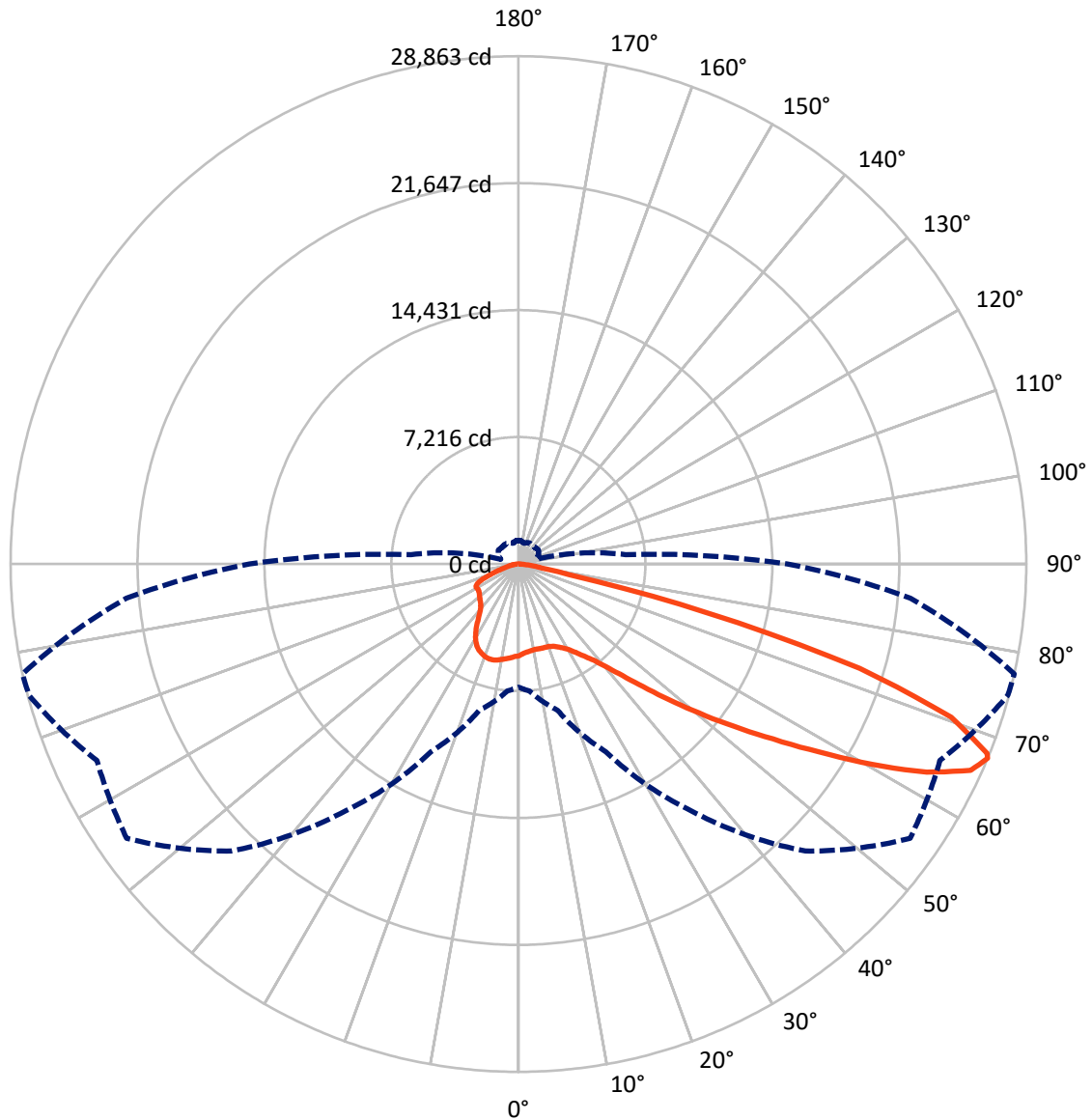
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7 fc  
 Type III - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



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

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6089.7	0.0	6089.7
	% Fixture	17.2	0.0	17.2
<b>Street Side</b>	Lumens	29346.4	0.0	29346.4
	% Fixture	82.8	0.0	82.8
<b>Total</b>	Lumens	35436.1	0.0	35436.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	464.5	1.3
10°-20°	1286.4	3.6
20°-30°	2185.6	6.2
30°-40°	3496.5	9.9
40°-50°	5382.9	15.2
50°-60°	7468.2	21.1
60°-70°	9962.1	28.1
70°-80°	4741.0	13.4
80°-90°	448.9	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°	35436.1	100.0
0°-180°	35436.1	100.0



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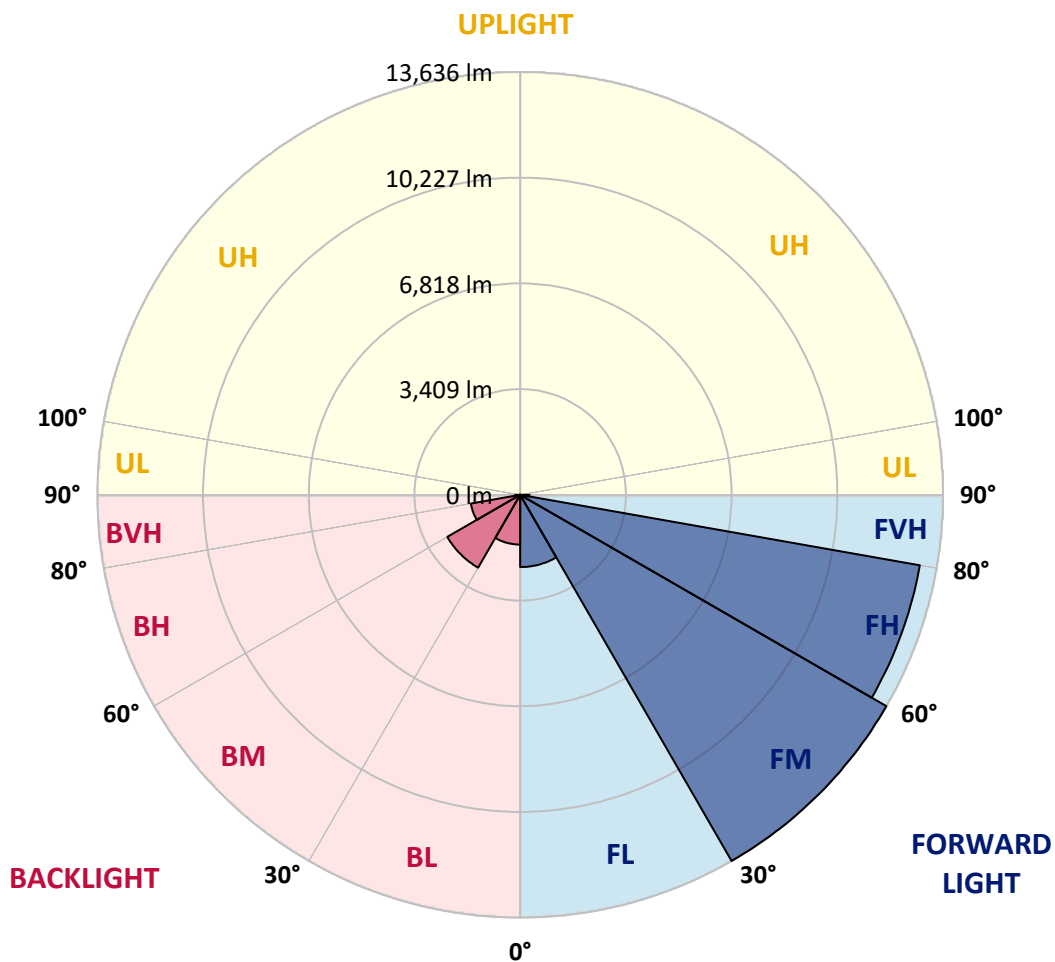
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2330.3	6.6			
FM	(30°-60°)	13636.2	38.5			
FH	(60°-80°)	13088.4	36.9			G5
FVH	(80°-90°)	291.5	0.8			G3/500
BL	(0°-30°)	1606.2	4.5	B3/2500		
BM	(30°-60°)	2711.5	7.7	B3/5000		
BH	(60°-80°)	1614.7	4.6	B3/2500		G3/2500
BVH	(80°-90°)	157.3	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	5215.3	5215.3	5215.3	5215.3	5215.3	5215.3	5215.3	5215.3	5215.3	5215.3	5215.3
2.5°	4676.4	4698.3	4700.6	4764.0	4792.5	4864.8	4943.7	5013.7	5075.1	5097.0	5136.4
5°	4207.7	4207.7	4214.2	4255.8	4336.9	4453.0	4617.3	4796.9	4985.3	5031.3	5147.3
7.5°	3962.4	3966.7	3971.1	4012.8	4076.3	4179.1	4343.5	4588.8	4902.0	4978.7	5182.3
10°	3984.2	3977.7	3955.8	3947.0	3973.3	4039.0	4181.4	4433.3	4832.0	4950.2	5246.0
12.5°	4328.2	4314.9	4242.7	4137.6	4041.2	4017.1	4115.7	4354.4	4799.1	4950.2	5353.2
15°	4917.3	4926.2	4783.8	4564.8	4312.8	4142.0	4128.8	4326.0	4788.2	4963.3	5478.2
17.5°	5684.0	5688.4	5491.3	5173.7	4755.3	4402.6	4218.6	4326.0	4788.2	4976.5	5598.6
20°	6498.8	6468.1	6244.7	5846.1	5302.9	4764.0	4382.9	4352.3	4801.3	4996.2	5712.5
22.5°	7197.6	7169.0	6934.6	6516.3	5894.3	5191.1	4604.1	4439.9	4873.5	5077.3	5872.3
25°	7808.6	7826.1	7598.3	7127.4	6483.5	5673.1	4934.9	4641.4	5024.8	5224.0	6069.5
27.5°	8551.1	8518.3	8255.5	7806.5	7090.2	6172.5	5348.9	4895.5	5204.3	5401.4	6310.5
30°	9409.9	9394.4	9039.7	8577.5	7758.3	6731.0	5758.5	5169.3	5438.7	5644.6	6612.7
32.5°	10452.4	10450.2	10069.2	9501.8	8509.5	7361.8	6242.5	5543.9	5780.4	5988.5	7013.6
35°	11633.1	11630.8	11236.6	10487.5	9374.8	8060.5	6812.0	5999.4	6203.0	6422.2	7491.1
37.5°	12452.2	12439.0	12233.2	11506.0	10332.0	8873.2	7523.9	6612.7	6682.9	6928.1	8067.1
40°	12609.9	12688.9	12866.2	12436.9	11376.7	9775.7	8237.9	7272.0	7337.8	7653.2	8792.1
42.5°	12439.0	12542.0	13131.3	13251.7	12421.5	10868.6	9131.7	8185.3	8268.6	8660.7	9644.2
45°	12290.1	12379.9	13118.1	13703.0	13453.2	12060.1	10246.6	9300.2	9458.0	9944.2	10616.7
47.5°	12036.0	12119.2	12859.6	13783.9	14042.4	13208.0	11589.2	10640.8	10912.4	11501.6	11725.0
50°	12022.9	12060.1	12507.0	13512.3	14246.1	14079.7	13076.4	12209.0	12625.2	13304.3	12951.6
52.5°	11689.9	11950.7	12355.8	13078.7	14250.4	14587.9	14541.9	13928.5	14570.3	15321.7	14296.5
55°	9652.9	9953.0	11852.0	12866.2	14224.3	15023.7	15880.2	15757.5	16760.7	17551.4	15803.5
57.5°	9013.4	9140.4	10397.6	12929.7	14443.3	15744.4	17218.5	17722.2	19266.4	20129.5	17610.5
60°	8838.1	8971.8	10106.4	12960.4	15036.8	17056.4	19034.3	19941.1	22212.5	23128.0	19662.9
62.5°	8643.2	8816.2	10128.3	12988.8	16079.4	18997.0	21443.7	22348.3	25237.4	26054.4	21586.1
65°	8073.7	8303.7	9723.0	12809.2	17220.7	21432.8	24628.4	24858.4	27736.5	28255.6	22746.9
67°	6993.8	7245.7	8610.2	11771.0	17115.5	23073.3	27175.8	26428.9	28798.9	28862.5	22370.2
67.5°	6652.1	6912.9	8233.6	11339.5	16815.4	23287.9	27627.1	26645.8	28790.2	28720.0	22019.7
70°	4479.3	4772.8	5830.7	8325.5	13488.3	21673.6	27517.5	25977.7	26902.1	26098.2	18918.1
72.5°	2223.2	2231.9	2908.8	4560.4	8172.3	15545.0	22955.1	22223.5	21807.3	20289.3	13882.5
75°	1071.1	1090.9	1373.4	2015.2	3445.5	8025.5	15654.5	14995.2	12767.6	11054.8	6947.8
77.5°	817.0	836.7	1066.7	1311.9	1436.9	2617.6	7753.9	6266.7	3699.5	2954.8	1958.2
80°	630.9	668.0	900.2	1007.6	950.7	1049.2	2437.9	1918.8	1439.1	1320.8	970.3
82.5°	492.9	514.7	764.5	764.5	657.0	703.1	1134.6	1108.3	893.6	806.0	521.2
85°	348.3	392.0	615.4	569.5	431.5	435.8	679.0	650.5	460.0	370.2	203.7
87.5°	155.4	199.3	438.0	372.3	230.0	177.4	278.2	238.7	181.8	140.2	94.2
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°	5215.3	5215.3	5215.3	5215.3	5215.3	5215.3	5215.3	5215.3	5215.3	5215.3	5215.3
2.5°	5180.2	5215.3	5270.0	5302.9	5346.7	5364.2	5381.7	5412.3	5436.5	5429.8	5418.9
5°	5228.4	5287.5	5355.5	5377.3	5377.3	5355.5	5342.3	5344.5	5338.0	5333.5	5320.4
7.5°	5298.5	5379.5	5427.7	5405.8	5338.0	5252.5	5171.5	5123.2	5077.3	5048.8	5057.5
10°	5397.1	5486.9	5489.0	5392.7	5230.6	5044.4	4884.6	4781.5	4683.0	4639.1	4652.4
12.5°	5539.5	5629.2	5552.5	5344.5	5059.7	4768.4	4474.9	4262.4	4071.9	4025.8	4012.8
15°	5692.7	5762.9	5592.0	5241.5	4814.4	4334.8	3841.9	3524.2	3311.8	3274.6	3261.5
17.5°	5826.4	5865.8	5572.3	5057.5	4426.7	3671.0	3097.2	2882.5	2838.7	2860.6	2860.6
20°	5944.7	5931.4	5486.9	4772.8	3815.7	2935.1	2602.1	2600.0	2659.2	2713.9	2718.3
22.5°	6093.6	5990.6	5351.1	4350.0	3086.2	2448.8	2391.9	2448.8	2514.5	2575.9	2582.5
25°	6271.1	6056.3	5169.3	3747.7	2481.8	2223.2	2247.4	2295.5	2337.2	2385.3	2387.6
27.5°	6448.5	6106.7	4913.0	3040.2	2153.2	2078.6	2105.0	2124.6	2135.6	2166.3	2166.3
30°	6654.3	6146.2	4542.8	2435.7	2001.9	1951.6	1936.3	1927.6	1936.3	1977.9	1980.1
32.5°	6912.9	6216.3	4036.8	2089.6	1931.9	1861.8	1783.0	1739.2	1769.8	1844.3	1857.4
35°	7206.3	6299.5	3430.0	1951.6	1907.7	1818.0	1673.5	1605.6	1616.5	1684.3	1695.3
37.5°	7574.3	6406.9	2832.1	1918.8	1931.9	1813.6	1623.0	1526.7	1478.5	1480.7	1478.5
40°	8045.2	6514.1	2359.0	1927.6	1984.4	1824.5	1599.0	1447.8	1347.0	1351.4	1360.2
42.5°	8538.1	6584.2	2059.0	1953.8	2047.9	1839.9	1590.2	1371.2	1283.6	1358.0	1426.0
45°	9114.1	6564.6	1903.4	1977.9	2096.1	1846.5	1557.4	1362.4	1290.2	1513.6	1640.6
47.5°	9775.7	6479.1	1815.8	1988.8	2109.4	1844.3	1533.2	1390.9	1344.9	1732.6	1877.2
50°	10494.1	6345.4	1745.8	1971.4	2102.8	1835.5	1559.5	1426.0	1366.9	1780.8	1892.5
52.5°	11280.4	6222.9	1673.5	1931.9	2069.9	1809.3	1592.4	1410.6	1305.4	1640.6	1726.0
55°	12211.3	6194.4	1592.4	1864.0	2015.2	1780.8	1574.9	1362.4	1237.6	1454.4	1507.0
57.5°	13275.8	6371.8	1487.2	1780.8	1940.7	1723.8	1533.2	1336.1	1213.5	1323.0	1351.4
60°	14627.3	6763.8	1375.6	1693.2	1848.6	1638.4	1496.0	1342.7	1220.0	1303.3	1309.8
62.5°	15683.0	7116.5	1274.8	1585.8	1726.0	1535.4	1456.7	1349.3	1239.8	1329.5	1318.6
65°	16066.3	6943.4	1150.0	1426.0	1553.0	1421.6	1401.8	1353.6	1239.8	1344.9	1320.8
67°	15280.0	6117.7	1031.6	1266.0	1388.6	1320.8	1349.3	1336.1	1217.8	1342.7	1301.1
67.5°	14905.4	5826.4	1001.1	1239.8	1344.9	1290.2	1336.1	1327.4	1211.2	1338.3	1290.2
70°	12292.3	4179.1	845.4	1040.4	1125.8	1136.9	1255.1	1270.3	1158.7	1257.2	1169.6
72.5°	8746.1	2615.3	729.5	806.0	909.0	972.5	1145.6	1193.7	1088.7	1093.0	1020.7
75°	4328.2	1404.0	650.5	622.0	707.5	810.4	998.8	1088.7	985.6	911.2	887.0
77.5°	1461.1	795.1	549.8	501.6	549.8	650.5	827.9	950.7	869.6	771.1	755.6
80°	755.6	578.3	429.3	403.0	433.6	503.8	648.4	790.7	742.5	746.9	615.4
82.5°	470.9	352.7	308.8	306.7	328.6	385.4	477.5	641.8	637.4	545.4	396.5
85°	219.1	203.7	197.1	203.7	210.4	219.1	311.1	457.8	484.0	293.5	260.7
87.5°	92.0	89.8	78.8	85.4	94.2	92.0	124.9	194.9	271.6	184.0	168.7
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)