

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: P270700

Luminaire Tested: **NAV-AF-06-D-UNV-T2-7027-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270700  
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-T2-7027-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 33604.9 lumens  
Efficiency: N/A  
Efficacy: 88.0 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 - G4

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

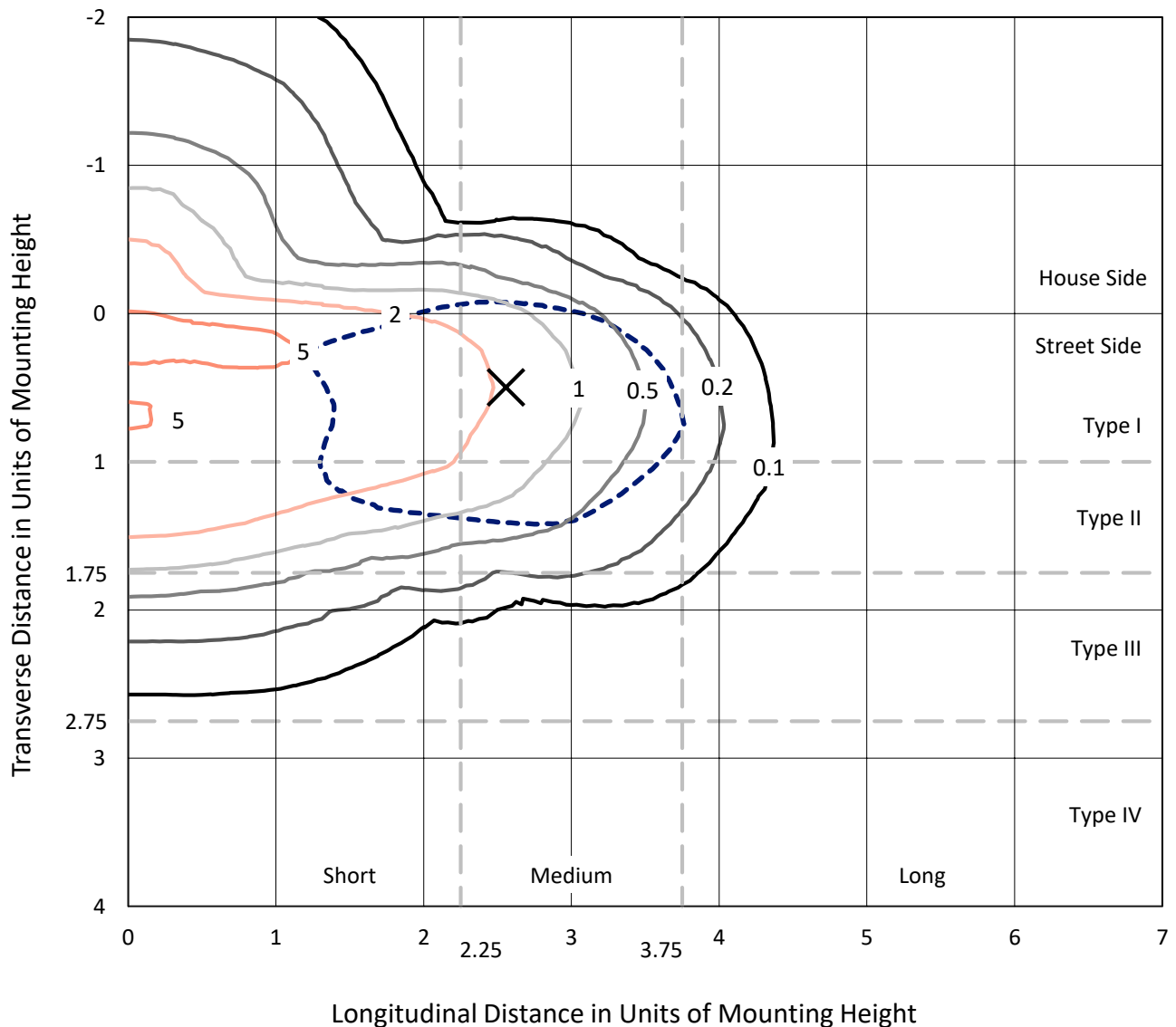


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### Iso-Footcandle Lines of Horizontal Illumination

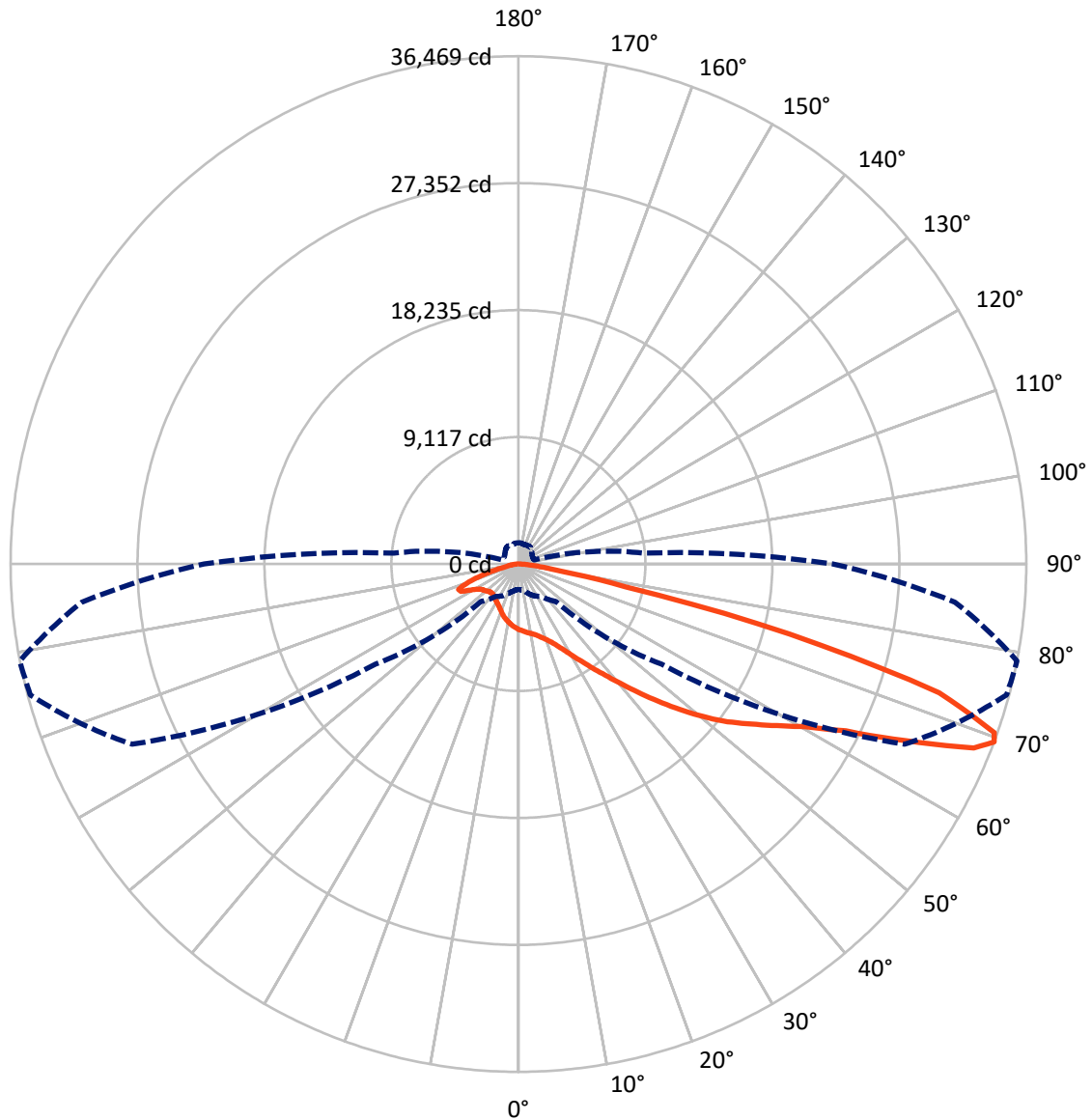
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.3 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



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

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6321.7	0.0	6321.7
	% Fixture	18.8	0.0	18.8
<b>Street Side</b>	Lumens	27283.2	0.0	27283.2
	% Fixture	81.2	0.0	81.2
<b>Total</b>	Lumens	33604.9	0.0	33604.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	437.2	1.3
10°-20°	1253.4	3.7
20°-30°	2071.1	6.2
30°-40°	3353.7	10.0
40°-50°	5357.5	15.9
50°-60°	7672.5	22.8
60°-70°	8548.3	25.4
70°-80°	4276.6	12.7
80°-90°	634.7	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°	33604.9	100.0
0°-180°	33604.9	100.0



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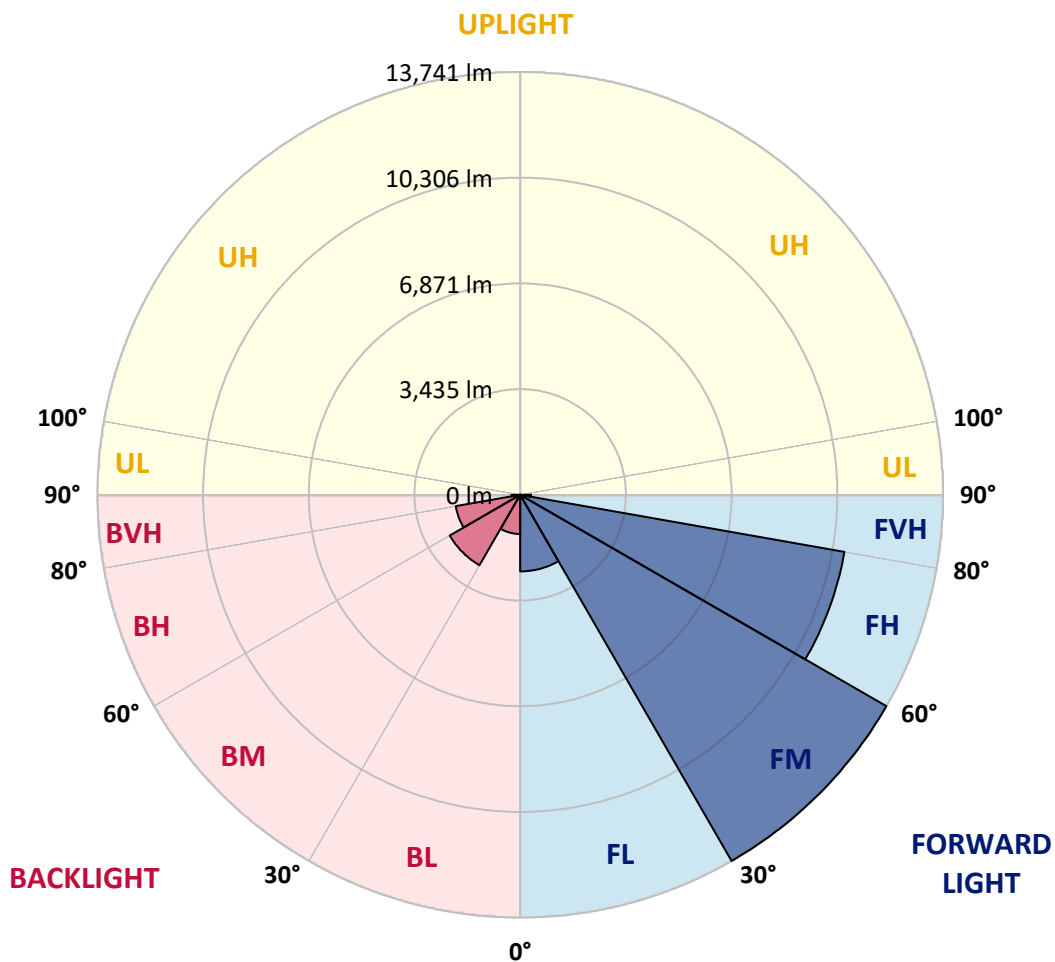
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2488.2	7.4			
FM (30°-60°)	13741.1	40.9			
FH (60°-80°)	10699.4	31.8			G4/12000
FVH (80°-90°)	354.6	1.1			G3/500
BL (0°-30°)	1273.5	3.8	B3/2500		
BM (30°-60°)	2642.6	7.9	B3/5000		
BH (60°-80°)	2125.6	6.3	B3/2500		G3/2500
BVH (80°-90°)	280.0	0.8			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	4715.8	4715.8	4715.8	4715.8	4715.8	4715.8	4715.8	4715.8	4715.8	4715.8	4715.8
2.5°	5177.6	5166.5	5164.4	5131.4	5113.8	5076.4	4988.5	4898.3	4814.7	4770.8	4724.6
5°	5610.6	5588.6	5577.7	5522.7	5474.4	5390.8	5252.3	5109.4	4959.9	4882.9	4790.7
7.5°	5872.3	5874.5	5874.5	5830.4	5782.1	5681.1	5505.2	5309.4	5087.5	4986.2	4841.1
10°	5894.3	5896.5	5929.4	5940.4	5951.5	5898.6	5735.9	5489.7	5203.9	5072.0	4882.9
12.5°	5676.6	5692.0	5746.9	5826.0	5938.2	5995.4	5925.0	5683.1	5353.4	5192.9	4962.1
15°	5384.3	5399.6	5469.9	5590.8	5771.2	5962.4	6061.4	5905.3	5549.1	5359.9	5078.6
17.5°	5241.3	5258.9	5307.2	5403.9	5579.8	5837.0	6133.8	6142.7	5780.0	5562.2	5217.0
20°	5173.1	5186.4	5247.9	5326.9	5461.2	5707.4	6140.5	6393.2	6054.8	5802.0	5386.3
22.5°	5329.3	5333.6	5364.4	5408.3	5498.5	5687.6	6136.1	6652.8	6397.6	6103.2	5604.0
25°	5786.5	5758.0	5735.9	5681.1	5703.0	5837.0	6206.4	6929.7	6837.4	6498.9	5894.3
27.5°	6327.3	6323.0	6265.8	6138.3	6056.9	6142.7	6406.5	7239.7	7376.1	7002.3	6274.7
30°	6929.7	6932.0	6872.7	6716.4	6551.6	6560.4	6725.3	7598.1	8020.2	7609.2	6742.9
32.5°	7560.8	7600.3	7490.3	7334.3	7134.2	7070.5	7182.6	8031.1	8765.5	8325.9	7286.0
35°	8314.8	8321.4	8200.4	7971.9	7771.7	7670.6	7774.0	8572.0	9625.1	9167.8	7947.7
37.5°	9097.5	9101.8	8976.6	8684.2	8431.3	8365.3	8479.7	9229.4	10535.3	10126.5	8726.0
40°	9737.3	9783.4	9684.4	9409.7	9154.6	9115.1	9280.0	10016.6	11698.4	11260.9	9651.5
42.5°	10462.7	10515.6	10396.9	10111.1	9908.8	9895.5	10152.7	10913.5	12854.7	12573.3	10700.3
45°	11280.6	11355.4	11190.5	10869.5	10698.0	10988.2	11003.6	11907.3	14187.1	14041.9	11880.9
47.5°	12173.2	12234.7	12100.7	11755.5	11568.6	11988.6	11836.8	12982.2	15627.2	15616.1	13158.2
50°	12861.4	12929.6	12942.7	12791.1	12595.3	12648.1	12751.4	14112.4	17062.8	17234.3	14479.5
52.5°	12736.1	12802.0	13098.8	13496.8	13811.1	13674.8	13800.1	15312.7	18450.0	18812.8	15734.8
55°	11724.8	11759.9	12316.1	13261.5	14600.4	15251.2	15260.0	16618.6	19769.1	20277.0	16926.5
57.5°	9902.1	9906.6	10629.9	12023.8	14140.8	16273.4	17564.0	18258.8	21145.5	21895.1	18403.8
60°	7006.7	7024.2	7866.3	9688.8	12494.3	16150.4	20041.7	21193.8	22739.3	23713.3	20307.8
62.5°	4159.6	4199.1	4834.6	6296.6	9280.0	14567.5	21506.0	26415.3	25087.3	26380.0	23354.9
65°	2706.4	2739.3	3119.8	3854.0	5483.2	10599.1	21024.6	31471.8	29530.6	30574.9	27734.5
67.5°	2084.2	2110.6	2409.6	2853.6	3363.8	5729.4	16810.0	32531.6	34938.9	35264.4	31430.1
69°	1831.4	1853.4	2073.2	2499.8	2831.6	3792.5	12527.3	30607.9	36291.0	36469.1	31476.3
70°	1697.3	1714.9	1921.6	2290.9	2600.9	3027.4	9587.8	28374.1	35796.4	36251.6	30568.2
72.5°	1398.2	1413.7	1561.0	1844.6	2126.0	2156.7	4247.5	20718.9	30141.8	31597.3	25867.9
75°	1167.3	1176.2	1273.0	1479.6	1721.4	1717.0	2169.9	11735.7	18392.8	20127.6	15972.3
77.5°	973.9	980.5	1044.3	1171.7	1358.6	1352.0	1527.9	5065.5	8121.3	7835.6	5498.5
80°	859.6	864.0	897.0	929.9	1048.7	1042.2	1132.3	2326.0	3304.3	3053.8	2079.8
82.5°	653.0	661.7	828.9	844.2	813.4	784.8	789.3	1354.3	1692.9	1541.1	1116.9
85°	369.4	371.5	532.1	622.2	708.0	532.1	512.3	699.2	835.5	732.1	488.0
87.5°	164.8	171.4	254.9	294.6	382.6	312.3	292.4	296.8	360.6	299.0	193.4
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4715.8	4715.8	4715.8	4715.8	4715.8	4715.8	4715.8	4715.8	4715.8	4715.8	4715.8
2.5°	4680.7	4643.2	4555.3	4465.3	4375.0	4318.0	4258.5	4203.6	4181.6	4179.5	4137.7
5°	4700.4	4612.4	4412.5	4192.6	3983.8	3821.0	3684.8	3596.9	3511.0	3495.7	3458.2
7.5°	4707.1	4564.2	4238.7	3887.0	3568.2	3343.9	3207.7	3148.3	3106.5	3095.5	3082.4
10°	4704.9	4502.6	4045.2	3563.8	3201.0	3031.8	2981.1	2994.4	3011.9	3020.8	3020.8
12.5°	4740.0	4474.0	3851.8	3260.4	2963.6	2882.2	2921.8	2990.0	3042.7	3064.7	3069.1
15°	4803.7	4456.4	3638.6	2996.6	2796.6	2816.2	2913.1	3011.9	3086.8	3119.8	3128.4
17.5°	4882.9	4432.2	3392.3	2778.9	2699.8	2767.9	2893.3	3018.6	3108.8	3150.4	3157.1
20°	4971.0	4397.1	3137.3	2616.3	2614.1	2699.8	2825.1	2965.8	3062.5	3108.8	3106.5
22.5°	5089.5	4364.1	2899.9	2497.5	2519.4	2598.6	2702.0	2829.5	2919.6	2961.4	2952.5
25°	5247.9	4333.3	2686.7	2391.9	2411.8	2464.5	2537.2	2633.8	2697.6	2719.6	2704.2
27.5°	5461.2	4309.1	2519.4	2295.3	2293.1	2317.3	2361.3	2413.9	2444.7	2438.2	2413.9
30°	5722.7	4284.9	2396.4	2209.6	2178.7	2176.6	2196.4	2227.1	2246.9	2207.3	2187.6
32.5°	6015.2	4243.1	2286.5	2134.7	2079.8	2060.1	2068.7	2110.6	2192.0	2152.3	2137.0
35°	6360.3	4194.7	2176.6	2053.4	2011.7	1974.3	1980.9	2071.0	2317.3	2288.6	2273.3
37.5°	6775.8	4150.8	2075.4	1965.5	1963.2	1917.2	1912.8	2020.5	2350.2	2288.6	2275.4
40°	7275.0	4142.1	1985.3	1868.7	1903.9	1886.4	1870.9	1936.8	2167.7	2042.4	2018.2
42.5°	7877.2	4181.6	1919.3	1776.4	1835.7	1877.5	1848.9	1864.3	1958.8	1846.7	1827.0
45°	8580.8	4289.3	1870.9	1695.0	1763.3	1870.9	1837.9	1824.7	1840.2	1778.6	1765.3
47.5°	9400.9	4480.6	1837.9	1626.9	1695.0	1853.4	1833.6	1807.2	1800.7	1765.3	1756.6
50°	10278.0	4737.8	1816.0	1565.3	1633.5	1822.7	1831.4	1793.9	1783.0	1767.7	1763.3
52.5°	11148.8	5017.0	1789.7	1512.6	1583.0	1785.2	1833.6	1780.8	1765.3	1756.6	1752.2
55°	12014.9	5307.2	1741.3	1466.5	1545.5	1741.3	1831.4	1763.3	1745.6	1745.6	1745.6
57.5°	13138.4	5749.2	1677.5	1429.1	1497.1	1684.1	1802.8	1743.4	1719.3	1721.4	1723.7
60°	14760.9	6490.1	1607.1	1387.3	1433.4	1618.0	1758.8	1708.2	1679.7	1688.5	1690.7
62.5°	17471.7	7785.0	1510.4	1328.0	1367.5	1547.8	1701.7	1659.9	1633.5	1648.8	1651.1
65°	21086.0	9352.6	1382.9	1253.1	1299.3	1468.5	1629.0	1602.8	1574.1	1611.5	1609.4
67.5°	23291.2	9811.9	1248.7	1174.1	1233.4	1385.0	1538.9	1527.9	1508.2	1574.1	1569.8
69°	22567.8	8981.0	1171.7	1123.4	1187.2	1328.0	1481.8	1477.4	1462.0	1525.9	1521.4
70°	21444.3	8204.8	1123.4	1090.5	1163.0	1292.8	1444.5	1444.5	1429.1	1484.0	1473.0
72.5°	17225.4	6085.5	1011.3	1006.9	1079.5	1196.1	1343.2	1354.3	1345.5	1365.2	1354.3
75°	10113.2	3667.2	901.4	914.6	978.3	1092.7	1231.1	1240.0	1231.1	1229.1	1231.1
77.5°	3506.7	1644.4	795.9	815.7	870.5	987.1	1108.1	1125.7	1112.5	1097.1	1101.4
80°	1371.9	956.3	681.5	710.1	756.4	868.4	984.9	996.0	976.2	973.9	956.3
82.5°	824.5	582.6	529.8	576.1	633.1	754.0	850.9	846.5	831.0	921.2	806.9
85°	358.3	323.2	386.9	433.2	461.6	565.0	719.0	699.2	661.7	582.6	569.4
87.5°	145.0	167.1	213.3	257.3	276.9	364.9	492.5	474.8	481.5	395.8	393.5
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)