

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: P196260

Luminaire Tested: **NAV-AF-06-D-UNV-T2-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196260  
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-T2-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 4000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 29140.8 lumens  
Efficiency: N/A  
Efficacy: 117.0 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): 249  
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

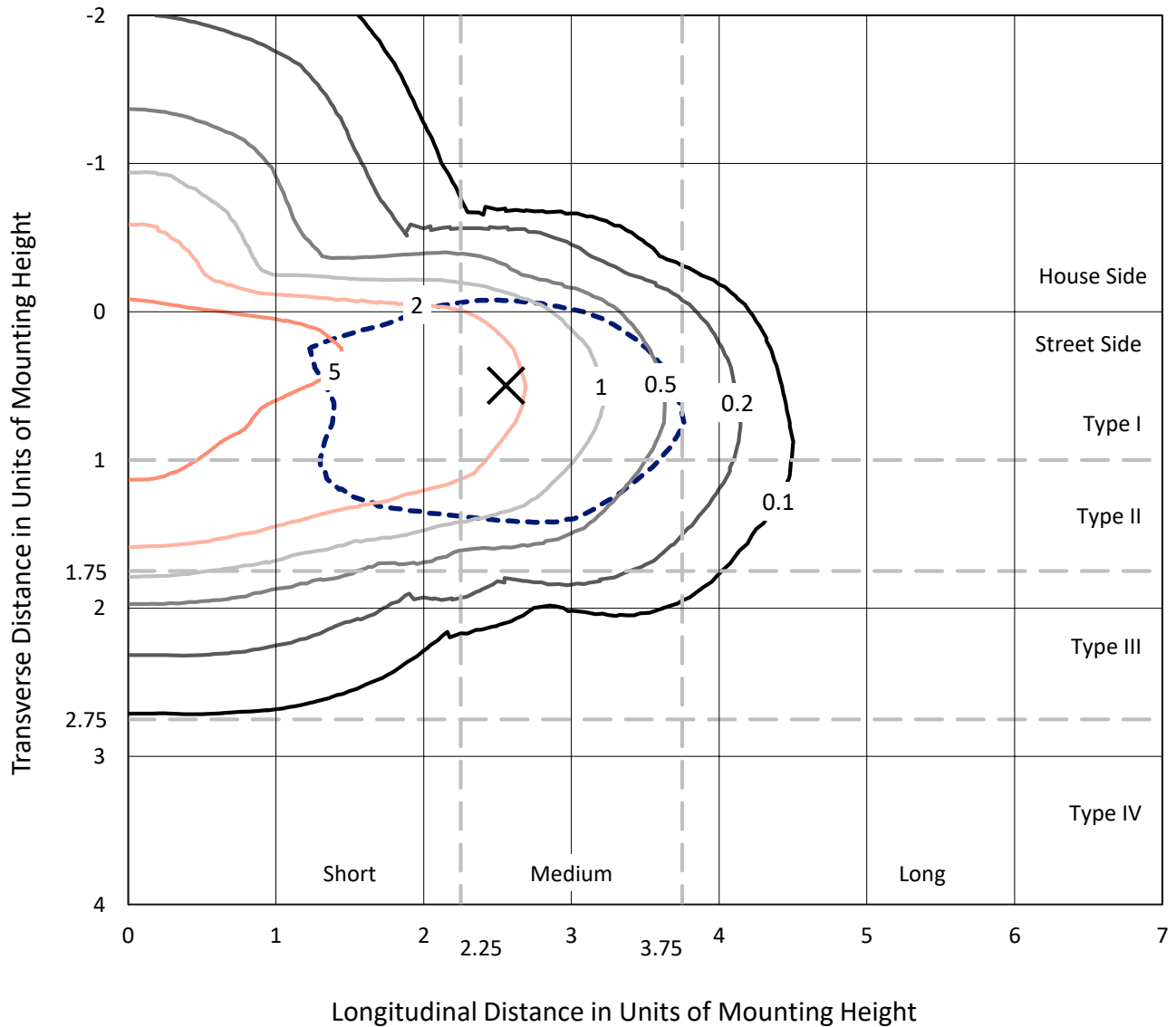


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### Iso-Footcandle Lines of Horizontal Illumination

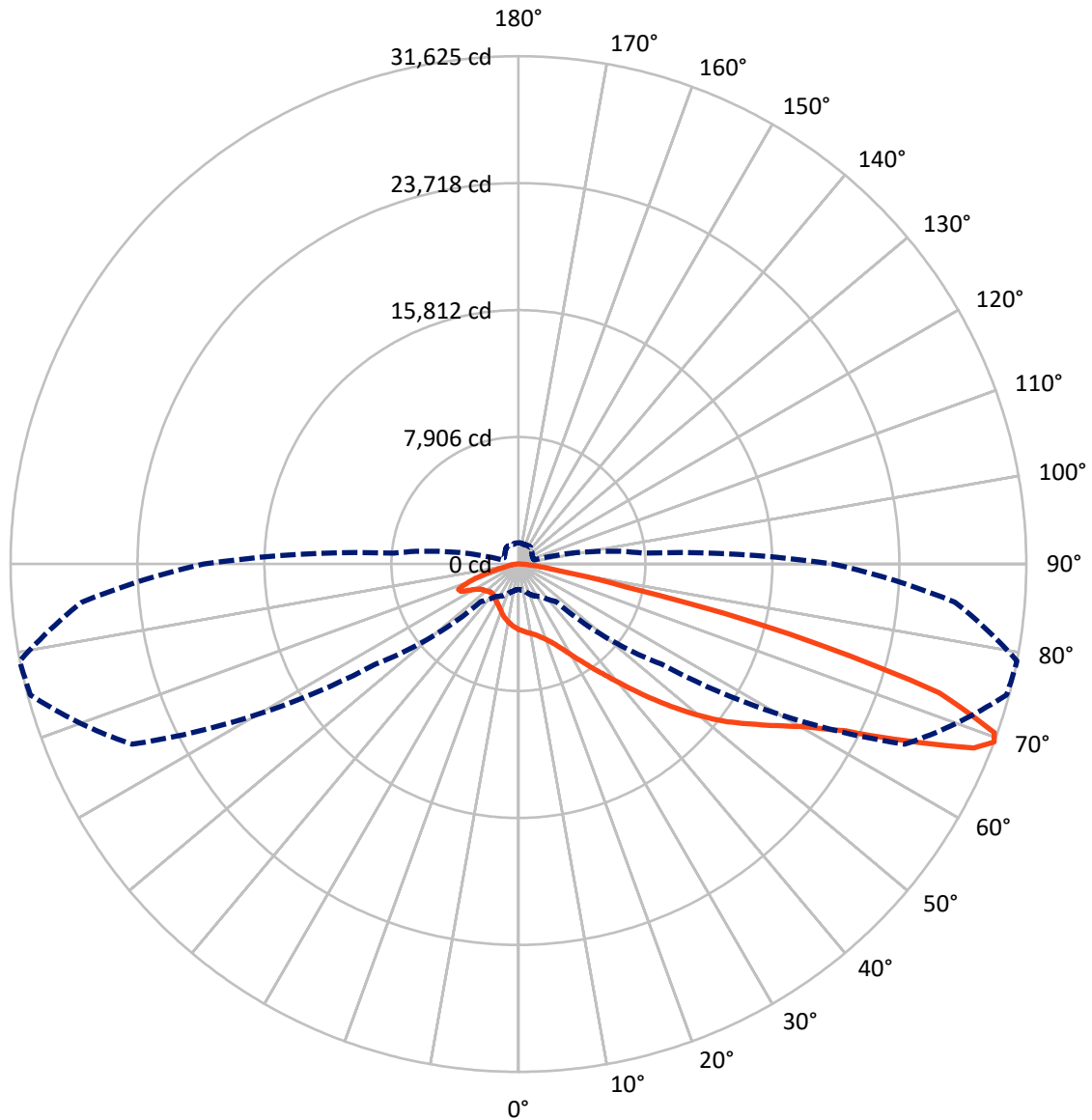
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.9 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	5481.9	0.0	5481.9
	% Fixture	18.8	0.0	18.8
<b>Street Side</b>	Lumens	23658.9	0.0	23658.9
	% Fixture	81.2	0.0	81.2
<b>Total</b>	Lumens	29140.8	0.0	29140.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	379.1	1.3
10°-20°	1086.9	3.7
20°-30°	1796.0	6.2
30°-40°	2908.2	10.0
40°-50°	4645.8	15.9
50°-60°	6653.3	22.8
60°-70°	7412.7	25.4
70°-80°	3708.5	12.7
80°-90°	550.4	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°	29140.8	100.0
0°-180°	29140.8	100.0



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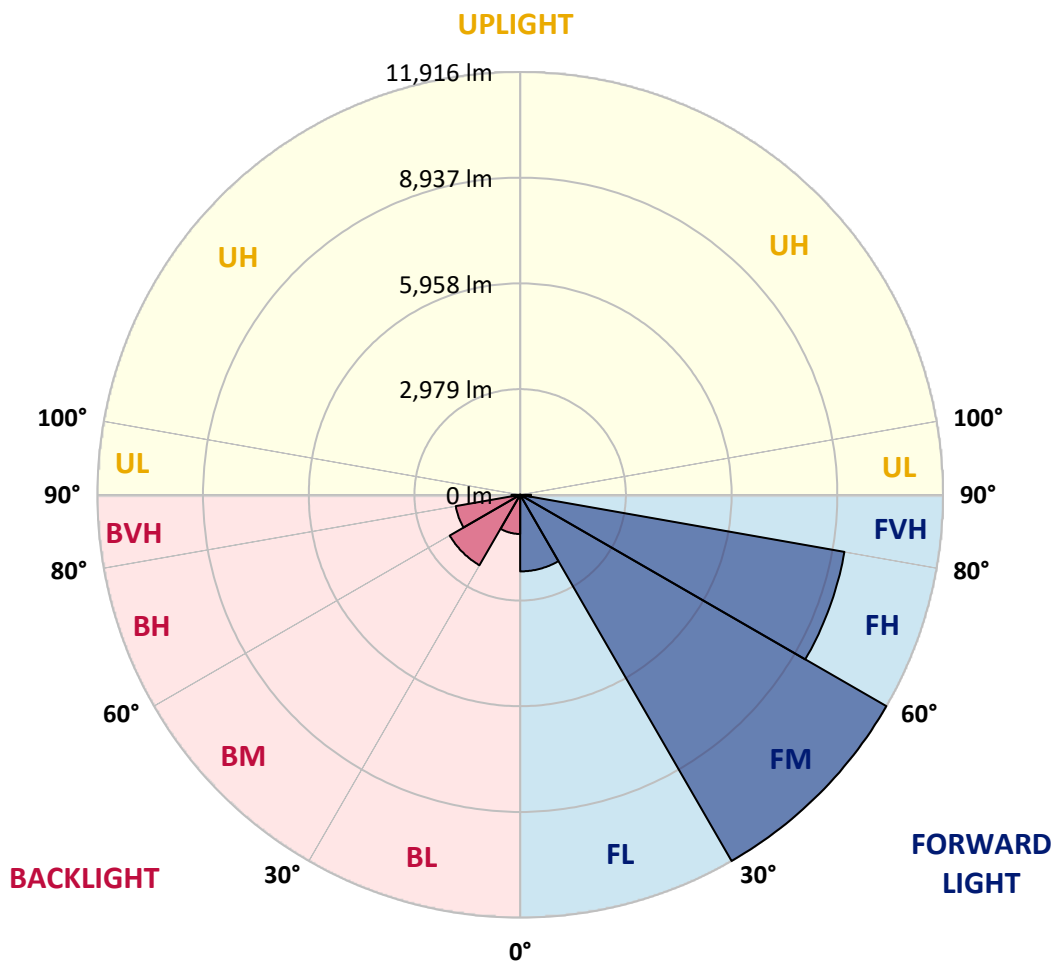
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2157.6	7.4			
FM (30°-60°)	11915.7	40.9			
FH (60°-80°)	9278.0	31.8			G4/12000
FVH (80°-90°)	307.5	1.1			G3/500
BL (0°-30°)	1104.3	3.8	B3/2500		
BM (30°-60°)	2291.5	7.9	B2/2500		
BH (60°-80°)	1843.2	6.3	B3/2500		G3/2500
BVH (80°-90°)	242.8	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°	4089.3	4089.3	4089.3	4089.3	4089.3	4089.3	4089.3	4089.3	4089.3	4089.3	4089.3
2.5°	4489.7	4480.2	4478.3	4449.7	4434.5	4402.1	4325.8	4247.6	4175.2	4137.0	4097.0
5°	4865.4	4846.2	4836.7	4789.0	4747.1	4674.7	4554.6	4430.6	4301.0	4234.3	4154.2
7.5°	5092.1	5094.1	5094.1	5055.9	5014.0	4926.3	4773.8	4604.1	4411.6	4323.9	4198.1
10°	5111.3	5113.1	5141.8	5151.3	5160.8	5115.1	4974.0	4760.4	4512.6	4398.2	4234.3
12.5°	4922.5	4935.8	4983.5	5052.1	5149.3	5198.9	5138.0	4928.3	4642.3	4503.0	4302.9
15°	4669.0	4682.3	4743.3	4848.2	5004.5	5170.3	5256.1	5120.8	4812.0	4648.0	4403.9
17.5°	4545.0	4560.3	4602.3	4686.1	4838.7	5061.7	5319.0	5326.7	5012.2	4823.3	4524.0
20°	4485.9	4497.4	4550.7	4619.3	4735.6	4949.2	5324.8	5544.0	5250.4	5031.2	4670.9
22.5°	4621.3	4625.1	4651.8	4689.9	4768.1	4932.1	5321.0	5768.9	5547.9	5292.3	4859.6
25°	5017.8	4993.0	4974.0	4926.3	4945.4	5061.7	5381.9	6009.2	5929.1	5635.5	5111.3
27.5°	5486.8	5483.0	5433.4	5322.8	5252.3	5326.7	5555.4	6278.0	6396.2	6072.1	5441.1
30°	6009.2	6011.1	5959.6	5824.3	5681.3	5688.9	5831.8	6588.7	6954.8	6598.2	5847.2
32.5°	6556.3	6590.7	6495.3	6360.0	6186.5	6131.2	6228.4	6964.4	7601.1	7219.8	6318.1
35°	7210.3	7216.0	7111.1	6912.9	6739.4	6651.6	6741.2	7433.3	8346.6	7950.0	6891.9
37.5°	7889.0	7892.8	7784.1	7530.6	7311.3	7254.2	7353.3	8003.4	9135.8	8781.2	7566.8
40°	8443.7	8483.7	8398.0	8159.7	7938.5	7904.2	8047.2	8685.9	10144.3	9764.9	8369.4
42.5°	9072.9	9118.7	9015.7	8767.8	8592.5	8581.0	8804.0	9463.7	11147.1	10903.1	9278.8
45°	9782.1	9846.9	9703.9	9425.6	9276.8	9528.5	9541.9	10325.5	12302.4	12176.6	10302.5
47.5°	10556.1	10609.5	10493.2	10193.9	10031.9	10395.9	10264.4	11257.7	13551.1	13541.6	11410.2
50°	11152.8	11212.0	11223.4	11091.9	10922.1	10967.9	11057.5	12237.7	14796.1	14944.8	12556.0
52.5°	11044.2	11101.4	11358.7	11703.8	11976.4	11858.3	11966.9	13278.5	15999.1	16313.6	13644.6
55°	10167.2	10197.7	10680.0	11499.8	12660.9	13225.2	13232.8	14411.0	17142.9	17583.4	14677.9
57.5°	8586.8	8590.5	9217.8	10426.4	12262.4	14111.7	15230.8	15833.2	18336.4	18986.5	15959.1
60°	6075.9	6091.2	6821.3	8401.8	10834.5	14004.9	17379.3	18378.3	19718.6	20563.2	17610.1
62.5°	3607.0	3641.4	4192.4	5460.1	8047.2	12632.2	18649.1	22906.2	21754.7	22875.7	20252.4
65°	2346.9	2375.5	2705.3	3342.1	4754.8	9191.1	18231.5	27291.1	25607.7	26513.2	24050.1
67.5°	1807.3	1830.2	2089.5	2474.6	2916.9	4968.3	14576.8	28210.0	30297.6	30579.8	27254.9
69°	1588.1	1607.2	1797.8	2167.6	2455.5	3288.7	10863.0	26541.9	31470.1	31624.5	27294.9
70°	1471.8	1487.1	1666.3	1986.6	2255.4	2625.2	8314.1	24604.9	31041.1	31435.8	26507.5
72.5°	1212.5	1225.9	1353.6	1599.5	1843.6	1870.3	3683.3	17966.6	26137.7	27399.7	22431.5
75°	1012.3	1020.0	1103.9	1283.1	1492.8	1488.9	1881.7	10176.7	15949.5	17453.7	13850.4
77.5°	844.5	850.3	905.6	1016.1	1178.2	1172.5	1325.0	4392.6	7042.5	6794.6	4768.1
80°	745.4	749.2	777.9	806.4	909.4	903.7	981.8	2017.1	2865.4	2648.1	1803.6
82.5°	566.2	573.9	718.7	732.1	705.4	680.6	684.5	1174.3	1467.9	1336.5	968.5
85°	320.3	322.2	461.4	539.5	613.9	461.4	444.2	606.3	724.5	634.8	423.2
87.5°	143.0	148.7	221.2	255.4	331.7	270.7	253.6	257.4	312.6	259.3	167.8
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°	4089.3	4089.3	4089.3	4089.3	4089.3	4089.3	4089.3	4089.3	4089.3	4089.3	4089.3
2.5°	4058.9	4026.4	3950.2	3872.1	3793.9	3744.3	3692.9	3645.2	3626.1	3624.2	3588.0
5°	4076.0	3999.7	3826.2	3635.7	3454.5	3313.4	3195.3	3119.0	3044.6	3031.3	2998.9
7.5°	4081.8	3957.8	3675.7	3370.6	3094.2	2899.8	2781.5	2730.1	2693.8	2684.3	2672.9
10°	4079.8	3904.4	3507.9	3090.4	2775.8	2629.0	2585.2	2596.7	2611.9	2619.5	2619.5
12.5°	4110.3	3879.6	3340.1	2827.3	2570.0	2499.4	2533.7	2592.8	2638.6	2657.6	2661.4
15°	4165.7	3864.4	3155.2	2598.5	2425.0	2442.2	2526.1	2611.9	2676.7	2705.3	2712.9
17.5°	4234.3	3843.4	2941.7	2409.8	2341.1	2400.3	2508.9	2617.6	2695.8	2732.0	2737.7
20°	4310.5	3812.9	2720.5	2268.7	2266.8	2341.1	2449.8	2571.8	2655.7	2695.8	2693.8
22.5°	4413.5	3784.3	2514.6	2165.8	2184.8	2253.5	2343.1	2453.6	2531.8	2568.0	2560.3
25°	4550.7	3757.6	2329.7	2074.2	2091.4	2137.1	2200.1	2283.9	2339.3	2358.3	2344.9
27.5°	4735.6	3736.6	2184.8	1990.4	1988.4	2009.4	2047.5	2093.3	2120.0	2114.2	2093.3
30°	4962.5	3715.7	2078.0	1916.0	1889.3	1887.4	1904.5	1931.2	1948.4	1914.1	1897.0
32.5°	5216.1	3679.5	1982.7	1851.1	1803.6	1786.4	1793.9	1830.2	1900.7	1866.5	1853.1
35°	5515.4	3637.5	1887.4	1780.7	1744.4	1712.0	1717.7	1795.9	2009.4	1984.6	1971.3
37.5°	5875.7	3599.5	1799.7	1704.3	1702.5	1662.4	1658.6	1752.0	2038.0	1984.6	1973.2
40°	6308.5	3591.8	1721.5	1620.5	1651.0	1635.8	1622.4	1679.6	1879.8	1771.1	1750.2
42.5°	6830.9	3626.1	1664.3	1540.5	1591.9	1628.1	1603.4	1616.7	1698.7	1601.4	1584.2
45°	7440.9	3719.6	1622.4	1469.9	1529.0	1622.4	1593.8	1582.4	1595.7	1542.3	1530.8
47.5°	8152.1	3885.4	1593.8	1410.8	1469.9	1607.2	1590.0	1567.2	1561.4	1530.8	1523.3
50°	8912.8	4108.5	1574.7	1357.5	1416.5	1580.5	1588.1	1555.7	1546.2	1532.8	1529.0
52.5°	9667.7	4350.6	1551.8	1311.6	1372.7	1548.0	1590.0	1544.2	1530.8	1523.3	1519.5
55°	10418.9	4602.3	1509.9	1271.6	1340.3	1509.9	1588.1	1529.0	1513.8	1513.8	1513.8
57.5°	11393.0	4985.5	1454.6	1239.2	1298.3	1460.4	1563.3	1511.8	1490.8	1492.8	1494.6
60°	12800.1	5627.9	1393.7	1203.0	1243.0	1403.2	1525.2	1481.3	1456.6	1464.1	1466.1
62.5°	15150.7	6750.8	1309.8	1151.5	1185.8	1342.1	1475.6	1439.4	1416.5	1429.9	1431.7
65°	18284.9	8110.2	1199.2	1086.7	1126.7	1273.5	1412.7	1389.8	1365.0	1397.5	1395.5
67.5°	20197.1	8508.6	1082.9	1018.0	1069.5	1201.0	1334.5	1325.0	1307.8	1365.0	1361.2
69°	19569.9	7787.9	1016.1	974.2	1029.5	1151.5	1284.9	1281.1	1267.8	1323.1	1319.3
70°	18595.7	7114.9	974.2	945.6	1008.5	1121.1	1252.5	1252.5	1239.2	1286.9	1277.4
72.5°	14937.2	5277.1	877.0	873.2	936.1	1037.2	1164.8	1174.3	1166.8	1184.0	1174.3
75°	8769.8	3179.9	781.6	793.1	848.3	947.6	1067.7	1075.2	1067.7	1065.7	1067.7
77.5°	3040.8	1426.0	690.2	707.3	754.9	856.0	960.9	976.1	964.6	951.3	955.1
80°	1189.6	829.3	591.0	615.8	655.8	753.1	854.1	863.7	846.5	844.5	829.3
82.5°	714.9	505.2	459.5	499.5	549.0	653.9	737.9	734.0	720.7	798.8	699.7
85°	310.8	280.3	335.5	375.5	400.4	490.0	623.4	606.3	573.9	505.2	493.8
87.5°	125.8	144.8	184.9	223.1	240.2	316.5	427.1	411.8	417.5	343.2	341.3
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)