

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: P196740

Luminaire Tested: **NAV-AF-06-D-UNV-T2-7030-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196740  
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-T2-7030-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 27551.9 lumens  
Efficiency: N/A  
Efficacy: 110.7 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

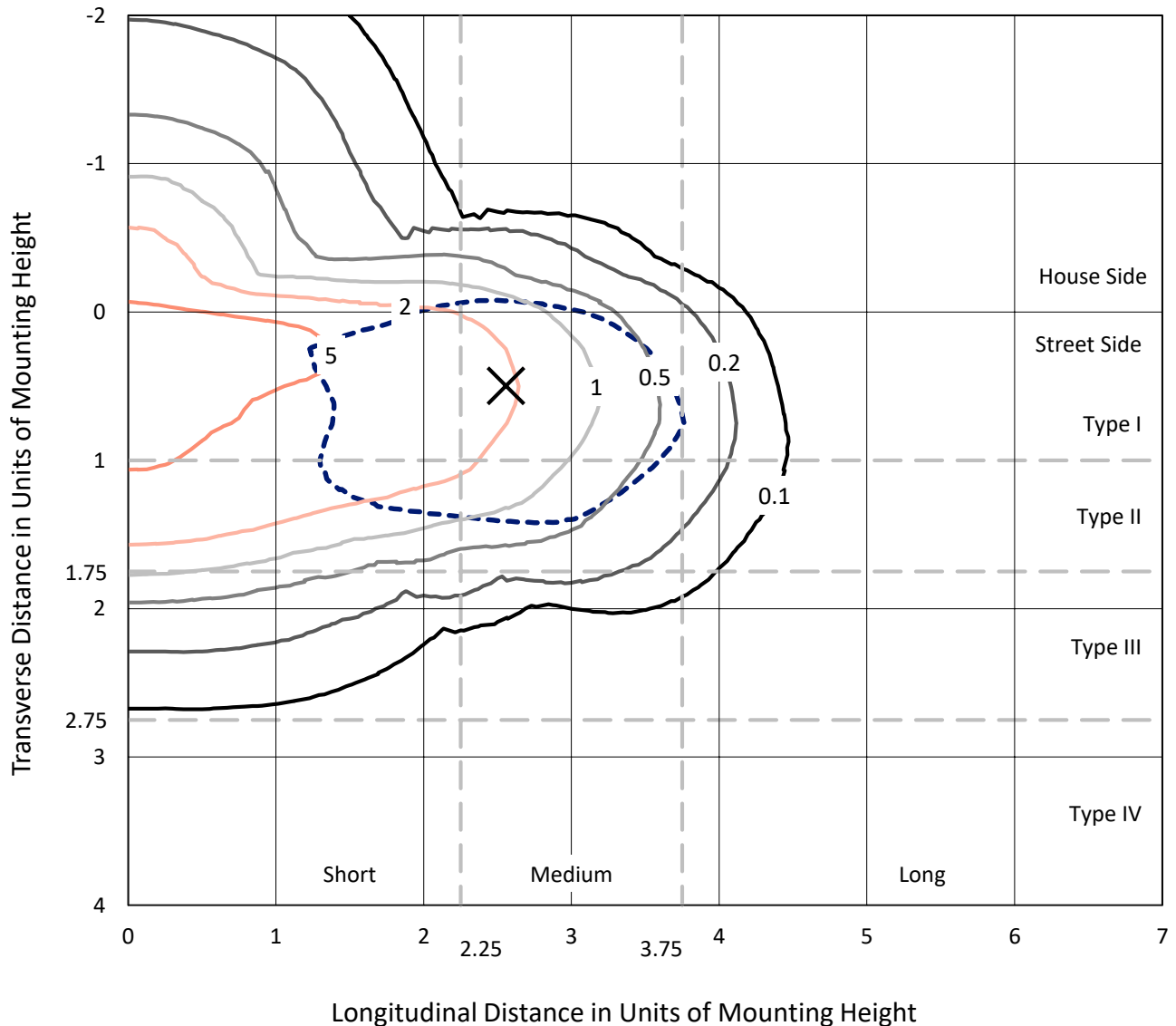
Input Watts (W): 249  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

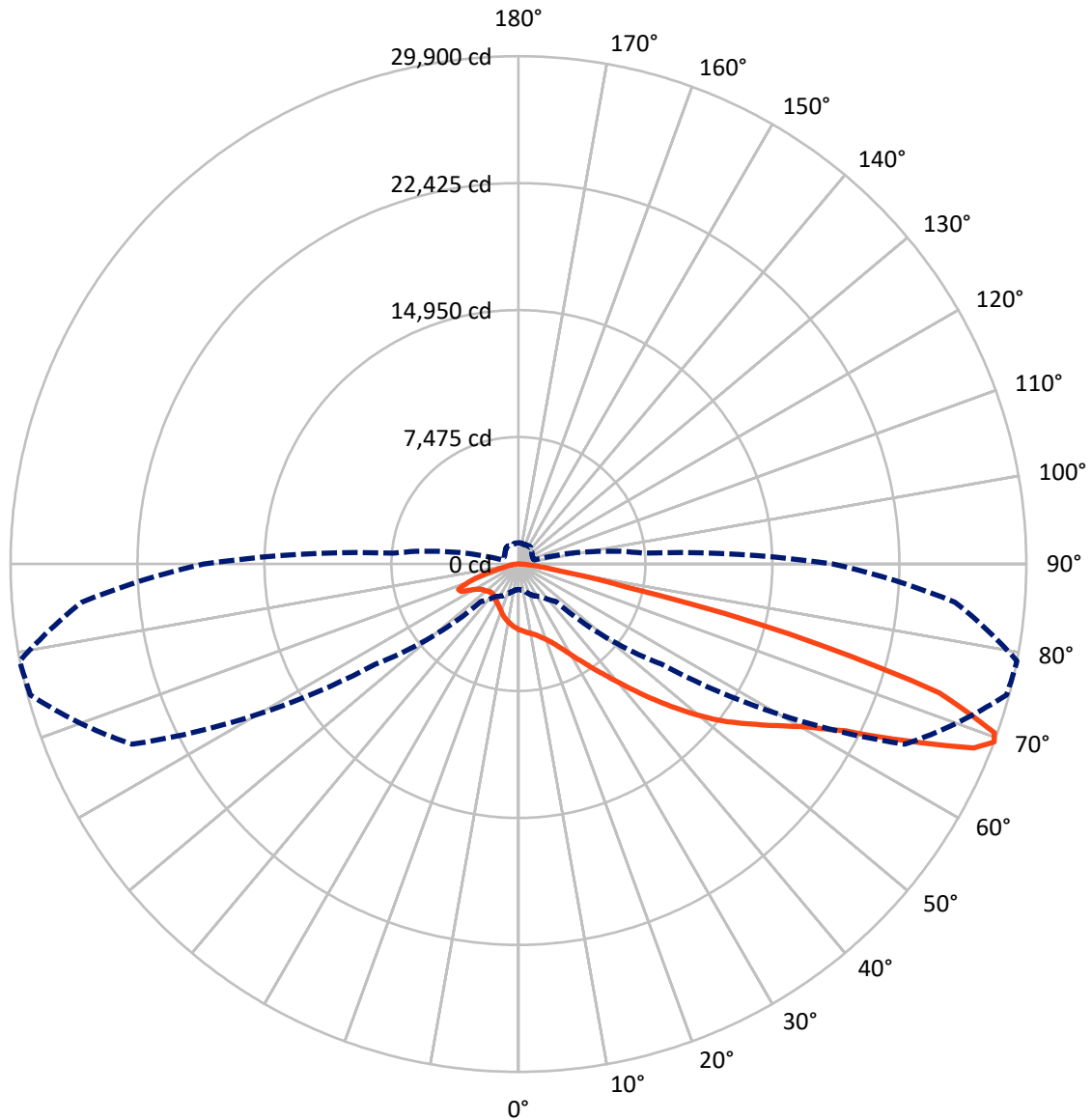
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.5 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	5183.0	0.0	5183.0
	% Fixture	18.8	0.0	18.8
<b>Street Side</b>	Lumens	22368.9	0.0	22368.9
	% Fixture	81.2	0.0	81.2
<b>Total</b>	Lumens	27551.9	0.0	27551.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	358.4	1.3
10°-20°	1027.6	3.7
20°-30°	1698.1	6.2
30°-40°	2749.6	10.0
40°-50°	4392.5	15.9
50°-60°	6290.5	22.8
60°-70°	7008.6	25.4
70°-80°	3506.3	12.7
80°-90°	520.4	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°	27551.9	100.0
0°-180°	27551.9	100.0



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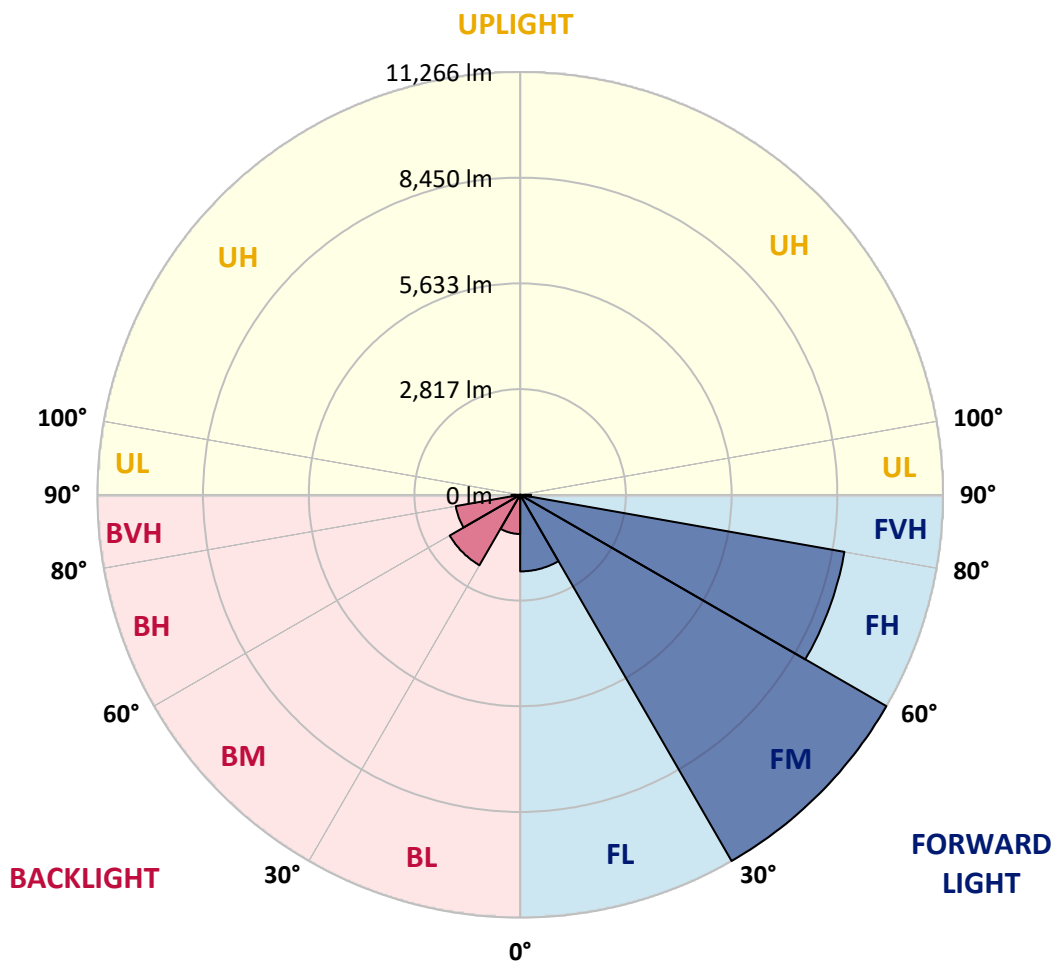
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2040.0	7.4			
FM (30°-60°)	11266.0	40.9			
FH (60°-80°)	8772.1	31.8			G4/12000
FVH (80°-90°)	290.8	1.1			G3/500
BL (0°-30°)	1044.1	3.8	B3/2500		
BM (30°-60°)	2166.6	7.9	B2/2500		
BH (60°-80°)	1742.7	6.3	B3/2500		G3/2500
BVH (80°-90°)	229.6	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°	3866.3	3866.3	3866.3	3866.3	3866.3	3866.3	3866.3	3866.3	3866.3	3866.3	3866.3
2.5°	4244.9	4235.9	4234.2	4207.0	4192.6	4162.0	4089.9	4016.1	3947.5	3911.5	3873.6
5°	4600.1	4582.0	4572.9	4527.9	4488.3	4419.7	4306.2	4189.0	4066.5	4003.4	3927.7
7.5°	4814.5	4816.3	4816.3	4780.3	4740.6	4657.7	4513.5	4353.1	4171.1	4088.2	3969.2
10°	4832.5	4834.4	4861.4	4870.4	4879.4	4836.2	4702.7	4500.9	4266.6	4158.4	4003.4
12.5°	4654.1	4666.7	4711.8	4776.7	4868.6	4915.5	4857.7	4659.5	4389.2	4257.5	4068.3
15°	4414.4	4426.9	4484.6	4583.8	4731.6	4888.5	4969.5	4841.6	4549.5	4394.5	4163.9
17.5°	4297.1	4311.6	4351.2	4430.6	4574.8	4785.7	5028.9	5036.2	4738.8	4560.4	4277.4
20°	4241.3	4252.2	4302.6	4367.5	4477.5	4679.3	5034.4	5241.7	4964.0	4756.8	4416.2
22.5°	4369.3	4372.9	4398.1	4434.2	4508.1	4663.0	5030.9	5454.4	5245.3	5003.7	4594.6
25°	4744.2	4720.8	4702.7	4657.7	4675.8	4785.7	5088.5	5681.6	5605.9	5328.2	4832.5
27.5°	5187.6	5184.1	5137.2	5032.6	4966.0	5036.2	5252.5	5935.7	6047.5	5741.0	5144.4
30°	5681.6	5683.3	5634.7	5506.6	5371.5	5378.8	5513.9	6229.5	6575.6	6238.4	5528.3
32.5°	6198.9	6231.3	6141.1	6013.2	5849.2	5796.9	5888.8	6584.6	7186.6	6826.2	5973.5
35°	6817.1	6822.5	6723.4	6535.9	6371.9	6289.0	6373.7	7028.0	7891.5	7516.5	6516.1
37.5°	7458.8	7462.4	7359.7	7120.0	6912.7	6858.5	6952.2	7567.0	8637.7	8302.4	7154.2
40°	7983.3	8021.2	7940.1	7714.8	7505.7	7473.3	7608.5	8212.3	9591.3	9232.5	7913.1
42.5°	8578.2	8621.4	8524.1	8289.8	8124.0	8113.1	8324.0	8947.7	10539.3	10308.6	8772.9
45°	9248.7	9310.0	9174.8	8911.6	8771.0	9009.0	9021.6	9762.5	11631.6	11512.6	9740.8
47.5°	9980.5	10031.0	9921.1	9638.1	9484.9	9829.2	9704.7	10643.9	12812.3	12803.3	10788.0
50°	10544.7	10600.7	10611.5	10487.0	10326.6	10369.9	10454.6	11570.3	13989.3	14130.0	11871.3
52.5°	10442.0	10496.1	10739.4	11065.7	11323.4	11211.6	11314.5	12554.6	15126.7	15424.1	12900.7
55°	9612.8	9641.7	10097.7	10872.8	11970.6	12504.0	12511.3	13625.2	16208.3	16624.7	13877.6
57.5°	8118.5	8122.2	8715.2	9858.0	11593.8	13342.2	14400.4	14969.9	17336.6	17951.3	15088.9
60°	5744.7	5759.0	6449.5	7943.7	10243.7	13241.3	16431.7	17376.3	18643.5	19441.9	16649.9
62.5°	3410.4	3442.8	3963.7	5162.4	7608.5	11943.4	17632.3	21657.3	20568.5	21628.4	19148.1
65°	2218.9	2246.0	2557.8	3159.8	4495.5	8689.9	17237.5	25803.1	24211.5	25067.7	22738.8
67.5°	1708.9	1730.4	1975.5	2339.7	2757.8	4697.4	13782.1	26671.9	28645.6	28912.4	25768.8
69°	1501.5	1519.6	1699.7	2049.4	2321.6	3109.3	10270.8	25094.6	29754.1	29900.2	25806.7
70°	1391.5	1405.9	1575.4	1878.2	2132.4	2482.1	7860.7	23263.3	29348.5	29721.7	25062.2
72.5°	1146.3	1159.0	1279.8	1512.3	1743.0	1768.3	3482.4	16987.0	24712.6	25905.8	21208.5
75°	957.1	964.3	1043.7	1213.1	1411.4	1407.8	1779.1	9621.8	15079.9	16502.1	13095.3
77.5°	798.4	803.9	856.1	960.7	1114.0	1108.6	1252.7	4153.1	6658.5	6424.2	4508.1
80°	704.8	708.4	735.5	762.4	859.8	854.4	928.2	1907.0	2709.2	2503.6	1705.2
82.5°	535.4	542.6	679.6	692.1	666.9	643.5	647.2	1110.4	1387.9	1263.6	915.7
85°	302.8	304.7	436.2	510.1	580.3	436.2	420.0	573.2	684.9	600.3	400.1
87.5°	135.2	140.6	209.1	241.6	313.7	256.0	239.8	243.3	295.6	245.2	158.7
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°	3866.3	3866.3	3866.3	3866.3	3866.3	3866.3	3866.3	3866.3	3866.3	3866.3	3866.3
2.5°	3837.5	3806.9	3734.8	3661.0	3587.0	3540.1	3491.5	3446.4	3428.3	3426.6	3392.4
5°	3853.8	3781.7	3617.7	3437.4	3266.2	3132.8	3021.0	2948.9	2878.7	2866.0	2835.4
7.5°	3859.1	3742.0	3475.2	3186.9	2925.5	2741.7	2629.9	2581.2	2547.0	2538.0	2527.1
10°	3857.4	3691.6	3316.7	2921.9	2624.5	2485.6	2444.2	2455.0	2469.5	2476.7	2476.7
12.5°	3886.3	3668.2	3158.0	2673.1	2429.8	2363.1	2395.5	2451.4	2494.7	2512.8	2516.3
15°	3938.5	3653.7	2983.3	2456.8	2292.8	2308.9	2388.3	2469.5	2530.8	2557.8	2565.0
17.5°	4003.4	3633.9	2781.3	2278.4	2213.5	2269.5	2372.1	2474.8	2548.8	2583.0	2588.5
20°	4075.5	3605.0	2572.2	2145.0	2143.2	2213.5	2316.2	2431.6	2510.9	2548.8	2547.0
22.5°	4172.8	3578.0	2377.5	2047.6	2065.6	2130.5	2215.3	2319.8	2393.8	2428.0	2420.7
25°	4302.6	3552.8	2202.6	1961.1	1977.4	2020.6	2080.1	2159.4	2211.7	2229.8	2217.1
27.5°	4477.5	3532.9	2065.6	1881.9	1880.1	1899.9	1935.8	1979.1	2004.4	1999.0	1979.1
30°	4691.9	3513.1	1964.7	1811.5	1786.3	1784.5	1800.7	1825.9	1842.2	1809.8	1793.5
32.5°	4931.8	3478.9	1874.7	1750.3	1705.2	1688.9	1696.1	1730.4	1797.1	1764.6	1752.1
35°	5214.7	3439.2	1784.5	1683.5	1649.3	1618.6	1624.0	1698.0	1899.9	1876.4	1863.9
37.5°	5555.4	3403.2	1701.6	1611.5	1609.6	1571.8	1568.2	1656.5	1926.9	1876.4	1865.6
40°	5964.6	3396.0	1627.6	1532.2	1561.0	1546.6	1533.9	1588.0	1777.3	1674.5	1654.7
42.5°	6458.5	3428.3	1573.6	1456.4	1505.1	1539.4	1516.0	1528.5	1606.0	1514.2	1498.0
45°	7035.2	3516.7	1533.9	1389.8	1445.6	1533.9	1506.9	1496.1	1508.8	1458.3	1447.4
47.5°	7707.5	3673.6	1506.9	1333.8	1389.8	1519.6	1503.3	1481.7	1476.3	1447.4	1440.2
50°	8426.7	3884.3	1488.8	1283.4	1339.3	1494.3	1501.5	1470.8	1461.9	1449.3	1445.6
52.5°	9140.5	4113.4	1467.3	1240.1	1297.8	1463.6	1503.3	1460.0	1447.4	1440.2	1436.6
55°	9850.9	4351.2	1427.6	1202.3	1267.2	1427.6	1501.5	1445.6	1431.2	1431.2	1431.2
57.5°	10771.9	4713.6	1375.3	1171.6	1227.5	1380.7	1478.1	1429.4	1409.6	1411.4	1413.2
60°	12102.1	5321.0	1317.6	1137.4	1175.2	1326.6	1442.0	1400.6	1377.1	1384.4	1386.2
62.5°	14324.7	6382.7	1238.4	1088.8	1121.2	1268.9	1395.1	1361.0	1339.3	1351.9	1353.7
65°	17288.0	7668.0	1133.8	1027.5	1065.3	1204.0	1335.7	1314.1	1290.6	1321.3	1319.5
67.5°	19095.9	8044.6	1023.9	962.6	1011.2	1135.6	1261.7	1252.7	1236.5	1290.6	1287.0
69°	18502.8	7363.3	960.7	921.0	973.4	1088.8	1214.9	1211.2	1198.7	1250.9	1247.3
70°	17581.8	6727.0	921.0	894.1	953.5	1060.0	1184.3	1184.3	1171.6	1216.7	1207.7
72.5°	14122.8	4989.4	829.2	825.6	885.0	980.6	1101.4	1110.4	1103.2	1119.4	1110.4
75°	8291.5	3006.6	739.0	749.8	802.1	895.8	1009.4	1016.6	1009.4	1007.6	1009.4
77.5°	2875.0	1348.3	652.5	668.7	713.8	809.3	908.5	922.9	912.1	899.4	903.0
80°	1124.9	784.1	558.8	582.3	620.0	712.1	807.5	816.5	800.4	798.4	784.1
82.5°	676.0	477.7	434.5	472.2	519.1	618.3	697.6	694.1	681.3	755.3	661.6
85°	293.8	265.0	317.3	355.1	378.6	463.3	589.5	573.2	542.6	477.7	466.9
87.5°	119.0	137.0	174.9	210.9	227.2	299.3	403.7	389.3	394.8	324.5	322.7
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)