

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: P197304

Luminaire Tested: **NAV-AF-06-D-UNV-T3R-8030-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197304  
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-8030-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 32797 lumens  
Efficiency: N/A  
Efficacy: 85.9 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

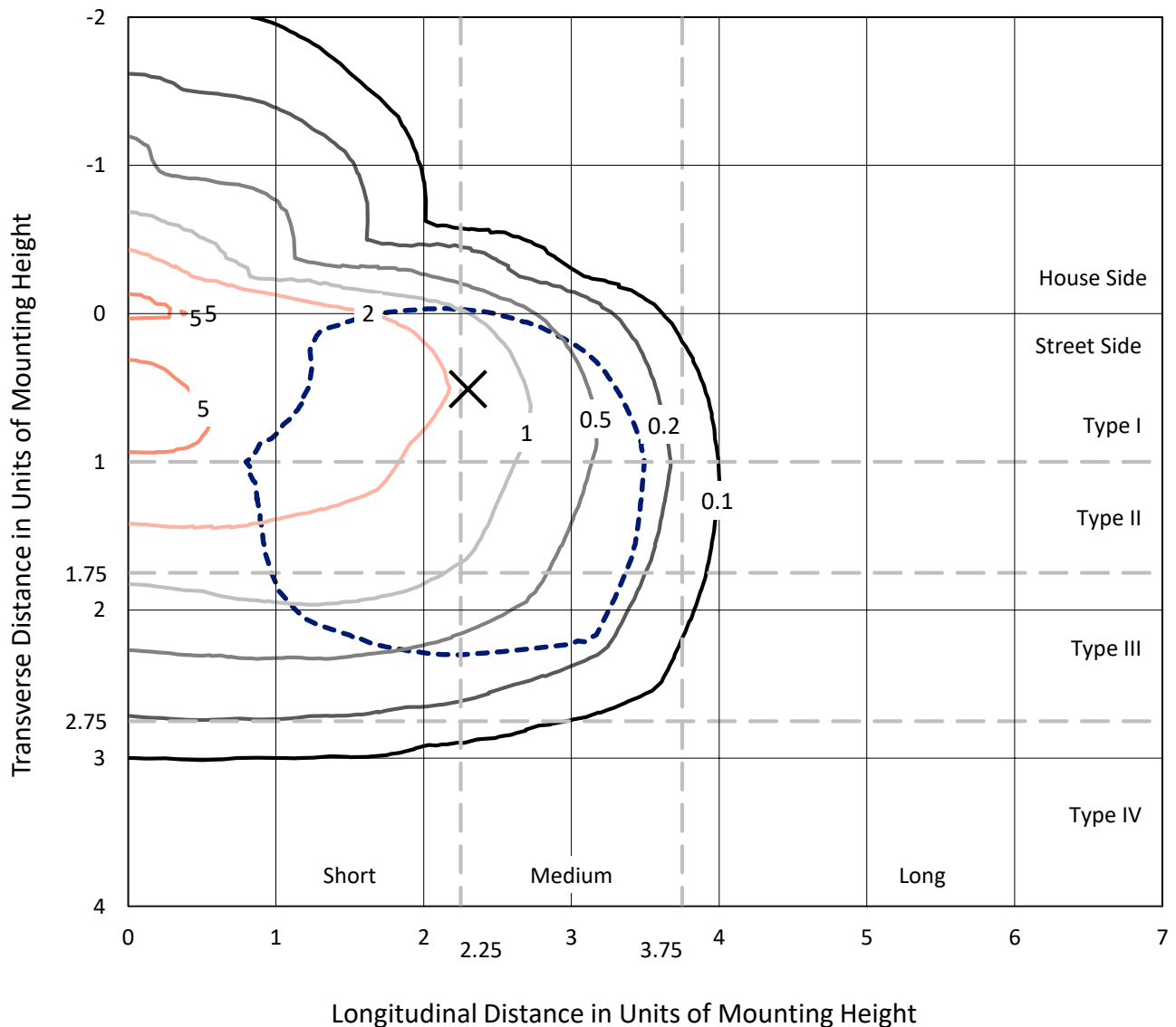
Input Watts (W): 382  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

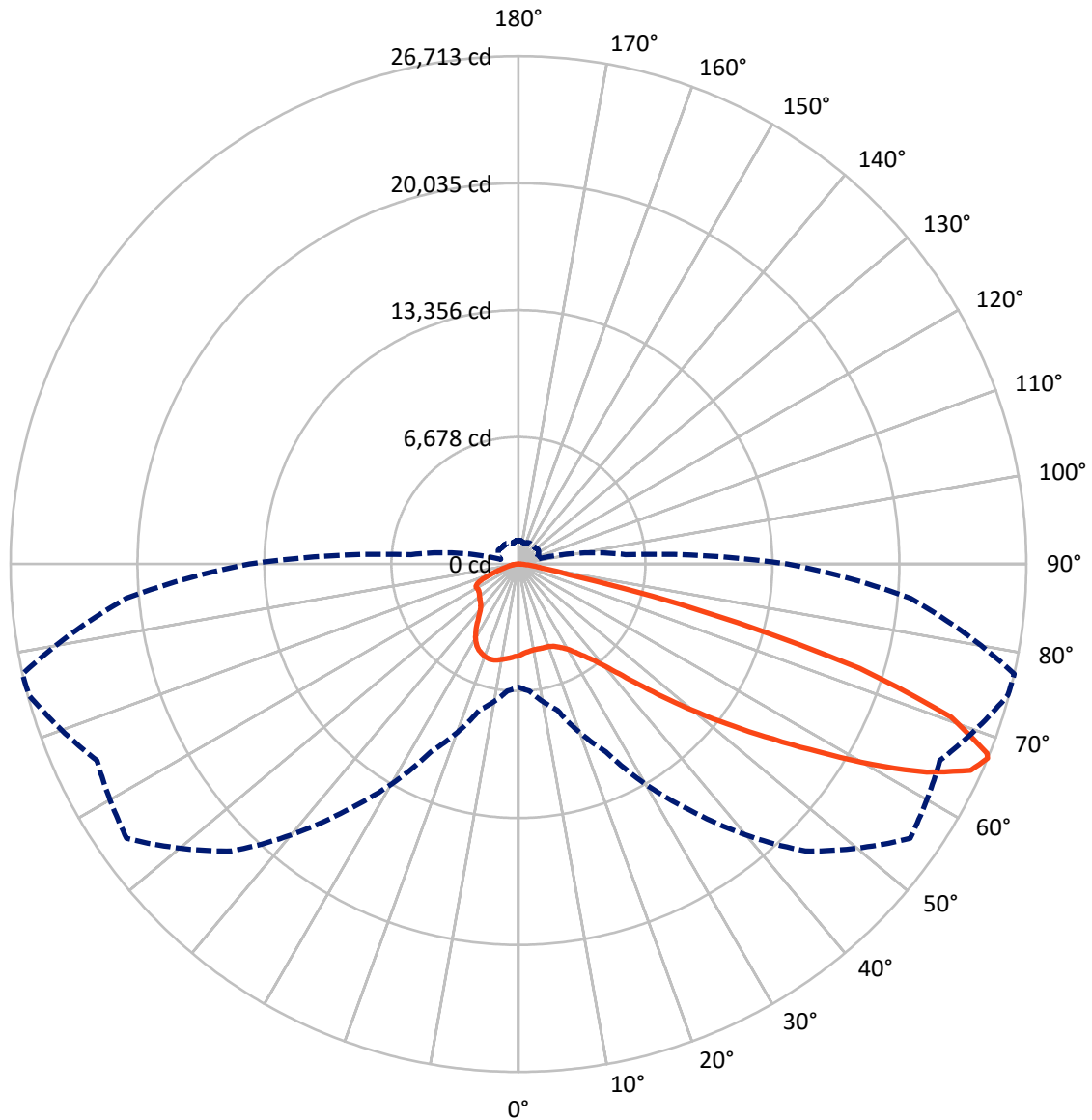
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.4 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	5636.1	0.0	5636.1
	% Fixture	17.2	0.0	17.2
<b>Street Side</b>	Lumens	27160.8	0.0	27160.8
	% Fixture	82.8	0.0	82.8
<b>Total</b>	Lumens	32797.0	0.0	32797.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	429.9	1.3
10°-20°	1190.6	3.6
20°-30°	2022.9	6.2
30°-40°	3236.1	9.9
40°-50°	4982.0	15.2
50°-60°	6912.0	21.1
60°-70°	9220.2	28.1
70°-80°	4387.9	13.4
80°-90°	415.5	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°	32797.0	100.0
0°-180°	32797.0	100.0

**Coefficient of Utilization**



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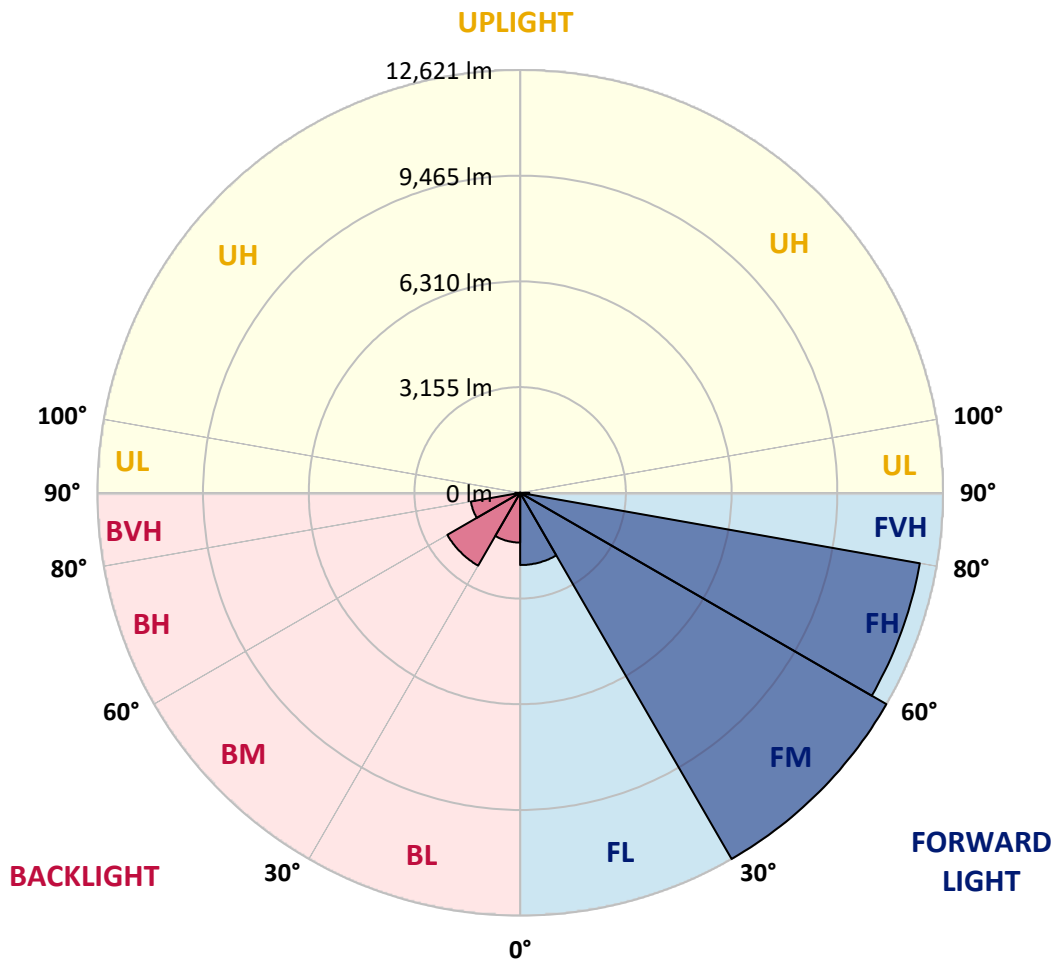
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2156.7	6.6			
FM	(30°-60°)	12620.6	38.5			
FH	(60°-80°)	12113.7	36.9			G5
FVH	(80°-90°)	269.8	0.8			G3/500
BL	(0°-30°)	1486.6	4.5	B3/2500		
BM	(30°-60°)	2509.5	7.7	B3/5000		
BH	(60°-80°)	1494.4	4.6	B3/2500		G3/2500
BVH	(80°-90°)	145.6	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°	4826.9	4826.9	4826.9	4826.9	4826.9	4826.9	4826.9	4826.9	4826.9	4826.9	4826.9
2.5°	4328.2	4348.4	4350.5	4409.2	4435.6	4502.5	4575.5	4640.4	4697.1	4717.4	4753.9
5°	3894.3	3894.3	3900.4	3938.9	4013.9	4121.4	4273.4	4439.7	4614.0	4656.6	4764.0
7.5°	3667.3	3671.3	3675.4	3713.9	3772.7	3868.0	4020.0	4247.1	4537.0	4607.9	4796.4
10°	3687.5	3681.5	3661.2	3653.1	3677.4	3738.2	3870.0	4103.1	4472.1	4581.6	4855.2
12.5°	4005.8	3993.7	3926.8	3829.5	3740.3	3718.0	3809.2	4030.2	4441.7	4581.6	4954.6
15°	4551.2	4559.3	4427.5	4224.8	3991.6	3833.5	3821.3	4003.8	4431.5	4593.7	5070.1
17.5°	5260.7	5264.7	5082.3	4788.3	4401.1	4074.8	3904.5	4003.8	4431.5	4605.9	5181.6
20°	6014.8	5986.4	5779.7	5410.7	4907.9	4409.2	4056.5	4028.1	4443.7	4624.1	5287.0
22.5°	6661.5	6635.2	6418.2	6031.0	5455.3	4804.6	4261.3	4109.2	4510.6	4699.1	5435.0
25°	7227.1	7243.3	7032.5	6596.6	6000.6	5250.5	4567.4	4295.7	4650.5	4835.0	5617.5
27.5°	7914.3	7883.9	7640.7	7225.1	6562.2	5712.8	4950.5	4530.9	4816.7	4999.2	5840.5
30°	8709.0	8694.8	8366.4	7938.7	7180.5	6229.7	5329.6	4784.3	5033.6	5224.2	6120.2
32.5°	9674.0	9672.0	9319.2	8794.2	7875.8	6813.6	5777.6	5130.9	5349.9	5542.5	6491.2
35°	10766.7	10764.6	10399.7	9706.4	8676.6	7460.2	6304.7	5552.6	5741.1	5943.9	6933.2
37.5°	11524.9	11512.7	11322.1	10649.1	9562.5	8212.3	6963.6	6120.2	6185.1	6412.2	7466.3
40°	11670.8	11743.8	11908.0	11510.7	10529.5	9047.6	7624.4	6730.4	6791.3	7083.2	8137.3
42.5°	11512.7	11608.0	12153.3	12264.8	11496.5	10059.2	8451.6	7575.8	7652.8	8015.7	8925.9
45°	11374.8	11458.0	12141.1	12682.4	12451.3	11162.0	9483.4	8607.7	8753.6	9203.7	9826.0
47.5°	11139.7	11216.7	11901.9	12757.4	12996.6	12224.3	10726.1	9848.3	10099.7	10645.0	10851.8
50°	11127.5	11162.0	11575.5	12506.0	13185.2	13031.1	12102.6	11299.8	11685.0	12313.5	11987.1
52.5°	10819.4	11060.6	11435.7	12104.6	13189.2	13501.4	13458.8	12891.2	13485.2	14180.5	13231.8
55°	8934.0	9211.8	10969.4	11908.0	13164.9	13904.8	14697.5	14584.0	15512.4	16244.3	14626.5
57.5°	8342.1	8459.7	9623.3	11966.8	13367.6	14571.8	15936.1	16402.4	17831.6	18630.3	16299.0
60°	8179.9	8303.6	9353.7	11995.2	13917.0	15786.1	17616.7	18456.0	20558.2	21405.6	18198.5
62.5°	7999.5	8159.6	9374.0	12021.5	14882.0	17582.2	19846.7	20683.9	23357.9	24114.0	19978.4
65°	7472.4	7685.3	8998.9	11855.3	15938.2	19836.5	22794.3	23007.1	25670.9	26151.4	21052.9
67°	6473.0	6706.1	7969.1	10894.4	15840.8	21354.9	25152.0	24460.7	26654.1	26712.9	20704.2
67.5°	6156.7	6398.0	7620.4	10495.0	15563.1	21553.6	25569.6	24661.4	26646.0	26581.2	20379.8
70°	4145.7	4417.4	5396.5	7705.5	12483.7	20059.5	25468.2	24043.1	24898.6	24154.6	17509.3
72.5°	2057.6	2065.8	2692.2	4220.7	7563.6	14387.3	21245.5	20568.4	20183.2	18778.3	12848.6
75°	991.3	1009.6	1271.1	1865.1	3188.8	7427.8	14488.7	13878.5	11816.8	10231.5	6430.4
77.5°	756.2	774.4	987.3	1214.3	1329.9	2422.6	7176.4	5799.9	3424.0	2734.7	1812.4
80°	583.8	618.3	833.2	932.5	879.8	971.0	2256.3	1775.9	1331.9	1222.4	898.1
82.5°	456.1	476.4	707.5	707.5	608.2	650.7	1050.1	1025.8	827.1	746.0	482.5
85°	322.3	362.9	569.7	527.1	399.4	403.4	628.4	602.1	425.7	342.6	188.5
87.5°	143.9	184.5	405.4	344.6	212.9	164.2	257.5	221.0	168.3	129.7	87.2
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°	4826.9	4826.9	4826.9	4826.9	4826.9	4826.9	4826.9	4826.9	4826.9	4826.9	4826.9
2.5°	4794.4	4826.9	4877.5	4907.9	4948.5	4964.7	4980.9	5009.3	5031.6	5025.5	5015.4
5°	4839.0	4893.8	4956.6	4976.9	4976.9	4956.6	4944.4	4946.5	4940.4	4936.3	4924.2
7.5°	4903.9	4978.9	5023.5	5003.2	4940.4	4861.3	4786.3	4741.7	4699.1	4672.8	4680.9
10°	4995.1	5078.2	5080.3	4991.1	4841.0	4668.7	4520.7	4425.5	4334.2	4293.7	4305.9
12.5°	5126.9	5210.0	5139.1	4946.5	4682.9	4413.3	4141.6	3945.0	3768.6	3726.1	3713.9
15°	5268.8	5333.7	5175.5	4851.2	4455.9	4011.9	3555.8	3261.8	3065.2	3030.7	3018.6
17.5°	5392.5	5428.9	5157.3	4680.9	4097.1	3397.7	2866.5	2667.8	2627.3	2647.6	2647.6
20°	5501.9	5489.8	5078.2	4417.4	3531.5	2716.5	2408.4	2406.3	2461.1	2511.7	2515.8
22.5°	5639.8	5544.5	4952.5	4026.1	2856.4	2266.5	2213.7	2266.5	2327.3	2384.0	2390.1
25°	5804.0	5605.3	4784.3	3468.6	2296.9	2057.6	2079.9	2124.5	2163.1	2207.7	2209.7
27.5°	5968.2	5651.9	4547.1	2813.8	1992.8	1923.9	1948.2	1966.4	1976.6	2004.9	2004.9
30°	6158.8	5688.4	4204.5	2254.3	1852.9	1806.3	1792.1	1784.0	1792.1	1830.6	1832.6
32.5°	6398.0	5753.3	3736.2	1934.0	1788.0	1723.2	1650.2	1609.6	1638.0	1706.9	1719.1
35°	6669.6	5830.3	3174.7	1806.3	1765.7	1682.6	1548.8	1486.0	1496.1	1558.9	1569.1
37.5°	7010.2	5929.7	2621.2	1775.9	1788.0	1678.6	1502.2	1413.0	1368.4	1370.4	1368.4
40°	7446.0	6029.0	2183.3	1784.0	1836.7	1688.7	1479.9	1340.0	1246.8	1250.8	1258.9
42.5°	7902.2	6093.9	1905.6	1808.3	1895.5	1702.9	1471.8	1269.1	1188.0	1256.9	1319.7
45°	8435.3	6075.6	1761.7	1830.6	1940.1	1709.0	1441.4	1260.9	1194.0	1400.8	1518.4
47.5°	9047.6	5996.6	1680.6	1840.7	1952.2	1706.9	1419.1	1287.3	1244.7	1603.5	1737.3
50°	9712.5	5872.9	1615.7	1824.5	1946.1	1698.8	1443.4	1319.7	1265.0	1648.1	1751.5
52.5°	10440.3	5759.4	1548.8	1788.0	1915.7	1674.5	1473.8	1305.5	1208.2	1518.4	1597.5
55°	11301.9	5733.0	1473.8	1725.2	1865.1	1648.1	1457.6	1260.9	1145.4	1346.1	1394.7
57.5°	12287.1	5897.2	1376.5	1648.1	1796.1	1595.4	1419.1	1236.6	1123.1	1224.5	1250.8
60°	13537.9	6260.1	1273.1	1567.1	1711.0	1516.4	1384.6	1242.7	1129.2	1206.2	1212.3
62.5°	14515.0	6586.5	1179.9	1467.7	1597.5	1421.1	1348.1	1248.8	1147.4	1230.5	1220.4
65°	14869.8	6426.3	1064.3	1319.7	1437.3	1315.7	1297.4	1252.8	1147.4	1244.7	1222.4
67°	14142.0	5662.1	954.8	1171.7	1285.3	1222.4	1248.8	1236.6	1127.1	1242.7	1204.2
67.5°	13795.4	5392.5	926.4	1147.4	1244.7	1194.0	1236.6	1228.5	1121.1	1238.6	1194.0
70°	11376.9	3868.0	782.5	962.9	1042.0	1052.1	1161.6	1175.8	1072.4	1163.6	1082.5
72.5°	8094.8	2420.5	675.1	746.0	841.3	900.1	1060.2	1104.8	1007.5	1011.6	944.7
75°	4005.8	1299.5	602.1	575.7	654.8	750.1	924.4	1007.5	912.3	843.3	821.0
77.5°	1352.2	735.9	508.8	464.2	508.8	602.1	766.3	879.8	804.8	713.6	699.4
80°	699.4	535.2	397.3	373.0	401.4	466.3	600.1	731.8	687.2	691.3	569.7
82.5°	435.9	326.4	285.8	283.8	304.1	356.8	441.9	594.0	589.9	504.8	366.9
85°	202.7	188.5	182.5	188.5	194.6	202.7	287.9	423.7	448.0	271.7	241.2
87.5°	85.1	83.1	73.0	79.1	87.2	85.1	115.6	180.4	251.4	170.3	156.1
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)