

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: P270653

Luminaire Tested: **NAV-AF-06-D-UNV-AFL-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270653  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24160)  
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-AFL-7027  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 32066.9 lumens  
Efficiency: N/A  
Efficacy: 96.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B3 - U0 - G3

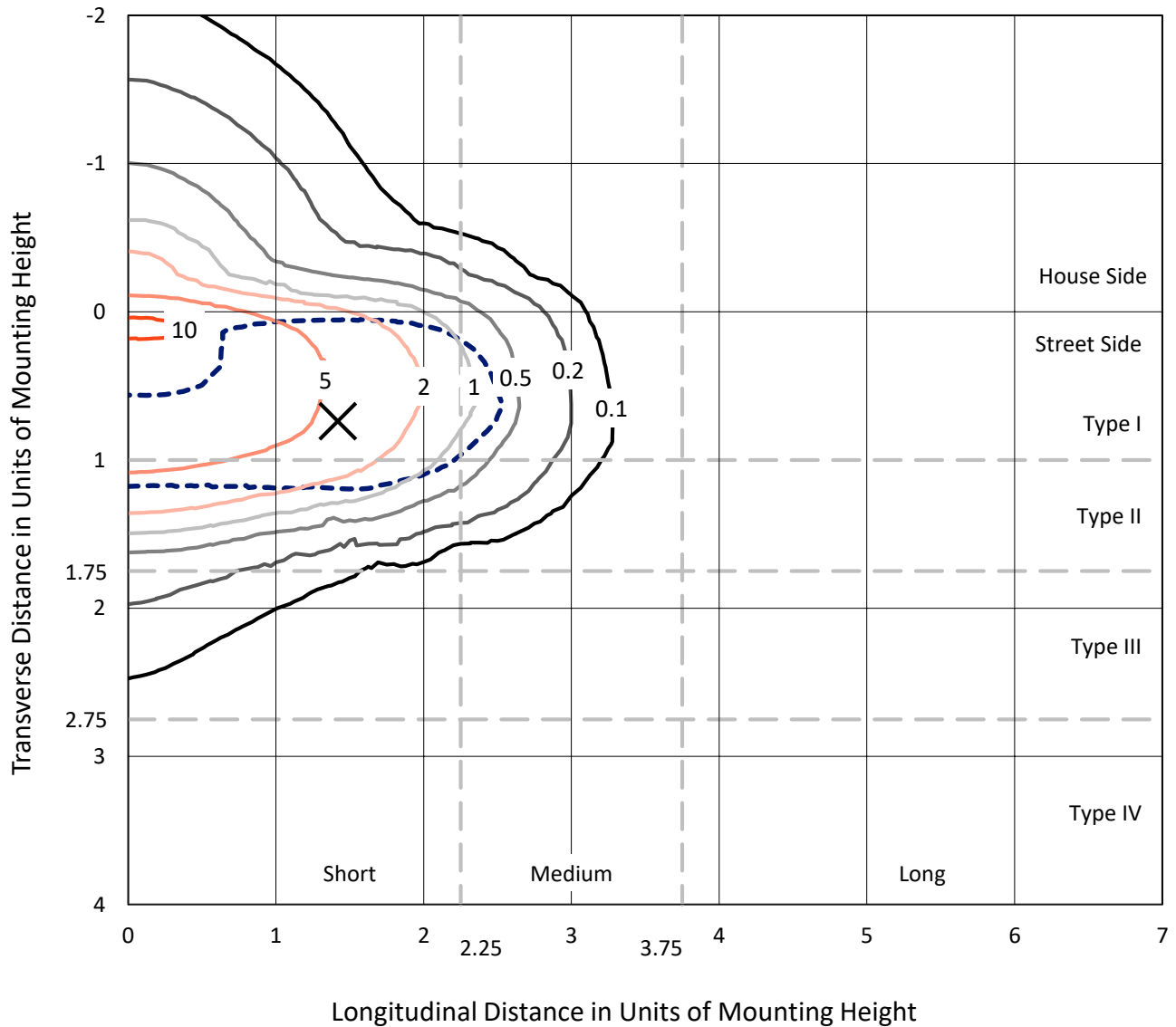
Input Watts (W): 333  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

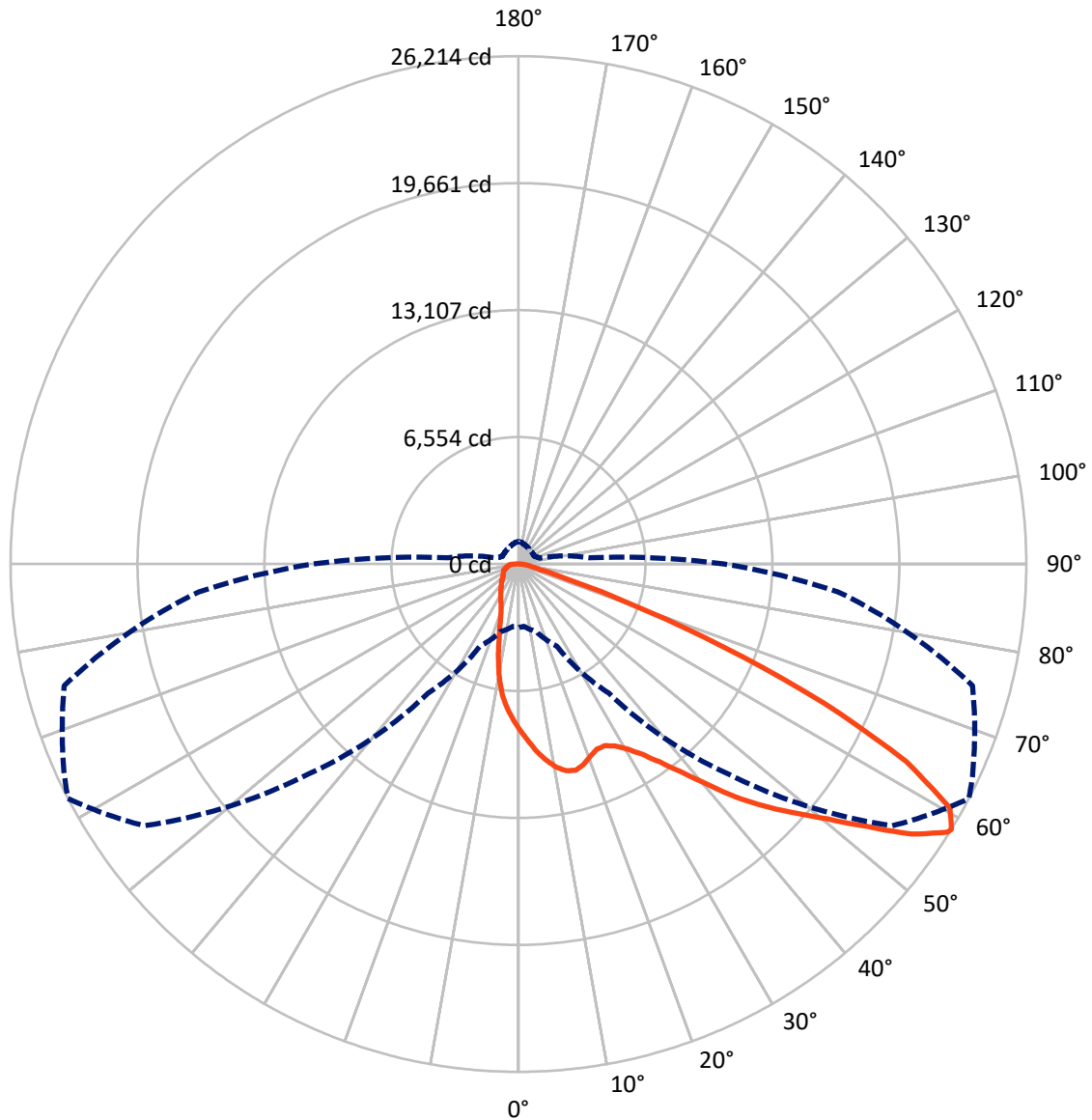
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11.1 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral    - - - Horizontal Cone Through 58-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4923.5	0.0	4923.5
	% Fixture	15.4	0.0	15.4
<b>Street Side</b>	Lumens	27143.4	0.0	27143.4
	% Fixture	84.6	0.0	84.6
<b>Total</b>	Lumens	32066.9	0.0	32066.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	765.3	2.4
10°-20°	1931.3	6.0
20°-30°	3130.0	9.8
30°-40°	4997.3	15.6
40°-50°	7268.7	22.7
50°-60°	7606.1	23.7
60°-70°	4636.9	14.5
70°-80°	1296.7	4.0
80°-90°	434.7	1.4
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°	32066.9	100.0
0°-180°	32066.9	100.0

**Coefficient of Utilization**



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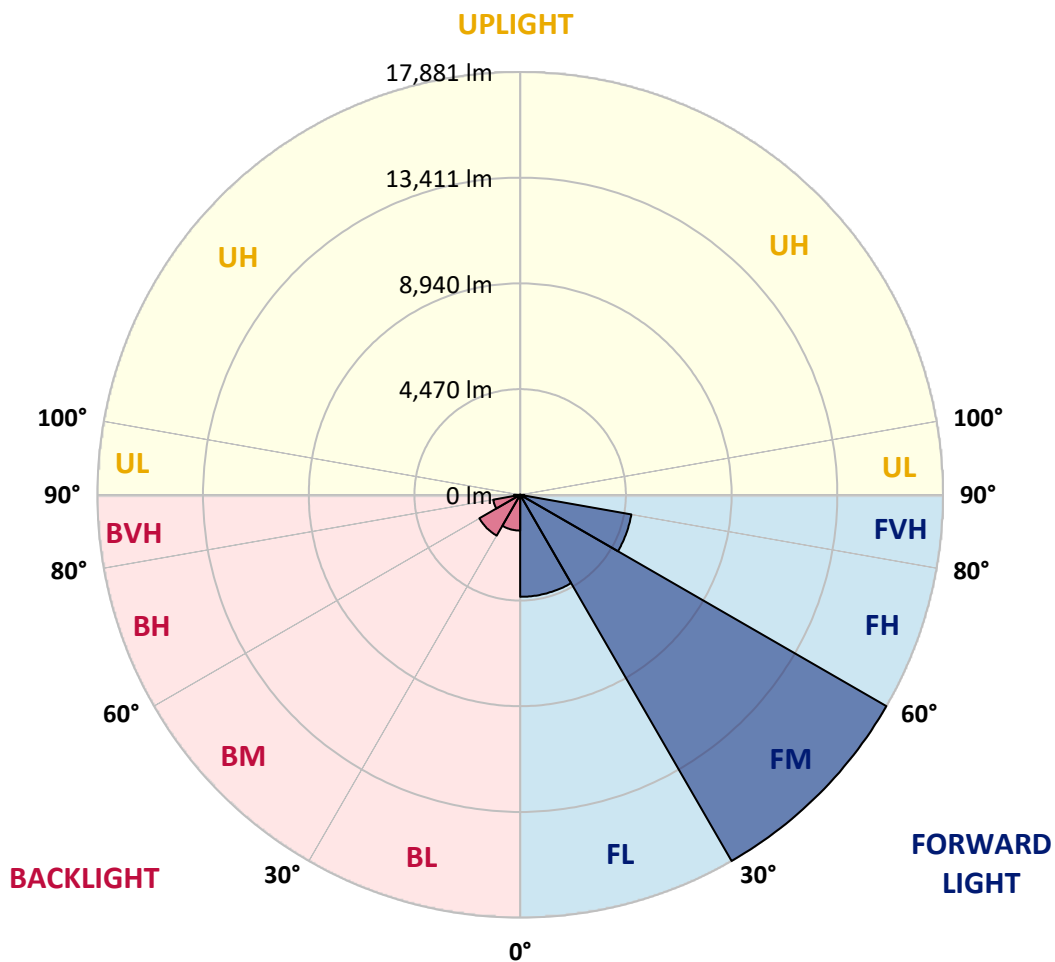
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4313.1	13.5			
FM (30°-60°)	17880.9	55.8			
FH (60°-80°)	4774.6	14.9			G2/5000
FVH (80°-90°)	174.8	0.5			G2/225
BL (0°-30°)	1513.5	4.7	B3/2500		
BM (30°-60°)	1991.1	6.2	B2/2500		
BH (60°-80°)	1159.1	3.6	B3/2500		G3/2500
BVH (80°-90°)	259.8	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-G3**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	8561.7	8561.7	8561.7	8561.7	8561.7	8561.7	8561.7	8561.7	8561.7	8561.7	8561.7
2.5°	9718.0	9712.0	9629.9	9575.8	9511.7	9363.4	9215.1	9104.9	9048.6	8834.2	8625.9
5°	10521.7	10497.7	10451.6	10393.5	10309.3	10122.9	9888.5	9686.0	9605.8	9225.1	8842.2
7.5°	10096.8	10134.9	10277.1	10437.5	10605.8	10618.0	10451.6	10211.0	10122.9	9613.8	9052.7
10°	8920.3	8904.4	9082.8	9395.5	9950.5	10499.7	10774.2	10656.0	10563.8	9982.7	9263.1
12.5°	8563.7	8559.7	8589.8	8669.9	9018.7	9772.1	10692.0	10948.6	10916.6	10373.4	9487.5
15°	8671.9	8675.9	8673.9	8683.9	8780.2	9138.8	10233.1	11046.7	11147.0	10760.2	9716.1
17.5°	9018.7	9004.6	8960.6	8912.4	8926.4	9054.6	9738.0	10878.5	11179.0	11104.8	9908.5
20°	9553.7	9553.7	9435.4	9301.2	9212.9	9241.0	9531.6	10589.8	11030.7	11397.5	10052.8
22.5°	10225.0	10235.1	10060.7	9816.3	9615.8	9539.7	9650.0	10375.5	10850.4	11668.1	10181.0
25°	11058.9	11056.8	10802.3	10451.6	10134.9	9952.5	9950.5	10385.5	10794.3	11984.7	10315.2
27.5°	12090.9	11996.8	11700.2	11201.1	10754.1	10475.7	10349.4	10638.0	10912.5	12373.6	10495.6
30°	13255.4	13159.1	12770.3	12129.0	11523.7	11117.0	10908.5	11074.8	11273.3	12868.6	10768.3
32.5°	14407.7	14429.7	13972.9	13249.3	12471.8	11898.6	11589.9	11692.1	11830.4	13473.8	11136.9
35°	16095.2	16093.2	15496.0	14592.1	13668.3	12874.6	12483.7	12537.9	12664.1	14327.5	11654.0
37.5°	17353.7	17333.8	16949.0	16149.3	15109.2	14157.2	13592.1	13600.1	13708.2	15399.7	12335.4
40°	17482.0	17478.1	17476.0	17361.8	16650.4	15752.5	15045.1	14898.7	14942.9	16538.2	13058.9
42.5°	16502.0	16648.4	17069.2	17714.5	17912.9	17442.0	16772.7	16445.9	16349.7	17844.8	13824.6
45°	15105.2	15179.3	15916.9	17367.8	18548.3	19029.2	18526.3	17836.8	17672.4	19115.5	14447.8
47.5°	14455.9	14423.7	14850.6	16431.8	18486.1	20291.9	20327.9	19197.6	18919.1	20211.8	14978.9
50°	13063.0	13020.8	13559.9	15055.1	17808.8	20919.2	22177.7	20680.7	20165.6	21253.9	15459.9
52.5°	10287.2	10247.1	10970.6	12896.5	16293.6	20684.7	23737.1	22500.4	21622.7	22257.9	15908.9
55°	6693.8	6697.9	7387.2	9373.4	13185.2	19318.0	24468.6	24602.8	23618.7	23262.0	16271.5
57.5°	3685.6	3651.5	4142.5	5363.2	9070.7	16213.5	23859.3	26118.0	25604.8	24123.8	16534.2
58°	3276.7	3236.7	3615.5	4667.7	8132.7	15337.7	23552.7	26214.1	25859.4	24266.1	16572.2
60°	2334.9	2266.7	2208.6	2631.4	4685.6	11058.9	21508.4	25590.8	25933.4	24550.7	16536.1
62.5°	1968.0	1889.9	1681.4	1665.5	2206.5	5409.1	17009.0	22474.3	23434.4	23895.4	15954.9
65°	1827.8	1749.5	1475.0	1376.8	1497.0	2334.9	10517.7	17353.7	18636.4	21616.6	14491.8
67.5°	1727.6	1635.4	1340.8	1212.5	1236.5	1396.9	4463.1	11349.5	12836.5	16856.8	11626.0
70°	1637.4	1535.2	1234.5	1086.2	1066.2	1062.2	1743.6	5926.2	7359.2	11030.7	7788.0
72.5°	1535.2	1435.0	1140.4	982.0	937.9	861.7	1048.1	2449.0	3357.0	5407.2	3569.3
75°	1386.9	1304.7	1036.1	895.9	819.8	699.4	773.6	1174.4	1447.0	2070.2	1657.5
77.5°	1220.4	1154.4	929.9	823.7	721.5	571.2	591.3	795.7	893.9	1166.4	960.0
80°	863.8	887.9	811.7	725.6	635.3	460.9	454.9	583.2	641.3	783.6	645.3
82.5°	595.2	613.3	661.3	573.2	513.0	358.8	334.7	404.9	434.9	473.0	312.6
85°	424.9	412.9	458.9	410.9	376.7	228.4	214.4	256.6	274.5	288.5	150.2
87.5°	258.5	256.6	264.6	212.4	196.4	116.2	106.2	122.3	130.3	126.2	72.1
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°	8561.7	8561.7	8561.7	8561.7	8561.7	8561.7	8561.7	8561.7	8561.7	8561.7	8561.7
2.5°	8547.6	8449.5	8235.0	8062.6	7876.2	7734.0	7591.7	7511.4	7423.4	7373.2	7367.2
5°	8641.9	8441.5	7984.5	7559.5	7122.8	6729.9	6345.1	6060.5	5828.1	5695.8	5687.8
7.5°	8746.1	8431.4	7726.0	6990.4	6212.8	5439.2	4755.7	4272.8	3962.2	3817.8	3807.8
10°	8826.1	8389.4	7411.2	6266.9	5034.5	4012.3	3391.0	3106.3	3012.2	2988.1	2984.2
12.5°	8922.4	8359.3	7014.4	5339.0	3847.9	3054.2	2866.0	2847.8	2867.8	2880.0	2881.9
15°	9012.5	8301.1	6479.4	4310.8	3012.2	2729.6	2733.6	2771.7	2811.9	2829.8	2831.8
17.5°	9054.6	8158.9	5775.9	3397.0	2635.4	2583.3	2629.3	2679.6	2715.5	2729.6	2729.6
20°	9054.6	7930.3	4960.3	2751.7	2439.1	2449.0	2505.2	2543.2	2551.2	2539.2	2533.2
22.5°	9016.6	7647.8	4166.6	2401.0	2278.7	2316.8	2360.8	2334.9	2240.6	2168.5	2154.4
25°	8982.5	7313.1	3403.0	2186.6	2138.4	2188.5	2170.5	1992.1	1847.9	1773.7	1761.7
27.5°	8926.4	6908.2	2765.7	2010.1	2002.1	2042.1	1863.9	1691.5	1619.4	1579.3	1571.2
30°	8912.4	6469.4	2314.8	1853.8	1867.8	1811.7	1607.2	1551.3	1535.2	1513.1	1503.1
32.5°	8958.4	6030.4	2032.1	1725.6	1739.6	1555.2	1477.1	1485.1	1483.0	1455.1	1445.0
35°	9084.7	5603.5	1851.9	1609.4	1569.2	1392.9	1403.0	1427.0	1427.0	1392.9	1380.9
37.5°	9305.3	5206.8	1737.6	1511.0	1372.8	1308.7	1334.7	1366.9	1366.9	1342.7	1332.7
40°	9539.7	4819.9	1651.4	1432.9	1248.6	1250.6	1276.6	1300.7	1310.6	1314.7	1306.8
42.5°	9752.1	4419.1	1559.2	1348.7	1192.5	1206.6	1218.6	1236.5	1278.6	1306.8	1302.7
45°	9876.3	4016.3	1458.9	1244.6	1154.4	1160.4	1156.4	1188.5	1238.6	1280.7	1280.7
47.5°	9990.6	3685.6	1376.8	1140.4	1116.4	1116.4	1104.2	1136.4	1182.4	1232.6	1236.5
50°	10098.8	3471.2	1318.7	1060.2	1068.3	1062.2	1058.2	1088.2	1150.4	1210.5	1220.4
52.5°	10209.1	3398.9	1266.6	1002.1	1018.0	1010.1	1014.0	1056.1	1126.4	1188.5	1198.5
55°	10363.3	3445.1	1212.5	961.9	970.0	968.1	984.1	1032.2	1094.2	1156.4	1160.4
57.5°	10553.7	3613.4	1166.4	931.9	923.8	935.9	961.9	1008.1	1068.3	1142.4	1148.4
58°	10591.8	3653.5	1158.4	923.8	913.8	931.9	958.0	1002.1	1064.2	1142.4	1148.4
60°	10649.9	3795.9	1138.3	907.8	879.8	911.9	943.9	988.0	1056.1	1152.3	1164.5
62.5°	10369.3	3823.8	1132.4	889.9	843.8	883.8	921.9	972.0	1048.1	1186.4	1212.5
65°	9397.3	3535.3	1090.3	859.8	813.7	861.7	901.9	960.0	1072.1	1288.7	1300.7
67.5°	7543.5	2936.1	988.0	813.7	779.5	835.8	885.8	960.0	1082.3	1304.7	1312.8
70°	5186.8	2206.5	859.8	763.6	739.6	803.7	879.8	982.0	1048.1	1234.5	1210.5
72.5°	2709.6	1535.2	753.6	705.4	691.4	775.5	937.9	960.0	1008.1	1152.3	1128.4
75°	1364.9	1044.2	663.4	639.4	637.3	765.5	1050.2	923.8	965.9	1084.3	1136.4
77.5°	805.7	817.6	591.3	577.3	587.2	747.5	1052.2	887.9	917.9	998.0	1054.3
80°	551.1	675.3	535.1	531.1	539.2	687.5	970.0	843.8	861.7	943.9	1004.0
82.5°	310.6	372.7	468.9	495.1	491.1	563.1	837.7	767.6	789.6	1116.4	1180.5
85°	150.2	224.4	392.7	462.9	418.9	374.8	681.5	681.5	687.5	799.6	809.6
87.5°	56.1	100.3	264.6	366.8	292.6	224.4	462.9	483.0	537.0	553.1	565.2
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)