

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: P965019

Luminaire Tested: **NAV-SB3D-727-U-AFL**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P965019  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3D-727-U-AFL  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE  
FRONTLINE OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 29522 lumens  
Efficiency: N/A  
Efficacy: 135.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

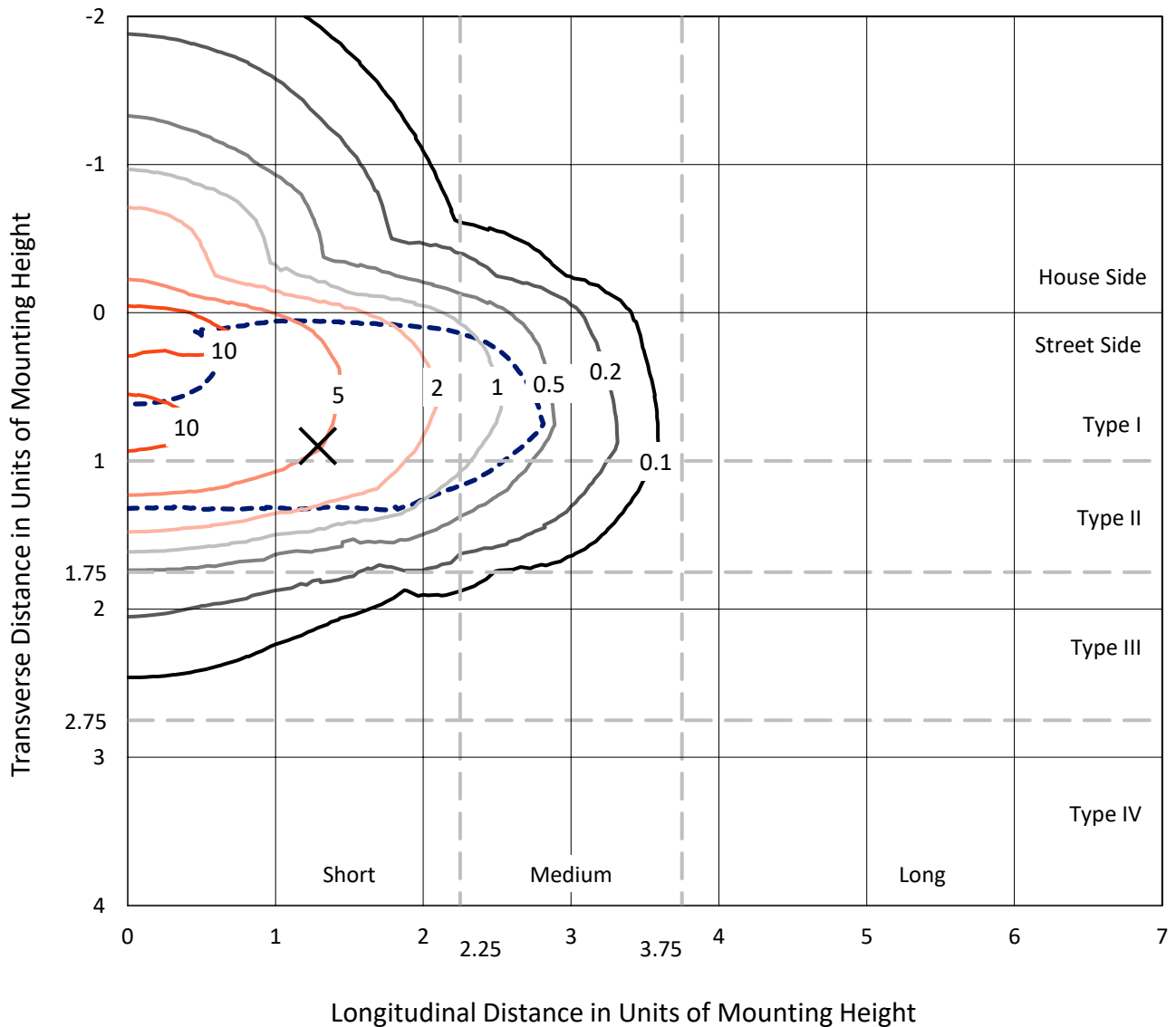
Input Watts (W): 218.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

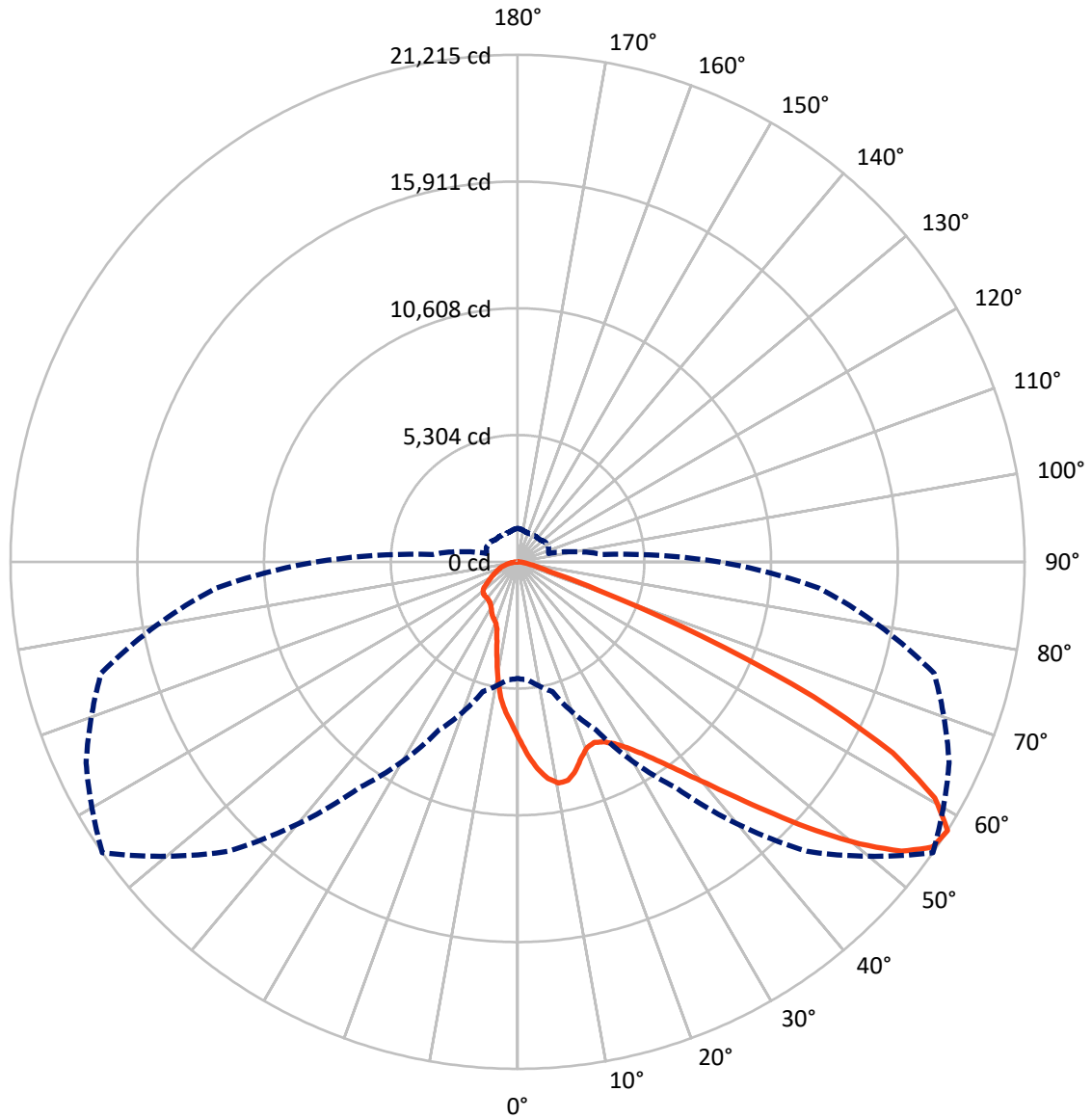
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 14.3 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral      - - - Horizontal Cone Through 57.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5341.9	0.0	5341.9
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	24180.2	0.0	24180.2
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	29522.0	0.0	29522.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	686.4	2.3
10°-20°	1732.6	5.9
20°-30°	2764.7	9.4
30°-40°	4377.2	14.8
40°-50°	6699.7	22.7
50°-60°	7176.0	24.3
60°-70°	4514.5	15.3
70°-80°	1335.0	4.5
80°-90°	236.0	0.8
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°	29522.0	100.0
0°-180°	29522.0	100.0

**Coefficient of Utilization**



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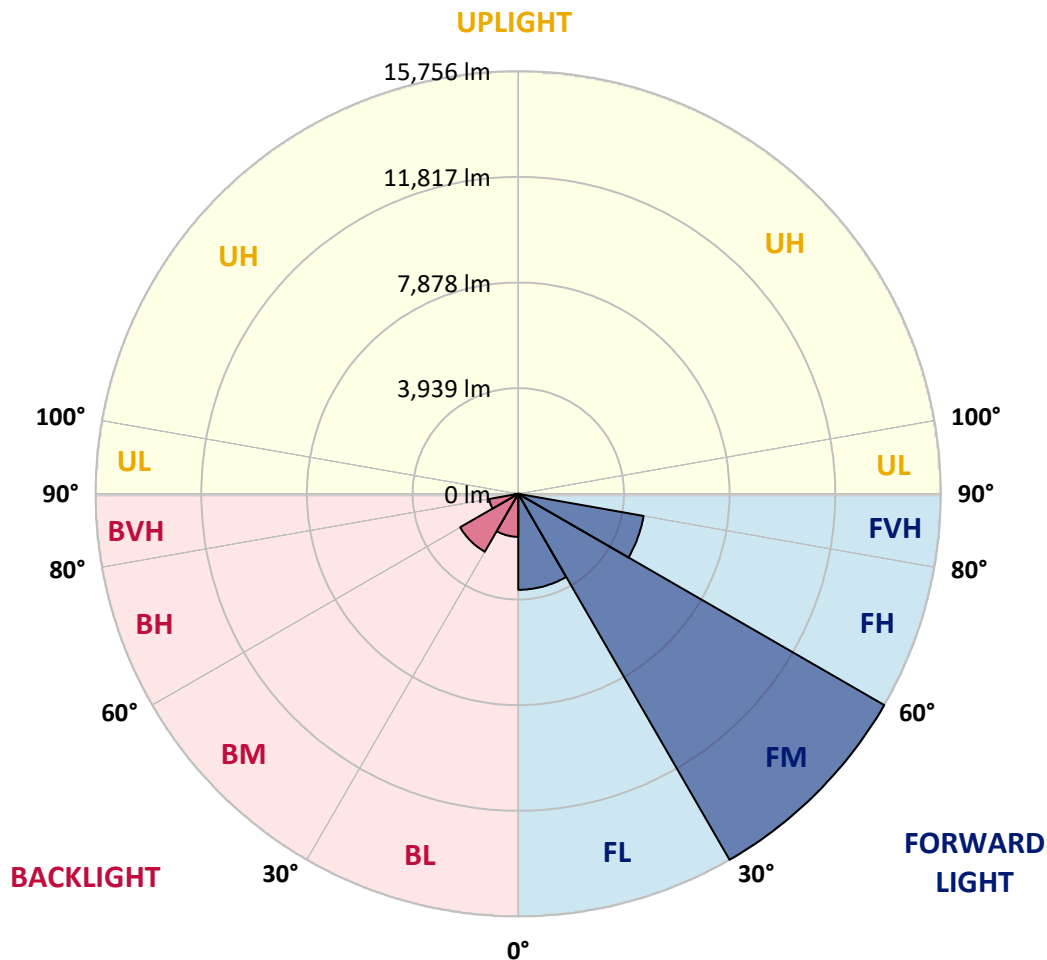
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3578.1	12.1			
FM (30°-60°)	15756.1	53.4			
FH (60°-80°)	4746.2	16.1			G2/5000
FVH (80°-90°)	99.7	0.3			G1/100
BL (0°-30°)	1605.6	5.4	B3/2500		
BM (30°-60°)	2496.7	8.5	B2/2500		
BH (60°-80°)	1103.2	3.7	B3/2500		G3/2500
BVH (80°-90°)	136.3	0.5			G2/225
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°	65°	75°	85°	90°
0°	7397.2	7397.2	7397.2	7397.2	7397.2	7397.2	7397.2	7397.2	7397.2	7397.2	7397.2
2.5°	8486.9	8480.8	8514.4	8400.0	8322.1	8216.8	8077.9	7900.9	7710.2	7508.6	7421.7
5°	9251.5	9198.1	9233.2	9147.7	9062.3	8903.6	8697.5	8409.1	8056.6	7655.2	7441.5
7.5°	9131.0	9094.3	9184.4	9260.7	9324.8	9304.9	9153.9	8851.7	8396.9	7813.9	7504.1
10°	8158.8	8117.6	8244.3	8508.3	8896.0	9233.2	9416.4	9228.7	8744.9	7987.9	7565.1
12.5°	7301.1	7281.3	7365.2	7578.8	8009.2	8656.3	9382.7	9558.3	9106.5	8194.0	7647.5
15°	6934.8	6910.4	6963.8	7072.2	7346.9	7949.7	9077.6	9784.1	9462.2	8432.0	7778.8
17.5°	6854.0	6826.5	6849.4	6905.8	7082.9	7542.3	8616.7	9895.6	9833.0	8697.5	7888.7
20°	7003.5	6980.7	6983.6	6980.7	7104.3	7469.0	8296.1	9852.8	10156.5	8941.7	7995.5
22.5°	7365.2	7327.1	7328.5	7247.7	7314.8	7597.2	8212.2	9738.4	10445.0	9155.4	8076.4
25°	7954.3	7885.6	7899.4	7693.3	7675.0	7884.1	8343.5	9649.9	10732.0	9326.4	8091.7
27.5°	8760.2	8682.3	8641.1	8334.3	8187.8	8291.6	8610.5	9680.4	11003.6	9474.4	8053.5
30°	9767.4	9672.7	9588.9	9153.9	8888.3	8850.2	9025.6	9881.8	11324.1	9630.1	7987.9
32.5°	11002.0	10892.2	10739.5	10162.7	9788.8	9588.9	9562.8	10240.5	11699.5	9828.4	7954.3
35°	12471.7	12328.3	12111.6	11365.3	10892.2	10483.2	10271.0	10757.9	12213.8	10127.5	7992.4
37.5°	13985.7	13823.9	13625.5	12737.3	12155.8	11553.0	11134.8	11459.9	12899.0	10533.5	8093.2
40°	15382.1	15200.4	15015.8	14225.3	13601.0	12874.6	12192.5	12348.1	13736.9	11018.9	8264.2
42.5°	16206.3	16071.9	16001.7	15574.4	15092.1	14355.0	13508.0	13401.2	14678.5	11577.4	8459.4
45°	16169.6	16114.6	16331.3	16508.4	16394.0	15985.0	15049.4	14565.7	15623.3	12061.2	8639.5
47.5°	15305.8	15342.4	15826.2	16821.3	17259.3	17473.0	16804.5	15708.7	16444.3	12422.9	8720.4
50°	12955.5	12986.0	14106.3	16252.0	17482.1	18686.3	18545.8	16824.4	17080.7	12644.2	8702.1
52.5°	11095.1	11115.0	11595.7	14564.1	16746.4	19296.6	20114.7	17875.8	17546.2	12705.2	8599.9
55°	8357.2	8425.9	8964.6	11426.3	14832.7	18812.8	21070.1	18959.4	17840.7	12711.3	8493.0
57.5°	4882.2	4956.9	5622.3	7755.9	11528.6	17126.5	21215.0	19920.9	18040.6	12662.5	8429.0
60°	2391.5	2423.5	2713.5	4076.3	7108.8	13877.3	20049.1	20386.3	18152.0	12636.5	8425.9
62.5°	1611.6	1607.0	1619.3	2011.5	3502.5	8915.8	17619.4	19571.4	18092.6	12537.4	8395.4
65°	1385.7	1369.0	1323.2	1411.7	1814.6	4077.9	13613.3	17138.7	17639.3	12288.6	8186.3
67.5°	1198.0	1199.6	1201.1	1173.6	1295.7	1881.8	8319.1	13500.4	16012.4	11110.4	7380.5
70°	992.0	1005.7	1011.9	1011.9	1056.1	1234.6	3551.3	9253.1	12630.5	8711.3	5944.4
72.5°	903.4	874.5	877.5	862.2	862.2	940.1	1430.0	5245.4	7957.4	4900.5	3627.7
75°	737.2	755.4	758.5	747.8	712.7	717.3	848.5	2200.7	3404.8	2032.9	1793.2
77.5°	636.4	636.4	642.5	634.9	607.4	537.2	566.2	853.1	1158.4	833.3	895.8
80°	511.3	509.7	535.7	550.9	508.2	396.8	361.7	471.6	514.3	366.2	465.5
82.5°	248.8	264.0	367.8	419.7	386.1	286.9	221.3	293.0	274.7	161.7	209.1
85°	144.9	137.4	164.8	233.5	221.3	158.7	106.8	152.6	143.5	82.4	83.9
87.5°	45.8	42.7	33.6	79.3	64.1	44.3	29.0	44.3	39.7	18.3	18.3
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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7397.2	7397.2	7397.2	7397.2	7397.2	7397.2	7397.2	7397.2	7397.2	7397.2
2.5°	7313.4	7133.3	6954.7	6791.3	6692.2	6628.1	6564.0	6492.2	6464.8	6423.6
5°	7240.1	6892.1	6582.3	6315.2	6072.6	5881.8	5689.5	5533.9	5463.7	5510.9
7.5°	7197.3	6693.7	6216.0	5726.2	5254.6	4877.6	4549.5	4319.0	4215.2	4241.1
10°	7159.2	6469.4	5741.4	4967.7	4290.0	3823.0	3487.3	3311.8	3246.2	3259.9
12.5°	7124.1	6217.5	5169.1	4151.1	3430.8	3122.6	3026.3	3027.8	3040.0	3049.3
15°	7118.0	5913.8	4529.6	3436.9	2966.9	2947.0	3050.8	3116.4	3151.5	3162.2
17.5°	7108.8	5550.6	3878.0	2950.1	2853.9	2988.2	3084.3	3127.1	3154.5	3156.1
20°	7072.2	5089.7	3276.6	2718.1	2829.5	2945.4	3005.0	3038.6	3061.5	3069.1
22.5°	6959.2	4576.9	2808.1	2614.3	2731.8	2824.9	2895.1	2933.2	2947.0	2956.2
25°	6756.3	4003.1	2484.6	2515.1	2596.0	2713.5	2770.0	2777.6	2773.0	2786.8
27.5°	6490.7	3388.0	2283.1	2380.8	2484.6	2585.3	2615.8	2611.3	2602.1	2617.3
30°	6170.2	2835.6	2155.0	2229.7	2371.6	2463.2	2490.6	2480.0	2461.6	2478.4
32.5°	5831.4	2383.8	2049.6	2124.4	2278.6	2368.6	2396.0	2385.4	2371.6	2385.4
35°	5515.5	2067.9	1951.9	2054.2	2205.3	2293.8	2328.9	2330.4	2330.4	2347.2
37.5°	5225.6	1883.2	1871.0	2009.9	2155.0	2234.3	2284.6	2287.7	2222.1	2226.6
40°	4956.9	1805.4	1834.4	1980.9	2106.1	2182.4	2185.4	2014.5	1894.0	1890.9
42.5°	4737.1	1790.2	1845.1	1977.9	2071.0	2074.1	1858.8	1726.1	1692.5	1694.0
45°	4531.1	1785.6	1869.5	1977.9	2019.1	1791.7	1646.8	1611.6	1614.7	1626.9
47.5°	4300.7	1767.3	1874.1	1950.5	1869.5	1593.3	1550.6	1535.3	1529.2	1532.3
50°	4048.9	1701.7	1816.1	1895.5	1613.1	1507.9	1454.5	1449.9	1457.4	1462.1
52.5°	3783.4	1594.8	1716.9	1796.3	1495.7	1433.1	1373.5	1384.3	1417.8	1428.4
55°	3609.3	1469.6	1585.7	1597.9	1413.2	1362.8	1312.5	1336.9	1399.4	1419.3
57.5°	3563.6	1336.9	1436.1	1422.4	1307.9	1301.9	1271.3	1292.6	1372.0	1401.0
60°	3549.9	1217.9	1289.6	1278.9	1205.7	1234.6	1227.0	1237.7	1265.2	1274.4
62.5°	3443.0	1123.3	1158.4	1143.1	1114.1	1164.5	1182.7	1159.9	1181.2	1192.0
65°	3171.4	1046.9	1030.1	1019.5	1031.7	1077.5	1114.1	1068.4	1088.1	1118.7
67.5°	2722.7	943.2	897.4	909.6	947.7	972.1	1019.5	967.6	984.4	1036.3
70°	2202.2	811.9	770.7	805.9	842.4	892.8	900.5	865.3	905.0	963.0
72.5°	1558.2	679.2	650.2	721.9	734.1	799.7	782.9	766.1	821.0	840.9
75°	1080.6	547.9	531.1	586.0	630.3	686.7	674.6	694.4	810.4	819.6
77.5°	683.7	425.8	415.1	450.2	511.3	573.8	593.7	819.6	1384.3	1439.2
80°	396.8	317.4	305.2	332.7	386.1	444.1	572.3	1005.7	912.7	902.0
82.5°	221.3	218.2	203.0	210.6	257.9	320.5	808.8	708.2	575.3	593.7
85°	103.7	128.2	109.9	105.3	144.9	375.5	540.3	404.5	268.7	262.5
87.5°	27.5	24.4	24.4	27.5	61.1	323.6	215.1	172.4	102.3	99.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)