

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: P884077

Luminaire Tested: **NAV-SB4D-722-U-T2**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884077  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4D-722-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 2200K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

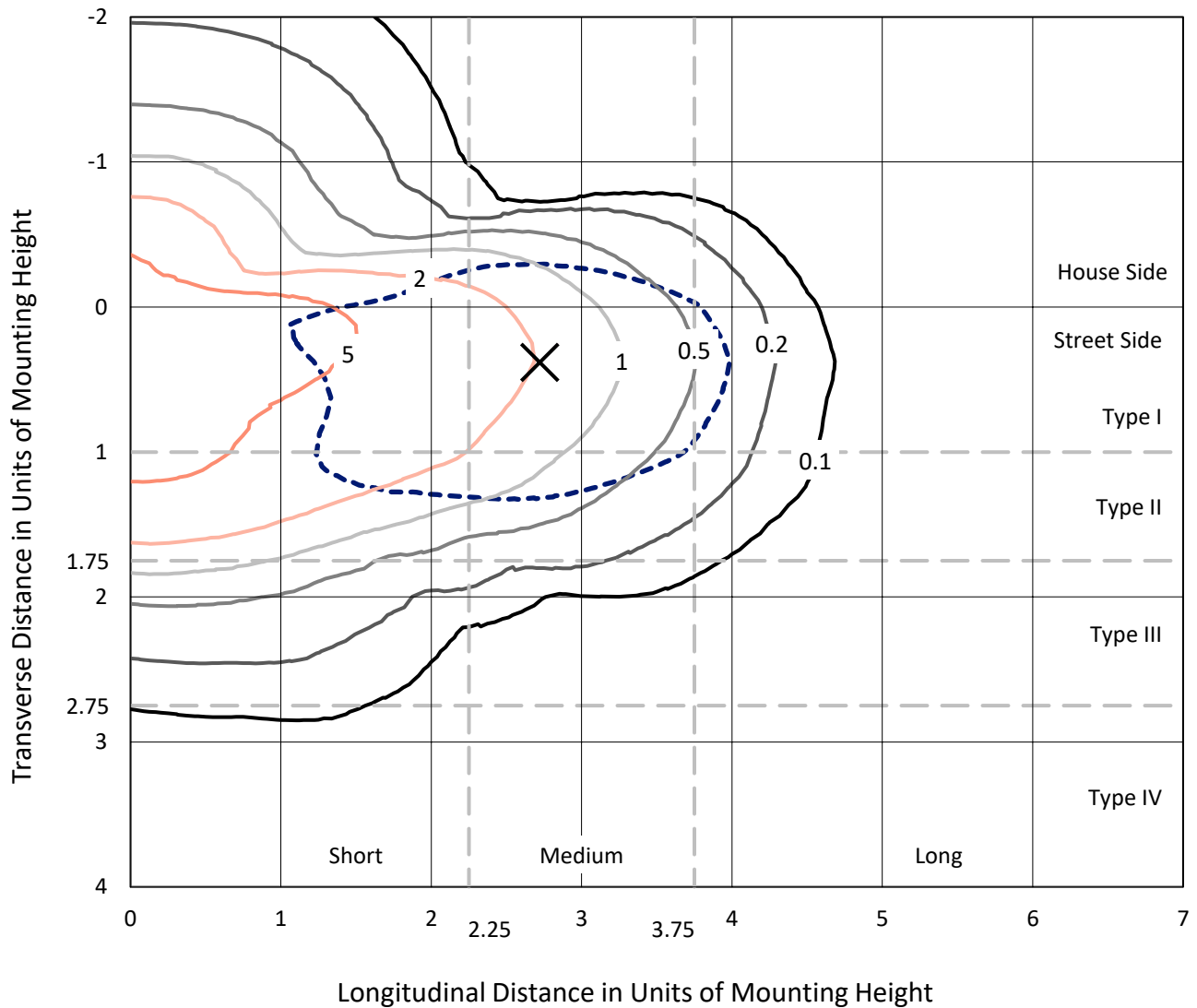
Lumens per Lamp: N/A  
Luminaire Lumens: 32562 lumens  
Efficiency: N/A  
Efficacy: 110.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B4 - U0 - G4  
  
Input Watts (W): 293.6  
Input Voltage (V): 120.0  
Input Current (Ain): 2.469  
Voltage Rise (V): NR  
Power Factor: 0.999  
Total Harmonic Distortion (THDi): 3.108  
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

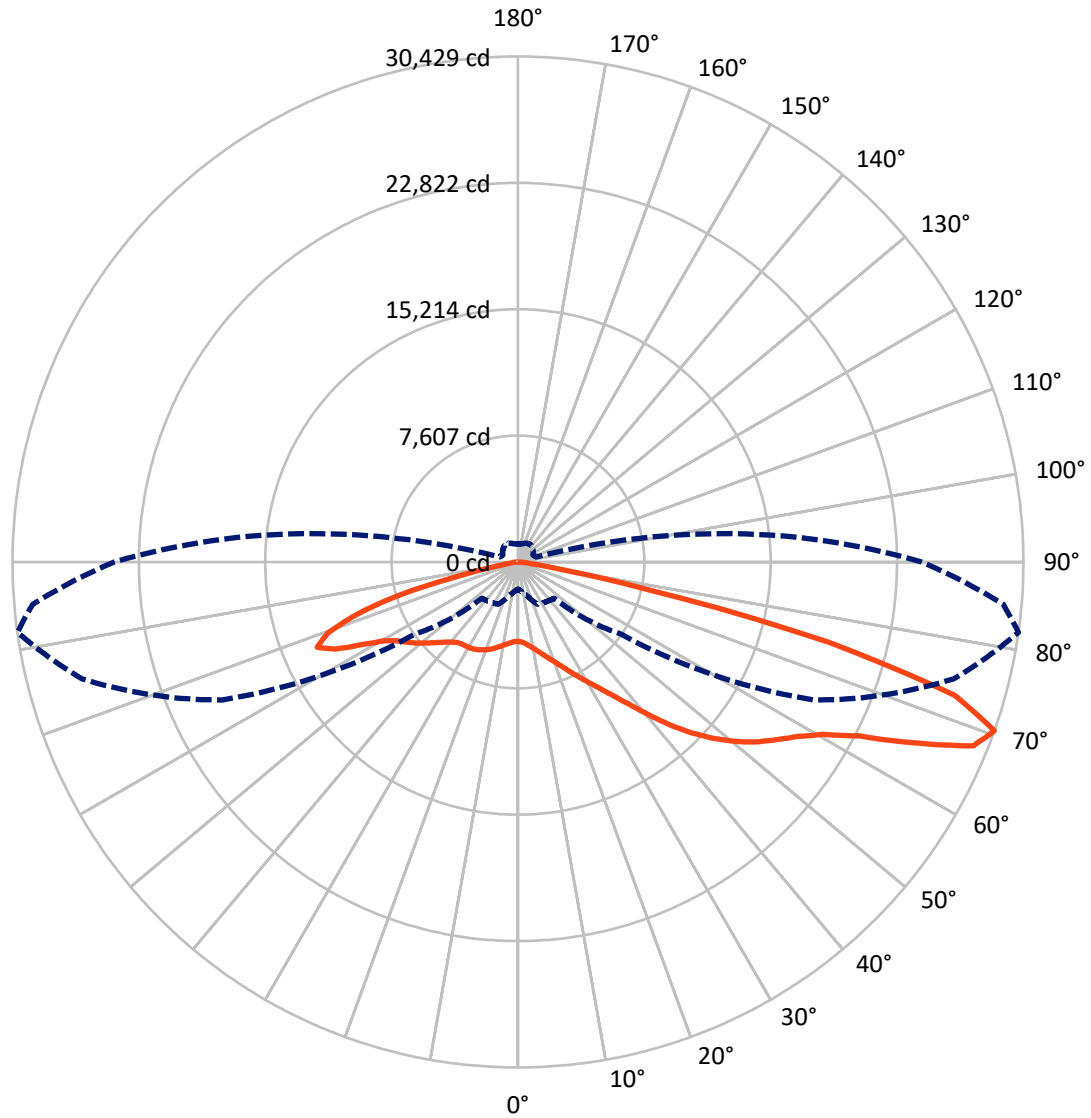
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.7 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8027.3	0.0	8027.3
	% Fixture	24.7	0.0	24.7
<b>Street Side</b>	Lumens	24534.7	0.0	24534.7
	% Fixture	75.3	0.0	75.3
<b>Total</b>	Lumens	32562.0	0.0	32562.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	450.7	1.4
10°-20°	1295.0	4.0
20°-30°	2166.5	6.7
30°-40°	3384.6	10.4
40°-50°	5390.3	16.6
50°-60°	7501.3	23.0
60°-70°	7846.7	24.1
70°-80°	4101.1	12.6
80°-90°	425.9	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°	32562.0	100.0
0°-180°	32562.0	100.0



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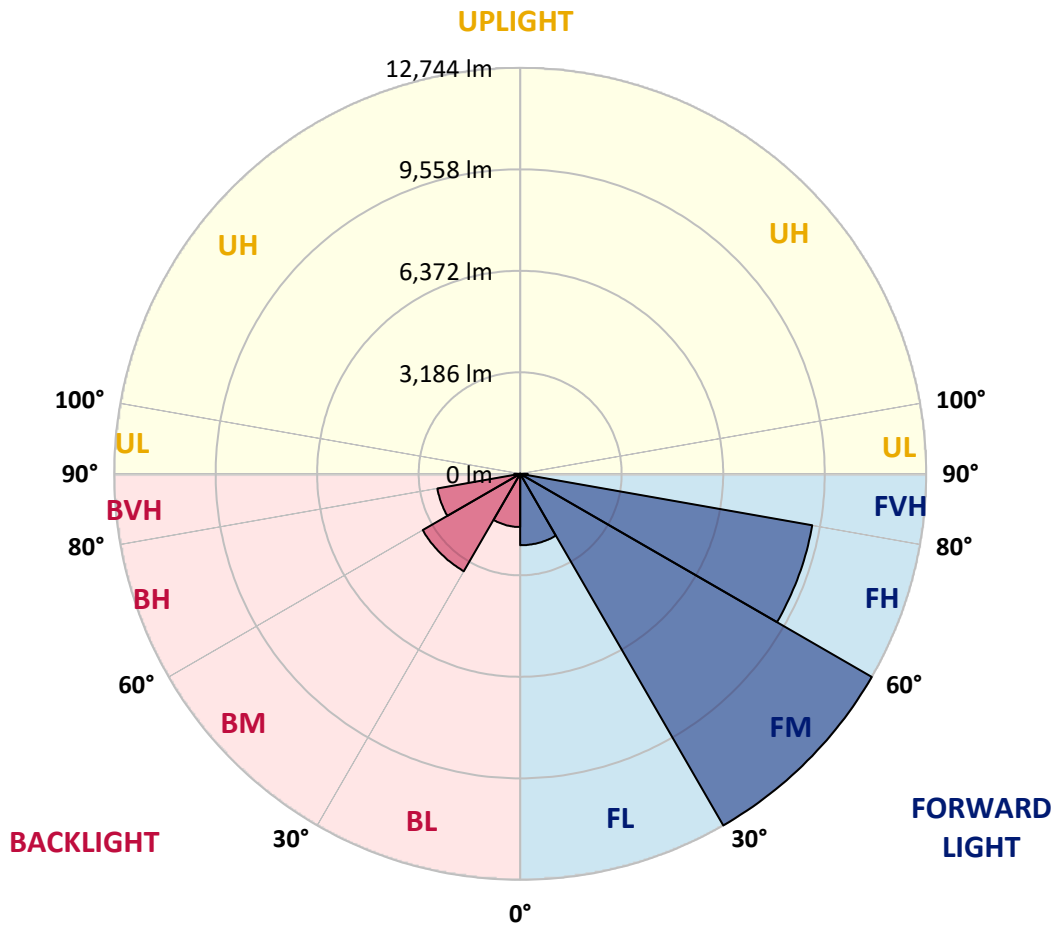
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2242.3	6.9			
FM (30°-60°)	12744.4	39.1			
FH (60°-80°)	9309.6	28.6			G4/12000
FVH (80°-90°)	238.4	0.7			G3/500
BL (0°-30°)	1670.0	5.1	B3/2500		
BM (30°-60°)	3531.7	10.8	B3/5000		
BH (60°-80°)	2638.2	8.1	B4/5000		G4/5000
BVH (80°-90°)	187.5	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G4**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	4774.0	4774.0	4774.0	4774.0	4774.0	4774.0	4774.0	4774.0	4774.0	4774.0	4774.0
2.5°	4888.0	4915.7	4907.0	4898.4	4898.4	4886.3	4884.6	4867.3	4853.5	4831.0	4825.8
5°	4950.2	4979.6	4976.2	4983.1	5005.5	5010.7	5015.9	5005.5	4977.9	4950.2	4938.1
7.5°	4894.9	4927.8	4938.1	4979.6	5048.7	5110.9	5157.6	5176.6	5150.7	5110.9	5091.9
10°	4708.3	4744.6	4780.9	4879.4	5002.1	5148.9	5273.3	5347.6	5342.5	5304.4	5271.6
12.5°	4329.9	4368.0	4445.7	4637.5	4862.1	5121.3	5352.8	5508.3	5561.9	5534.2	5477.2
15°	4027.6	4060.4	4119.1	4316.1	4608.1	5002.1	5382.2	5684.6	5821.1	5805.5	5736.4
17.5°	4018.9	4032.8	4069.0	4162.3	4387.0	4815.5	5351.1	5857.3	6118.2	6116.5	6030.1
20°	4171.0	4176.2	4196.9	4215.9	4343.8	4673.8	5271.6	6000.8	6451.7	6451.7	6358.4
22.5°	4381.8	4378.3	4399.1	4381.8	4444.0	4661.7	5221.5	6126.9	6823.2	6850.8	6733.4
25°	4698.0	4680.7	4675.5	4635.8	4647.9	4774.0	5276.8	6270.3	7263.8	7320.8	7174.0
27.5°	5119.6	5091.9	5072.9	4981.3	4950.2	5005.5	5446.1	6443.1	7754.5	7853.0	7666.4
30°	5669.0	5618.9	5591.3	5432.3	5320.0	5328.6	5701.8	6672.9	8267.7	8426.6	8189.9
32.5°	6418.9	6341.1	6266.8	6005.9	5800.3	5732.9	6031.9	6990.8	8824.0	9078.0	8773.9
35°	7258.6	7196.4	7116.9	6714.4	6398.2	6242.7	6477.6	7434.9	9475.4	9878.0	9482.3
37.5°	8067.2	8013.7	8051.7	7509.2	7101.4	6875.0	7061.6	8031.0	10278.9	10873.2	10370.4
40°	8903.5	8862.0	8867.2	8348.9	7873.7	7619.7	7770.1	8779.1	11199.8	12056.8	11438.2
42.5°	9812.4	9781.2	9677.6	9218.0	8684.1	8447.4	8585.6	9643.0	12188.1	13404.5	12609.7
45°	10830.0	10811.0	10714.3	10187.3	9575.6	9309.6	9496.2	10596.8	13181.6	14672.7	13786.4
47.5°	11709.5	11725.1	11713.0	11268.9	10634.8	10244.3	10467.2	11592.0	14106.0	15864.9	14914.6
50°	12132.8	12214.0	12333.3	12195.0	11801.1	11403.7	11446.9	12552.7	14987.2	16982.8	15996.3
52.5°	11911.7	12065.4	12390.3	12611.4	12763.5	12680.5	12564.8	13506.5	15816.6	17991.9	17019.1
55°	11087.5	11303.5	11842.6	12376.5	13152.2	13755.3	13907.3	14563.9	16625.2	18880.0	17986.7
57.5°	9586.0	9936.8	10420.5	11500.4	12806.7	14275.3	15472.7	16030.8	17482.2	19828.6	18999.2
60°	7011.5	7481.5	8082.8	9689.7	11597.2	13997.2	16804.9	18283.9	18700.3	21057.1	20317.6
62.5°	4487.2	4777.5	5330.4	6843.9	9036.6	12571.7	17212.6	21100.3	20765.1	23071.7	22294.2
65°	3072.1	3258.7	3764.9	4615.0	5841.8	9357.9	16120.7	23211.7	24044.5	26264.8	25673.8
67.5°	2232.4	2374.0	2806.0	3550.7	3806.4	5537.7	12509.5	23114.9	27232.3	29554.5	28635.3
70°	1627.6	1727.8	2090.7	2806.0	2928.7	3080.7	7578.3	19648.9	27163.2	30428.8	29328.2
72.5°	1206.0	1275.1	1518.8	2177.1	2370.6	2080.3	3751.1	14280.5	23341.3	27522.6	26639.7
75°	872.6	924.4	1104.1	1665.6	1897.2	1584.4	1871.2	8345.4	16281.3	19360.3	19515.8
77.5°	666.9	706.7	824.2	1219.8	1518.8	1188.7	1161.1	3839.2	7719.9	7758.0	8193.4
80°	535.6	561.5	625.5	858.7	1164.6	889.8	756.8	1549.9	2439.7	2064.8	2166.7
82.5°	393.9	437.1	528.7	603.0	832.8	613.4	461.3	782.7	927.8	798.3	805.2
85°	224.6	254.0	319.6	432.0	532.2	374.9	264.4	347.3	432.0	354.2	316.2
87.5°	79.5	103.7	112.3	169.3	231.5	155.5	101.9	100.2	141.7	105.4	88.1
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°	4774.0	4774.0	4774.0	4774.0	4774.0	4774.0	4774.0	4774.0	4774.0	4774.0	4774.0
2.5°	4808.6	4799.9	4765.4	4718.7	4670.3	4623.7	4608.1	4575.3	4552.8	4540.7	4554.6
5°	4905.3	4877.7	4796.5	4692.8	4583.9	4466.4	4383.5	4307.5	4252.2	4200.4	4221.1
7.5°	5043.5	4995.2	4855.2	4673.8	4480.3	4285.0	4139.9	4029.3	3955.0	3906.6	3917.0
10°	5204.2	5129.9	4915.7	4644.4	4345.5	4065.6	3894.5	3799.5	3752.8	3726.9	3733.8
12.5°	5389.1	5283.7	4977.9	4577.0	4139.9	3820.2	3702.7	3675.1	3676.8	3678.6	3682.0
15°	5617.2	5470.3	5028.0	4430.2	3872.1	3631.9	3611.2	3656.1	3702.7	3725.2	3723.5
17.5°	5874.6	5667.3	5036.6	4188.3	3609.4	3511.0	3576.6	3673.4	3744.2	3775.3	3782.2
20°	6151.1	5867.7	4974.4	3846.2	3393.5	3412.5	3530.0	3654.4	3732.1	3771.9	3782.2
22.5°	6467.3	6082.0	4825.8	3486.8	3217.2	3305.3	3443.6	3564.5	3645.7	3685.5	3695.8
25°	6828.4	6322.1	4592.6	3184.4	3065.2	3184.4	3322.6	3422.8	3488.5	3524.8	3535.1
27.5°	7229.2	6572.7	4281.6	2944.2	2932.1	3060.0	3174.0	3251.8	3286.3	3314.0	3324.3
30°	7631.8	6800.7	3904.9	2762.8	2816.4	2937.3	3018.5	3053.1	3063.4	3068.6	3080.7
32.5°	8067.2	6997.7	3509.2	2612.5	2705.8	2818.1	2866.5	2882.0	2833.6	2800.8	2811.2
35°	8594.2	7208.5	3122.2	2493.3	2596.9	2693.7	2709.2	2695.4	2638.4	2571.0	2574.5
37.5°	9245.6	7471.1	2812.9	2408.6	2495.0	2558.9	2539.9	2536.5	2541.6	2462.2	2467.3
40°	10043.9	7813.3	2586.6	2342.9	2412.1	2425.9	2372.3	2401.7	2427.6	2306.7	2310.1
42.5°	10930.3	8226.2	2443.2	2298.0	2342.9	2310.1	2227.2	2260.0	2256.5	2097.6	2095.9
45°	11833.9	8675.4	2393.0	2265.2	2279.0	2213.4	2121.8	2130.4	2057.8	1914.4	1919.6
47.5°	12732.4	9157.5	2424.1	2237.5	2199.5	2125.2	2054.4	2016.4	1909.3	1802.1	1802.1
50°	13613.6	9663.8	2538.2	2182.3	2090.7	2047.5	1995.6	1928.3	1814.2	1722.6	1715.7
52.5°	14430.8	10173.5	2666.0	2090.7	1954.2	1980.1	1947.3	1869.5	1757.2	1663.9	1665.6
55°	15204.9	10683.2	2716.1	1964.5	1826.3	1921.3	1902.3	1758.9	1624.2	1548.1	1541.2
57.5°	16048.1	11296.6	2660.9	1803.9	1722.6	1854.0	1781.4	1622.4	1544.7	1487.7	1482.5
60°	17216.1	12259.0	2541.6	1605.2	1624.2	1753.7	1629.3	1563.7	1479.0	1415.1	1411.6
62.5°	19156.5	14054.2	2349.8	1408.2	1508.4	1605.2	1556.8	1491.1	1404.7	1342.5	1342.5
65°	22024.7	16549.2	1988.7	1254.4	1378.8	1460.0	1479.0	1413.4	1323.5	1257.9	1261.3
67.5°	24443.6	18114.6	1504.9	1126.5	1245.8	1342.5	1396.1	1332.2	1237.1	1173.2	1174.9
70°	24310.6	16977.7	1149.0	1000.4	1128.3	1226.8	1295.9	1245.8	1143.8	1083.3	1088.5
72.5°	21592.7	14202.8	929.6	872.6	1009.1	1105.8	1188.7	1150.7	1047.1	988.3	988.3
75°	15863.2	10081.9	743.0	743.0	860.5	979.7	1071.3	1047.1	952.0	910.6	898.5
77.5°	6686.7	4229.7	582.3	616.8	715.3	841.5	955.5	964.1	881.2	933.0	846.6
80°	1777.9	1166.3	444.1	485.5	561.5	694.6	831.1	827.6	737.8	689.4	641.0
82.5°	677.3	459.6	316.2	342.1	406.0	532.2	658.3	679.0	589.2	509.7	509.7
85°	260.9	197.0	195.2	205.6	236.7	352.5	497.6	514.9	444.1	376.7	388.8
87.5°	67.4	58.7	72.6	69.1	108.9	188.3	285.1	295.5	271.3	157.2	224.6
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)