

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: P884426

Luminaire Tested: **NAV-SB5B-727-U-T2-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884426  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5B-727-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

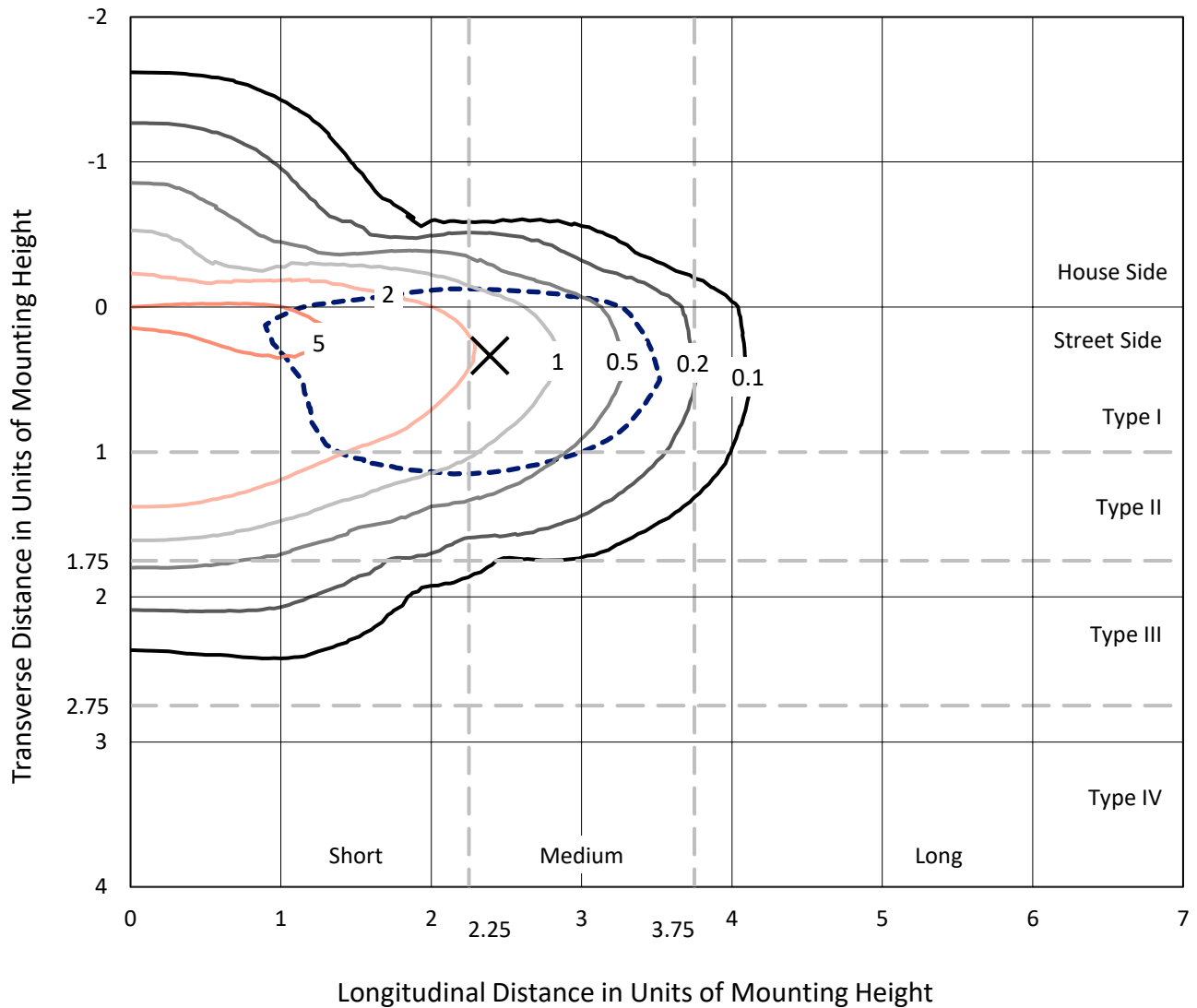
Lumens per Lamp: N/A  
Luminaire Lumens: 18909 lumens  
Efficiency: N/A  
Efficacy: 103.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 182.7  
Input Voltage (V): 120.0  
Input Current (Ain): 1.547  
Voltage Rise (V): NR  
Power Factor: 0.992  
Total Harmonic Distortion (THDi): 11.125  
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

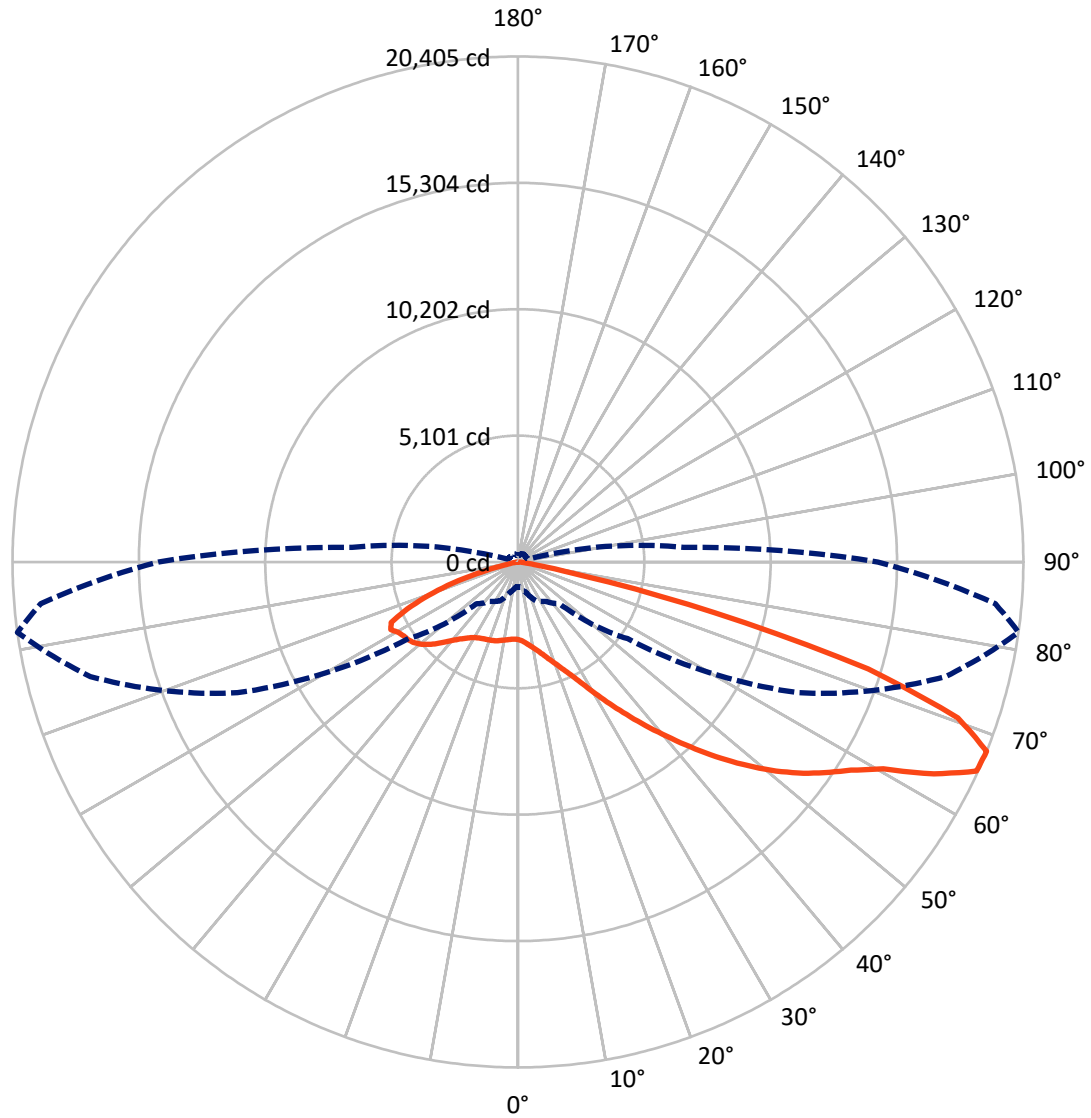
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.6 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3425.2	0.0	3425.2
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	15483.8	0.0	15483.8
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	18909.0	0.0	18909.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	279.1	1.5
10°-20°	725.2	3.8
20°-30°	1161.6	6.1
30°-40°	2054.1	10.9
40°-50°	3598.9	19.0
50°-60°	4800.0	25.4
60°-70°	4468.5	23.6
70°-80°	1715.0	9.1
80°-90°	106.5	0.6
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°	18909.0	100.0
0°-180°	18909.0	100.0

**Coefficient of Utilization**



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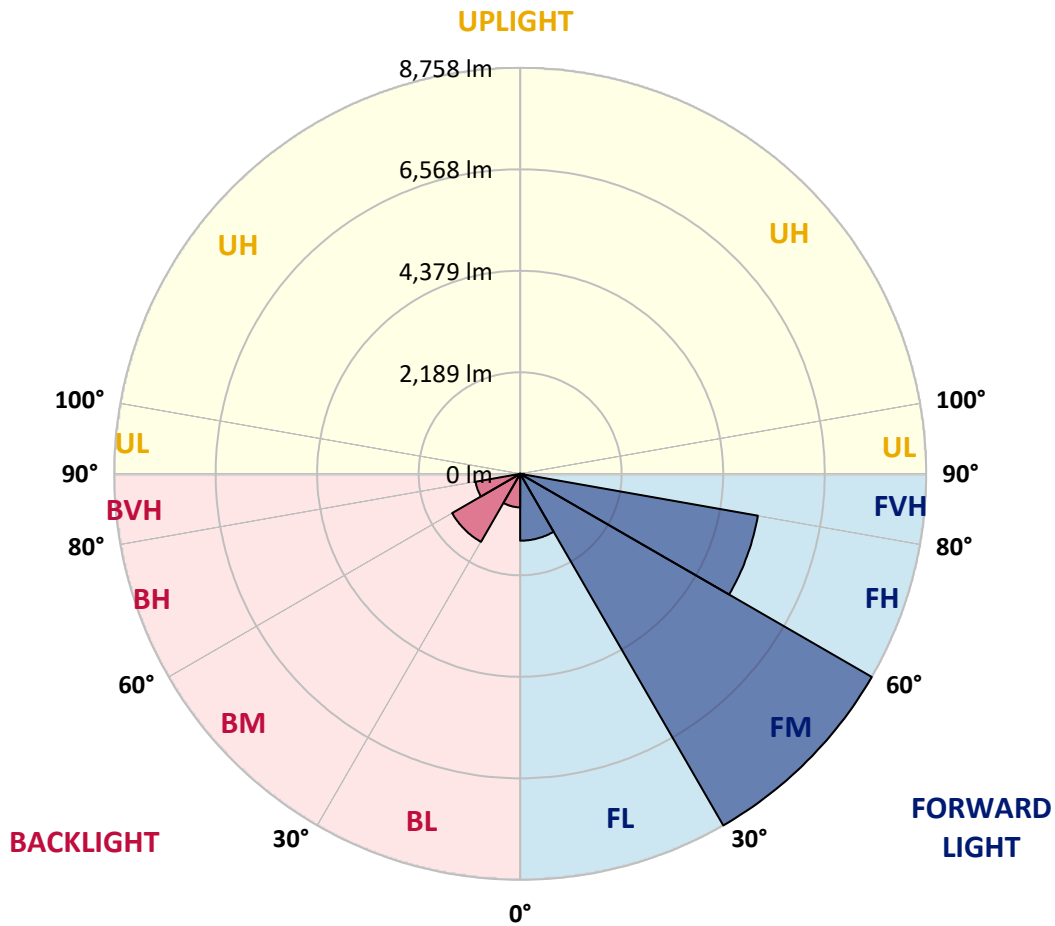
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1442.5	7.6			
FM (30°-60°)	8757.9	46.3			
FH (60°-80°)	5205.9	27.5			G3/7500
FVH (80°-90°)	77.4	0.4			G1/100
BL (0°-30°)	723.4	3.8	B2/1000		
BM (30°-60°)	1695.1	9.0	B2/2500		
BH (60°-80°)	977.6	5.2	B2/1000		G2/1000
BVH (80°-90°)	29.1	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	3132.6	3132.6	3132.6	3132.6	3132.6	3132.6	3132.6	3132.6	3132.6	3132.6	3132.6
2.5°	3310.9	3330.0	3319.1	3313.6	3304.1	3290.5	3279.6	3245.6	3210.2	3187.0	3178.9
5°	3377.6	3396.7	3395.3	3400.8	3407.6	3411.7	3408.9	3370.8	3320.5	3281.0	3257.8
7.5°	3320.5	3342.2	3359.9	3387.2	3434.8	3485.2	3509.7	3501.5	3449.8	3395.3	3366.7
10°	3158.4	3181.6	3223.8	3287.8	3388.5	3497.4	3588.7	3630.9	3598.2	3538.3	3498.8
12.5°	2861.7	2884.8	2967.9	3106.7	3275.5	3464.8	3639.0	3752.0	3760.2	3700.3	3654.0
15°	2528.1	2551.3	2639.8	2814.0	3071.3	3374.9	3666.3	3880.0	3952.1	3900.4	3844.6
17.5°	2321.2	2341.6	2408.3	2548.5	2816.7	3195.2	3656.7	4016.1	4180.9	4140.0	4073.3
20°	2258.6	2276.3	2307.6	2405.6	2628.9	3008.7	3594.1	4144.1	4427.3	4404.1	4329.3
22.5°	2325.3	2341.6	2351.1	2394.7	2534.9	2886.2	3515.1	4274.8	4713.2	4715.9	4624.7
25°	2479.1	2495.4	2484.6	2511.8	2573.0	2848.0	3485.2	4428.6	5072.6	5102.5	4999.1
27.5°	2732.3	2733.7	2707.8	2706.5	2716.0	2905.2	3516.5	4593.4	5525.9	5581.7	5453.8
30°	3240.1	3219.7	3120.3	3012.8	2963.8	3076.8	3603.6	4788.0	6061.0	6160.3	5999.7
32.5°	4022.9	3993.0	3810.6	3553.3	3294.6	3353.1	3760.2	5010.0	6643.6	6823.3	6627.3
35°	4872.5	4864.3	4673.7	4291.1	3839.1	3746.6	4014.8	5301.3	7279.4	7565.3	7332.5
37.5°	5662.1	5658.0	5549.1	5098.4	4548.4	4295.2	4423.2	5682.5	7960.1	8374.0	8099.0
40°	6383.6	6395.9	6286.9	5884.0	5329.9	4999.1	4978.6	6153.5	8717.0	9254.8	8928.1
42.5°	7007.1	7020.7	6910.5	6612.3	6101.8	5777.8	5660.7	6730.8	9456.3	10201.0	9814.3
45°	7430.5	7514.9	7498.6	7260.3	6894.1	6557.9	6480.3	7455.0	10299.0	11204.3	10751.0
47.5°	7550.3	7627.9	7750.5	7783.1	7559.9	7229.0	7321.6	8327.7	11151.2	12209.0	11693.1
50°	7254.9	7327.1	7581.6	7920.6	8075.8	7973.7	8139.8	9263.0	12023.9	13211.0	12617.5
52.5°	6672.2	6745.7	7067.0	7603.4	8236.5	8557.8	8960.7	10184.6	12869.3	14159.9	13492.8
55°	5829.5	5907.1	6319.6	6926.8	7930.2	8798.7	9645.5	11104.9	13644.0	15013.5	14282.4
57.5°	4683.2	4740.4	5169.2	6018.7	7159.6	8559.1	10150.6	12109.7	14373.7	15852.1	15065.3
60°	3052.3	3102.6	3600.9	4548.4	5882.6	7758.6	10251.3	13230.1	15343.0	16942.6	16120.3
62.5°	2029.8	2063.9	2359.3	3055.0	4142.7	6221.6	9661.9	14124.5	16764.3	18840.4	17929.6
65°	1392.7	1426.7	1722.2	2206.8	2676.5	4115.5	7966.9	14006.1	18052.2	20347.5	19270.6
67.5°	993.8	1022.4	1272.9	1730.3	1937.3	2390.6	5400.7	12492.2	17867.0	20404.7	19342.8
70°	712.0	728.3	935.3	1347.8	1539.7	1436.3	3003.2	9554.3	15643.8	18841.8	17869.7
72.5°	498.3	503.7	649.4	1026.5	1240.2	1048.3	1429.5	6370.0	11831.9	14788.9	13853.6
75°	337.6	344.4	437.0	752.9	995.2	800.5	756.9	3415.8	6945.9	8186.1	7337.9
77.5°	206.9	209.7	281.8	514.6	744.7	609.9	487.4	1447.2	2687.4	2638.4	2249.0
80°	117.1	117.1	179.7	319.9	507.8	393.4	341.7	615.4	850.9	747.4	658.9
82.5°	65.3	66.7	130.7	198.8	336.3	232.8	187.9	284.5	367.6	325.4	283.2
85°	27.2	30.0	80.3	93.9	160.6	115.7	76.2	119.8	136.1	121.2	88.5
87.5°	2.7	4.1	24.5	17.7	19.1	23.1	10.9	23.1	19.1	19.1	13.6
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°	3132.6	3132.6	3132.6	3132.6	3132.6	3132.6	3132.6	3132.6	3132.6	3132.6	3132.6
2.5°	3153.0	3132.6	3080.8	3020.9	2942.0	2903.9	2852.1	2816.7	2786.8	2789.5	2762.3
5°	3214.3	3162.5	3046.8	2902.5	2722.8	2594.8	2458.7	2364.8	2288.5	2272.2	2235.4
7.5°	3298.7	3217.0	3014.1	2754.1	2450.5	2220.4	2014.9	1882.8	1788.9	1758.9	1729.0
10°	3407.6	3289.1	2971.9	2567.6	2130.6	1837.9	1617.3	1513.9	1449.9	1428.1	1411.8
12.5°	3534.2	3372.2	2916.1	2340.2	1801.1	1519.3	1379.1	1327.4	1306.9	1300.1	1296.1
15°	3693.5	3475.7	2831.7	2070.7	1522.0	1324.6	1264.7	1257.9	1260.7	1257.9	1256.6
17.5°	3882.7	3588.7	2694.2	1793.0	1334.2	1225.3	1203.5	1208.9	1215.7	1214.4	1211.6
20°	4089.6	3700.3	2518.6	1546.6	1206.2	1154.5	1142.2	1147.7	1153.1	1150.4	1149.0
22.5°	4325.2	3820.1	2323.9	1354.6	1120.4	1089.1	1075.5	1076.9	1076.9	1071.4	1068.7
25°	4607.0	3952.1	2119.7	1218.5	1055.1	1030.6	1014.2	1008.8	1000.6	984.3	981.6
27.5°	4943.2	4092.4	1923.7	1123.2	1003.4	980.2	961.1	947.5	927.1	899.9	897.2
30°	5321.7	4262.5	1757.6	1063.3	962.5	939.4	917.6	897.2	867.2	833.2	830.5
32.5°	5766.9	4445.0	1636.4	1023.8	925.8	901.2	875.4	850.9	818.2	784.2	785.5
35°	6297.8	4665.5	1565.6	996.5	897.2	864.5	835.9	808.7	784.2	754.2	751.5
37.5°	6873.7	4899.7	1543.8	982.9	878.1	827.7	795.1	776.0	773.3	755.6	754.2
40°	7504.0	5177.4	1560.2	974.8	857.7	792.3	756.9	752.9	759.7	728.3	729.7
42.5°	8171.1	5506.9	1587.4	965.2	829.1	756.9	722.9	722.9	717.5	673.9	673.9
45°	8892.7	5886.7	1614.6	942.1	795.1	721.5	695.7	686.1	663.0	620.8	619.4
47.5°	9619.7	6273.3	1635.0	899.9	754.2	691.6	668.4	646.7	612.6	574.5	573.1
50°	10309.9	6620.5	1613.3	837.3	707.9	663.0	638.5	608.5	571.8	545.9	541.8
52.5°	10926.6	6921.4	1520.7	763.7	658.9	633.1	611.3	580.0	550.0	522.8	520.1
55°	11463.0	7165.0	1357.3	694.3	615.4	607.2	585.4	545.9	505.1	481.9	479.2
57.5°	11977.6	7350.2	1153.1	637.1	575.9	578.6	545.9	510.5	472.4	447.9	445.2
60°	12662.4	7598.0	946.2	584.0	533.7	541.8	506.4	480.6	432.9	401.6	397.5
62.5°	13756.9	7983.2	751.5	518.7	484.7	487.4	472.4	441.1	383.9	347.2	344.4
65°	14625.5	7841.7	592.2	447.9	428.8	432.9	432.9	398.9	337.6	295.4	291.3
67.5°	14527.5	6714.4	472.4	378.5	375.7	378.5	388.0	359.4	299.5	265.5	260.0
70°	13382.6	5340.8	378.5	314.5	326.7	319.9	347.2	328.1	269.6	235.5	231.4
72.5°	10919.8	3847.3	288.6	260.0	250.5	261.4	313.1	295.4	224.6	186.5	182.4
75°	6380.9	2053.0	215.1	205.6	181.1	217.8	277.7	251.9	171.5	137.5	133.4
77.5°	2077.5	716.1	157.9	151.1	134.8	175.6	236.9	212.4	140.2	108.9	104.8
80°	556.8	216.5	107.6	99.4	87.1	130.7	187.9	168.8	100.7	70.8	69.4
82.5°	223.3	91.2	62.6	55.8	47.6	89.9	148.4	136.1	74.9	44.9	44.9
85°	72.2	30.0	23.1	17.7	21.8	55.8	88.5	92.6	53.1	23.1	17.7
87.5°	9.5	4.1	4.1	5.4	4.1	9.5	27.2	25.9	15.0	2.7	0.0
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)