

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: P883406

Luminaire Tested: **NAV-SB3D-727-U-T2-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883406  
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-SB3D-727-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

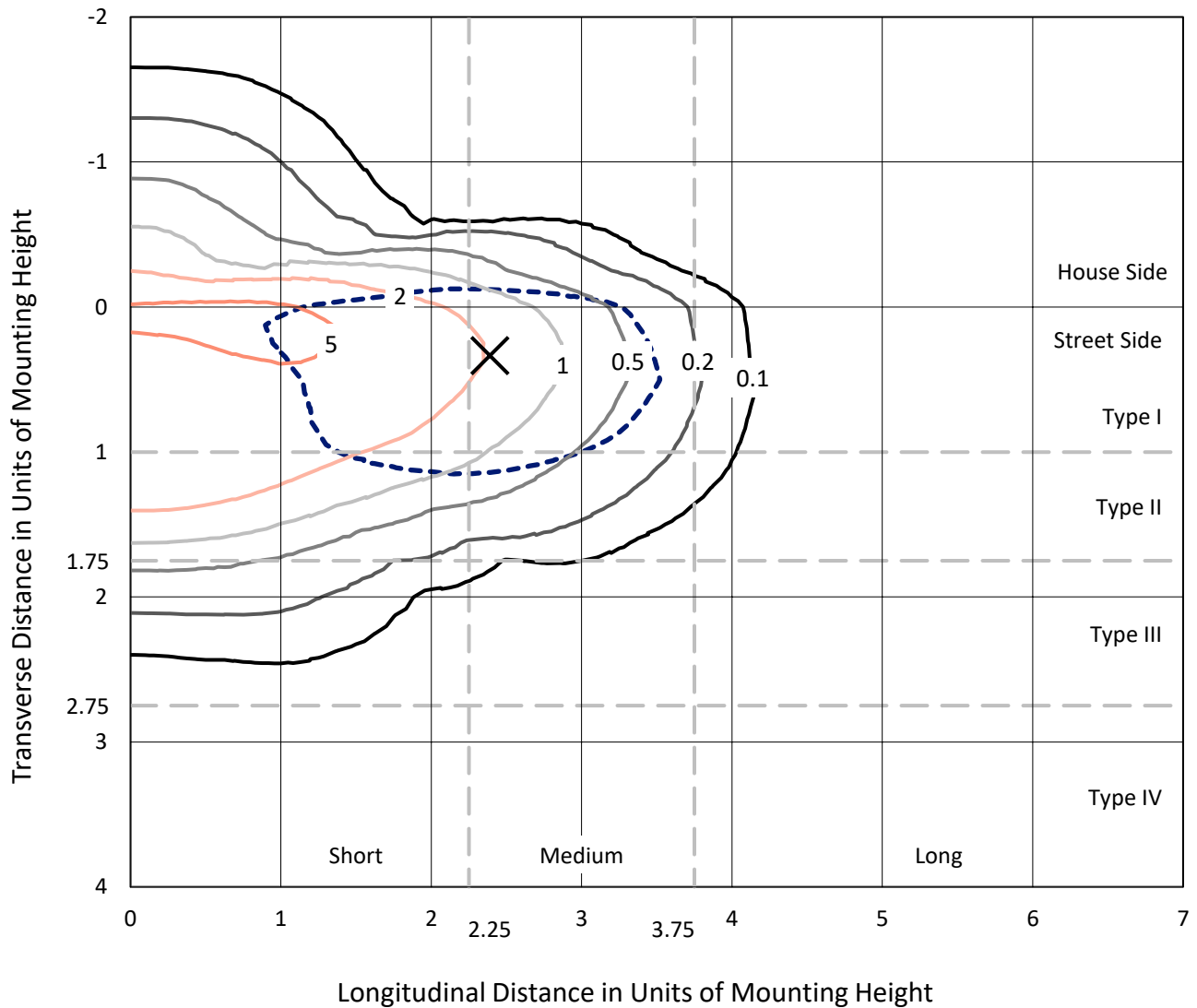
Lumens per Lamp: N/A  
Luminaire Lumens: 20199 lumens  
Efficiency: N/A  
Efficacy: 92.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 218.1  
Input Voltage (V): 120.0  
Input Current (Ain): 1.84  
Voltage Rise (V): NR  
Power Factor: 0.998  
Total Harmonic Distortion (THDi): 2.542  
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

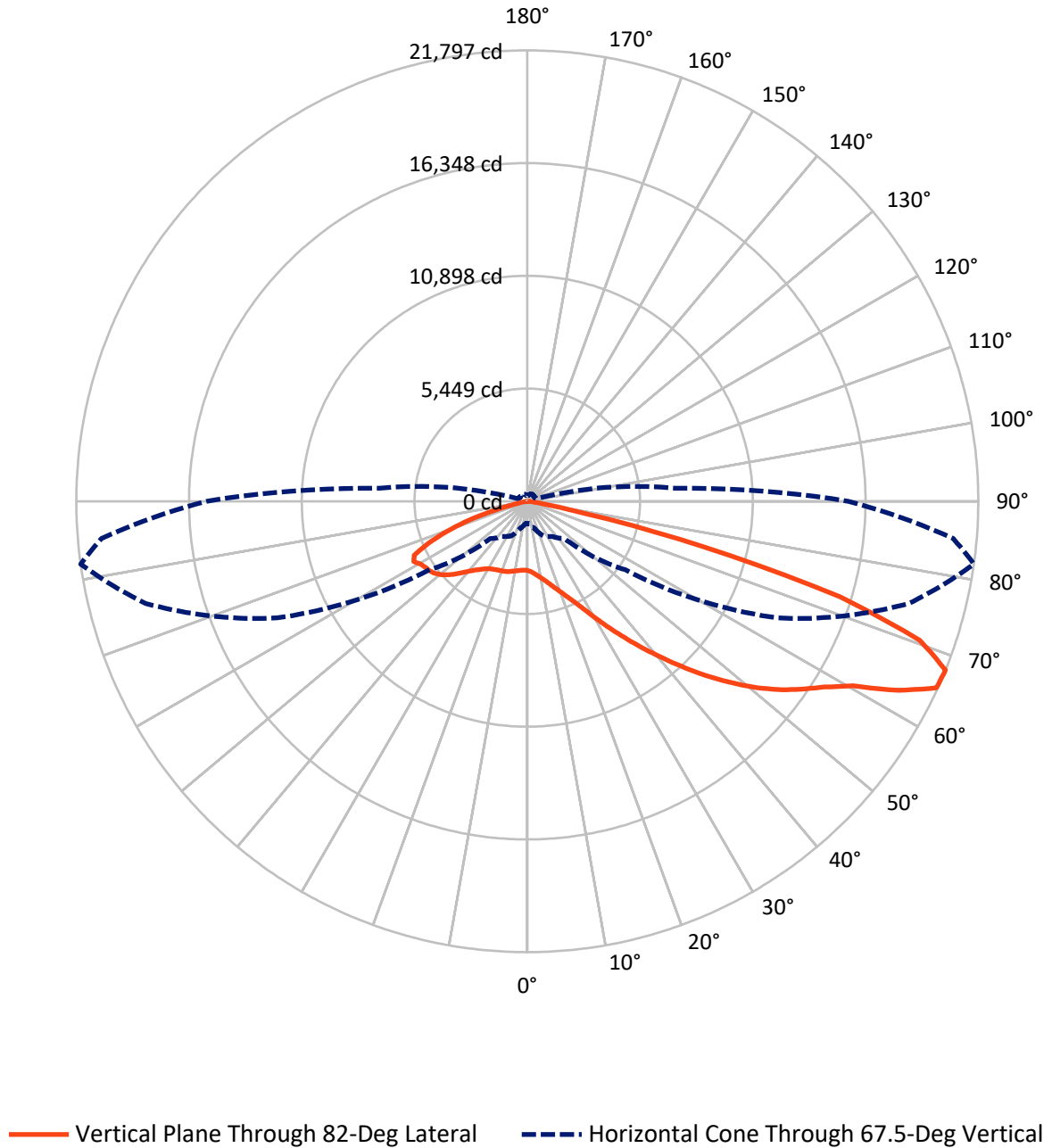
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.1 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3658.9	0.0	3658.9
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	16540.1	0.0	16540.1
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	20199.0	0.0	20199.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	298.1	1.5
10°-20°	774.7	3.8
20°-30°	1240.9	6.1
30°-40°	2194.2	10.9
40°-50°	3844.5	19.0
50°-60°	5127.4	25.4
60°-70°	4773.4	23.6
70°-80°	1832.0	9.1
80°-90°	113.8	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°	20199.0	100.0
0°-180°	20199.0	100.0

**Coefficient of Utilization**



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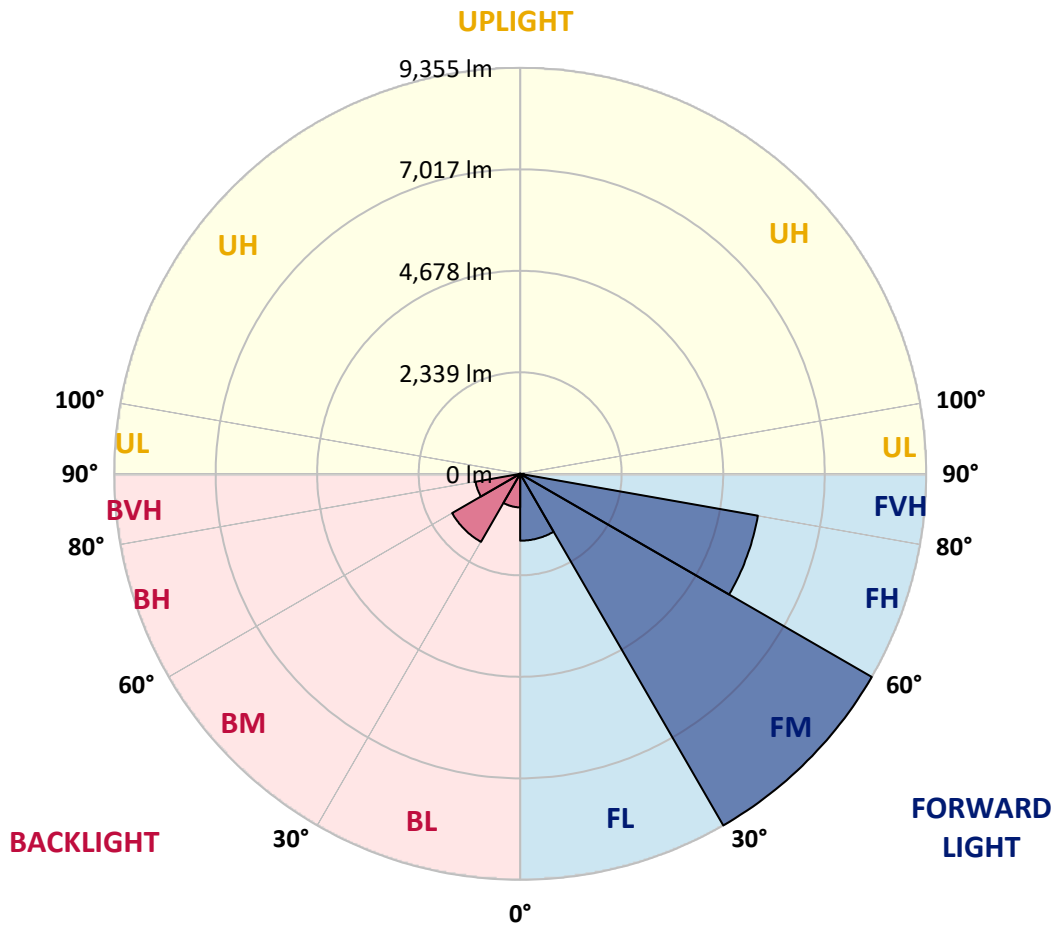
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1541.0	7.6			
FM (30°-60°)	9355.4	46.3			
FH (60°-80°)	5561.1	27.5			G3/7500
FVH (80°-90°)	82.7	0.4			G1/100
BL (0°-30°)	772.7	3.8	B2/1000		
BM (30°-60°)	1810.8	9.0	B2/2500		
BH (60°-80°)	1044.3	5.2	B3/2500		G3/2500
BVH (80°-90°)	31.1	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	3346.3	3346.3	3346.3	3346.3	3346.3	3346.3	3346.3	3346.3	3346.3	3346.3	3346.3
2.5°	3536.8	3557.2	3545.5	3539.7	3529.5	3515.0	3503.4	3467.0	3429.2	3404.5	3395.7
5°	3608.1	3628.4	3627.0	3632.8	3640.1	3644.4	3641.5	3600.8	3547.0	3504.8	3480.1
7.5°	3547.0	3570.2	3589.2	3618.2	3669.1	3722.9	3749.1	3740.4	3685.1	3627.0	3596.4
10°	3373.9	3398.6	3443.7	3512.1	3619.7	3736.0	3833.5	3878.6	3843.7	3779.7	3737.5
12.5°	3056.9	3081.6	3170.3	3318.7	3499.0	3701.1	3887.3	4008.0	4016.7	3952.7	3903.3
15°	2700.6	2725.3	2819.8	3006.0	3280.8	3605.2	3916.4	4144.7	4221.8	4166.5	4106.9
17.5°	2479.5	2501.4	2572.6	2722.4	3008.9	3413.2	3906.2	4290.1	4466.1	4422.5	4351.2
20°	2412.6	2431.6	2465.0	2569.7	2808.2	3214.0	3839.3	4426.8	4729.3	4704.6	4624.6
22.5°	2483.9	2501.4	2511.5	2558.1	2707.9	3083.1	3754.9	4566.4	5034.7	5037.6	4940.2
25°	2648.2	2665.7	2654.1	2683.1	2748.6	3042.3	3722.9	4730.8	5418.6	5450.6	5340.1
27.5°	2918.7	2920.2	2892.6	2891.1	2901.3	3103.4	3756.4	4906.7	5902.9	5962.5	5825.8
30°	3461.2	3439.4	3333.2	3218.3	3166.0	3286.7	3849.5	5114.7	6474.4	6580.6	6409.0
32.5°	4297.4	4265.4	4070.5	3795.7	3519.3	3581.9	4016.7	5351.7	7096.9	7288.8	7079.4
35°	5204.9	5196.1	4992.5	4583.9	4101.1	4002.2	4288.7	5663.0	7776.0	8081.4	7832.7
37.5°	6048.3	6044.0	5927.6	5446.3	4858.7	4588.2	4724.9	6070.2	8503.2	8945.3	8651.5
40°	6819.1	6832.2	6715.8	6285.4	5693.5	5340.1	5318.3	6573.3	9311.7	9886.2	9537.1
42.5°	7485.2	7499.7	7381.9	7063.4	6518.1	6172.0	6046.9	7189.9	10101.4	10896.9	10483.9
45°	7937.4	8027.6	8010.2	7755.7	7364.5	7005.3	6922.4	7963.6	11001.6	11968.7	11484.4
47.5°	8065.4	8148.3	8279.2	8314.1	8075.6	7722.2	7821.1	8895.8	11912.0	13042.0	12490.8
50°	7749.8	7826.9	8098.9	8461.0	8626.8	8517.7	8695.1	9894.9	12844.2	14112.3	13478.2
52.5°	7127.4	7205.9	7549.2	8122.1	8798.4	9141.6	9572.0	10879.4	13747.3	15125.9	14413.3
55°	6227.2	6310.1	6750.8	7399.4	8471.2	9399.0	10303.6	11862.5	14574.8	16037.8	15256.8
57.5°	5002.7	5063.8	5521.9	6429.4	7648.0	9143.0	10843.1	12935.8	15354.3	16933.6	16093.0
60°	3260.5	3314.3	3846.6	4858.7	6283.9	8287.9	10950.7	14132.7	16389.7	18098.5	17220.1
62.5°	2168.3	2204.7	2520.3	3263.4	4425.4	6646.0	10321.0	15088.1	17908.0	20125.7	19152.8
65°	1487.7	1524.1	1839.7	2357.4	2859.1	4396.3	8510.4	14961.6	19283.7	21735.6	20585.3
67.5°	1061.6	1092.2	1359.7	1848.4	2069.4	2553.7	5769.1	13344.4	19085.9	21796.7	20662.4
70°	760.6	778.0	999.1	1439.7	1644.8	1534.3	3208.1	10206.1	16711.1	20127.2	19088.8
72.5°	532.3	538.1	693.7	1096.5	1324.8	1119.8	1527.0	6804.6	12639.1	15797.8	14798.7
75°	360.7	367.9	466.8	804.2	1063.1	855.1	808.6	3648.8	7419.7	8744.6	7838.6
77.5°	221.1	224.0	301.0	549.7	795.5	651.5	520.6	1545.9	2870.7	2818.4	2402.5
80°	125.1	125.1	192.0	341.8	542.4	420.3	365.0	657.3	908.9	798.4	703.9
82.5°	69.8	71.3	139.6	212.3	359.2	248.7	200.7	303.9	392.7	347.6	302.5
85°	29.1	32.0	85.8	100.3	171.6	123.6	81.4	128.0	145.4	129.4	94.5
87.5°	2.9	4.4	26.2	18.9	20.4	24.7	11.6	24.7	20.4	20.4	14.5
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°	3346.3	3346.3	3346.3	3346.3	3346.3	3346.3	3346.3	3346.3	3346.3	3346.3	3346.3
2.5°	3368.1	3346.3	3291.0	3227.0	3142.7	3102.0	3046.7	3008.9	2976.9	2979.8	2950.7
5°	3433.5	3378.3	3254.7	3100.5	2908.6	2771.9	2626.4	2526.1	2444.6	2427.2	2387.9
7.5°	3523.7	3436.5	3219.8	2942.0	2617.7	2371.9	2152.3	2011.3	1910.9	1878.9	1846.9
10°	3640.1	3513.5	3174.7	2742.8	2275.9	1963.3	1727.7	1617.2	1548.8	1525.5	1508.1
12.5°	3775.3	3602.2	3115.1	2499.9	1924.0	1623.0	1473.2	1417.9	1396.1	1388.8	1384.5
15°	3945.5	3712.8	3024.9	2212.0	1625.9	1415.0	1351.0	1343.8	1346.7	1343.8	1342.3
17.5°	4147.6	3833.5	2878.0	1915.3	1425.2	1308.8	1285.6	1291.4	1298.7	1297.2	1294.3
20°	4368.6	3952.7	2690.4	1652.1	1288.5	1233.2	1220.1	1226.0	1231.8	1228.9	1227.4
22.5°	4620.2	4080.7	2482.5	1447.0	1196.9	1163.4	1148.9	1150.3	1150.3	1144.5	1141.6
25°	4921.3	4221.8	2264.3	1301.6	1127.1	1100.9	1083.4	1077.6	1068.9	1051.4	1048.5
27.5°	5280.5	4371.6	2054.9	1199.8	1071.8	1047.1	1026.7	1012.2	990.4	961.3	958.4
30°	5684.8	4553.3	1877.5	1135.8	1028.2	1003.5	980.2	958.4	926.4	890.0	887.1
32.5°	6160.3	4748.2	1748.0	1093.6	988.9	962.7	935.1	908.9	874.0	837.7	839.1
35°	6727.5	4983.8	1672.4	1064.5	958.4	923.5	892.9	863.8	837.7	805.7	802.8
37.5°	7342.6	5233.9	1649.1	1050.0	938.0	884.2	849.3	828.9	826.0	807.1	805.7
40°	8016.0	5530.6	1666.6	1041.3	916.2	846.4	808.6	804.2	811.5	778.0	779.5
42.5°	8728.6	5882.5	1695.7	1031.1	885.7	808.6	772.2	772.2	766.4	719.9	719.9
45°	9499.3	6288.3	1724.8	1006.4	849.3	770.8	743.1	733.0	708.2	663.2	661.7
47.5°	10275.9	6701.3	1746.6	961.3	805.7	738.8	714.0	690.8	654.4	613.7	612.3
50°	11013.2	7072.1	1723.3	894.4	756.2	708.2	682.1	650.1	610.8	583.2	578.8
52.5°	11672.0	7393.5	1624.4	815.8	703.9	676.2	653.0	619.5	587.5	558.4	555.5
55°	12245.0	7653.9	1449.9	741.7	657.3	648.6	625.3	583.2	539.5	514.8	511.9
57.5°	12794.7	7851.6	1231.8	680.6	615.2	618.1	583.2	545.4	504.6	478.5	475.5
60°	13526.2	8116.3	1010.7	623.9	570.1	578.8	541.0	513.4	462.5	429.0	424.6
62.5°	14695.5	8527.9	802.8	554.1	517.7	520.6	504.6	471.2	410.1	370.8	367.9
65°	15623.3	8376.6	632.6	478.5	458.1	462.5	462.5	426.1	360.7	315.6	311.2
67.5°	15518.6	7172.5	504.6	404.3	401.4	404.3	414.5	383.9	319.9	283.6	277.8
70°	14295.5	5705.1	404.3	335.9	349.0	341.8	370.8	350.5	287.9	251.6	247.2
72.5°	11664.8	4109.8	308.3	277.8	267.6	279.2	334.5	315.6	240.0	199.2	194.9
75°	6816.2	2193.0	229.8	219.6	193.4	232.7	296.7	269.0	183.2	146.9	142.5
77.5°	2219.2	764.9	168.7	161.4	144.0	187.6	253.0	226.9	149.8	116.3	112.0
80°	594.8	231.2	114.9	106.2	93.1	139.6	200.7	180.3	107.6	75.6	74.2
82.5°	238.5	97.4	66.9	59.6	50.9	96.0	158.5	145.4	80.0	48.0	48.0
85°	77.1	32.0	24.7	18.9	23.3	59.6	94.5	98.9	56.7	24.7	18.9
87.5°	10.2	4.4	4.4	5.8	4.4	10.2	29.1	27.6	16.0	2.9	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)