

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: P884129

Luminaire Tested: **NAV-SB4D-750-U-T3**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884129  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4D-750-U-T3  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 5000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

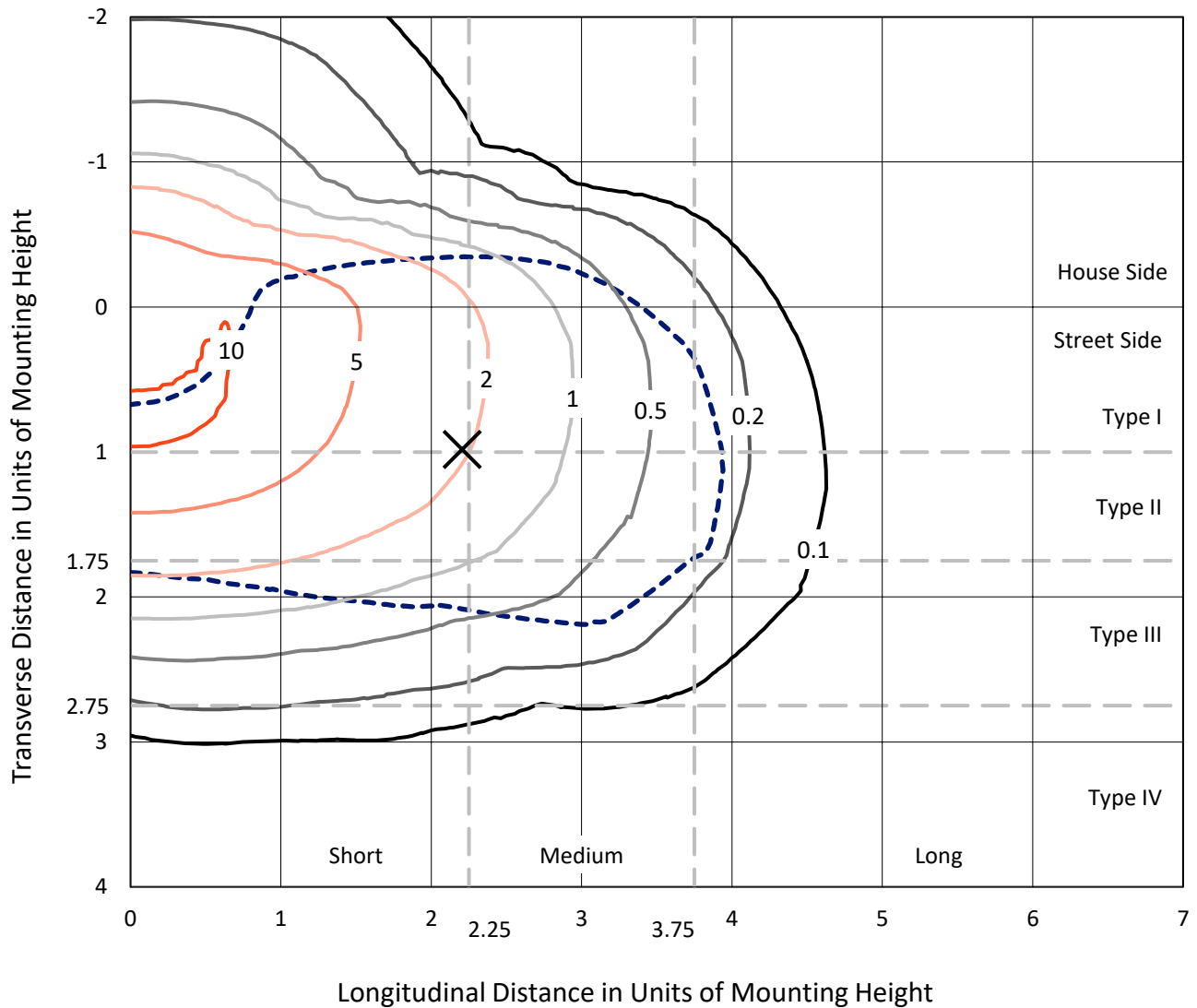
Lumens per Lamp: N/A  
Luminaire Lumens: 44492 lumens  
Efficiency: N/A  
Efficacy: 151.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B4 - U0 - G5  
  
Input Watts (W): 293.6  
Input Voltage (V): 120.0  
Input Current (Ain): 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

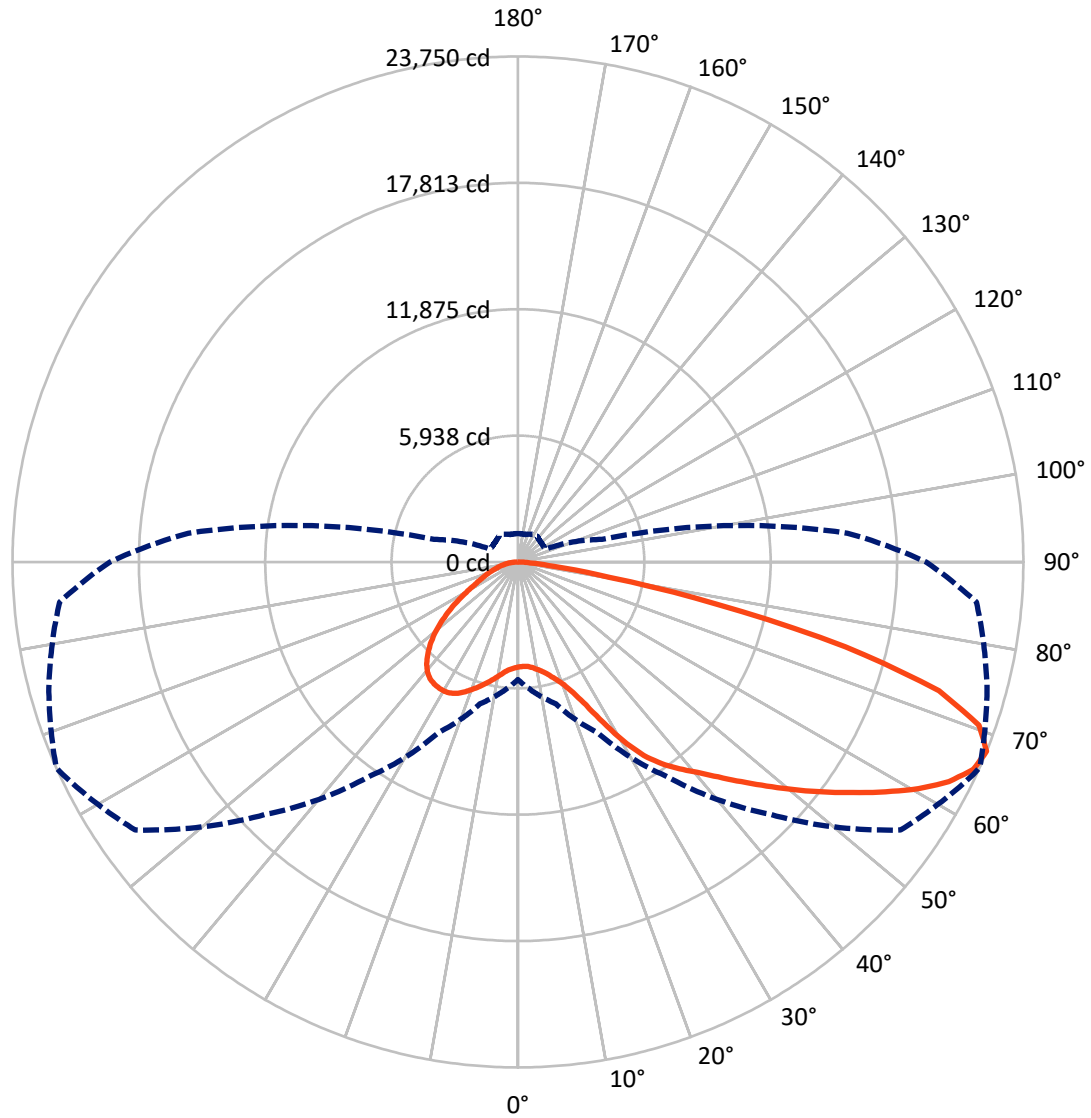
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.2 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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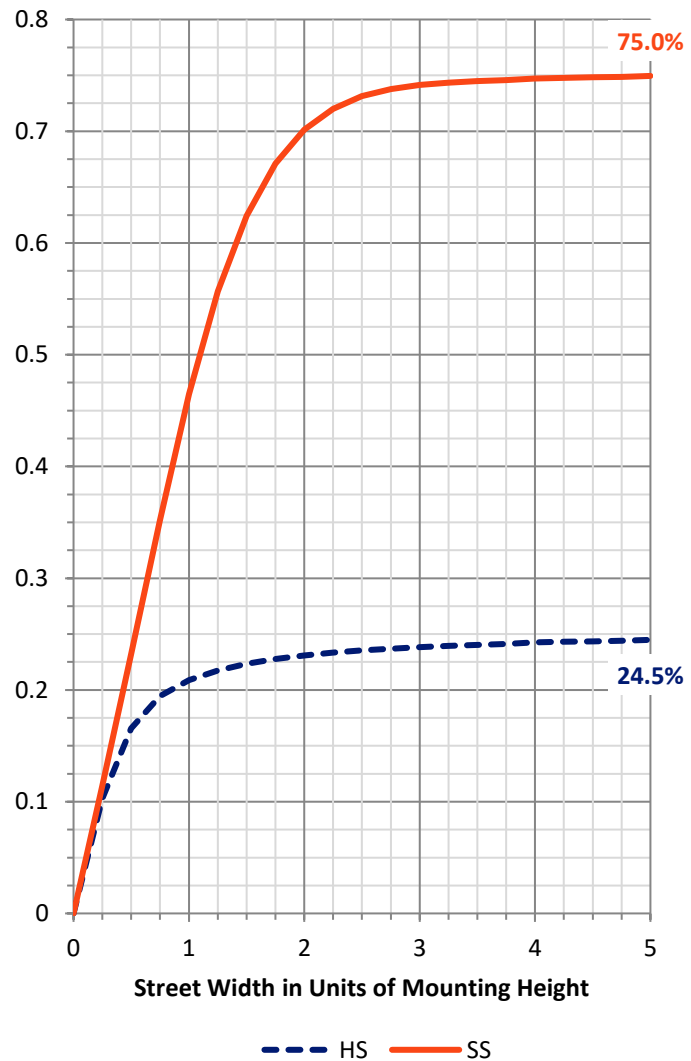
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	11062.8	0.0	11062.8
	% Fixture	24.9	0.0	24.9
<b>Street Side</b>	Lumens	33429.2	0.0	33429.2
	% Fixture	75.1	0.0	75.1
<b>Total</b>	Lumens	44492.0	0.0	44492.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	489.3	1.1
10°-20°	1616.5	3.6
20°-30°	3115.6	7.0
30°-40°	5462.8	12.3
40°-50°	8121.4	18.3
50°-60°	10294.7	23.1
60°-70°	10073.1	22.6
70°-80°	4805.0	10.8
80°-90°	513.5	1.2
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°	44492.0	100.0
0°-180°	44492.0	100.0

**Coefficient of Utilization**



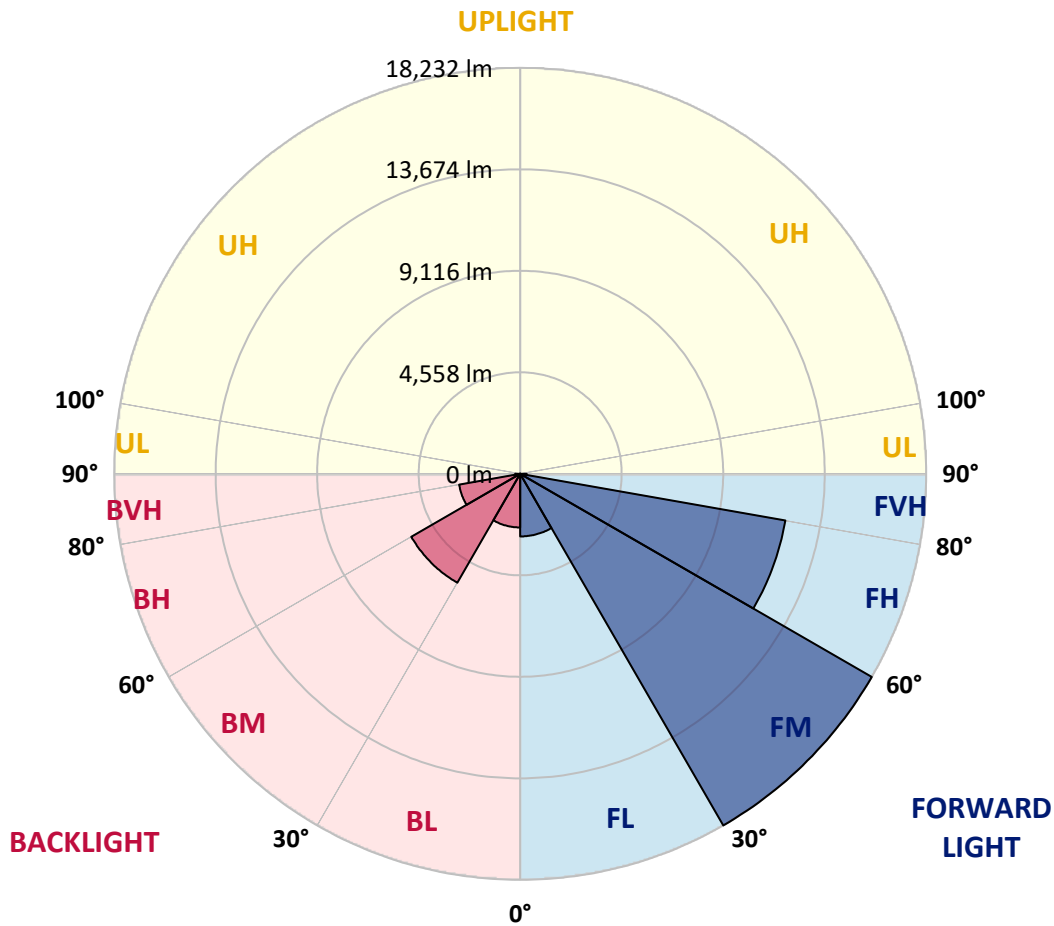
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2811.5	6.3			
FM (30°-60°)	18232.4	41.0			
FH (60°-80°)	12094.1	27.2			G5
FVH (80°-90°)	291.1	0.7			G3/500
BL (0°-30°)	2409.9	5.4	B3/2500		
BM (30°-60°)	5646.6	12.7	B4/8500		
BH (60°-80°)	2784.0	6.3	B4/5000		G4/5000
BVH (80°-90°)	222.4	0.5			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G5**

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	4934.8	4934.8	4934.8	4934.8	4934.8	4934.8	4934.8	4934.8	4934.8	4934.8	4934.8
2.5°	4883.3	4911.4	4904.4	4892.7	4890.3	4895.0	4902.0	4909.0	4906.7	4918.4	4937.1
5°	4869.3	4897.3	4895.0	4895.0	4904.4	4923.1	4934.8	4946.4	4934.8	4948.8	4974.5
7.5°	4878.6	4899.7	4909.0	4918.4	4941.8	4976.8	5004.9	5030.6	5016.6	5032.9	5065.7
10°	4997.9	5014.2	5023.6	5023.6	5039.9	5079.7	5107.7	5154.5	5142.8	5168.5	5210.6
12.5°	5215.3	5231.6	5231.6	5222.3	5234.0	5259.7	5269.0	5320.5	5299.4	5341.5	5383.6
15°	5481.8	5514.5	5488.8	5472.4	5477.1	5502.8	5500.5	5540.2	5519.2	5554.2	5591.6
17.5°	5776.3	5818.4	5776.3	5774.0	5764.6	5792.7	5795.0	5830.1	5792.7	5818.4	5844.1
20°	6124.6	6183.0	6148.0	6159.7	6138.6	6150.3	6162.0	6213.4	6155.0	6173.7	6166.7
22.5°	6615.5	6685.6	6648.2	6692.7	6678.6	6669.3	6666.9	6758.1	6666.9	6674.0	6606.2
25°	7330.8	7415.0	7349.5	7410.3	7410.3	7440.7	7475.8	7592.6	7440.7	7396.3	7221.0
27.5°	8387.4	8471.6	8343.0	8380.4	8368.7	8443.5	8406.1	8696.0	8532.4	8459.9	8106.9
30°	9659.1	9808.7	9565.6	9556.3	9544.6	9663.8	9717.6	9909.2	9743.3	9670.8	9245.4
32.5°	11033.6	11190.3	10900.4	10816.2	10771.8	10844.3	10799.9	10954.2	10839.6	10727.4	10201.4
35°	12487.7	12641.9	12366.1	12202.5	12024.8	11872.9	11713.9	11753.6	11646.1	11475.5	10930.8
37.5°	13862.2	14145.0	13852.8	13677.5	13350.2	13053.4	12609.2	12424.5	12324.0	12167.4	11618.1
40°	15262.4	15423.7	15201.7	15052.0	14696.7	14231.5	13520.9	13130.5	12994.9	12843.0	12377.8
42.5°	16293.3	16447.6	16328.4	16225.5	15947.4	15407.4	14488.7	14000.1	13803.7	13633.1	13238.0
45°	17111.5	17226.0	17151.2	17188.6	17069.4	16545.8	15491.5	14932.8	14729.4	14521.4	14210.5
47.5°	17441.1	17562.7	17681.9	17904.0	18107.3	17721.6	16569.2	15942.7	15727.6	15514.9	15208.7
50°	17403.7	17527.6	17873.6	18345.8	18976.9	18848.4	17705.3	17018.0	16819.3	16576.2	16293.3
52.5°	17104.5	17244.7	17688.9	18474.3	19479.5	19692.3	18862.4	18128.4	17941.4	17651.5	17368.6
55°	16319.0	16403.2	17069.4	18182.1	19598.7	20281.3	19996.1	19311.2	19124.2	18719.8	18411.2
57.5°	14862.7	14984.3	15954.4	17394.4	19299.5	20681.1	20992.0	20554.8	20374.8	19792.8	19470.2
60°	12962.2	13156.2	14266.6	16071.3	18537.5	20678.7	21896.6	21777.4	21627.8	20849.4	20512.8
62.5°	10811.6	11036.0	12104.3	14201.1	17205.0	20092.0	22462.3	22801.3	22724.2	21824.2	21394.0
65°	8303.3	8457.6	9521.2	11781.7	15131.5	18832.0	22527.8	23500.3	23514.3	22565.2	21854.6
67.5°	5528.5	5972.7	6896.0	8840.9	12354.4	16772.5	21952.7	23614.8	23750.4	22820.0	21623.1
70°	2697.6	3282.0	4186.7	5745.9	8840.9	13614.4	20449.6	22675.1	22976.6	22076.6	20243.9
72.5°	1119.7	1309.1	1802.3	2835.6	5075.0	9186.9	17429.4	20127.1	20685.7	19561.3	17020.3
75°	755.1	818.2	1030.9	1454.0	2311.9	4530.3	12569.5	15007.6	15907.6	14773.9	12076.2
77.5°	582.1	621.8	750.4	1016.9	1374.5	1713.5	6727.7	9044.3	9509.5	8803.5	6283.6
80°	458.2	488.6	561.0	741.0	974.8	916.4	2293.2	4097.9	4366.7	3663.1	2019.7
82.5°	397.4	409.1	402.1	502.6	647.5	535.3	752.7	1512.5	1669.1	1210.9	659.2
85°	287.5	320.3	334.3	310.9	343.6	271.2	308.6	535.3	589.1	526.0	371.7
87.5°	116.9	173.0	212.7	201.0	126.2	77.1	95.8	156.6	180.0	196.4	121.6
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°	4934.8	4934.8	4934.8	4934.8	4934.8	4934.8	4934.8	4934.8	4934.8	4934.8	4934.8
2.5°	4939.4	4955.8	4967.5	4981.5	4990.9	5004.9	5032.9	5049.3	5051.6	5063.3	5061.0
5°	4983.8	5007.2	5032.9	5070.3	5112.4	5147.5	5201.2	5238.6	5252.7	5264.4	5262.0
7.5°	5079.7	5112.4	5159.2	5224.6	5285.4	5332.1	5397.6	5442.0	5486.4	5502.8	5505.1
10°	5222.3	5269.0	5336.8	5425.7	5491.1	5551.9	5619.7	5657.1	5701.5	5720.2	5729.5
12.5°	5399.9	5449.0	5537.9	5661.8	5722.5	5764.6	5788.0	5778.6	5788.0	5804.4	5809.0
15°	5603.3	5657.1	5757.6	5890.8	5932.9	5895.5	5844.1	5797.3	5790.3	5795.0	5811.4
17.5°	5844.1	5883.8	6000.7	6112.9	6082.5	5928.2	5816.0	5741.2	5703.8	5692.1	5708.5
20°	6180.7	6180.7	6276.6	6346.7	6143.3	5881.5	5706.2	5584.6	5507.5	5474.7	5467.7
22.5°	6589.8	6552.4	6613.2	6564.1	6131.6	5750.6	5507.5	5297.1	5180.2	5133.4	5126.4
25°	7108.8	7064.3	7048.0	6744.1	6047.5	5542.5	5147.5	4892.7	4789.8	4764.1	4768.8
27.5°	7891.9	7779.7	7566.9	6842.3	5893.2	5215.3	4726.7	4490.6	4432.2	4434.5	4441.5
30°	8934.4	8710.0	8188.7	6858.6	5640.7	4752.4	4296.6	4128.3	4100.2	4111.9	4151.6
32.5°	9899.9	9687.2	8824.6	6783.8	5252.7	4298.9	3910.9	3798.7	3756.6	3770.6	3789.3
35°	10657.3	10598.8	9413.7	6678.6	4775.8	3873.5	3564.9	3469.1	3387.2	3368.5	3382.6
37.5°	11372.6	11349.2	9855.5	6531.4	4303.6	3571.9	3286.7	3160.5	3041.3	2975.8	2978.1
40°	12158.0	12134.7	10145.3	6304.6	3885.2	3310.1	3036.6	2870.6	2723.3	2604.1	2615.8
42.5°	13041.7	12903.8	10283.3	5979.7	3529.8	3088.0	2833.2	2608.8	2414.8	2304.9	2311.9
45°	14007.1	13696.2	10280.9	5565.9	3230.6	2884.6	2615.8	2297.9	2117.9	2015.0	2010.4
47.5°	15031.0	14453.6	10154.7	5107.7	2940.7	2660.2	2279.2	2036.1	1916.9	1853.7	1839.7
50°	16087.6	15161.9	9939.6	4581.8	2643.9	2405.4	2068.8	1902.8	1811.7	1753.2	1732.2
52.5°	17081.1	15804.8	9680.2	3985.7	2342.3	2157.6	1975.3	1846.7	1750.9	1685.4	1657.4
55°	18004.5	16358.8	9313.1	3375.5	2096.9	1991.7	1930.9	1823.4	1713.5	1636.3	1606.0
57.5°	18825.0	16718.8	8679.6	2802.8	1921.5	1877.1	1884.1	1783.6	1657.4	1591.9	1549.9
60°	19507.6	16982.9	7742.3	2272.2	1778.9	1764.9	1811.7	1708.8	1561.5	1486.7	1454.0
62.5°	19916.7	16978.3	6592.1	1860.8	1657.4	1662.1	1715.8	1615.3	1465.7	1395.6	1374.5
65°	19881.6	16562.2	5329.8	1591.9	1540.5	1545.2	1615.3	1512.5	1386.2	1344.1	1341.8
67.5°	19178.0	15547.6	4088.5	1416.6	1411.9	1433.0	1514.8	1442.3	1337.1	1332.5	1339.5
70°	17272.8	13441.4	2945.4	1276.3	1278.7	1309.1	1416.6	1397.9	1311.4	1320.8	1318.4
72.5°	13850.5	10248.2	1977.6	1129.1	1131.4	1180.5	1323.1	1362.8	1285.7	1409.6	1428.3
75°	9224.3	6391.1	1271.7	972.5	974.8	1037.9	1241.3	1295.1	1215.6	1404.9	1416.6
77.5°	4432.2	2873.0	921.0	818.2	818.2	876.6	1073.0	1159.5	1035.6	1091.7	1000.5
80°	1531.2	1080.0	724.7	659.2	645.2	684.9	904.7	1005.2	893.0	822.8	771.4
82.5°	603.1	561.0	582.1	511.9	465.2	490.9	703.6	829.9	656.9	593.8	591.4
85°	346.0	364.7	411.4	339.0	268.8	301.6	516.6	596.1	495.6	437.1	446.5
87.5°	93.5	128.6	189.3	175.3	121.6	128.6	245.5	329.6	285.2	219.7	226.8
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)