

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: P884109

Luminaire Tested: **NAV-SB4D-735-U-T3**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884109  
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-735-U-T3  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

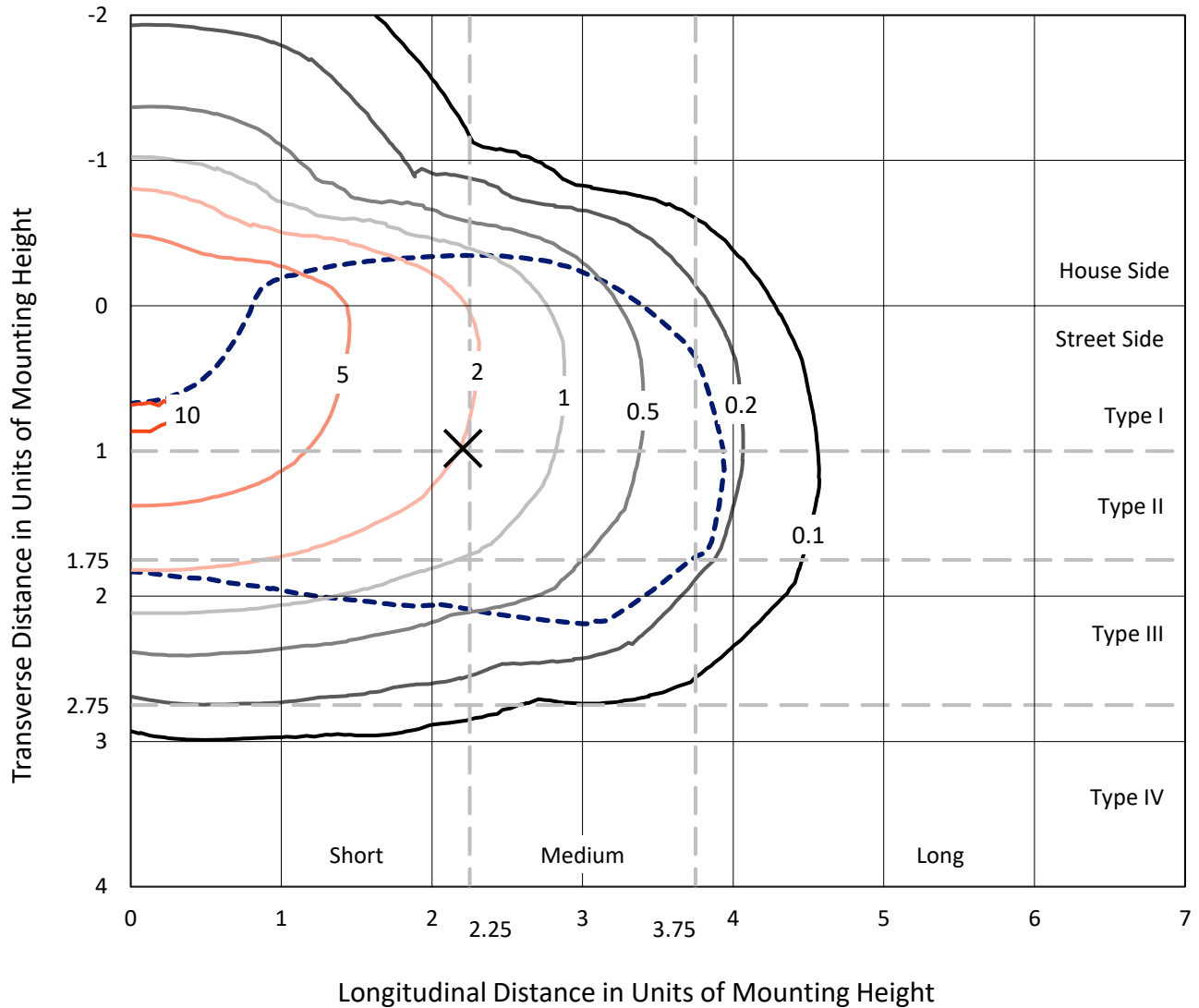
Lumens per Lamp: N/A  
Luminaire Lumens: 41268 lumens  
Efficiency: N/A  
Efficacy: 140.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B4 - U0 - G4  
  
Input Watts (W): 293.6  
Input Voltage (V): 120.0  
Input Current (Ain): 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

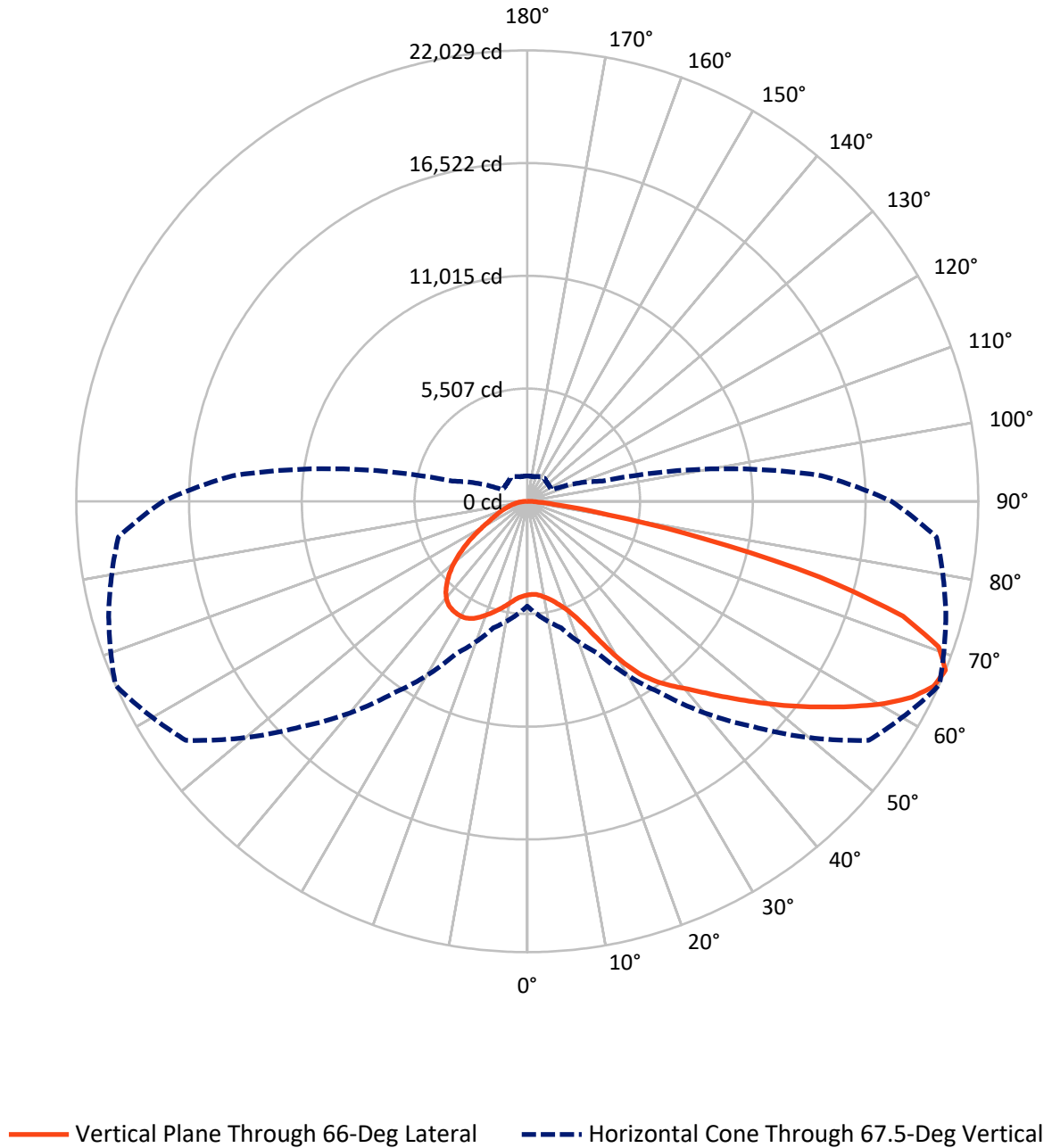
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.4 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



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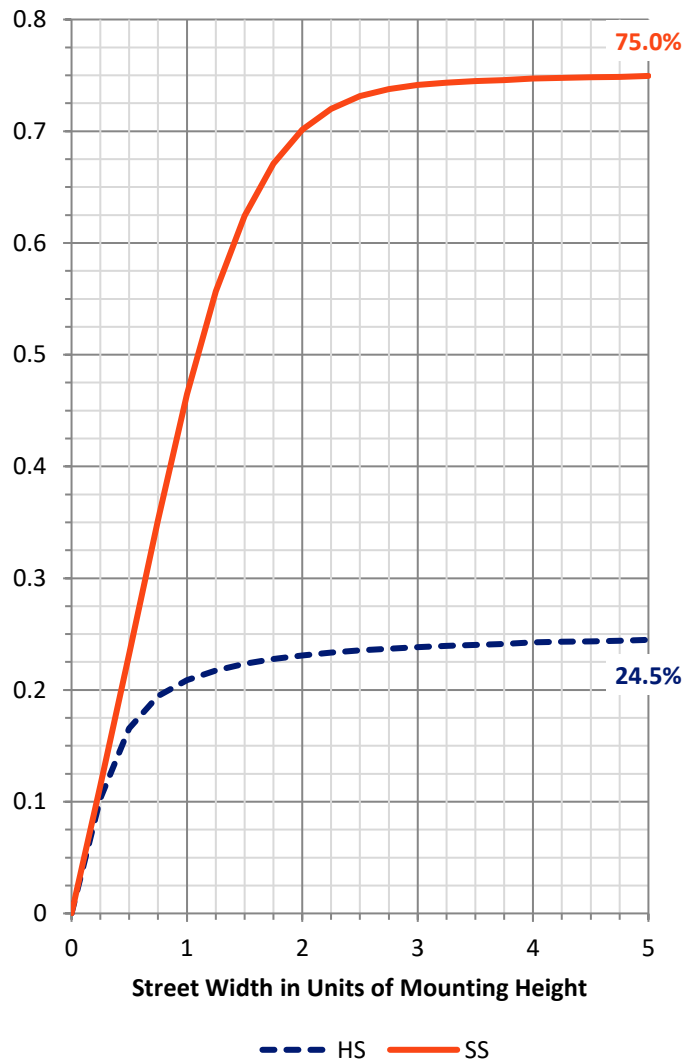
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10261.2	0.0	10261.2
	% Fixture	24.9	0.0	24.9
<b>Street Side</b>	Lumens	31006.8	0.0	31006.8
	% Fixture	75.1	0.0	75.1
<b>Total</b>	Lumens	41268.0	0.0	41268.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	453.8	1.1
10°-20°	1499.3	3.6
20°-30°	2889.9	7.0
30°-40°	5067.0	12.3
40°-50°	7532.9	18.3
50°-60°	9548.8	23.1
60°-70°	9343.2	22.6
70°-80°	4456.8	10.8
80°-90°	476.3	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°	41268.0	100.0
0°-180°	41268.0	100.0

**Coefficient of Utilization**



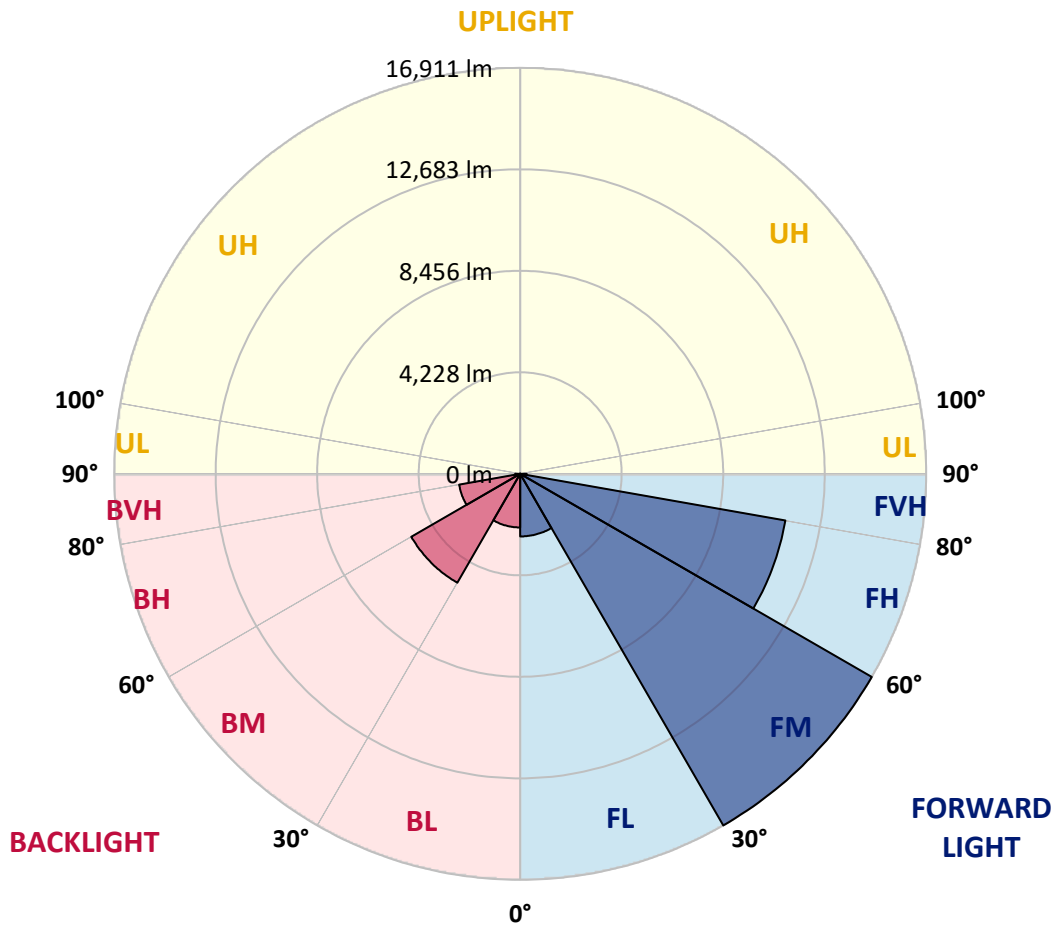
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2607.7	6.3			
FM (30°-60°)	16911.3	41.0			
FH (60°-80°)	11217.8	27.2			G4/12000
FVH (80°-90°)	270.1	0.7			G3/500
BL (0°-30°)	2235.3	5.4	B3/2500		
BM (30°-60°)	5237.4	12.7	B4/8500		
BH (60°-80°)	2582.2	6.3	B4/5000		G4/5000
BVH (80°-90°)	206.3	0.5			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

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

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	4577.2	4577.2	4577.2	4577.2	4577.2	4577.2	4577.2	4577.2	4577.2	4577.2	4577.2
2.5°	4529.5	4555.5	4549.0	4538.1	4536.0	4540.3	4546.8	4553.3	4551.1	4562.0	4579.3
5°	4516.5	4542.5	4540.3	4540.3	4549.0	4566.3	4577.2	4588.0	4577.2	4590.2	4614.0
7.5°	4525.1	4544.6	4553.3	4562.0	4583.7	4616.2	4642.2	4666.1	4653.1	4668.2	4698.6
10°	4635.7	4650.9	4659.6	4659.6	4674.7	4711.6	4737.6	4781.0	4770.1	4794.0	4833.0
12.5°	4837.4	4852.5	4852.5	4843.9	4854.7	4878.6	4887.2	4934.9	4915.4	4954.4	4993.5
15°	5084.5	5114.9	5091.0	5075.9	5080.2	5104.1	5101.9	5138.7	5119.2	5151.8	5186.4
17.5°	5357.7	5396.8	5357.7	5355.6	5346.9	5372.9	5375.1	5407.6	5372.9	5396.8	5420.6
20°	5680.8	5735.0	5702.5	5713.3	5693.8	5704.7	5715.5	5763.2	5709.0	5726.3	5719.8
22.5°	6136.1	6201.2	6166.5	6207.7	6194.7	6186.0	6183.8	6268.4	6183.8	6190.3	6127.5
25°	6799.6	6877.7	6817.0	6873.3	6873.3	6901.5	6934.0	7042.5	6901.5	6860.3	6697.7
27.5°	7779.7	7857.7	7738.5	7773.2	7762.3	7831.7	7797.0	8065.9	7914.1	7846.9	7519.5
30°	8959.2	9098.0	8872.5	8863.8	8852.9	8963.5	9013.4	9191.2	9037.2	8970.0	8575.4
32.5°	10234.1	10379.4	10110.5	10032.5	9991.3	10058.5	10017.3	10160.4	10054.2	9950.1	9462.2
35°	11582.8	11725.9	11470.0	11318.2	11153.5	11012.5	10865.1	10901.9	10802.2	10643.9	10138.7
37.5°	12857.7	13120.1	12849.0	12686.4	12382.9	12107.5	11695.5	11524.2	11431.0	11285.7	10776.2
40°	14156.5	14306.1	14100.1	13961.3	13631.8	13200.3	12541.1	12179.0	12053.3	11912.3	11480.9
42.5°	15112.7	15255.8	15145.2	15049.8	14791.8	14290.9	13438.8	12985.6	12803.5	12645.2	12278.8
45°	15871.6	15977.8	15908.4	15943.1	15832.5	15346.8	14369.0	13850.8	13662.1	13469.1	13180.8
47.5°	16177.3	16290.0	16400.6	16606.6	16795.2	16437.5	15368.5	14787.4	14588.0	14390.6	14106.6
50°	16142.6	16257.5	16578.4	17016.4	17601.8	17482.6	16422.3	15784.8	15600.5	15375.0	15112.7
52.5°	15865.1	15995.1	16407.1	17135.6	18068.0	18265.3	17495.6	16814.7	16641.3	16372.4	16110.1
55°	15136.5	15214.6	15832.5	16864.6	18178.6	18811.7	18547.2	17911.9	17738.4	17363.3	17077.1
57.5°	13785.7	13898.5	14798.3	16133.9	17901.0	19182.5	19470.8	19065.4	18898.4	18358.5	18059.3
60°	12022.9	12202.9	13232.8	14906.7	17194.2	19180.3	20310.0	20199.4	20060.6	19338.6	19026.4
62.5°	10028.1	10236.3	11227.2	13172.1	15958.3	18636.1	20834.7	21149.1	21077.5	20242.7	19843.8
65°	7701.6	7844.7	8831.3	10928.0	14035.1	17467.4	20895.4	21797.4	21810.4	20930.1	20270.9
67.5°	5127.9	5539.9	6396.3	8200.3	11459.2	15557.2	20362.0	21903.6	22029.4	21166.4	20056.3
70°	2502.2	3044.2	3883.3	5329.5	8200.3	12627.9	18967.8	21032.0	21311.7	20476.9	18777.0
72.5°	1038.6	1214.2	1671.7	2630.1	4707.3	8521.2	16166.4	18668.6	19186.8	18143.9	15787.0
75°	700.3	758.9	956.2	1348.6	2144.4	4202.1	11658.7	13920.1	14754.9	13703.3	11201.2
77.5°	539.9	576.8	696.0	943.2	1274.9	1589.3	6240.2	8388.9	8820.4	8165.6	5828.2
80°	425.0	453.2	520.4	687.3	904.2	850.0	2127.0	3800.9	4050.3	3397.6	1873.4
82.5°	368.6	379.4	372.9	466.2	600.6	496.5	698.2	1402.9	1548.1	1123.2	611.4
85°	266.7	297.0	310.1	288.4	318.7	251.5	286.2	496.5	546.4	487.9	344.8
87.5°	108.4	160.5	197.3	186.5	117.1	71.6	88.9	145.3	167.0	182.1	112.7
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°	4577.2	4577.2	4577.2	4577.2	4577.2	4577.2	4577.2	4577.2	4577.2	4577.2	4577.2
2.5°	4581.5	4596.7	4607.5	4620.5	4629.2	4642.2	4668.2	4683.4	4685.6	4696.4	4694.3
5°	4622.7	4644.4	4668.2	4702.9	4742.0	4774.5	4824.3	4859.0	4872.0	4882.9	4880.7
7.5°	4711.6	4742.0	4785.3	4846.0	4902.4	4945.8	5006.5	5047.7	5088.9	5104.1	5106.2
10°	4843.9	4887.2	4950.1	5032.5	5093.2	5149.6	5212.5	5247.2	5288.4	5305.7	5314.4
12.5°	5008.6	5054.2	5136.6	5251.5	5307.9	5346.9	5368.6	5359.9	5368.6	5383.8	5388.1
15°	5197.3	5247.2	5340.4	5464.0	5503.0	5468.3	5420.6	5377.2	5370.7	5375.1	5390.3
17.5°	5420.6	5457.5	5565.9	5670.0	5641.8	5498.7	5394.6	5325.2	5290.5	5279.7	5294.9
20°	5732.8	5732.8	5821.7	5886.8	5698.1	5455.3	5292.7	5179.9	5108.4	5078.0	5071.5
22.5°	6112.3	6077.6	6134.0	6088.4	5687.3	5333.9	5108.4	4913.2	4804.8	4761.5	4755.0
25°	6593.6	6552.4	6537.3	6255.4	5609.3	5140.9	4774.5	4538.1	4442.7	4418.9	4423.2
27.5°	7320.0	7215.9	7018.6	6346.5	5466.1	4837.4	4384.2	4165.2	4111.0	4113.2	4119.7
30°	8287.0	8078.9	7595.4	6361.6	5232.0	4408.0	3985.2	3829.1	3803.1	3813.9	3850.8
32.5°	9182.5	8985.2	8185.1	6292.2	4872.0	3987.4	3627.5	3523.4	3484.4	3497.4	3514.7
35°	9885.0	9830.8	8731.5	6194.7	4429.7	3592.8	3306.6	3217.7	3141.8	3124.4	3137.5
37.5°	10548.5	10526.8	9141.3	6058.1	3991.7	3313.1	3048.6	2931.5	2820.9	2760.2	2762.3
40°	11277.0	11255.4	9410.2	5847.8	3603.6	3070.2	2816.6	2662.6	2526.0	2415.4	2426.3
42.5°	12096.6	11968.7	9538.1	5546.4	3274.1	2864.3	2627.9	2419.8	2239.8	2137.9	2144.4
45°	12992.1	12703.8	9535.9	5162.6	2996.5	2675.6	2426.3	2131.4	1964.4	1869.0	1864.7
47.5°	13941.8	13406.3	9418.9	4737.6	2727.7	2467.5	2114.0	1888.5	1778.0	1719.4	1706.4
50°	14921.9	14063.2	9219.4	4249.8	2452.3	2231.1	1918.9	1765.0	1680.4	1626.2	1606.7
52.5°	15843.4	14659.5	8978.7	3696.9	2172.6	2001.3	1832.2	1712.9	1624.0	1563.3	1537.3
55°	16699.8	15173.4	8638.3	3130.9	1944.9	1847.3	1791.0	1691.2	1589.3	1517.8	1489.6
57.5°	17460.9	15507.3	8050.7	2599.7	1782.3	1741.1	1747.6	1654.4	1537.3	1476.6	1437.5
60°	18094.0	15752.3	7181.2	2107.5	1650.0	1637.0	1680.4	1585.0	1448.4	1379.0	1348.6
62.5°	18473.5	15748.0	6114.5	1725.9	1537.3	1541.6	1591.5	1498.3	1359.5	1294.4	1274.9
65°	18440.9	15362.0	4943.6	1476.6	1428.9	1433.2	1498.3	1402.9	1285.8	1246.7	1244.6
67.5°	17788.3	14421.0	3792.3	1314.0	1309.6	1329.1	1405.0	1337.8	1240.2	1235.9	1242.4
70°	16021.2	12467.4	2732.0	1183.9	1186.0	1214.2	1314.0	1296.6	1216.4	1225.1	1222.9
72.5°	12846.9	9505.6	1834.3	1047.3	1049.4	1095.0	1227.2	1264.1	1192.5	1307.5	1324.8
75°	8555.9	5928.0	1179.5	902.0	904.2	962.7	1151.3	1201.2	1127.5	1303.1	1314.0
77.5°	4111.0	2664.8	854.3	758.9	758.9	813.1	995.2	1075.4	960.5	1012.6	928.0
80°	1420.2	1001.7	672.2	611.4	598.4	635.3	839.1	932.3	828.3	763.2	715.5
82.5°	559.4	520.4	539.9	474.8	431.5	455.3	652.6	769.7	609.3	550.7	548.6
85°	320.9	338.2	381.6	314.4	249.3	279.7	479.2	552.9	459.7	405.5	414.1
87.5°	86.7	119.3	175.6	162.6	112.7	119.3	227.7	305.7	264.5	203.8	210.3
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)