

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: P967148

Luminaire Tested: **NAV-SB4D-727-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967148
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-727-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 39804.9 lumens
Efficiency: N/A
Efficacy: 135.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G5

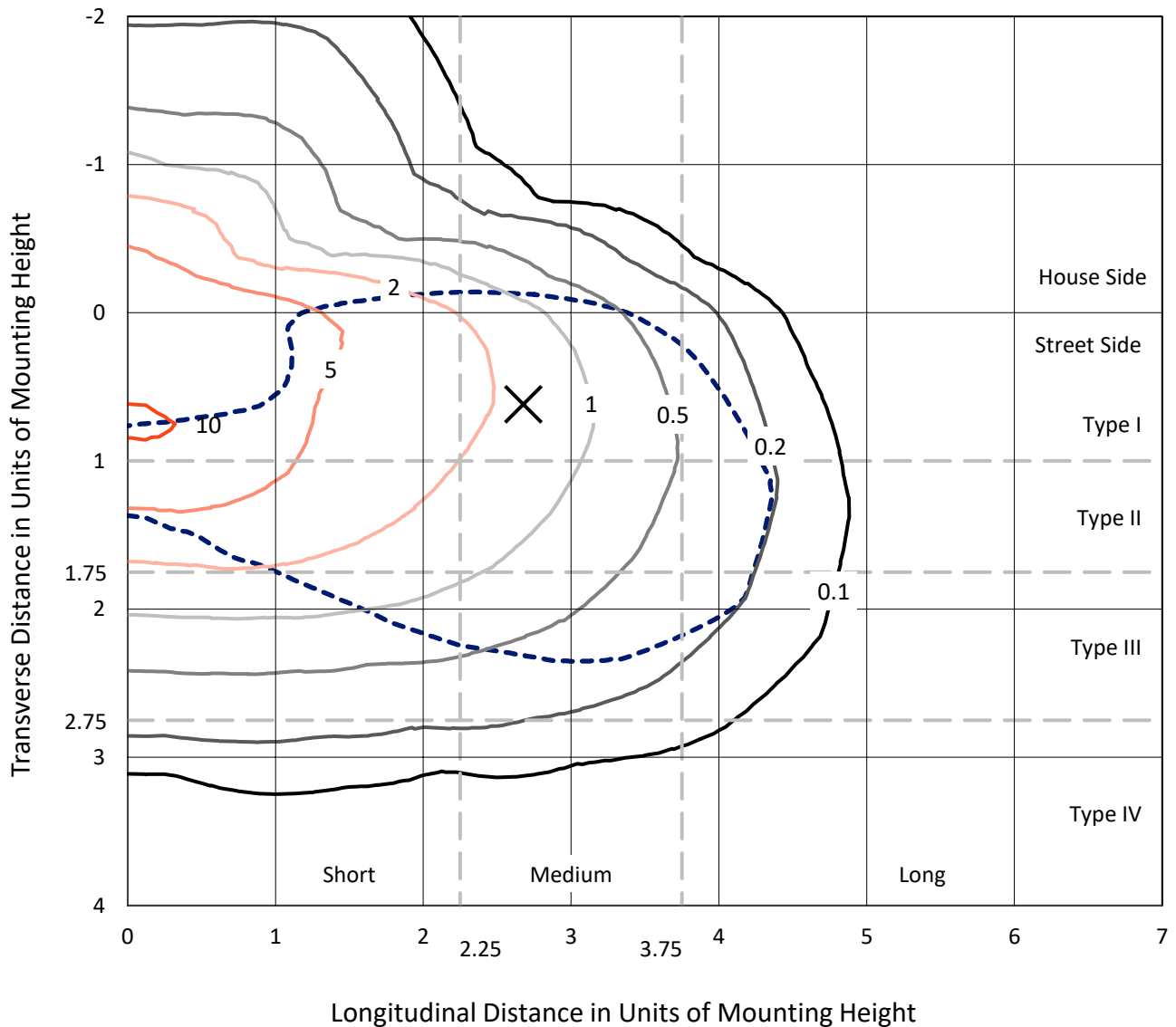
Input Watts (W): 293.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

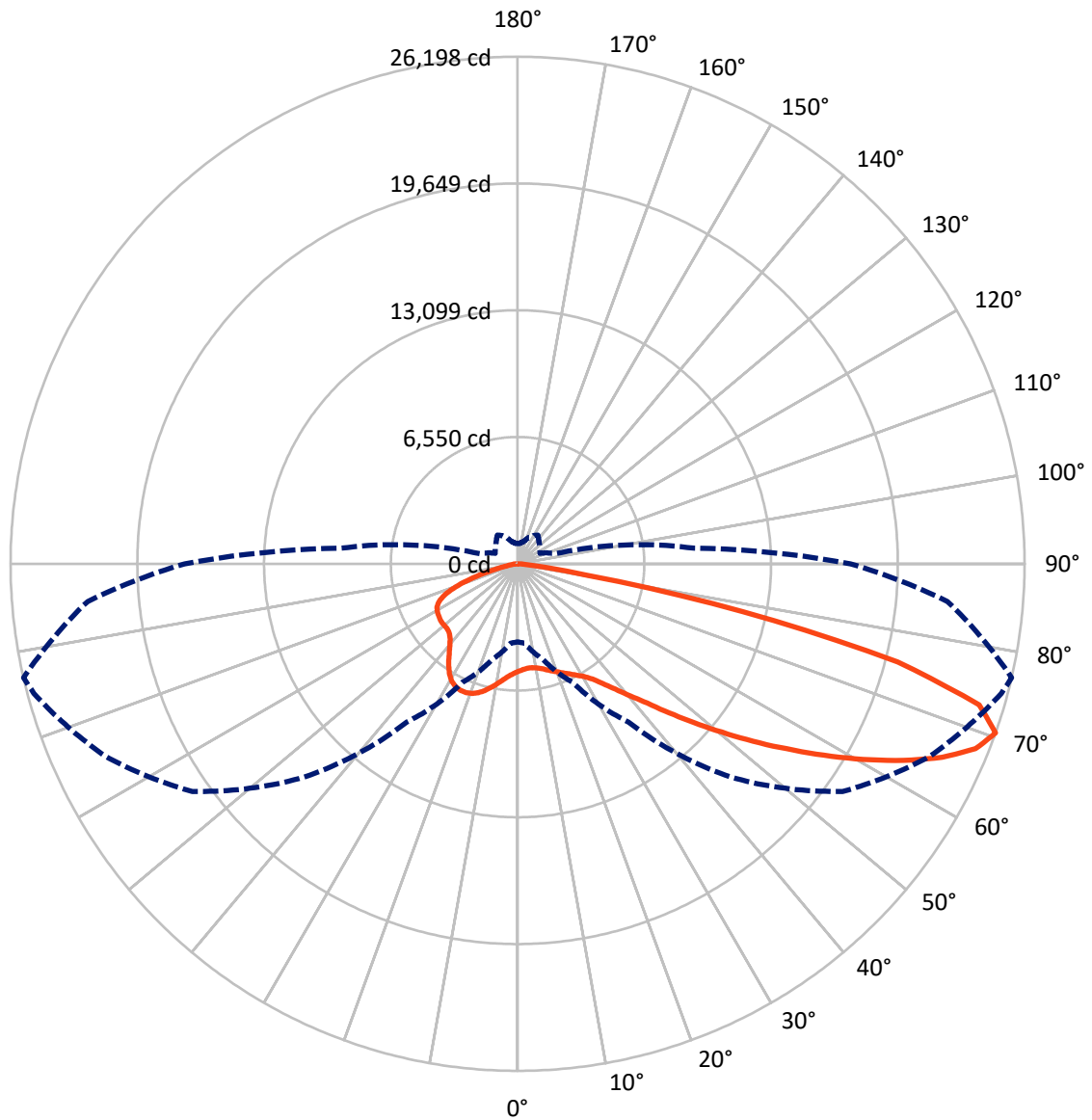
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.5 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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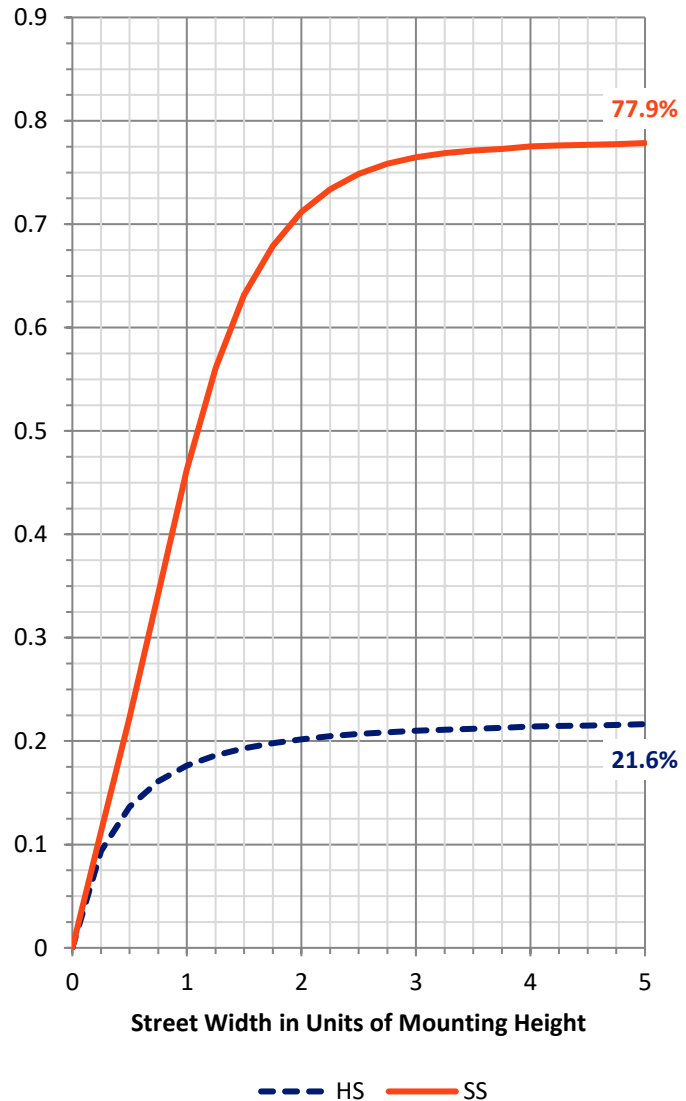
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8716.6	0.0	8716.6
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	31088.2	0.0	31088.2
	% Fixture	78.1	0.0	78.1
Total	Lumens	39804.9	0.0	39804.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	529.6	1.3
10°-20°	1528.5	3.8
20°-30°	2614.0	6.6
30°-40°	4203.6	10.6
40°-50°	6562.9	16.5
50°-60°	8766.5	22.0
60°-70°	9343.7	23.5
70°-80°	5751.9	14.5
80°-90°	504.0	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°	39804.9	100.0
0°-180°	39804.9	100.0

Coefficient of Utilization

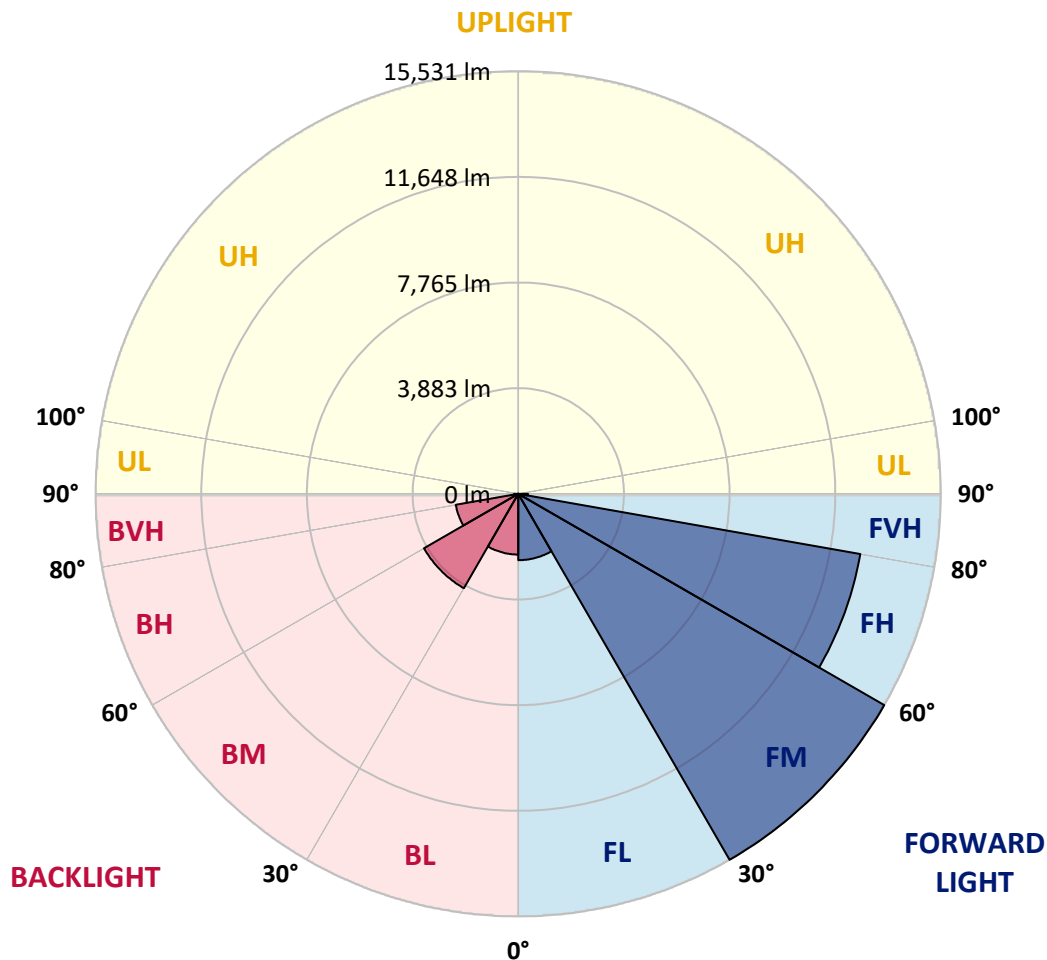


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2438.7	6.1			
FM (30°-60°)	15531.0	39.0			
FH (60°-80°)	12766.1	32.1			G5
FVH (80°-90°)	352.4	0.9			G3/500
BL (0°-30°)	2233.5	5.6	B3/2500		
BM (30°-60°)	4002.0	10.1	B3/5000		
BH (60°-80°)	2329.6	5.9	B3/2500		G3/2500
BVH (80°-90°)	151.6	0.4			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5
 Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	5553.1	5553.1	5553.1	5553.1	5553.1	5553.1	5553.1	5553.1	5553.1	5553.1	5553.1
2.5°	5119.0	5116.9	5143.3	5151.5	5200.4	5235.1	5300.4	5369.7	5459.4	5469.6	5524.6
5°	4823.3	4823.3	4853.9	4886.5	4949.7	5019.0	5119.0	5239.2	5394.2	5418.6	5555.2
7.5°	4572.5	4588.9	4615.4	4678.6	4752.0	4851.8	5004.8	5176.0	5379.8	5418.6	5638.7
10°	4370.7	4389.0	4421.7	4472.7	4582.8	4721.4	4921.1	5141.3	5414.6	5475.7	5761.1
12.5°	4307.6	4325.9	4344.3	4383.0	4484.9	4648.0	4886.5	5157.7	5498.1	5559.3	5928.3
15°	4454.3	4476.8	4462.4	4452.3	4505.3	4654.1	4902.8	5216.7	5602.0	5689.8	6134.1
17.5°	4792.7	4800.9	4768.3	4672.5	4664.3	4743.8	4980.3	5298.3	5732.5	5828.4	6342.1
20°	5339.1	5324.8	5257.5	5067.9	4959.9	4943.6	5112.8	5420.6	5867.1	5969.0	6566.4
22.5°	6081.1	6064.8	5930.2	5630.6	5390.1	5231.1	5304.5	5579.7	6018.0	6132.1	6784.5
25°	7006.7	6984.2	6786.5	6378.8	6005.7	5612.3	5565.3	5789.6	6203.4	6309.5	7012.7
27.5°	8087.1	8068.8	7854.7	7316.6	6778.3	6134.1	5889.5	6036.3	6397.1	6517.4	7269.6
30°	9249.1	9302.1	8922.9	8344.0	7663.1	6815.0	6325.8	6340.0	6647.8	6755.9	7581.5
32.5°	10615.0	10706.7	10250.1	9516.2	8586.5	7555.1	6876.2	6764.1	7012.7	7102.4	7975.0
35°	11968.6	12072.6	11693.4	10882.0	9811.8	8427.6	7451.0	7251.3	7498.0	7595.9	8496.8
37.5°	13138.8	13277.3	13081.7	12376.4	11122.6	9479.5	8201.2	7824.1	8095.2	8217.6	9198.1
40°	14062.3	14274.3	14260.0	13819.7	12667.9	10755.6	9153.4	8531.5	8837.3	8969.9	10048.3
42.5°	14812.5	14996.0	15154.9	15132.5	14280.4	12205.1	10272.4	9450.9	9683.4	9836.2	11004.4
45°	15330.2	15526.0	15868.4	16237.4	15831.7	13756.4	11554.7	10541.6	10753.6	10984.0	12143.9
47.5°	15793.0	16015.2	16459.7	17044.7	17148.7	15313.9	12959.4	11811.6	12005.3	12243.8	13287.6
50°	15833.8	16025.5	16714.5	17544.2	18084.4	16810.3	14468.0	13236.6	13418.1	13672.9	14512.8
52.5°	14849.2	15150.8	16353.7	17529.9	18514.6	18061.9	15966.3	14718.7	14922.6	15228.3	15780.8
55°	11526.2	11968.6	15295.6	16983.5	18361.6	18871.3	17391.3	16294.5	16555.5	16875.5	17056.9
57.5°	9927.9	10121.7	12141.8	15988.8	17664.4	19081.3	18594.0	17886.7	18306.6	18657.3	18406.5
60°	8922.9	9084.0	10278.6	14441.4	16747.1	18749.0	19523.7	19370.8	20096.5	20514.5	19786.6
62.5°	7846.6	7999.4	9086.0	12058.3	15572.8	18196.5	20110.8	20740.7	21931.2	22387.8	21087.2
65°	6778.3	6908.8	7950.5	10131.8	14080.6	17644.0	20414.5	21925.2	23629.4	24102.4	22167.7
67.5°	5587.8	5695.8	6680.4	8547.9	12266.3	16887.7	20565.4	22856.8	25107.4	25513.1	22701.8
70°	4032.3	4115.9	5133.2	6760.0	9989.1	15587.1	20504.2	23517.3	25873.9	26198.0	22298.2
72.5°	1906.1	1981.5	3176.2	4389.0	7055.6	13055.2	19266.8	22993.3	25095.2	24934.0	19827.4
75°	1017.2	1082.5	1824.5	2407.6	3726.6	8949.5	15766.6	19807.0	21073.0	20290.2	14653.4
77.5°	689.0	740.0	1129.3	1445.4	1702.2	4248.4	10133.9	13713.7	13193.8	11901.4	7339.0
80°	546.3	599.3	925.5	978.6	823.6	1535.0	4187.3	6348.2	4560.3	3647.1	2087.5
82.5°	419.9	479.1	778.8	709.4	448.5	630.0	1219.0	2008.0	1168.1	888.8	505.5
85°	256.9	320.1	611.6	452.5	252.8	287.4	413.8	558.6	356.8	297.7	181.4
87.5°	130.5	183.5	309.9	165.1	114.2	67.2	110.1	110.1	93.8	81.6	46.8
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°	5553.1	5553.1	5553.1	5553.1	5553.1	5553.1	5553.1	5553.1	5553.1	5553.1	5553.1
2.5°	5573.5	5614.3	5683.6	5748.8	5799.9	5848.8	5897.6	5924.2	5932.3	5965.0	5983.3
5°	5638.7	5714.2	5848.8	5975.1	6054.7	6103.6	6138.2	6158.6	6162.7	6172.9	6189.2
7.5°	5759.1	5879.3	6066.9	6193.3	6252.4	6248.3	6234.0	6183.1	6162.7	6144.4	6148.4
10°	5928.3	6087.3	6317.6	6405.2	6368.5	6270.7	6144.4	5995.5	5926.2	5858.9	5838.5
12.5°	6138.2	6340.0	6566.4	6562.3	6380.8	6130.0	5836.6	5608.2	5463.5	5359.5	5335.0
15°	6393.0	6625.4	6798.7	6660.1	6262.5	5812.1	5381.9	5084.3	4953.8	4839.6	4827.4
17.5°	6656.0	6904.7	6984.2	6629.5	5965.0	5341.2	4853.9	4619.5	4491.0	4429.8	4448.2
20°	6912.9	7159.5	7094.3	6454.2	5512.3	4807.0	4372.8	4244.3	4217.9	4232.1	4226.0
22.5°	7184.0	7404.2	7116.8	6115.8	4935.5	4260.7	4022.2	4026.2	4085.3	4128.2	4138.3
25°	7461.3	7610.1	7057.6	5626.5	4315.7	3859.0	3800.0	3865.2	3981.4	4064.9	4087.4
27.5°	7728.3	7793.6	6929.2	5021.1	3783.7	3571.6	3581.9	3716.3	3891.7	4007.9	4036.4
30°	8030.1	7956.7	6682.5	4340.2	3414.7	3325.0	3410.6	3567.5	3742.9	3846.8	3871.3
32.5°	8370.5	8097.3	6291.1	3710.3	3153.7	3127.2	3267.9	3369.8	3447.3	3477.8	3494.1
35°	8794.5	8295.0	5789.6	3267.9	2919.3	2982.4	3117.0	3066.1	3035.4	3019.1	3035.4
37.5°	9344.9	8562.1	5202.5	2980.4	2729.7	2878.5	2933.5	2774.6	2654.2	2595.1	2609.4
40°	10007.5	8953.5	4637.8	2758.2	2609.4	2788.8	2693.0	2501.4	2348.5	2264.8	2271.0
42.5°	10743.4	9363.3	4162.8	2591.1	2542.1	2715.4	2515.7	2287.3	2040.7	2014.1	2040.7
45°	11516.1	9785.3	3838.7	2462.7	2509.5	2652.2	2413.7	2044.7	1869.4	1977.4	2034.5
47.5°	12288.6	10172.6	3643.0	2366.8	2493.2	2580.8	2324.0	1910.2	1785.9	1942.8	2016.2
50°	13148.9	10519.2	3555.3	2297.5	2474.9	2552.4	2189.5	1875.5	1698.1	1802.2	1879.5
52.5°	14003.1	10788.2	3490.1	2228.1	2448.3	2529.9	2124.2	1834.7	1592.1	1598.3	1641.0
55°	14855.2	10963.6	3418.7	2136.4	2389.3	2481.0	2118.1	1789.9	1512.6	1484.1	1504.5
57.5°	15764.5	11063.4	3331.0	2034.5	2287.3	2356.6	2112.0	1755.2	1488.2	1441.3	1447.4
60°	16690.0	11210.2	3216.9	1910.2	2150.8	2207.8	2097.8	1743.0	1473.9	1394.4	1400.6
62.5°	17519.7	11261.2	3080.3	1791.9	1975.4	2061.1	2067.1	1732.8	1435.2	1298.6	1298.6
65°	18064.0	11041.1	2841.8	1657.4	1785.9	1910.2	2008.0	1698.1	1365.8	1229.3	1229.3
67.5°	18041.5	10413.2	2468.7	1484.1	1602.4	1743.0	1922.4	1639.1	1282.3	1143.7	1149.7
70°	17201.7	9173.6	1995.8	1282.3	1400.6	1563.6	1812.3	1551.3	1182.3	1049.9	1062.1
72.5°	14753.3	7179.9	1449.5	1045.8	1166.0	1378.1	1669.6	1445.4	1080.5	966.3	960.2
75°	10539.6	4544.0	982.6	803.2	907.1	1168.1	1492.3	1321.0	986.7	970.4	915.3
77.5°	5383.9	2171.2	650.4	587.1	632.0	921.5	1253.8	1180.4	1000.9	801.1	713.5
80°	1751.1	801.1	409.8	399.5	419.9	613.7	970.4	968.3	758.4	544.3	481.1
82.5°	558.6	344.5	267.0	256.9	246.7	385.3	676.8	766.5	511.7	344.5	342.5
85°	222.2	205.9	156.9	144.7	103.9	181.4	354.8	509.6	381.2	248.7	254.8
87.5°	81.6	81.6	42.8	30.5	22.4	61.2	95.8	152.9	218.1	128.4	126.4
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)