

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: P966057

Luminaire Tested: **NAV-SB4B-722-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966057
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-722-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2200K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19463.7 lumens
Efficiency: N/A
Efficacy: 132.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

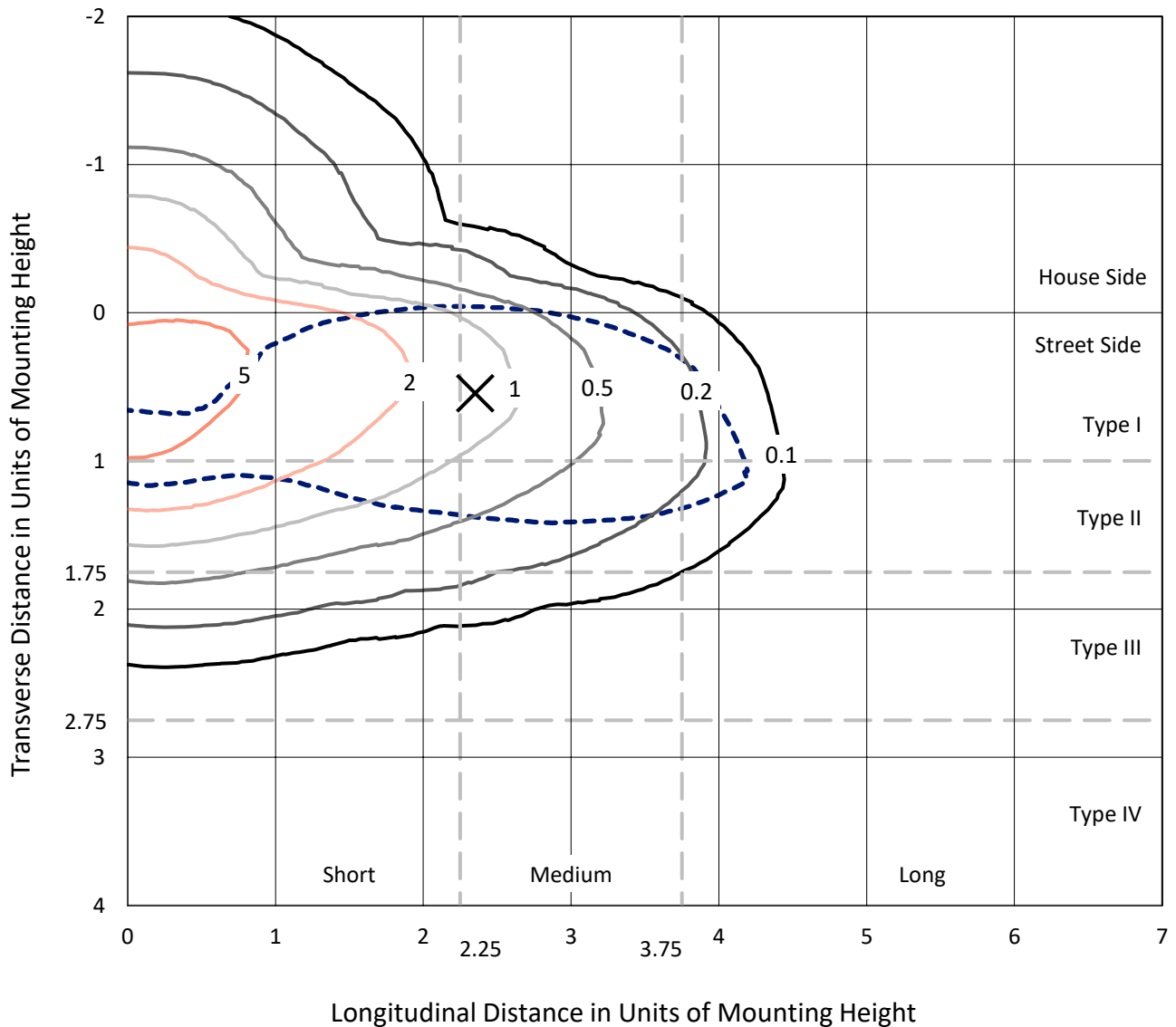
Input Watts (W): 147
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

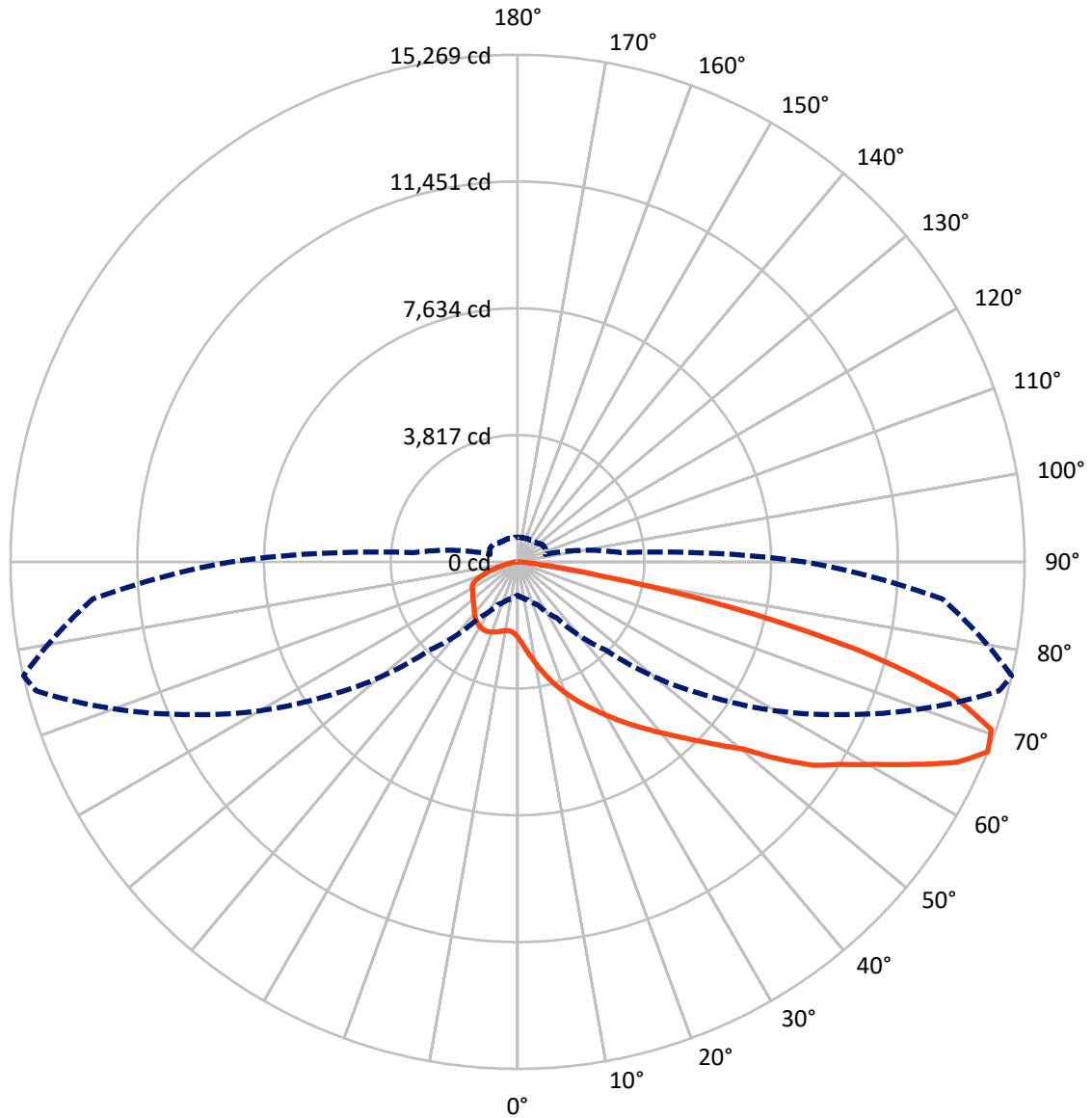
✕ Max cd
 - - - 1/2 Max cd



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

REPORT NUMBER: P966057
CATALOG NUMBER: NAV-SB4B-722-U-T2R

Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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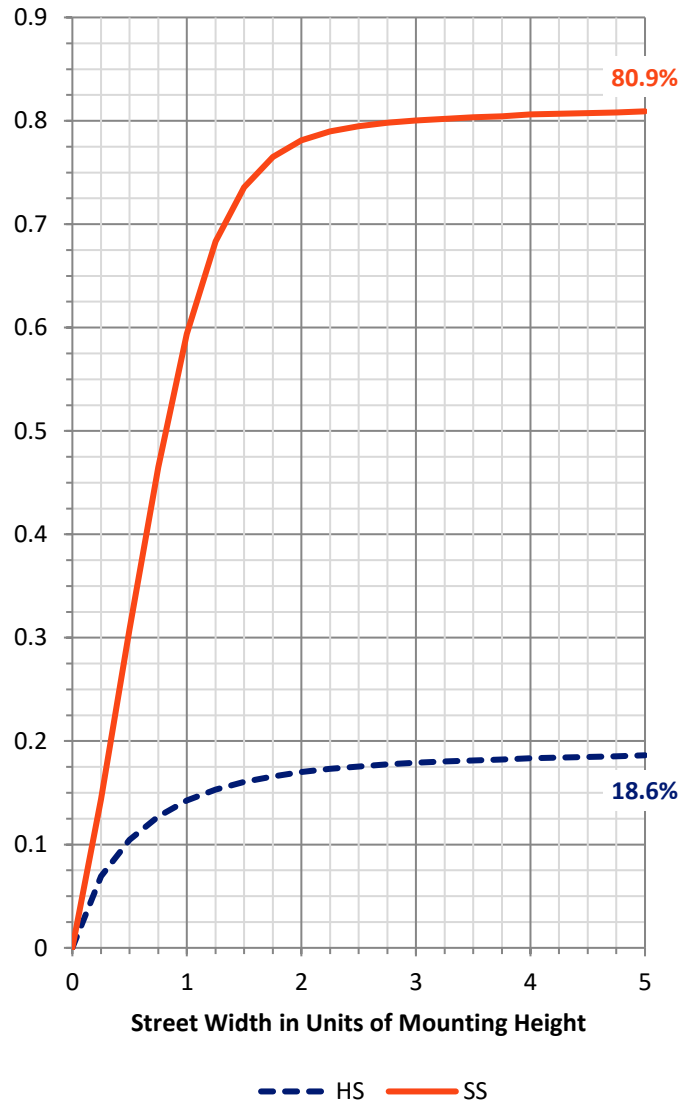
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3681.8	0.0	3681.8
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	15782.0	0.0	15782.0
	% Fixture	81.1	0.0	81.1
Total	Lumens	19463.7	0.0	19463.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.8	1.3
10°-20°	879.4	4.5
20°-30°	1660.4	8.5
30°-40°	2674.9	13.7
40°-50°	3658.7	18.8
50°-60°	4127.1	21.2
60°-70°	3852.1	19.8
70°-80°	2111.6	10.8
80°-90°	254.7	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°	19463.7	100.0
0°-180°	19463.7	100.0

Coefficient of Utilization

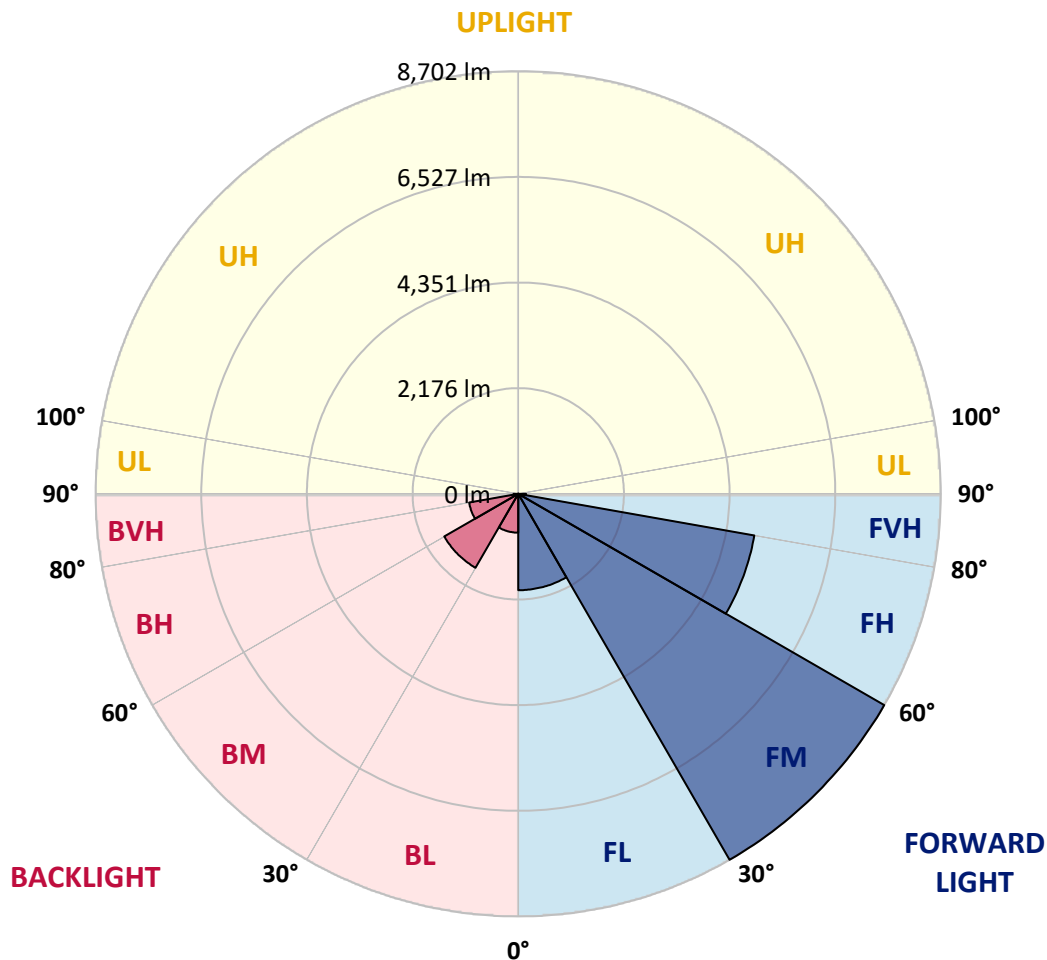


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1984.1	10.2			
FM (30°-60°)	8702.0	44.7			
FH (60°-80°)	4936.6	25.4			G2/5000
FVH (80°-90°)	159.3	0.8			G2/225
BL (0°-30°)	800.5	4.1	B2/1000		
BM (30°-60°)	1758.7	9.0	B2/2500		
BH (60°-80°)	1027.1	5.3	B3/2500		G3/2500
BVH (80°-90°)	95.4	0.5			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°	77°	85°
0°	2283.7	2283.7	2283.7	2283.7	2283.7	2283.7	2283.7	2283.7	2283.7	2283.7	2283.7
2.5°	2859.4	2879.5	2854.4	2854.4	2770.0	2725.8	2641.4	2577.1	2461.5	2441.4	2365.1
5°	3379.8	3404.9	3369.8	3354.7	3255.3	3163.9	3022.1	2882.5	2676.6	2655.5	2475.6
7.5°	3782.8	3814.8	3783.7	3767.7	3679.2	3576.7	3411.0	3216.0	2925.7	2884.6	2624.3
10°	4111.3	4116.3	4106.3	4112.3	4042.9	3958.6	3788.7	3561.7	3199.0	3142.8	2804.1
12.5°	4297.1	4320.3	4340.4	4376.5	4364.4	4312.2	4159.4	3888.2	3488.4	3416.0	3000.1
15°	4384.5	4424.7	4469.9	4553.4	4620.6	4633.7	4517.2	4238.9	3782.8	3695.3	3198.0
17.5°	4415.7	4453.8	4525.2	4645.8	4790.4	4887.9	4835.6	4579.5	4074.1	3973.6	3406.0
20°	4573.4	4584.5	4627.7	4742.3	4899.0	5060.7	5099.9	4907.0	4362.4	4248.9	3620.9
22.5°	4911.0	4888.9	4900.9	4953.2	5065.8	5222.5	5311.9	5196.3	4658.8	4528.2	3838.0
25°	5468.6	5404.3	5340.0	5279.8	5337.0	5425.4	5526.9	5485.7	4969.3	4803.5	4057.1
27.5°	6173.0	6094.5	5952.9	5755.0	5685.7	5716.8	5762.0	5753.9	5256.6	5088.8	4283.1
30°	6866.2	6774.7	6605.9	6319.6	6136.8	6054.4	6020.2	5997.1	5569.1	5390.3	4511.1
32.5°	7419.8	7347.4	7181.7	6861.1	6595.9	6455.2	6341.7	6259.4	5895.6	5716.8	4752.3
35°	7904.1	7836.7	7646.8	7297.2	7008.8	6859.1	6710.5	6534.6	6235.2	6054.4	5011.4
37.5°	8346.1	8278.8	8018.6	7654.9	7364.5	7261.0	7128.4	6830.0	6575.8	6405.0	5285.7
40°	8625.4	8610.3	8367.2	7955.2	7653.9	7602.6	7558.5	7172.6	6953.6	6794.8	5587.2
42.5°	8696.7	8729.9	8537.0	8198.5	7911.1	7869.8	7973.4	7560.4	7377.5	7225.8	5928.8
45°	8524.9	8620.4	8493.8	8263.8	8093.9	8071.8	8341.0	7984.4	7846.8	7708.1	6340.8
47.5°	8089.9	8251.7	8199.4	8167.3	8143.1	8238.6	8664.6	8434.5	8378.2	8257.7	6810.9
50°	7211.8	7518.3	7609.7	7812.7	8045.7	8368.2	8959.0	8925.8	8999.2	8877.6	7383.6
52.5°	5693.7	6115.7	6646.1	7154.5	7746.3	8325.0	9282.5	9631.1	9940.6	9874.2	8293.9
55°	4700.0	4889.9	5297.8	6230.2	7165.6	8143.1	9428.2	10200.8	10874.9	10815.7	8984.1
57.5°	3936.4	4106.3	4357.4	5136.1	6287.5	7730.2	9518.6	10548.4	11515.0	11508.9	9665.2
60°	3117.6	3297.4	3554.7	4106.3	5261.6	7016.8	9498.5	10944.2	12331.8	12382.0	10496.2
62.5°	2193.3	2391.2	2676.6	3190.9	4213.8	6092.5	9088.6	11230.6	13293.3	13430.0	11495.9
65°	1441.8	1572.4	1787.4	2231.4	3139.7	4904.0	8305.9	11267.8	14322.1	14553.2	12434.3
67.5°	1010.8	1061.0	1187.6	1428.6	2069.7	3760.6	7059.1	10883.0	15008.4	15268.5	12841.2
70°	788.7	813.8	878.1	974.6	1300.1	2528.9	5409.3	9882.3	14861.7	15132.9	12416.1
72.5°	681.2	705.3	729.4	741.5	872.1	1561.3	3664.2	8262.7	13480.2	13664.1	10795.6
75°	617.9	623.9	644.0	640.0	665.1	1012.7	2114.9	6020.2	10635.8	10572.6	7969.4
77.5°	519.5	527.5	560.7	555.7	590.8	692.3	1098.2	3885.2	6895.3	6465.3	4435.8
80°	440.0	444.0	480.2	474.3	513.4	501.3	560.7	1980.3	2924.7	2477.6	1279.0
82.5°	152.7	188.9	366.7	377.8	391.9	303.4	323.5	807.8	893.2	684.2	268.2
85°	74.3	79.3	186.9	265.3	264.2	152.7	157.7	288.3	281.4	221.0	89.4
87.5°	12.1	15.1	22.1	103.5	82.4	40.2	54.2	56.3	58.3	50.2	20.1
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°	2283.7	2283.7	2283.7	2283.7	2283.7	2283.7	2283.7	2283.7	2283.7	2283.7	2283.7
2.5°	2308.8	2258.6	2153.1	2055.6	1979.3	1905.9	1864.8	1829.5	1809.4	1805.4	1805.4
5°	2371.1	2267.6	2075.7	1914.0	1808.5	1730.1	1688.9	1662.8	1649.7	1641.7	1640.7
7.5°	2460.5	2308.8	2035.5	1851.7	1741.2	1684.9	1663.8	1659.8	1658.8	1659.8	1662.8
10°	2584.1	2376.2	2031.5	1836.6	1744.1	1713.0	1712.1	1713.0	1717.1	1718.0	1719.0
12.5°	2717.7	2445.4	2047.6	1849.7	1782.4	1765.3	1762.3	1761.3	1764.2	1766.3	1767.3
15°	2863.4	2536.9	2074.7	1877.8	1824.5	1806.5	1803.5	1797.4	1796.4	1795.4	1794.4
17.5°	3013.1	2627.3	2104.8	1907.9	1851.7	1826.6	1815.5	1801.4	1790.4	1787.4	1790.4
20°	3164.8	2716.8	2126.0	1923.0	1853.7	1818.6	1796.4	1772.3	1753.3	1742.2	1746.2
22.5°	3326.5	2810.1	2139.1	1919.0	1835.6	1787.4	1747.2	1719.0	1689.9	1670.9	1671.9
25°	3484.3	2891.5	2138.0	1897.9	1800.4	1739.1	1687.9	1651.8	1611.5	1591.4	1591.4
27.5°	3636.1	2964.9	2112.9	1860.7	1750.2	1681.9	1620.6	1577.4	1538.2	1519.2	1518.1
30°	3792.8	3026.2	2073.7	1806.5	1690.9	1615.6	1548.3	1511.1	1475.9	1457.9	1456.8
32.5°	3948.5	3082.5	2018.4	1739.1	1622.6	1550.3	1484.0	1449.8	1428.6	1428.6	1429.7
35°	4113.2	3121.6	1945.1	1660.8	1550.3	1480.9	1428.6	1408.6	1406.6	1394.5	1391.5
37.5°	4287.1	3146.7	1855.7	1580.4	1479.0	1413.6	1397.6	1373.4	1353.3	1327.2	1323.2
40°	4469.9	3171.9	1748.2	1497.0	1403.5	1367.5	1360.4	1328.2	1271.0	1206.6	1197.6
42.5°	4691.9	3189.0	1636.6	1413.6	1324.2	1312.1	1322.1	1266.9	1175.5	1127.3	1128.3
45°	4949.2	3217.1	1534.2	1331.3	1242.8	1242.8	1285.0	1212.7	1137.3	1107.2	1112.2
47.5°	5282.7	3282.4	1438.7	1240.8	1167.5	1187.6	1202.6	1147.4	1105.2	1068.0	1067.0
50°	5765.0	3439.1	1340.3	1149.4	1110.2	1150.4	1129.2	1097.2	1048.0	1017.7	1014.7
52.5°	6363.8	3531.5	1252.9	1067.0	1061.0	1101.2	1071.0	1040.9	1003.7	963.5	955.5
55°	6771.8	3548.7	1179.6	1006.8	1027.8	1023.8	1012.7	985.6	965.6	912.2	913.3
57.5°	7227.9	3582.8	1119.2	970.6	1006.8	962.5	958.5	935.4	909.3	873.1	861.0
60°	7773.4	3636.1	1067.0	956.5	988.6	922.3	902.2	893.2	867.0	849.0	854.0
62.5°	8368.2	3684.3	1013.7	958.5	967.5	883.1	853.0	850.0	833.9	827.9	827.9
65°	8774.1	3552.6	947.4	956.5	934.4	843.0	804.7	803.8	790.7	788.7	787.7
67.5°	8632.4	3135.7	858.0	928.3	900.3	802.8	760.6	756.6	739.4	740.5	740.5
70°	7923.1	2540.9	734.4	859.1	858.0	766.6	714.3	701.3	678.1	682.2	686.2
72.5°	6592.9	1882.8	568.7	743.4	790.7	733.4	661.1	640.0	610.9	614.9	613.9
75°	4761.3	1280.0	413.9	565.7	688.2	694.2	608.8	572.7	537.5	543.6	545.5
77.5°	2436.4	725.4	304.4	389.8	540.5	631.0	561.6	513.4	505.3	561.6	553.6
80°	794.7	363.7	210.9	273.3	354.6	516.4	492.3	437.1	435.0	448.1	384.8
82.5°	237.1	153.8	135.6	179.9	195.9	395.9	425.0	330.6	284.3	299.4	309.4
85°	81.4	74.3	77.4	89.4	93.5	232.1	297.4	219.0	206.9	228.1	225.1
87.5°	19.1	26.1	22.1	20.1	20.1	56.3	115.5	91.4	126.6	84.4	81.4
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)