

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: P882629

Luminaire Tested: **NAV-SB2C-830-U-T3**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882629
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-SB2C-830-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13364 lumens
Efficiency: N/A
Efficacy: 132.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

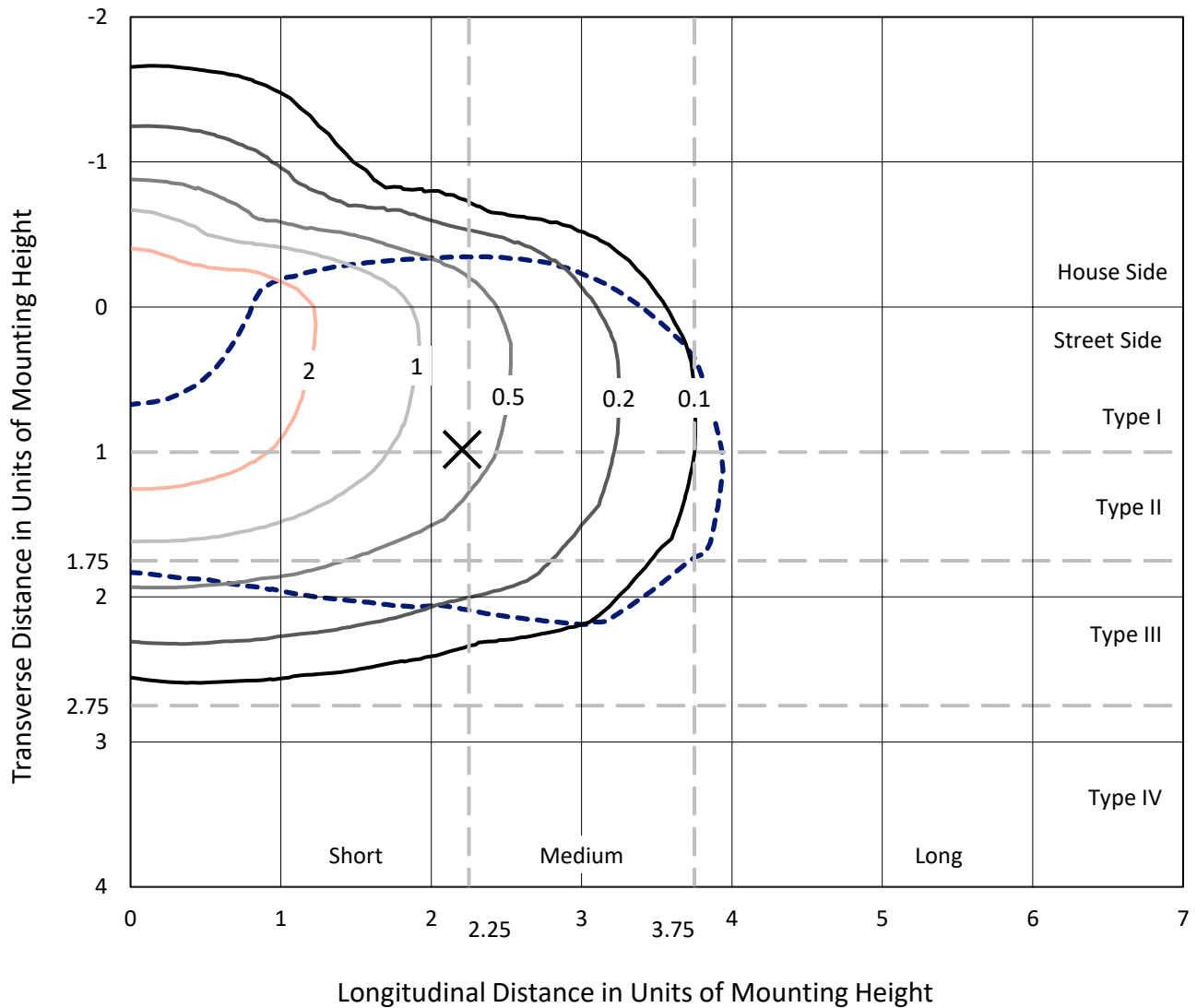
Input Watts (W): 100.9
Input Voltage (V): 120.0
Input Current (Ain): 0.857
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.472
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

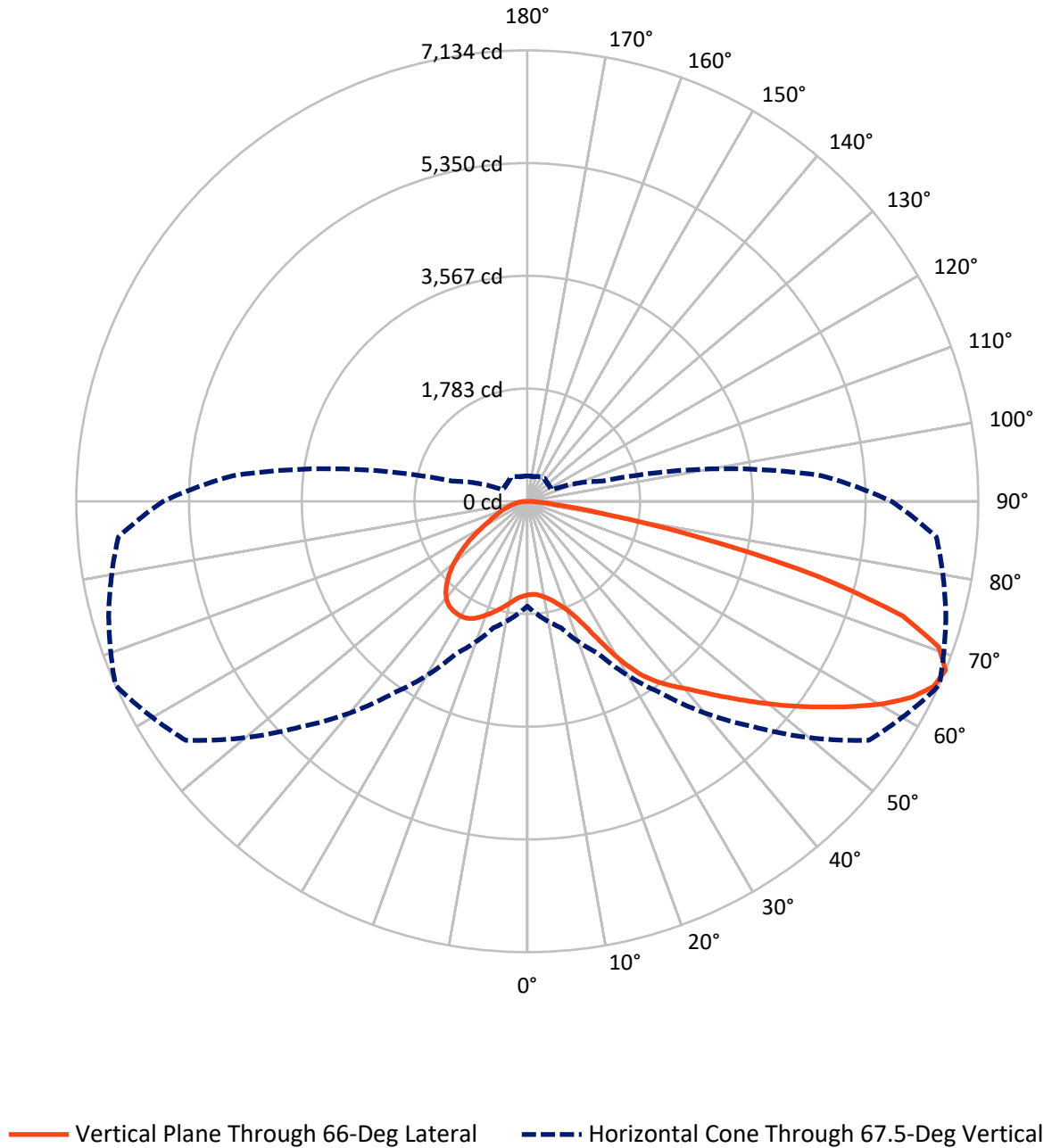
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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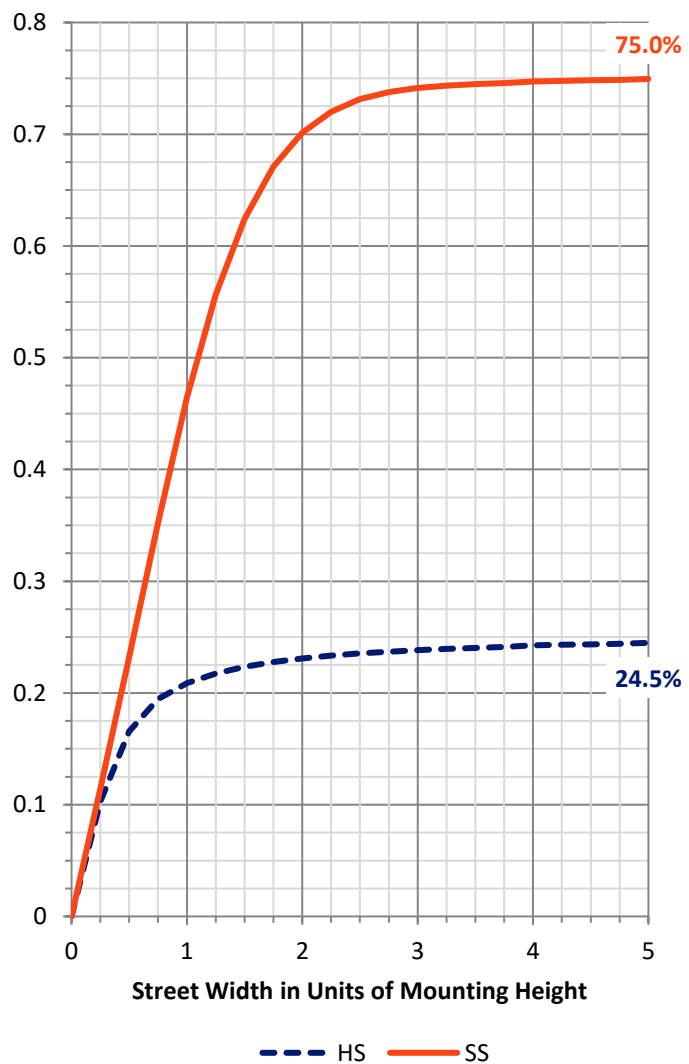
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3322.9	0.0	3322.9
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	10041.1	0.0	10041.1
	% Fixture	75.1	0.0	75.1
Total	Lumens	13364.0	0.0	13364.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.0	1.1
10°-20°	485.5	3.6
20°-30°	935.8	7.0
30°-40°	1640.9	12.3
40°-50°	2439.4	18.3
50°-60°	3092.2	23.1
60°-70°	3025.6	22.6
70°-80°	1443.3	10.8
80°-90°	154.2	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°	13364.0	100.0
0°-180°	13364.0	100.0

Coefficient of Utilization



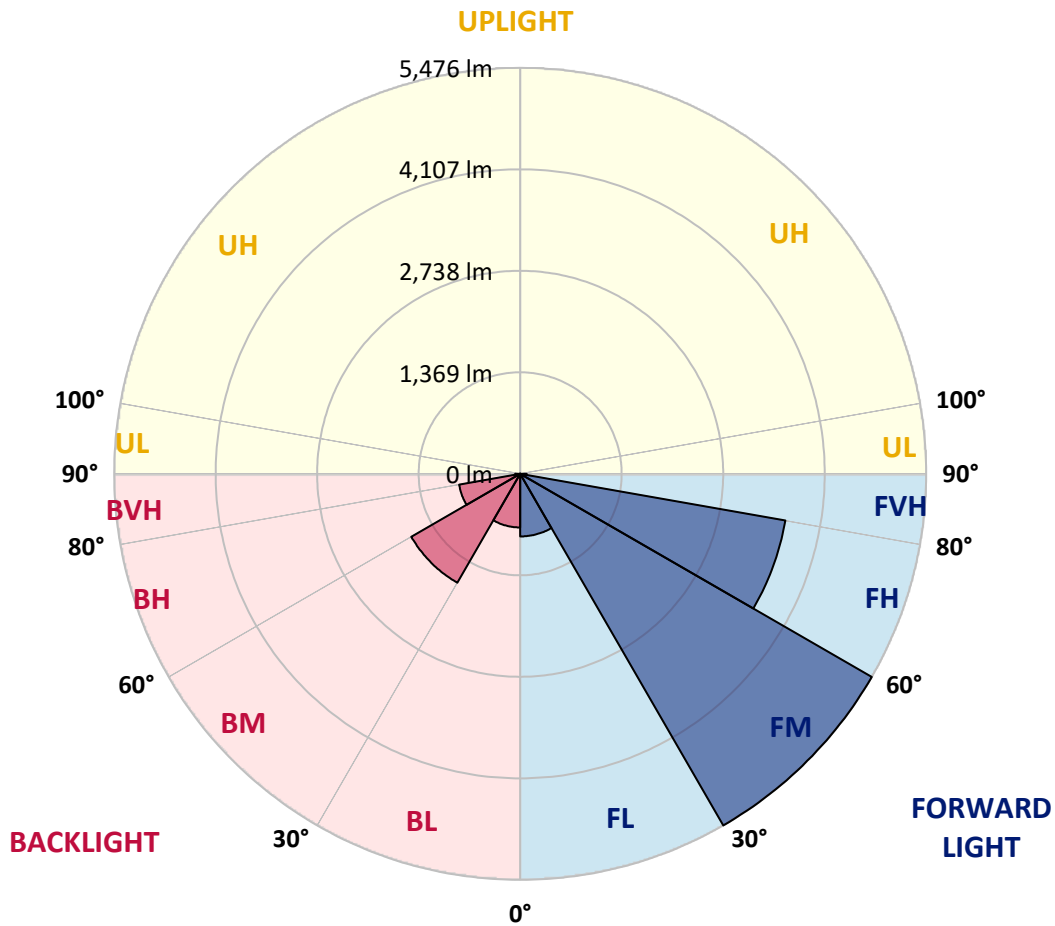
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	844.5	6.3			
FM (30°-60°)	5476.5	41.0			
FH (60°-80°)	3632.7	27.2			G2/5000
FVH (80°-90°)	87.5	0.7			G1/100
BL (0°-30°)	723.9	5.4	B2/1000		
BM (30°-60°)	1696.1	12.7	B2/2500		
BH (60°-80°)	836.2	6.3	B2/1000		G2/1000
BVH (80°-90°)	66.8	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	1482.2	1482.2	1482.2	1482.2	1482.2	1482.2	1482.2	1482.2	1482.2	1482.2	1482.2
2.5°	1466.8	1475.2	1473.1	1469.6	1468.9	1470.3	1472.4	1474.5	1473.8	1477.3	1482.9
5°	1462.6	1471.0	1470.3	1470.3	1473.1	1478.7	1482.2	1485.8	1482.2	1486.5	1494.2
7.5°	1465.4	1471.7	1474.5	1477.3	1484.4	1494.9	1503.3	1511.0	1506.8	1511.7	1521.6
10°	1501.2	1506.1	1508.9	1508.9	1513.8	1525.8	1534.2	1548.2	1544.7	1552.5	1565.1
12.5°	1566.5	1571.4	1571.4	1568.6	1572.1	1579.8	1582.7	1598.1	1591.8	1604.4	1617.1
15°	1646.5	1656.4	1648.7	1643.7	1645.1	1652.9	1652.2	1664.1	1657.8	1668.3	1679.5
17.5°	1735.0	1747.7	1735.0	1734.3	1731.5	1739.9	1740.6	1751.2	1739.9	1747.7	1755.4
20°	1839.6	1857.2	1846.7	1850.2	1843.9	1847.4	1850.9	1866.3	1848.8	1854.4	1852.3
22.5°	1987.1	2008.2	1996.9	2010.3	2006.1	2003.2	2002.5	2029.9	2002.5	2004.6	1984.3
25°	2202.0	2227.2	2207.6	2225.8	2225.8	2235.0	2245.5	2280.6	2235.0	2221.6	2168.9
27.5°	2519.3	2544.6	2506.0	2517.2	2513.7	2536.2	2524.9	2612.0	2562.9	2541.1	2435.1
30°	2901.3	2946.2	2873.2	2870.4	2866.9	2902.7	2918.8	2976.4	2926.6	2904.8	2777.0
32.5°	3314.2	3361.2	3274.1	3248.9	3235.5	3257.3	3243.9	3290.3	3255.9	3222.2	3064.2
35°	3750.9	3797.2	3714.4	3665.2	3611.9	3566.2	3518.5	3530.4	3498.1	3446.9	3283.3
37.5°	4163.8	4248.7	4161.0	4108.3	4010.0	3920.8	3787.4	3731.9	3701.7	3654.7	3489.7
40°	4584.4	4632.8	4566.1	4521.2	4414.4	4274.7	4061.3	3944.0	3903.3	3857.6	3717.9
42.5°	4894.0	4940.3	4904.5	4873.6	4790.1	4627.9	4351.9	4205.2	4146.2	4095.0	3976.3
45°	5139.8	5174.2	5151.7	5162.9	5127.1	4969.8	4653.2	4485.4	4424.3	4361.8	4268.4
47.5°	5238.8	5275.3	5311.1	5377.8	5438.9	5323.0	4976.9	4788.7	4724.1	4660.2	4568.2
50°	5227.5	5264.7	5368.7	5510.5	5700.1	5661.5	5318.1	5111.7	5052.0	4979.0	4894.0
52.5°	5137.7	5179.8	5313.2	5549.1	5851.0	5914.9	5665.7	5445.2	5389.0	5302.0	5217.0
55°	4901.7	4927.0	5127.1	5461.3	5886.8	6091.9	6006.2	5800.5	5744.3	5622.8	5530.2
57.5°	4464.3	4500.8	4792.2	5224.7	5797.0	6211.9	6305.3	6174.0	6120.0	5945.1	5848.2
60°	3893.4	3951.7	4285.2	4827.3	5568.1	6211.2	6577.1	6541.3	6496.3	6262.5	6161.4
62.5°	3247.5	3314.9	3635.7	4265.6	5167.8	6035.0	6747.0	6848.8	6825.6	6555.3	6426.1
65°	2494.0	2540.4	2859.9	3538.8	4545.0	5656.5	6766.6	7058.7	7063.0	6777.9	6564.4
67.5°	1660.6	1794.0	2071.4	2655.5	3710.9	5037.9	6593.9	7093.1	7133.9	6854.4	6494.9
70°	810.3	985.8	1257.6	1725.9	2655.5	4089.3	6142.4	6810.9	6901.5	6631.1	6080.6
72.5°	336.3	393.2	541.4	851.7	1524.4	2759.5	5235.3	6045.5	6213.3	5875.6	5112.4
75°	226.8	245.8	309.6	436.7	694.4	1360.8	3775.5	4507.8	4778.1	4437.6	3627.3
77.5°	174.8	186.8	225.4	305.4	412.9	514.7	2020.8	2716.6	2856.4	2644.3	1887.4
80°	137.6	146.7	168.5	222.6	292.8	275.2	688.8	1230.9	1311.6	1100.3	606.7
82.5°	119.4	122.9	120.8	151.0	194.5	160.8	226.1	454.3	501.3	363.7	198.0
85°	86.4	96.2	100.4	93.4	103.2	81.4	92.7	160.8	176.9	158.0	111.6
87.5°	35.1	52.0	63.9	60.4	37.9	23.2	28.8	47.0	54.1	59.0	36.5
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°	1482.2	1482.2	1482.2	1482.2	1482.2	1482.2	1482.2	1482.2	1482.2	1482.2	1482.2
2.5°	1483.6	1488.6	1492.1	1496.3	1499.1	1503.3	1511.7	1516.6	1517.4	1520.9	1520.2
5°	1497.0	1504.0	1511.7	1523.0	1535.6	1546.1	1562.3	1573.5	1577.7	1581.2	1580.5
7.5°	1525.8	1535.6	1549.7	1569.3	1587.6	1601.6	1621.3	1634.6	1648.0	1652.9	1653.6
10°	1568.6	1582.7	1603.0	1629.7	1649.4	1667.6	1688.0	1699.2	1712.6	1718.2	1721.0
12.5°	1622.0	1636.7	1663.4	1700.6	1718.9	1731.5	1738.5	1735.7	1738.5	1743.4	1744.8
15°	1683.1	1699.2	1729.4	1769.4	1782.1	1770.8	1755.4	1741.3	1739.2	1740.6	1745.6
17.5°	1755.4	1767.3	1802.4	1836.1	1827.0	1780.7	1747.0	1724.5	1713.3	1709.7	1714.7
20°	1856.5	1856.5	1885.3	1906.3	1845.3	1766.6	1714.0	1677.4	1654.3	1644.4	1642.3
22.5°	1979.4	1968.1	1986.4	1971.6	1841.7	1727.3	1654.3	1591.1	1556.0	1541.9	1539.8
25°	2135.2	2121.9	2117.0	2025.7	1816.5	1664.8	1546.1	1469.6	1438.7	1431.0	1432.4
27.5°	2370.5	2336.8	2272.9	2055.2	1770.1	1566.5	1419.8	1348.8	1331.3	1332.0	1334.1
30°	2683.6	2616.2	2459.6	2060.1	1694.3	1427.5	1290.6	1240.0	1231.6	1235.1	1247.0
32.5°	2973.6	2909.7	2650.6	2037.6	1577.7	1291.3	1174.7	1141.0	1128.4	1132.6	1138.2
35°	3201.1	3183.6	2827.6	2006.1	1434.5	1163.5	1070.8	1042.0	1017.4	1011.8	1016.0
37.5°	3416.0	3409.0	2960.3	1961.8	1292.7	1072.9	987.2	949.3	913.5	893.8	894.5
40°	3651.9	3644.9	3047.3	1893.7	1167.0	994.2	912.1	862.2	818.0	782.2	785.7
42.5°	3917.3	3875.9	3088.8	1796.1	1060.3	927.5	851.0	783.6	725.3	692.3	694.4
45°	4207.3	4113.9	3088.1	1671.8	970.4	866.5	785.7	690.2	636.2	605.3	603.9
47.5°	4514.8	4341.4	3050.2	1534.2	883.3	799.0	684.6	611.6	575.8	556.8	552.6
50°	4832.2	4554.2	2985.6	1376.2	794.1	722.5	621.4	571.6	544.2	526.6	520.3
52.5°	5130.6	4747.3	2907.6	1197.2	703.6	648.1	593.3	554.7	525.9	506.3	497.8
55°	5408.0	4913.7	2797.4	1013.9	629.8	598.2	580.0	547.7	514.7	491.5	482.4
57.5°	5654.4	5021.8	2607.1	841.9	577.2	563.8	565.9	535.7	497.8	478.2	465.5
60°	5859.5	5101.1	2325.5	682.5	534.3	530.1	544.2	513.3	469.0	446.6	436.7
62.5°	5982.3	5099.7	1980.1	558.9	497.8	499.2	515.4	485.2	440.2	419.2	412.9
65°	5971.8	4974.8	1600.9	478.2	462.7	464.1	485.2	454.3	416.4	403.7	403.0
67.5°	5760.5	4670.0	1228.1	425.5	424.1	430.4	455.0	433.2	401.6	400.2	402.3
70°	5188.2	4037.4	884.7	383.4	384.1	393.2	425.5	419.9	393.9	396.7	396.0
72.5°	4160.3	3078.2	594.0	339.1	339.8	354.6	397.4	409.4	386.2	423.4	429.0
75°	2770.7	1919.7	382.0	292.1	292.8	311.8	372.8	389.0	365.1	422.0	425.5
77.5°	1331.3	862.9	276.6	245.8	245.8	263.3	322.3	348.3	311.1	327.9	300.5
80°	459.9	324.4	217.7	198.0	193.8	205.7	271.7	301.9	268.2	247.2	231.7
82.5°	181.2	168.5	174.8	153.8	139.7	147.5	211.3	249.3	197.3	178.3	177.6
85°	103.9	109.5	123.6	101.8	80.7	90.6	155.2	179.0	148.9	131.3	134.1
87.5°	28.1	38.6	56.9	52.7	36.5	38.6	73.7	99.0	85.7	66.0	68.1
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)