

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: P882421

Luminaire Tested: **NAV-SB2B-740-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882421
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2B-740-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12229 lumens
Efficiency: N/A
Efficacy: 165.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

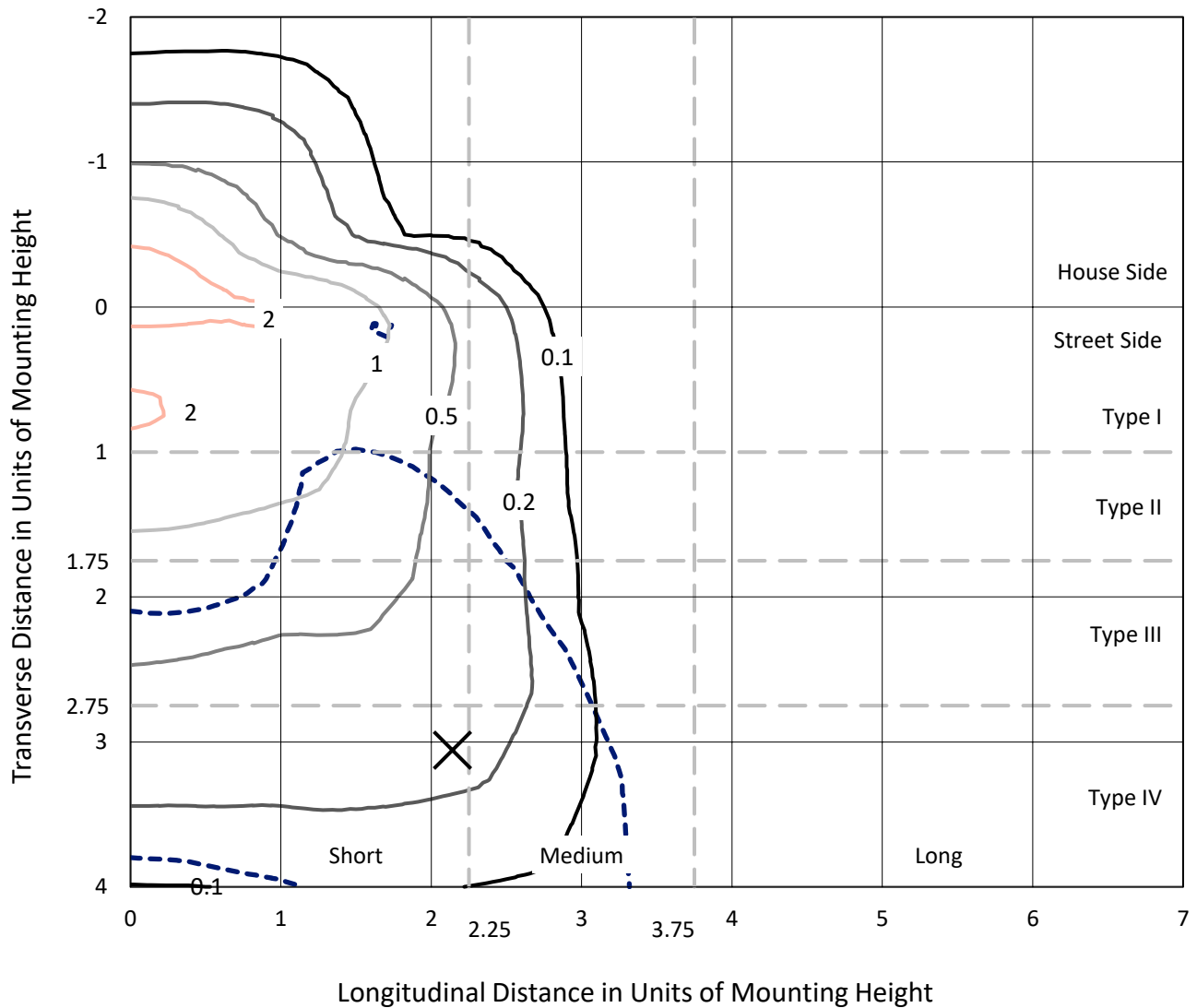
Input Watts (W): 73.9
Input Voltage (V): 120.0
Input Current (Ain): 0.627
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

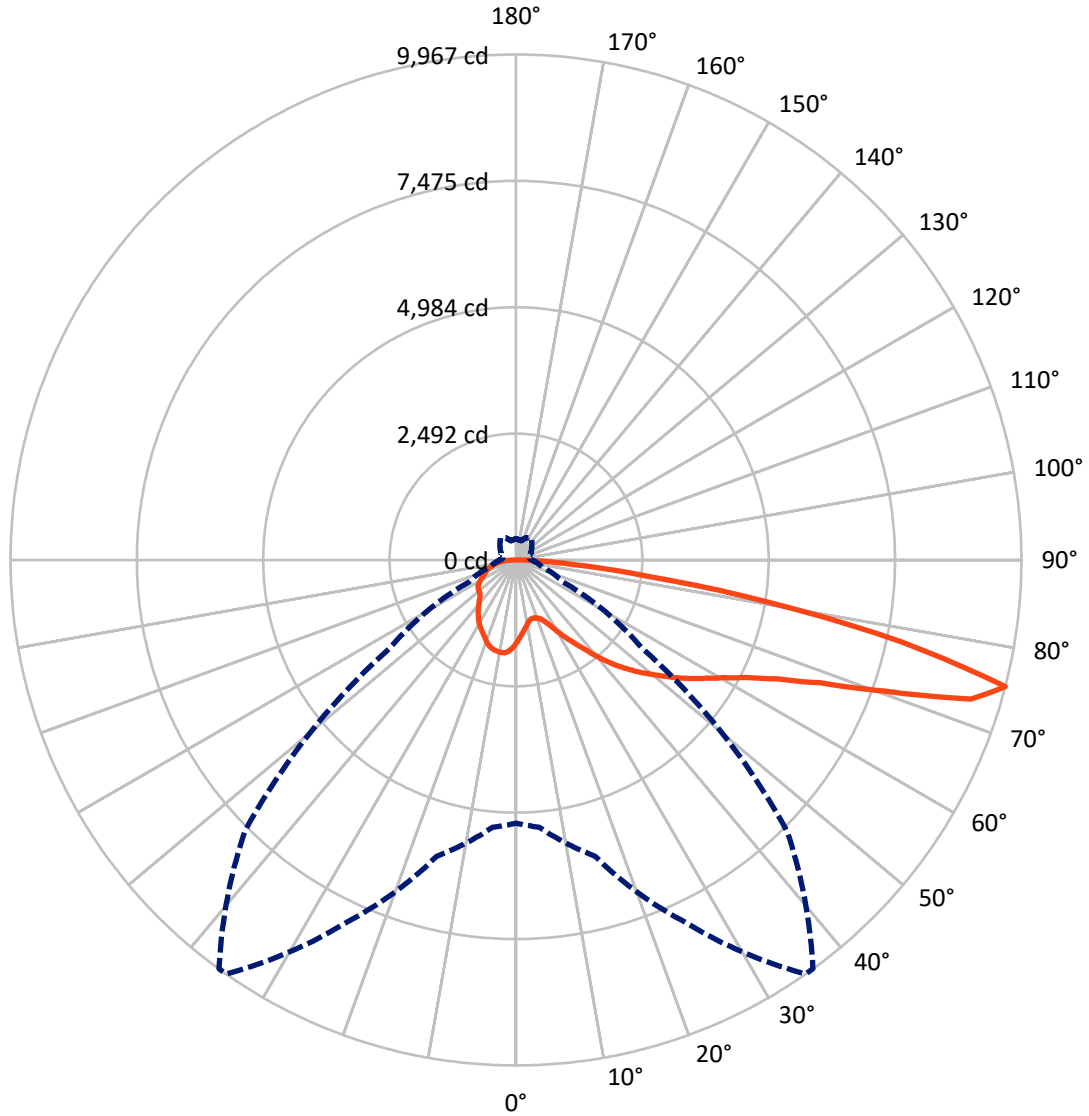
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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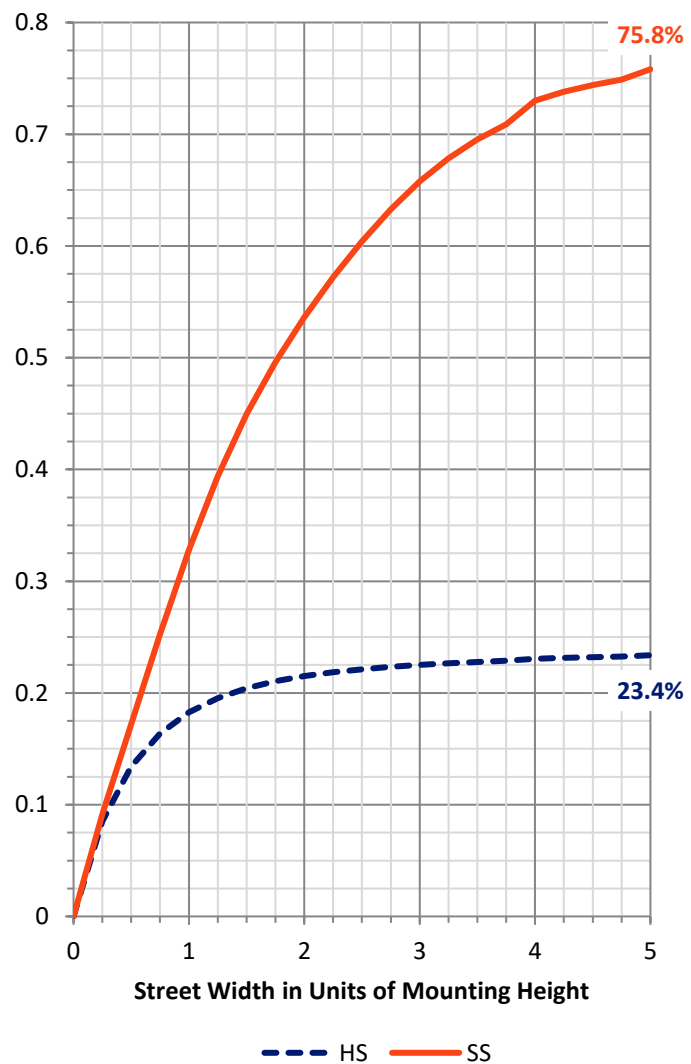
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2910.2	0.0	2910.2
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	9318.8	0.0	9318.8
	% Fixture	76.2	0.0	76.2
Total	Lumens	12229.0	0.0	12229.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.3	1.3
10°-20°	445.0	3.6
20°-30°	747.3	6.1
30°-40°	1161.5	9.5
40°-50°	1723.9	14.1
50°-60°	2380.0	19.5
60°-70°	2887.5	23.6
70°-80°	2386.3	19.5
80°-90°	343.2	2.8
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°	12229.0	100.0
0°-180°	12229.0	100.0

Coefficient of Utilization



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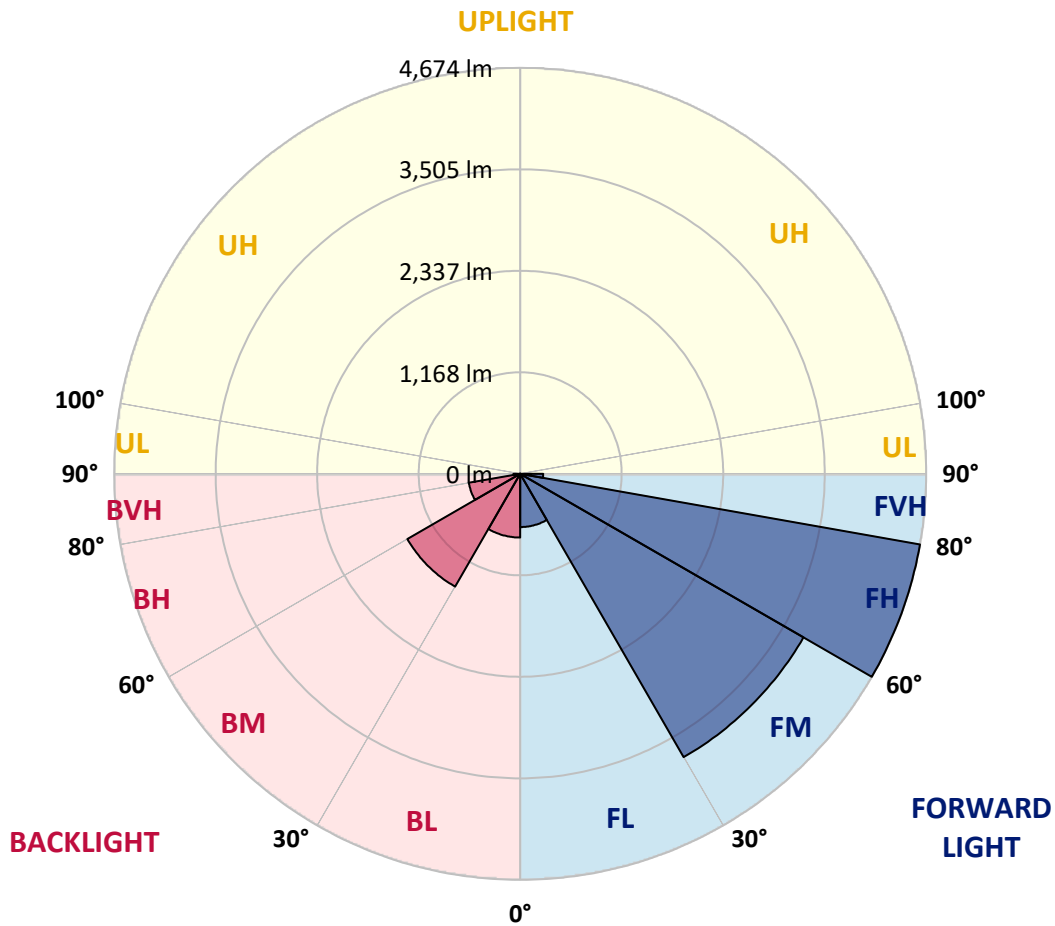
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	613.3	5.0			
FM (30°-60°)	3765.9	30.8			
FH (60°-80°)	4673.7	38.2			G2/5000
FVH (80°-90°)	265.9	2.2			G3/500
BL (0°-30°)	733.4	6.0	B2/1000		
BM (30°-60°)	1499.5	12.3	B2/2500		
BH (60°-80°)	600.0	4.9	B2/1000		G2/1000
BVH (80°-90°)	77.3	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	1629.6	1629.6	1629.6	1629.6	1629.6	1629.6	1629.6	1629.6	1629.6	1629.6	1629.6
2.5°	1502.7	1511.9	1515.9	1513.9	1523.8	1522.5	1536.4	1553.6	1577.4	1600.5	1634.2
5°	1387.0	1396.9	1405.5	1413.4	1432.6	1438.5	1460.4	1493.4	1537.0	1581.3	1636.9
7.5°	1279.2	1287.8	1301.0	1315.6	1348.0	1353.9	1390.3	1441.8	1502.7	1567.5	1644.1
10°	1191.3	1199.9	1213.8	1230.3	1270.6	1277.9	1324.2	1392.9	1472.3	1554.2	1652.1
12.5°	1153.6	1156.3	1164.2	1180.7	1215.8	1220.4	1271.3	1350.0	1442.5	1544.3	1664.0
15°	1151.6	1156.9	1157.6	1166.2	1195.3	1197.2	1244.2	1322.2	1424.0	1542.3	1681.8
17.5°	1171.5	1175.4	1169.5	1174.8	1199.2	1202.5	1239.6	1309.0	1418.0	1550.9	1712.2
20°	1224.3	1227.7	1209.8	1202.5	1220.4	1223.0	1259.4	1317.6	1424.0	1568.8	1753.9
22.5°	1336.7	1338.7	1295.1	1265.3	1266.7	1268.0	1299.7	1352.6	1447.1	1601.2	1806.8
25°	1511.9	1510.6	1441.2	1383.7	1350.6	1343.3	1364.5	1409.5	1486.1	1644.1	1874.9
27.5°	1716.9	1706.9	1637.5	1551.6	1479.5	1469.0	1464.3	1483.5	1541.7	1701.0	1958.2
30°	1948.2	1939.0	1864.3	1751.9	1652.1	1634.9	1591.3	1581.3	1624.3	1778.3	2073.9
32.5°	2202.1	2196.2	2106.9	1970.7	1837.2	1817.3	1744.0	1717.5	1751.2	1895.4	2235.2
35°	2415.0	2409.7	2335.6	2195.5	2032.2	2007.7	1933.0	1903.3	1920.5	2045.4	2446.0
37.5°	2607.4	2604.7	2541.2	2430.8	2262.3	2232.5	2148.6	2138.6	2135.3	2243.1	2701.9
40°	2785.9	2779.2	2713.1	2655.0	2530.0	2502.9	2428.9	2420.3	2395.1	2486.4	2991.5
42.5°	2983.5	2966.3	2870.5	2843.4	2809.6	2787.2	2742.9	2744.2	2688.7	2760.7	3298.2
45°	3144.8	3134.9	3036.4	3020.5	3056.9	3047.6	3086.0	3095.9	2988.1	3048.3	3616.8
47.5°	3318.0	3308.8	3225.5	3214.2	3312.7	3315.4	3450.9	3454.2	3280.3	3347.1	3936.2
50°	3531.6	3518.3	3435.7	3449.6	3560.0	3569.9	3817.8	3795.3	3549.4	3650.6	4252.8
52.5°	3672.4	3680.3	3662.5	3684.9	3835.7	3844.9	4178.8	4121.3	3815.8	3950.0	4563.5
55°	3776.2	3792.0	3847.6	3899.1	4126.5	4135.8	4519.2	4431.3	4036.6	4227.7	4855.7
57.5°	3909.7	3887.2	3991.0	4091.5	4402.9	4427.3	4850.4	4730.1	4232.3	4467.0	5056.0
60°	4101.4	4085.6	4166.2	4315.0	4712.3	4751.3	5200.8	4999.2	4375.8	4656.7	5095.1
62.5°	4490.2	4450.5	4463.0	4594.6	5102.3	5153.9	5596.2	5233.9	4447.2	4730.8	4886.1
65°	5071.3	5003.2	4939.7	5030.9	5651.7	5702.6	6042.4	5418.3	4420.7	4587.3	4331.5
67.5°	5803.1	5735.7	5657.6	5743.6	6460.9	6501.2	6593.1	5522.1	4212.5	4034.7	3351.1
70°	6406.7	6381.5	6474.8	6828.4	7753.3	7754.6	7299.1	5436.2	3642.0	2860.6	1939.0
72.5°	6326.7	6311.5	6802.7	7896.1	9382.2	9347.2	7967.5	4785.7	2453.3	1290.5	726.5
75°	5190.2	5288.8	6049.7	7876.9	9967.3	9962.7	7558.3	3042.4	1014.8	534.8	375.5
77.5°	2783.2	2939.2	3927.6	5815.6	7781.1	7898.1	5313.9	1064.4	435.7	342.4	259.8
80°	907.7	1043.9	1565.5	2961.0	5056.0	5034.2	2277.5	417.8	298.2	242.6	179.8
82.5°	385.4	401.3	699.4	1398.2	2594.8	2554.5	725.2	240.0	209.6	165.9	111.1
85°	150.7	168.6	308.7	646.6	1123.9	1099.4	261.8	119.0	134.2	108.4	66.1
87.5°	49.6	60.2	110.4	221.5	349.7	337.2	64.1	41.0	58.2	49.6	23.8
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°	1629.6	1629.6	1629.6	1629.6	1629.6	1629.6	1629.6	1629.6	1629.6	1629.6	1629.6
2.5°	1643.5	1654.1	1666.6	1685.1	1701.0	1714.2	1728.1	1736.7	1740.0	1749.9	1749.3
5°	1655.4	1678.5	1709.6	1740.0	1769.7	1787.6	1803.5	1811.4	1818.7	1824.0	1825.3
7.5°	1675.2	1705.0	1753.9	1793.5	1818.7	1833.2	1843.8	1841.1	1843.8	1845.1	1847.1
10°	1692.4	1734.0	1792.2	1829.9	1849.1	1849.7	1847.1	1837.8	1833.2	1833.9	1835.2
12.5°	1712.9	1759.2	1822.0	1853.7	1859.0	1844.5	1833.2	1817.3	1811.4	1808.8	1807.4
15°	1740.7	1793.5	1854.4	1866.3	1853.0	1834.5	1815.4	1789.6	1776.4	1765.8	1769.1
17.5°	1774.4	1832.6	1879.5	1870.9	1842.5	1812.1	1781.0	1742.0	1714.9	1703.6	1704.3
20°	1821.3	1873.5	1898.7	1861.0	1818.0	1771.7	1718.8	1671.2	1646.1	1634.9	1633.6
22.5°	1878.2	1928.4	1917.2	1843.8	1783.0	1708.9	1642.8	1607.8	1595.2	1587.3	1588.6
25°	1946.3	1989.2	1930.4	1818.7	1725.5	1625.6	1574.7	1563.5	1557.5	1551.6	1551.6
27.5°	2034.8	2058.0	1940.3	1781.6	1635.5	1537.0	1518.5	1520.5	1518.5	1508.6	1510.6
30°	2151.9	2147.2	1949.6	1721.5	1532.4	1457.1	1458.4	1467.0	1468.3	1461.7	1465.0
32.5°	2305.9	2259.0	1954.2	1643.5	1433.9	1387.0	1388.3	1397.6	1404.2	1392.9	1398.2
35°	2492.3	2389.2	1946.9	1545.6	1357.9	1320.2	1310.3	1312.9	1314.9	1304.3	1311.6
37.5°	2709.8	2535.3	1914.5	1437.2	1295.1	1254.8	1233.6	1215.8	1205.2	1195.3	1201.9
40°	2948.5	2694.6	1855.0	1331.4	1225.0	1185.3	1153.6	1119.9	1084.2	1071.0	1076.9
42.5°	3198.4	2858.6	1783.0	1230.3	1144.4	1112.0	1078.2	1029.3	975.8	948.7	952.0
45°	3457.5	3026.5	1712.2	1130.5	1061.7	1047.8	1008.8	950.0	891.8	857.4	854.8
47.5°	3711.4	3185.2	1608.4	1030.0	984.4	999.6	969.2	915.0	850.2	796.0	790.0
50°	3954.0	3333.9	1438.5	928.2	921.6	985.0	955.9	877.9	803.9	734.5	728.5
52.5°	4194.6	3454.2	1221.0	835.6	887.8	981.1	938.8	852.8	762.2	689.5	681.6
55°	4398.9	3516.4	1011.5	756.3	838.9	947.3	918.3	823.1	703.4	626.1	619.4
57.5°	4515.3	3466.1	836.9	678.3	771.5	891.8	883.2	759.6	633.3	573.8	565.9
60°	4465.0	3262.5	694.1	610.2	707.4	831.7	822.4	696.8	579.8	523.6	515.7
62.5°	4188.0	2874.4	581.1	550.7	649.2	770.2	761.6	648.5	538.8	484.6	476.0
65°	3630.1	2338.3	493.2	501.1	590.4	696.1	708.7	608.2	506.4	453.5	444.9
67.5°	2768.7	1693.7	424.4	458.1	532.8	623.4	659.8	579.1	479.3	429.1	421.1
70°	1578.0	961.9	366.2	416.5	481.9	556.0	622.1	556.0	450.2	408.6	403.3
72.5°	598.3	441.6	316.7	374.8	433.0	499.1	580.4	519.6	416.5	385.4	380.1
75°	319.3	269.1	266.4	325.9	376.8	443.6	528.2	483.9	391.4	407.2	420.5
77.5°	217.5	190.4	222.8	279.0	315.3	382.1	472.7	429.7	339.1	337.8	311.4
80°	150.7	134.9	181.1	224.8	243.9	321.3	412.5	368.9	276.3	257.8	246.6
82.5°	90.6	87.9	135.5	167.9	172.5	247.9	341.8	309.4	226.1	197.0	198.3
85°	49.6	52.2	86.6	98.5	100.5	173.2	267.7	239.3	173.9	146.1	147.4
87.5°	13.9	17.8	31.7	39.0	48.3	89.9	159.3	142.1	87.3	60.8	60.8
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)