

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: P882634

Luminaire Tested: **NAV-SB2C-835-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882634
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2C-835-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3500K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12766 lumens
Efficiency: N/A
Efficacy: 126.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G3

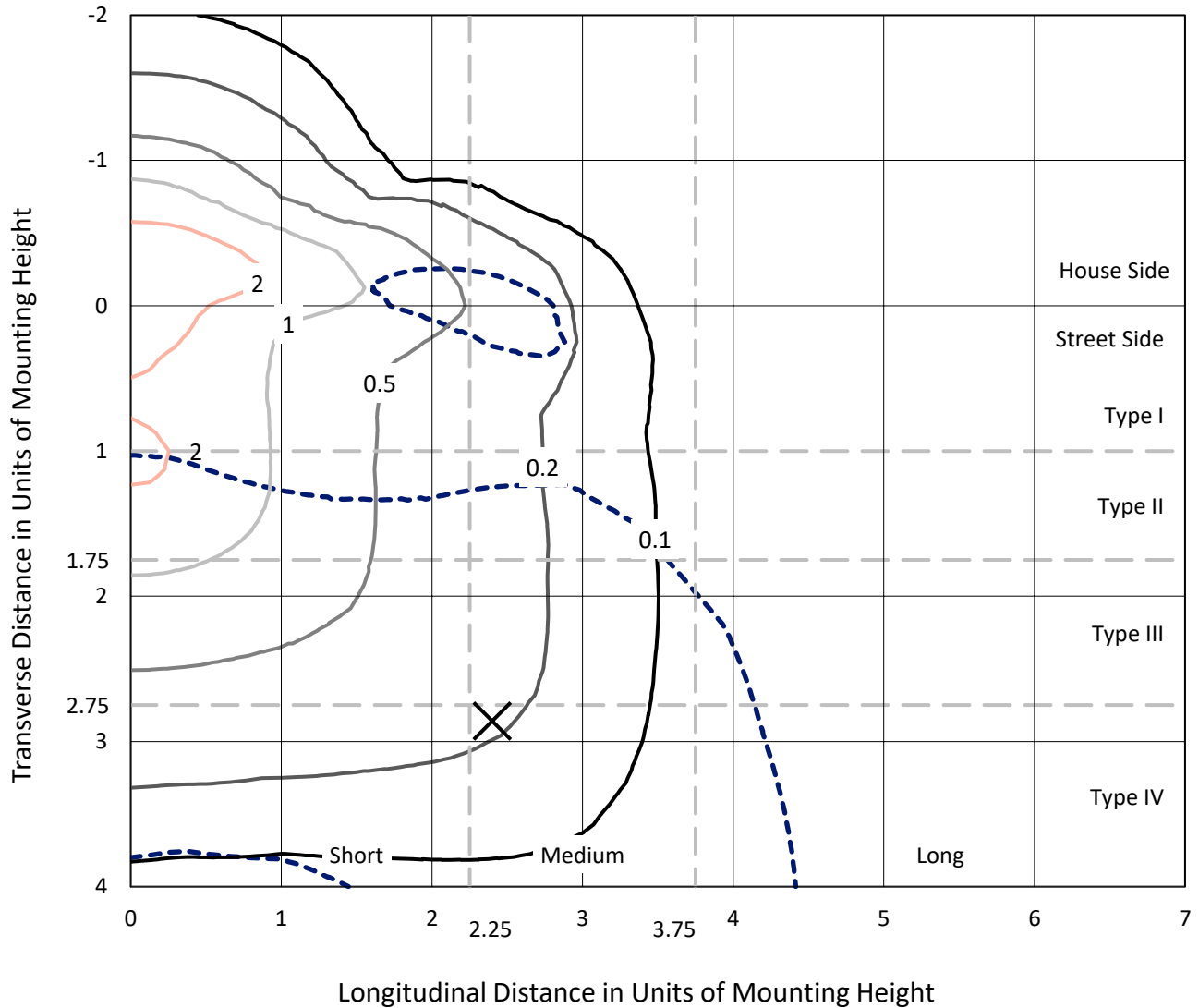
Input Watts (W): 100.9
Input Voltage (V): 120.0
Input Current (Ain): 0.857
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.472
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

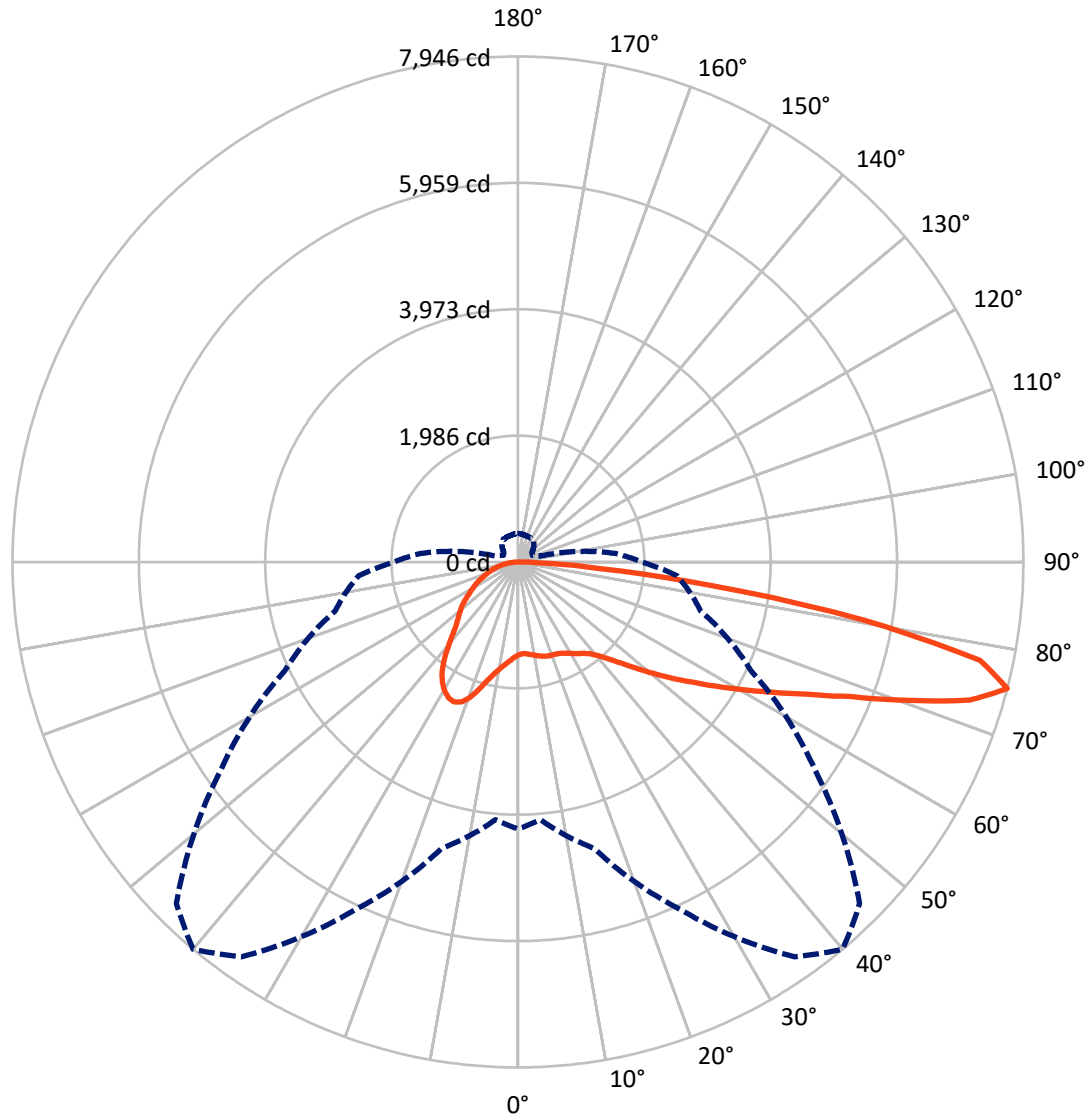
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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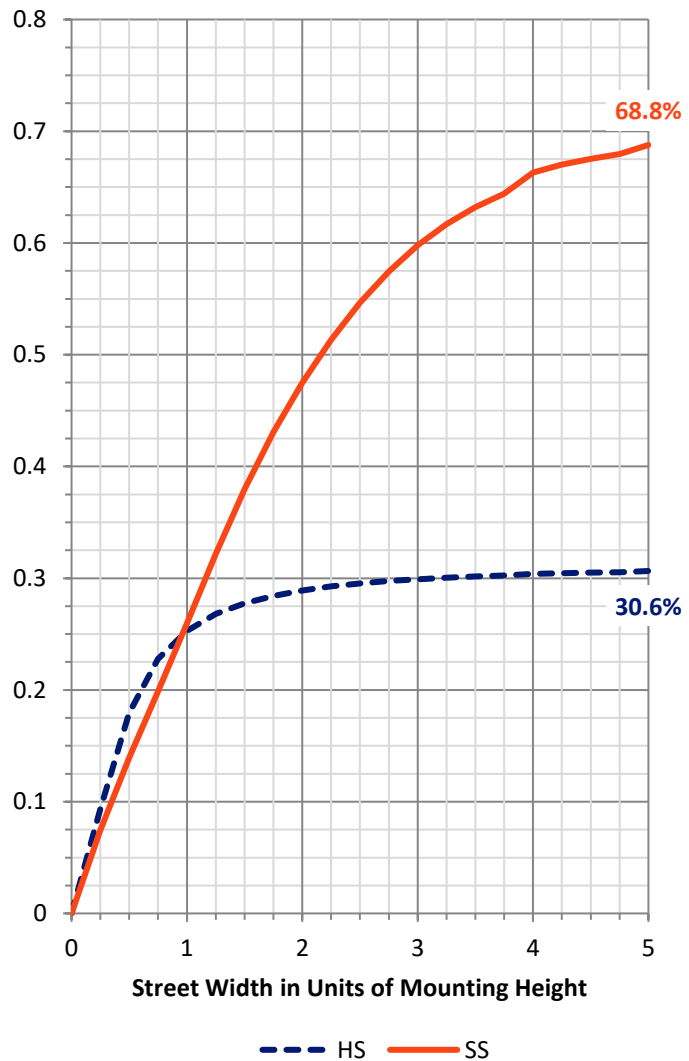
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3955.3	0.0	3955.3
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	8810.7	0.0	8810.7
	% Fixture	69.0	0.0	69.0
Total	Lumens	12766.0	0.0	12766.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.7	1.1
10°-20°	489.2	3.8
20°-30°	893.3	7.0
30°-40°	1267.0	9.9
40°-50°	1710.8	13.4
50°-60°	2301.4	18.0
60°-70°	2921.1	22.9
70°-80°	2651.0	20.8
80°-90°	386.4	3.0
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°	12766.0	100.0
0°-180°	12766.0	100.0

Coefficient of Utilization



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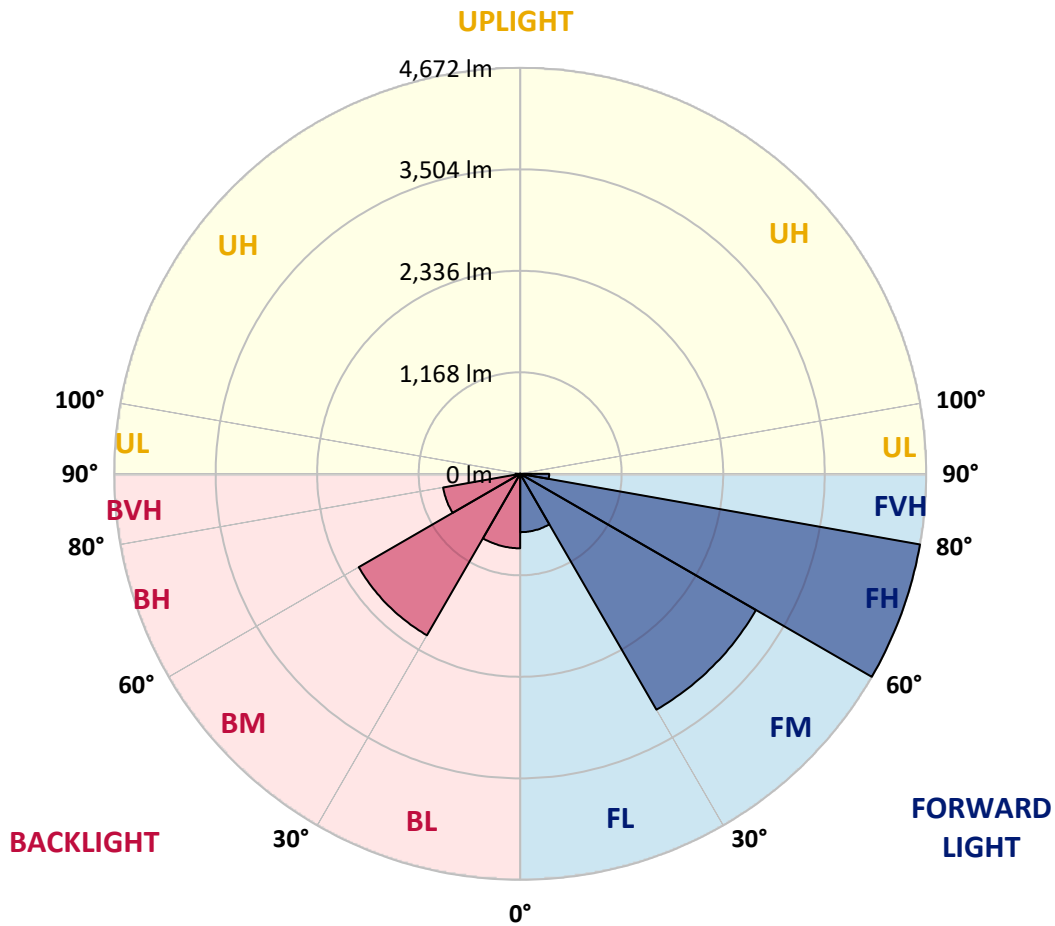
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	671.5	5.3			
FM (30°-60°)	3133.8	24.5			
FH (60°-80°)	4672.2	36.6			G2/5000
FVH (80°-90°)	333.2	2.6			G3/500
BL (0°-30°)	856.8	6.7	B2/1000		
BM (30°-60°)	2145.4	16.8	B2/2500		
BH (60°-80°)	900.0	7.0	B2/1000		G2/1000
BVH (80°-90°)	53.2	0.4			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 Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1459.8	1459.8	1459.8	1459.8	1459.8	1459.8	1459.8	1459.8	1459.8	1459.8	1459.8
2.5°	1437.5	1445.6	1443.6	1440.9	1440.9	1441.5	1440.9	1445.6	1450.3	1455.1	1462.5
5°	1452.4	1460.5	1456.4	1453.0	1450.3	1449.7	1447.6	1446.9	1449.7	1455.7	1465.9
7.5°	1481.5	1489.6	1483.5	1477.4	1472.0	1469.3	1466.6	1462.5	1460.5	1463.9	1478.1
10°	1514.0	1522.1	1514.7	1503.8	1495.0	1491.6	1488.9	1484.9	1482.2	1484.2	1499.8
12.5°	1546.5	1554.6	1544.4	1529.5	1518.0	1516.0	1512.6	1511.3	1510.6	1509.9	1525.5
15°	1576.9	1583.7	1570.9	1553.2	1541.1	1537.7	1534.3	1536.3	1539.7	1543.8	1561.4
17.5°	1600.6	1607.4	1588.5	1565.4	1553.9	1552.6	1550.5	1557.3	1566.8	1576.9	1598.6
20°	1622.3	1629.1	1604.7	1573.6	1560.0	1560.0	1560.7	1574.9	1588.5	1603.4	1633.1
22.5°	1652.8	1658.2	1628.4	1585.7	1566.1	1567.5	1572.9	1587.1	1604.0	1624.3	1665.6
25°	1698.1	1702.2	1665.6	1608.8	1586.4	1590.5	1595.2	1602.0	1618.2	1641.9	1697.5
27.5°	1771.3	1774.7	1726.6	1649.4	1615.5	1622.3	1629.1	1624.3	1631.8	1652.1	1723.2
30°	1874.2	1876.2	1815.3	1713.0	1665.0	1668.4	1669.7	1650.1	1635.9	1652.1	1741.5
32.5°	1996.1	1995.4	1922.9	1790.2	1721.2	1717.8	1706.3	1667.7	1634.5	1648.7	1757.7
35°	2185.0	2177.5	2084.1	1898.6	1784.8	1763.8	1736.7	1687.3	1641.3	1645.3	1771.9
37.5°	2497.8	2474.8	2345.4	2076.0	1879.6	1826.1	1786.2	1719.1	1656.2	1644.0	1788.9
40°	2850.6	2821.4	2679.3	2319.0	2021.8	1935.8	1871.5	1764.5	1680.5	1650.1	1813.9
42.5°	3269.0	3227.7	3074.7	2605.4	2201.9	2077.3	1980.5	1822.1	1716.4	1669.7	1847.8
45°	3782.9	3728.1	3511.4	2928.4	2428.7	2262.8	2133.5	1909.4	1771.3	1707.6	1898.6
47.5°	4302.2	4315.8	4007.7	3298.1	2700.9	2491.7	2325.1	2040.8	1851.2	1768.6	1980.5
50°	4854.1	4863.5	4501.3	3707.8	3009.7	2750.3	2540.4	2187.7	1962.2	1855.2	2103.0
52.5°	5284.7	5286.1	4949.5	4136.4	3331.3	3034.7	2772.7	2355.6	2090.9	1970.3	2266.2
55°	5554.2	5550.8	5263.7	4541.9	3701.0	3333.3	3030.0	2546.5	2247.9	2105.8	2471.4
57.5°	5749.9	5739.7	5480.4	4890.6	4095.0	3686.1	3321.1	2763.2	2433.5	2266.9	2741.5
60°	5824.3	5818.2	5627.3	5191.9	4509.4	4076.1	3657.0	3005.6	2644.0	2457.2	3088.9
62.5°	5852.8	5864.3	5771.5	5483.8	4952.9	4508.1	4026.0	3295.4	2881.0	2672.5	3455.2
65°	5953.0	5974.0	5955.0	5865.6	5454.0	5013.9	4515.5	3640.0	3139.7	2903.4	3837.8
67.5°	6151.4	6172.4	6180.5	6322.7	6066.1	5644.2	5126.3	4069.3	3442.3	3143.1	4125.5
70°	6146.6	6140.5	6284.1	6686.3	6832.5	6517.0	5949.6	4597.5	3803.2	3342.1	4162.1
72.5°	5594.8	5546.1	5885.3	6682.2	7470.3	7428.4	6955.1	5278.6	4114.7	3366.5	3611.6
75°	4197.3	4067.3	4666.5	6022.1	7576.7	7945.7	7594.3	5701.1	4040.9	2974.5	2513.4
77.5°	1795.0	1664.3	2370.5	4458.0	6781.1	7427.7	7007.9	4973.9	3225.7	1967.0	1234.3
80°	469.9	469.2	716.4	2021.1	4611.7	5485.1	4812.1	3212.1	1843.0	702.8	340.6
82.5°	194.3	189.6	263.4	786.1	2253.4	3078.1	2512.0	1432.7	665.6	190.3	113.1
85°	72.4	71.8	128.0	271.5	794.9	1269.5	918.8	366.3	165.9	92.8	50.8
87.5°	20.3	19.6	27.8	94.1	193.6	293.9	157.1	60.3	46.7	36.6	14.9
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°	1459.8	1459.8	1459.8	1459.8	1459.8	1459.8	1459.8	1459.8	1459.8	1459.8	1459.8
2.5°	1464.5	1467.9	1474.0	1478.8	1484.9	1491.6	1501.1	1507.2	1513.3	1517.4	1514.7
5°	1470.6	1478.1	1493.7	1509.2	1527.5	1544.4	1564.1	1578.3	1589.8	1593.2	1594.6
7.5°	1484.2	1496.4	1522.8	1549.2	1578.3	1606.1	1634.5	1658.9	1678.5	1686.0	1686.6
10°	1507.9	1524.1	1561.4	1598.6	1637.2	1679.9	1716.4	1751.6	1779.4	1790.9	1791.6
12.5°	1537.7	1558.0	1606.7	1658.2	1711.7	1770.6	1818.0	1861.3	1895.9	1911.4	1911.4
15°	1576.3	1602.7	1665.0	1734.0	1812.6	1894.5	1954.8	2002.8	2041.4	2060.4	2059.0
17.5°	1618.2	1653.5	1732.0	1836.3	1948.7	2056.3	2126.7	2162.0	2201.9	2220.2	2219.5
20°	1658.9	1702.2	1814.6	1966.3	2115.9	2230.3	2287.2	2296.7	2299.4	2301.4	2306.9
22.5°	1700.9	1759.1	1918.2	2130.1	2290.6	2369.8	2377.9	2337.3	2280.4	2254.0	2261.5
25°	1746.9	1824.1	2053.6	2310.9	2440.9	2450.4	2388.1	2289.2	2181.6	2132.2	2139.6
27.5°	1791.6	1899.2	2216.1	2483.6	2549.2	2466.0	2331.9	2191.7	2061.7	2009.6	2015.7
30°	1836.3	1985.2	2395.5	2634.6	2598.7	2427.4	2243.2	2086.8	1956.1	1901.3	1907.4
32.5°	1881.6	2085.4	2602.1	2743.6	2589.9	2345.4	2132.8	1969.0	1853.9	1796.3	1803.8
35°	1933.1	2208.7	2797.7	2803.2	2531.0	2224.9	1987.3	1828.1	1727.9	1681.9	1692.1
37.5°	2000.1	2365.1	2970.4	2818.1	2428.0	2048.2	1806.5	1661.6	1579.0	1558.0	1572.9
40°	2083.4	2553.3	3102.4	2794.4	2275.7	1833.6	1608.8	1493.0	1446.3	1451.0	1467.3
42.5°	2191.7	2763.9	3195.2	2733.4	2063.8	1612.2	1435.4	1384.0	1406.3	1425.3	1442.9
45°	2332.6	2982.6	3252.7	2629.8	1824.1	1424.6	1333.2	1345.4	1362.3	1364.3	1377.9
47.5°	2512.7	3204.0	3290.7	2473.4	1579.7	1292.6	1268.2	1270.9	1267.5	1253.3	1264.1
50°	2737.5	3419.3	3324.5	2266.2	1371.8	1210.0	1177.5	1168.0	1121.3	1075.2	1081.3
52.5°	2993.4	3617.0	3338.7	2008.9	1210.0	1140.9	1088.1	1028.5	941.2	926.9	931.7
55°	3277.8	3799.8	3302.2	1692.7	1073.9	1052.2	972.3	900.5	891.1	878.9	880.9
57.5°	3617.7	3996.9	3227.7	1340.0	934.4	948.6	870.7	878.9	861.9	843.0	839.6
60°	3989.4	4200.7	3097.0	1018.3	790.2	819.3	844.3	843.7	838.9	823.3	817.9
62.5°	4323.9	4334.7	2839.7	780.0	663.5	719.1	787.5	786.8	782.7	773.9	770.5
65°	4523.0	4314.4	2410.4	614.1	559.3	636.5	710.3	715.7	716.4	715.7	715.7
67.5°	4487.8	4076.8	1821.4	488.9	473.3	552.5	633.8	641.2	646.6	648.0	649.3
70°	4089.6	3554.7	1187.6	390.0	396.8	478.7	561.3	568.8	573.5	578.9	581.6
72.5°	3187.7	2613.6	679.8	315.5	329.7	415.1	489.5	498.3	501.0	511.2	515.3
75°	1942.6	1537.0	367.0	248.5	270.8	354.8	418.4	428.6	433.3	445.5	446.9
77.5°	923.6	665.6	209.2	193.6	218.0	289.8	353.4	365.0	352.1	358.9	353.4
80°	312.1	247.1	132.0	147.6	166.6	226.1	283.0	294.5	267.5	266.1	263.4
82.5°	109.0	100.2	84.0	98.2	107.7	161.8	214.0	228.9	199.1	198.4	188.9
85°	42.7	40.6	46.7	53.5	64.3	99.5	140.8	148.3	122.6	98.9	97.5
87.5°	8.8	9.5	11.5	12.2	19.6	34.5	50.8	62.3	49.4	42.0	38.6
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)