

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: P960917

Luminaire Tested: **NAV-SB1D-740-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960917
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-SB1D-740-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 4000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE III ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11332.4 lumens
Efficiency: N/A
Efficacy: 142.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G2

Input Watts (W): 79.6
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

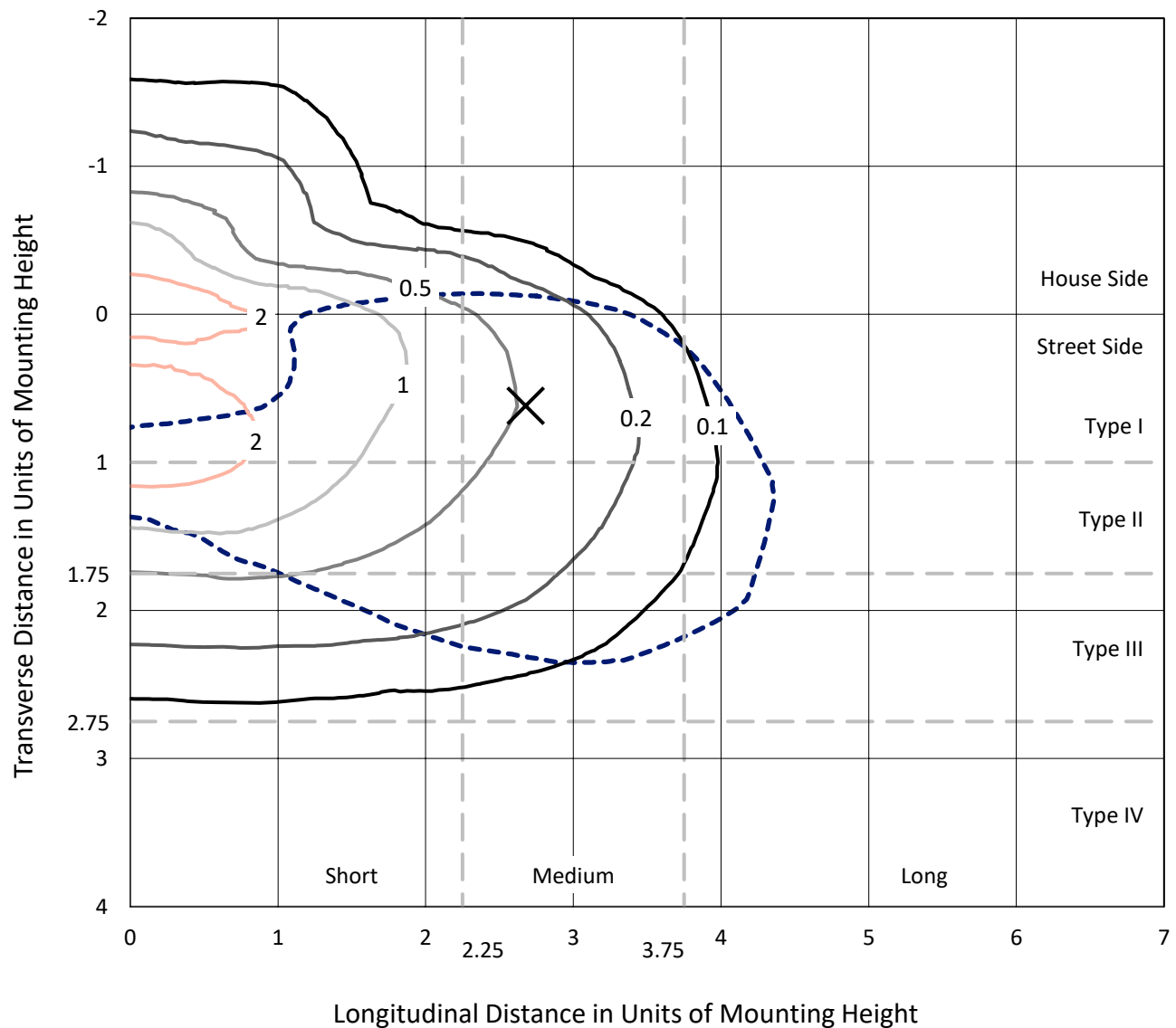


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Iso-Footcandle Lines of Horizontal Illumination

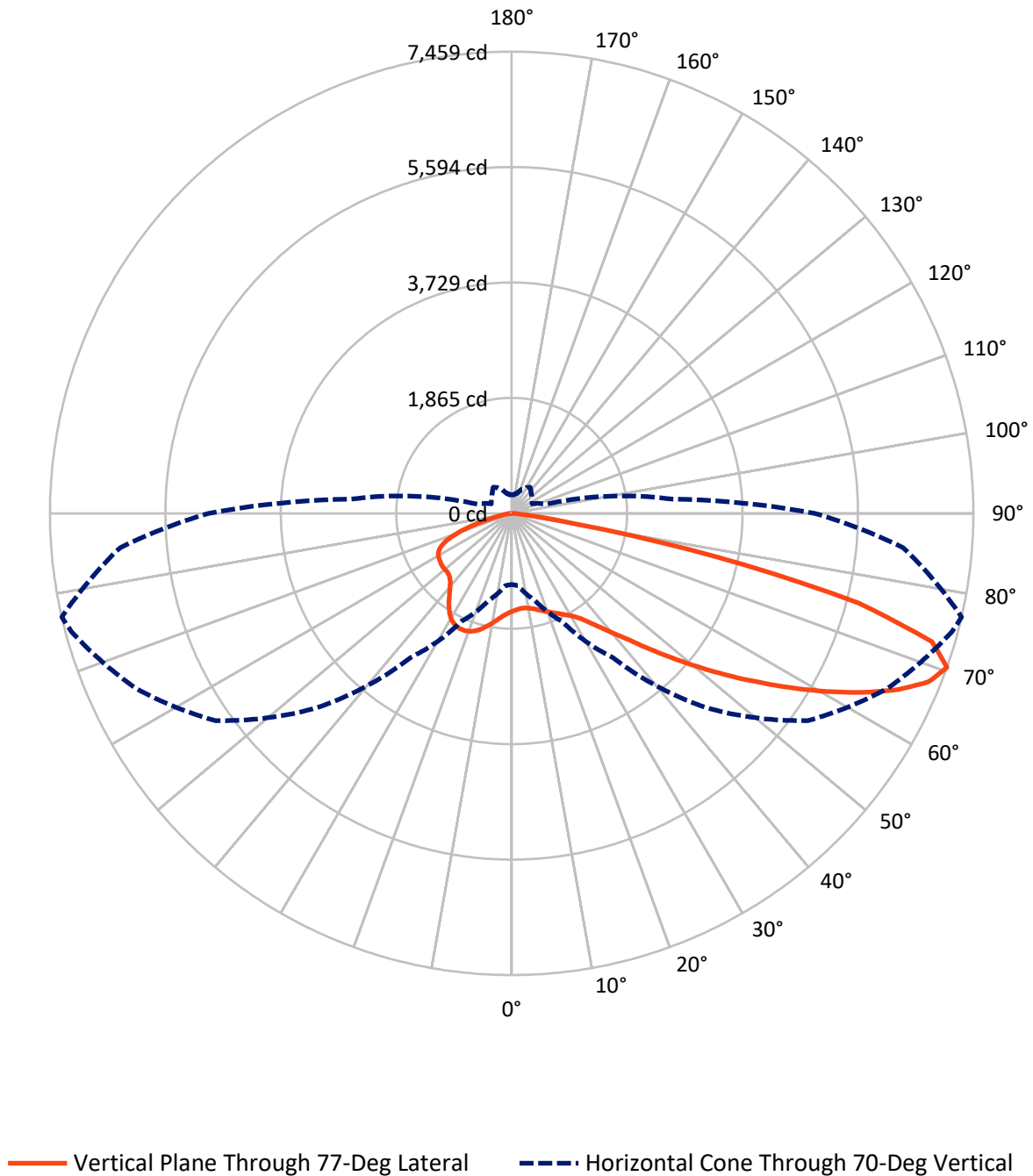
× Max cd
- - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2481.6	0.0	2481.6
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	8850.8	0.0	8850.8
	% Fixture	78.1	0.0	78.1
Total	Lumens	11332.4	0.0	11332.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.8	1.3
10°-20°	435.2	3.8
20°-30°	744.2	6.6
30°-40°	1196.8	10.6
40°-50°	1868.4	16.5
50°-60°	2495.8	22.0
60°-70°	2660.1	23.5
70°-80°	1637.6	14.5
80°-90°	143.5	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°	11332.4	100.0
0°-180°	11332.4	100.0

Coefficient of Utilization



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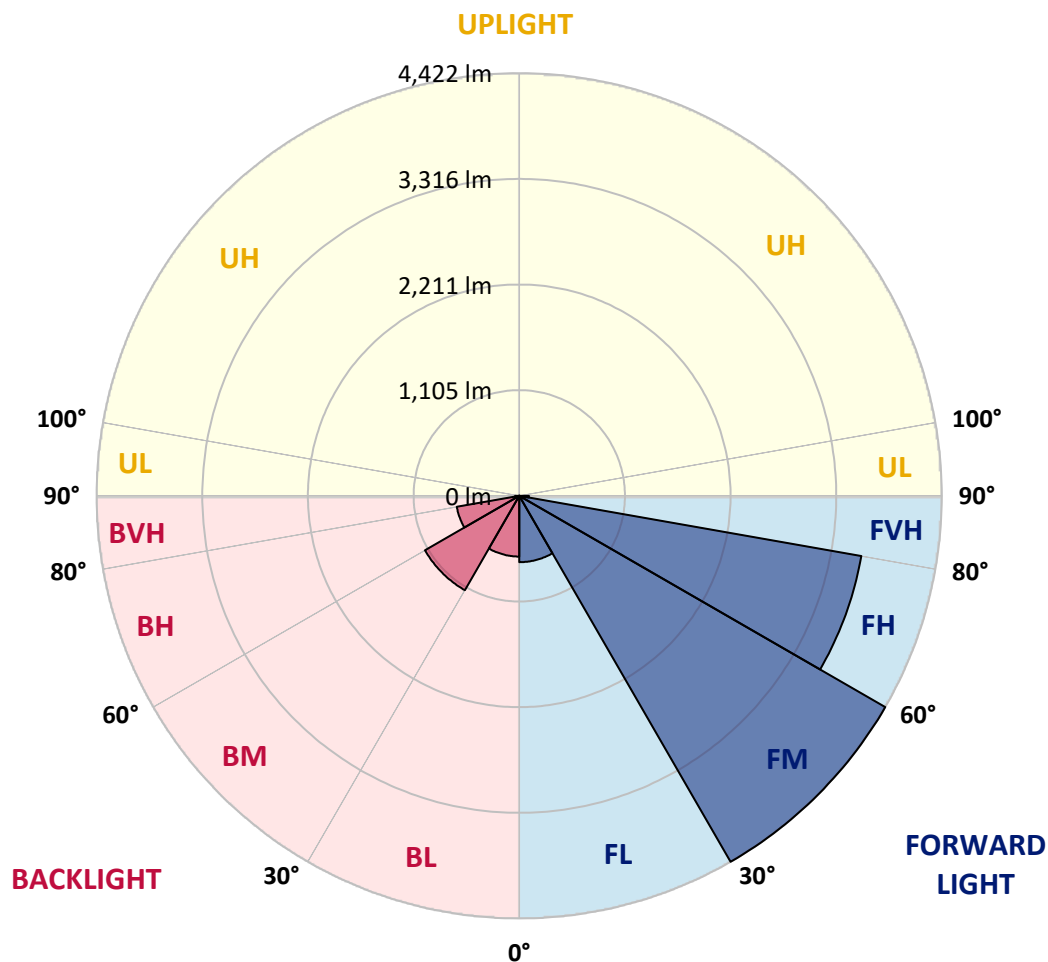
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	694.3	6.1			
FM	(30°-60°)	4421.6	39.0			
FH	(60°-80°)	3634.5	32.1			G2/5000
FVH	(80°-90°)	100.3	0.9			G2/225
BL	(0°-30°)	635.9	5.6	B2/1000		
BM	(30°-60°)	1139.4	10.1	B2/2500		
BH	(60°-80°)	663.2	5.9	B2/1000		G2/1000
BVH	(80°-90°)	43.2	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-G2

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	1581.0	1581.0	1581.0	1581.0	1581.0	1581.0	1581.0	1581.0	1581.0	1581.0	1581.0
2.5°	1457.3	1456.7	1464.3	1466.7	1480.6	1490.5	1509.0	1528.8	1554.3	1557.2	1572.9
5°	1373.2	1373.2	1381.9	1391.2	1409.2	1429.0	1457.3	1491.6	1535.7	1542.6	1581.6
7.5°	1301.9	1306.5	1313.9	1332.0	1352.9	1381.3	1424.9	1473.6	1531.7	1542.6	1605.4
10°	1244.4	1249.6	1258.9	1273.4	1304.7	1344.2	1401.1	1463.7	1541.5	1558.9	1640.2
12.5°	1226.3	1231.5	1236.8	1247.8	1276.8	1323.3	1391.2	1468.4	1565.3	1582.7	1687.8
15°	1268.1	1274.5	1270.5	1267.5	1282.7	1325.0	1395.8	1485.2	1594.9	1619.9	1746.4
17.5°	1364.5	1366.8	1357.5	1330.2	1327.9	1350.5	1417.9	1508.4	1632.0	1659.4	1805.5
20°	1520.1	1516.0	1496.8	1442.8	1412.0	1407.4	1455.6	1543.2	1670.3	1699.3	1869.4
22.5°	1731.3	1726.6	1688.4	1603.0	1534.5	1489.2	1510.1	1588.5	1713.3	1745.8	1931.5
25°	1994.8	1988.4	1932.1	1816.0	1709.8	1597.8	1584.4	1648.3	1766.1	1796.3	1996.5
27.5°	2302.4	2297.1	2236.2	2083.0	1929.8	1746.4	1676.7	1718.5	1821.2	1855.5	2069.7
30°	2633.2	2648.3	2540.4	2375.5	2181.7	1940.2	1800.9	1805.0	1892.7	1923.4	2158.4
32.5°	3022.1	3048.1	2918.2	2709.3	2444.6	2151.0	1957.6	1925.8	1996.5	2022.0	2270.5
35°	3407.4	3437.0	3329.1	3098.1	2793.4	2399.3	2121.3	2064.5	2134.7	2162.5	2419.1
37.5°	3740.6	3780.1	3724.3	3523.5	3166.6	2698.8	2334.8	2227.5	2304.7	2339.6	2618.7
40°	4003.5	4063.8	4059.8	3934.5	3606.6	3062.1	2606.0	2428.9	2516.0	2553.7	2860.8
42.5°	4217.1	4269.3	4314.6	4308.2	4065.6	3474.7	2924.5	2690.6	2756.8	2800.4	3132.9
45°	4364.6	4420.2	4517.7	4622.8	4507.2	3916.4	3289.6	3001.2	3061.6	3127.2	3457.3
47.5°	4496.3	4559.5	4686.0	4852.7	4882.2	4359.8	3689.5	3362.7	3417.9	3485.8	3783.0
50°	4507.8	4562.4	4758.6	4994.8	5148.6	4785.8	4119.0	3768.4	3820.1	3892.6	4131.8
52.5°	4227.5	4313.4	4655.9	4990.7	5271.1	5142.2	4545.6	4190.4	4248.4	4335.4	4492.8
55°	3281.5	3407.4	4354.6	4835.2	5227.5	5372.6	4951.3	4639.0	4713.4	4804.5	4856.1
57.5°	2826.4	2881.6	3456.8	4551.9	5029.1	5432.4	5293.7	5092.3	5211.9	5311.7	5240.3
60°	2540.4	2586.2	2926.3	4111.5	4767.9	5337.8	5558.4	5514.8	5721.4	5840.4	5633.2
62.5°	2233.9	2277.4	2586.8	3433.0	4433.5	5180.6	5725.5	5904.8	6243.8	6373.8	6003.5
65°	1929.8	1967.0	2263.5	2884.6	4008.8	5023.2	5812.0	6242.0	6727.3	6861.9	6311.1
67.5°	1590.8	1621.6	1901.9	2433.6	3492.2	4808.0	5854.9	6507.3	7148.0	7263.6	6463.1
70°	1148.0	1171.8	1461.4	1924.5	2843.9	4437.6	5837.5	6695.3	7366.3	7458.5	6348.2
72.5°	542.6	564.2	904.3	1249.6	2008.7	3716.8	5485.2	6546.2	7144.6	7098.7	5644.9
75°	289.6	308.2	519.5	685.4	1061.0	2547.9	4488.7	5639.0	5999.4	5776.6	4171.9
77.5°	196.2	210.6	321.5	411.5	484.6	1209.5	2885.1	3904.2	3756.2	3388.3	2089.4
80°	155.5	170.7	263.5	278.6	234.5	437.1	1192.1	1807.3	1298.4	1038.3	594.3
82.5°	119.5	136.4	221.7	201.9	127.7	179.4	347.1	571.6	332.6	253.1	143.9
85°	73.1	91.1	174.1	128.8	72.0	81.8	117.8	159.0	101.6	84.8	51.7
87.5°	37.1	52.3	88.3	47.0	32.5	19.2	31.4	31.4	26.6	23.2	13.3
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°	1581.0	1581.0	1581.0	1581.0	1581.0	1581.0	1581.0	1581.0	1581.0	1581.0	1581.0
2.5°	1586.8	1598.4	1618.2	1636.7	1651.2	1665.1	1679.1	1686.6	1688.9	1698.2	1703.4
5°	1605.4	1626.8	1665.1	1701.1	1723.7	1737.7	1747.5	1753.4	1754.5	1757.4	1762.1
7.5°	1639.6	1673.8	1727.2	1763.2	1780.0	1778.9	1774.8	1760.3	1754.5	1749.3	1750.5
10°	1687.8	1733.1	1798.6	1823.6	1813.1	1785.2	1749.3	1706.9	1687.2	1668.0	1662.2
12.5°	1747.5	1805.0	1869.4	1868.3	1816.6	1745.3	1661.6	1596.6	1555.4	1525.8	1518.8
15°	1820.1	1886.3	1935.6	1896.1	1783.0	1654.7	1532.2	1447.5	1410.3	1377.8	1374.3
17.5°	1894.9	1965.7	1988.4	1887.4	1698.2	1520.6	1381.9	1315.2	1278.6	1261.2	1266.4
20°	1968.1	2038.3	2019.8	1837.5	1569.4	1368.6	1245.0	1208.4	1200.8	1204.9	1203.1
22.5°	2045.3	2108.0	2026.1	1741.2	1405.1	1213.0	1145.1	1146.3	1163.1	1175.3	1178.1
25°	2124.2	2166.5	2009.3	1601.9	1228.7	1098.7	1081.9	1100.4	1133.4	1157.3	1163.7
27.5°	2200.3	2218.8	1972.7	1429.5	1077.2	1016.8	1019.8	1058.0	1107.9	1141.0	1149.1
30°	2286.2	2265.2	1902.5	1235.6	972.1	946.6	971.0	1015.7	1065.6	1095.2	1102.2
32.5°	2383.0	2305.3	1791.1	1056.3	897.9	890.3	930.4	959.4	981.4	990.1	994.8
35°	2503.8	2361.6	1648.3	930.4	831.1	849.1	887.4	872.9	864.2	859.6	864.2
37.5°	2660.5	2437.7	1481.1	848.5	777.2	819.5	835.2	789.9	755.6	738.8	742.9
40°	2849.1	2549.1	1320.4	785.3	742.9	794.0	766.7	712.2	668.6	644.8	646.6
42.5°	3058.6	2665.7	1185.1	737.7	723.8	773.1	716.2	651.2	581.0	573.4	581.0
45°	3278.6	2785.8	1092.9	701.1	714.4	755.1	687.2	582.1	532.2	562.9	579.2
47.5°	3498.5	2896.1	1037.2	673.8	709.8	734.7	661.6	543.9	508.4	553.1	574.0
50°	3743.5	2994.8	1012.2	654.1	704.6	726.6	623.3	533.9	483.5	513.0	535.2
52.5°	3986.6	3071.4	993.6	634.4	697.0	720.3	604.8	522.3	453.3	455.0	467.2
55°	4229.3	3121.3	973.3	608.2	680.2	706.3	603.0	509.6	430.6	422.5	428.3
57.5°	4488.2	3149.7	948.3	579.2	651.2	671.0	601.3	499.7	423.6	410.3	412.0
60°	4751.6	3191.5	915.8	543.9	612.3	628.5	597.3	496.2	419.6	397.0	398.7
62.5°	4987.9	3206.1	877.0	510.1	562.4	586.8	588.6	493.3	408.6	369.7	369.7
65°	5142.8	3143.4	809.0	471.8	508.4	543.9	571.6	483.5	388.9	349.9	349.9
67.5°	5136.4	2964.6	702.8	422.5	456.2	496.2	547.3	466.6	365.1	325.6	327.4
70°	4897.3	2611.7	568.2	365.1	398.7	445.2	516.0	441.7	336.6	298.9	302.4
72.5°	4200.2	2044.2	412.7	297.8	332.0	392.4	475.3	411.5	307.6	275.1	273.4
75°	3000.6	1293.7	279.7	228.7	258.3	332.6	424.9	376.1	281.0	276.2	260.6
77.5°	1532.8	618.1	185.1	167.2	179.9	262.3	356.9	336.0	285.0	228.1	203.2
80°	498.6	228.1	116.6	113.8	119.5	174.7	276.2	275.7	215.9	155.0	136.9
82.5°	159.0	98.1	76.1	73.1	70.2	109.7	192.7	218.2	145.7	98.1	97.5
85°	63.2	58.6	44.7	41.2	29.6	51.7	101.0	145.1	108.5	70.8	72.6
87.5°	23.2	23.2	12.2	8.7	6.4	17.4	27.3	43.6	62.1	36.6	36.0
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)