

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: P961447

Luminaire Tested: **NAV-SB2A-740-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961447
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2A-740-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9614.5 lumens
Efficiency: N/A
Efficacy: 167.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 57.3
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

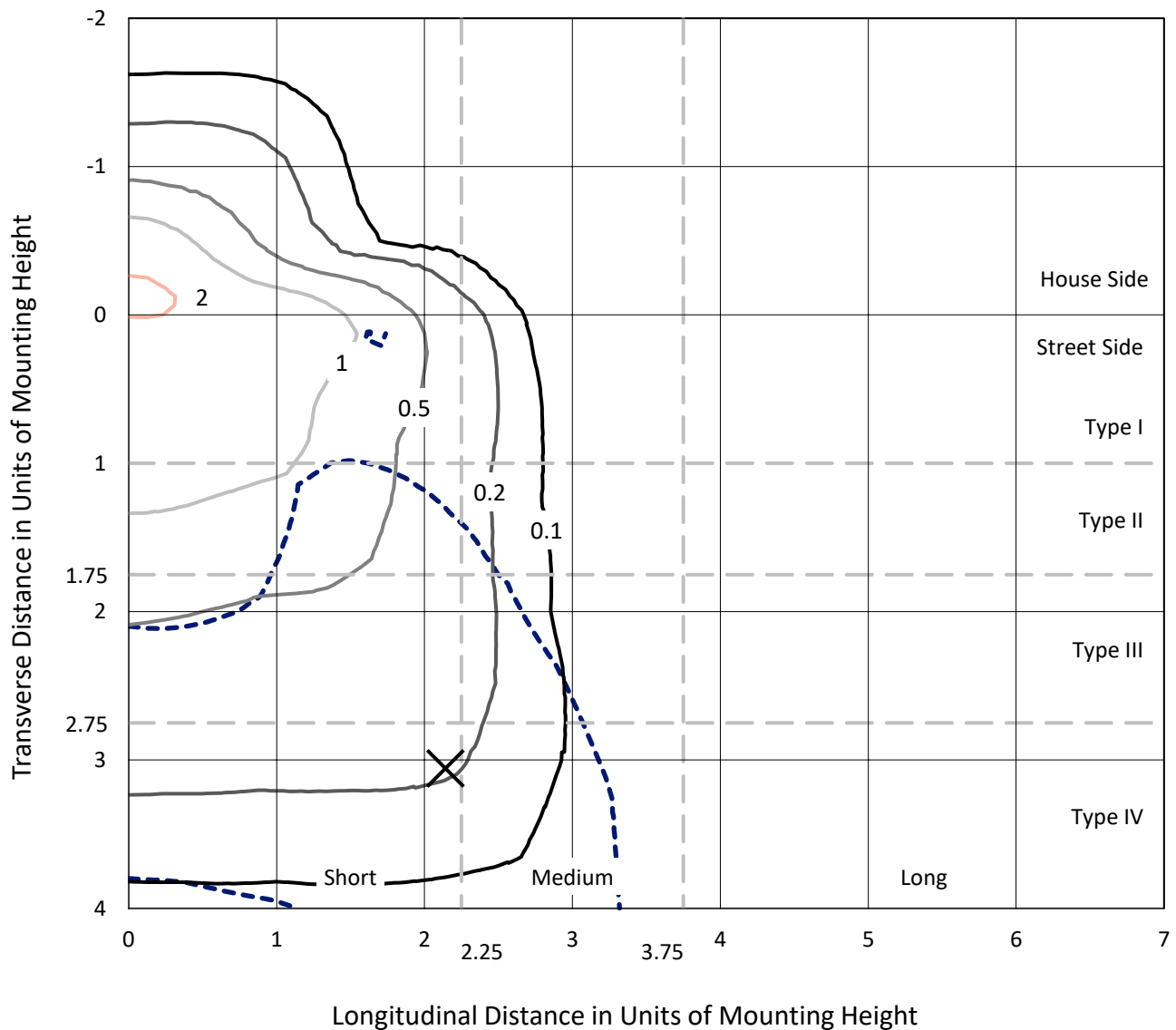


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Iso-Footcandle Lines of Horizontal Illumination

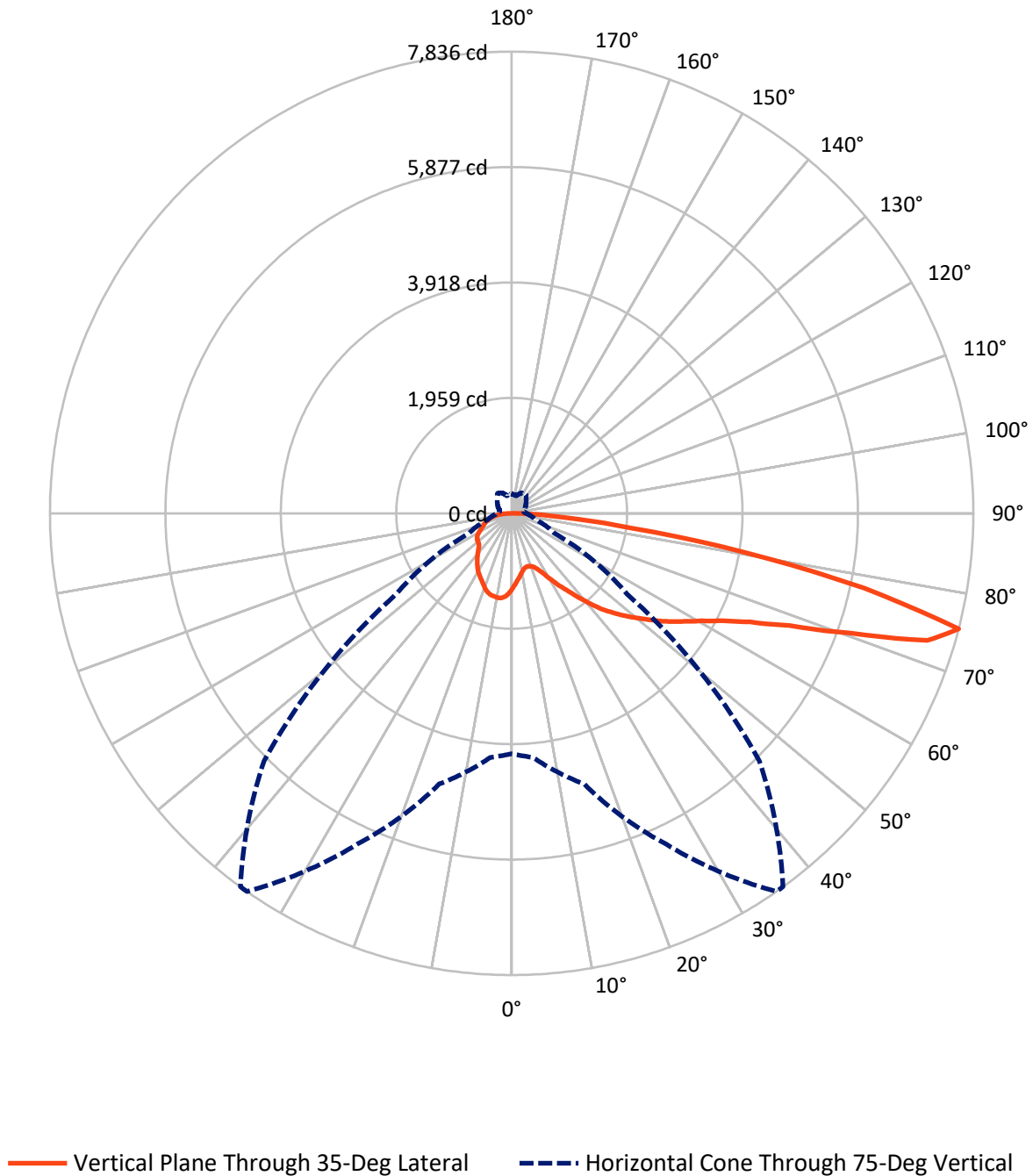
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2288.0	0.0	2288.0
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	7326.5	0.0	7326.5
	% Fixture	76.2	0.0	76.2
Total	Lumens	9614.5	0.0	9614.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.3	1.3
10°-20°	349.9	3.6
20°-30°	587.6	6.1
30°-40°	913.1	9.5
40°-50°	1355.4	14.1
50°-60°	1871.2	19.5
60°-70°	2270.1	23.6
70°-80°	1876.1	19.5
80°-90°	269.8	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°	9614.5	100.0
0°-180°	9614.5	100.0

Coefficient of Utilization



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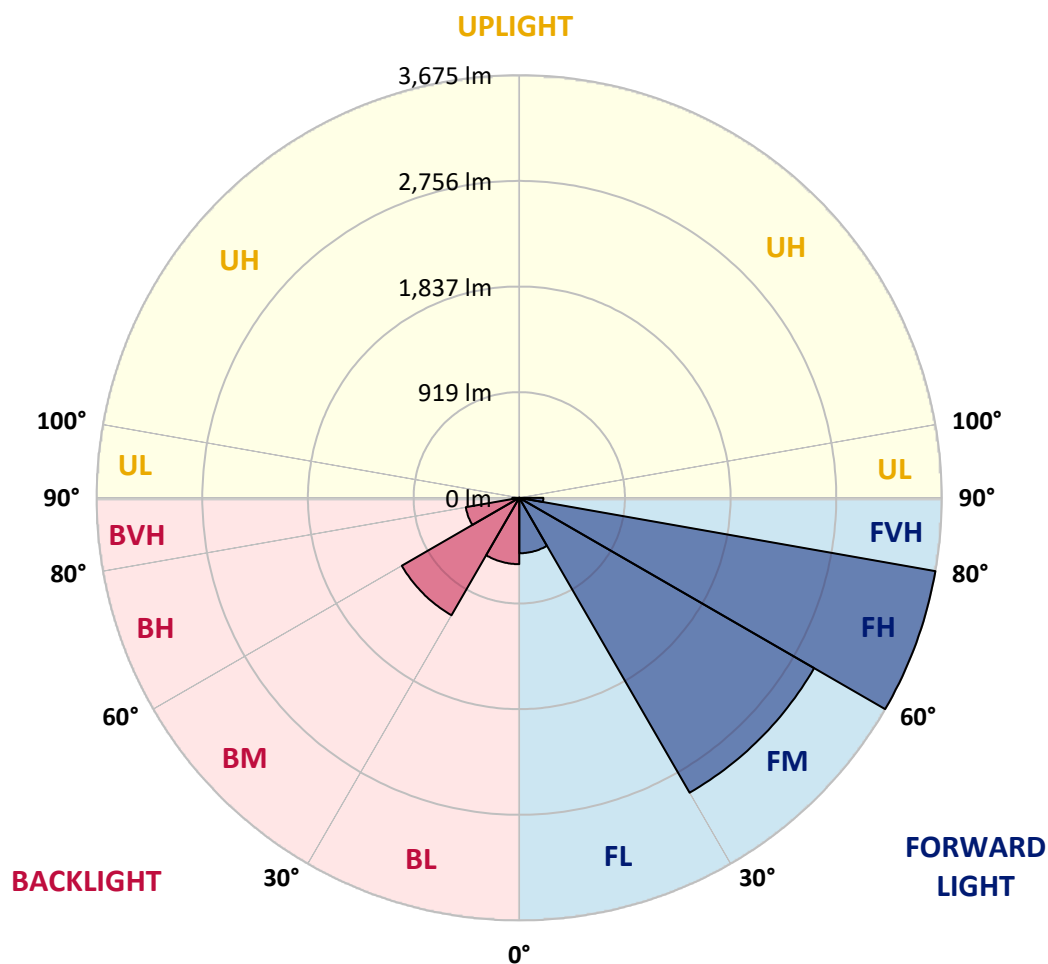
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	482.1	5.0			
FM	(30°-60°)	2960.7	30.8			
FH	(60°-80°)	3674.5	38.2			G2/5000
FVH	(80°-90°)	209.1	2.2			G2/225
BL	(0°-30°)	576.6	6.0	B2/1000		
BM	(30°-60°)	1178.9	12.3	B2/2500		
BH	(60°-80°)	471.7	4.9	B1/500		G1/500
BVH	(80°-90°)	60.8	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-G2

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	1281.1	1281.1	1281.1	1281.1	1281.1	1281.1	1281.1	1281.1	1281.1	1281.1	1281.1
2.5°	1181.4	1188.7	1191.8	1190.2	1198.0	1197.0	1208.0	1221.4	1240.1	1258.3	1284.8
5°	1090.5	1098.3	1104.9	1111.2	1126.3	1131.0	1148.1	1174.1	1208.5	1243.2	1286.9
7.5°	1005.7	1012.5	1022.8	1034.3	1059.7	1064.5	1093.1	1133.5	1181.4	1232.4	1292.6
10°	936.6	943.3	954.3	967.3	999.0	1004.7	1041.1	1095.1	1157.5	1221.9	1298.9
12.5°	907.0	909.1	915.3	928.2	955.8	959.5	999.5	1061.4	1134.1	1214.1	1308.2
15°	905.4	909.6	910.1	916.9	939.7	941.3	978.2	1039.6	1119.5	1212.6	1322.2
17.5°	921.0	924.1	919.4	923.6	942.8	945.5	974.6	1029.1	1114.9	1219.3	1346.1
20°	962.6	965.1	951.2	945.5	959.5	961.6	990.1	1035.9	1119.5	1233.4	1378.9
22.5°	1050.9	1052.5	1018.2	994.8	995.9	996.9	1021.8	1063.4	1137.8	1258.8	1420.4
25°	1188.7	1187.7	1133.0	1087.8	1061.9	1056.2	1072.8	1108.1	1168.4	1292.6	1474.1
27.5°	1349.8	1342.0	1287.4	1219.9	1163.2	1154.9	1151.3	1166.3	1212.1	1337.3	1539.6
30°	1531.8	1524.5	1465.7	1377.4	1298.9	1285.4	1251.0	1243.2	1277.0	1398.1	1630.5
32.5°	1731.3	1726.6	1656.5	1549.4	1444.4	1428.8	1371.1	1350.3	1376.9	1490.1	1757.3
35°	1898.7	1894.5	1836.3	1726.1	1597.8	1578.5	1519.8	1496.4	1509.9	1608.1	1923.1
37.5°	2049.9	2047.8	1997.9	1911.1	1778.6	1755.2	1689.2	1681.4	1678.8	1763.5	2124.2
40°	2190.2	2185.1	2133.1	2087.3	1989.1	1967.8	1909.6	1902.8	1883.0	1954.8	2351.9
42.5°	2345.6	2332.2	2256.7	2235.4	2209.0	2191.2	2156.5	2157.5	2113.9	2170.5	2593.0
45°	2472.5	2464.7	2387.2	2374.7	2403.3	2396.0	2426.2	2434.0	2349.3	2396.6	2843.6
47.5°	2608.6	2601.3	2535.8	2527.0	2604.5	2606.6	2713.1	2715.7	2579.0	2631.5	3094.6
50°	2776.5	2766.2	2701.2	2712.0	2798.9	2806.7	3001.6	2983.9	2790.6	2870.1	3343.6
52.5°	2887.2	2893.5	2879.4	2897.2	3015.7	3022.9	3285.3	3240.1	3000.1	3105.5	3587.9
55°	2968.8	2981.3	3025.0	3065.5	3244.3	3251.6	3553.1	3483.9	3173.6	3323.9	3817.6
57.5°	3073.9	3056.1	3137.7	3216.8	3461.5	3480.8	3813.4	3718.8	3327.5	3512.0	3975.1
60°	3224.5	3212.0	3275.5	3392.4	3704.9	3735.5	4088.9	3930.4	3440.3	3661.2	4005.8
62.5°	3530.2	3499.0	3508.9	3612.3	4011.4	4052.0	4399.7	4114.9	3496.4	3719.4	3841.5
65°	3987.0	3933.5	3883.6	3955.4	4443.4	4483.5	4750.6	4259.9	3475.6	3606.6	3405.5
67.5°	4562.4	4509.4	4448.1	4515.6	5079.6	5111.3	5183.5	4341.5	3311.9	3172.1	2634.7
70°	5037.0	5017.2	5090.5	5368.5	6095.7	6096.7	5738.7	4273.9	2863.3	2249.0	1524.5
72.5°	4974.0	4962.1	5348.2	6207.9	7376.4	7348.8	6264.1	3762.5	1928.8	1014.5	571.2
75°	4080.6	4158.0	4756.3	6192.8	7836.3	7832.7	5942.3	2391.9	797.9	420.5	295.2
77.5°	2188.2	2310.9	3087.9	4572.3	6117.5	6209.6	4177.8	836.8	342.6	269.3	204.3
80°	713.6	820.7	1230.8	2328.0	3975.1	3957.9	1790.6	328.5	234.4	190.8	141.3
82.5°	303.0	315.5	549.9	1099.3	2040.1	2008.4	570.2	188.7	164.7	130.5	87.3
85°	118.5	132.5	242.7	508.3	883.6	864.4	205.8	93.6	105.5	85.3	52.0
87.5°	38.9	47.3	86.8	174.1	274.9	265.1	50.4	32.2	45.7	38.9	18.8
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°	1281.1	1281.1	1281.1	1281.1	1281.1	1281.1	1281.1	1281.1	1281.1	1281.1	1281.1
2.5°	1292.1	1300.4	1310.3	1324.8	1337.3	1347.8	1358.6	1365.4	1368.0	1375.8	1375.2
5°	1301.4	1319.7	1344.1	1368.0	1391.3	1405.4	1417.9	1424.1	1429.9	1434.0	1435.0
7.5°	1317.0	1340.5	1378.9	1410.1	1429.9	1441.3	1449.6	1447.5	1449.6	1450.7	1452.2
10°	1330.6	1363.4	1409.1	1438.7	1453.8	1454.3	1452.2	1444.9	1441.3	1441.8	1442.8
12.5°	1346.6	1383.0	1432.4	1457.3	1461.5	1450.1	1441.3	1428.8	1424.1	1422.1	1421.1
15°	1368.5	1410.1	1458.0	1467.3	1456.8	1442.3	1427.2	1407.0	1396.6	1388.3	1390.8
17.5°	1395.0	1440.7	1477.6	1470.9	1448.5	1424.6	1400.3	1369.6	1348.3	1339.4	1339.9
20°	1431.9	1473.0	1492.7	1463.1	1429.4	1393.0	1351.4	1313.9	1294.2	1285.4	1284.3
22.5°	1476.6	1516.1	1507.3	1449.6	1401.8	1343.6	1291.6	1264.0	1254.2	1247.9	1249.0
25°	1530.1	1563.9	1517.7	1429.9	1356.6	1278.1	1238.1	1229.2	1224.6	1219.9	1219.9
27.5°	1599.8	1618.0	1525.5	1400.8	1285.9	1208.5	1193.9	1195.5	1193.9	1186.1	1187.7
30°	1691.8	1688.2	1532.8	1353.4	1204.8	1145.5	1146.6	1153.3	1154.4	1149.2	1151.8
32.5°	1812.9	1776.0	1536.4	1292.1	1127.4	1090.5	1091.5	1098.8	1103.9	1095.1	1099.3
35°	1959.5	1878.4	1530.6	1215.1	1067.5	1037.9	1030.1	1032.3	1033.8	1025.5	1031.1
37.5°	2130.5	1993.2	1505.2	1130.0	1018.2	986.5	969.9	955.8	947.5	939.7	944.9
40°	2318.1	2118.6	1458.5	1046.8	963.1	931.9	907.0	880.5	852.4	842.0	846.6
42.5°	2514.5	2247.4	1401.8	967.3	899.7	874.2	847.7	809.2	767.1	745.9	748.5
45°	2718.3	2379.4	1346.1	888.8	834.8	823.8	793.1	746.9	701.1	674.1	672.1
47.5°	2917.9	2504.2	1264.5	809.7	773.9	785.9	762.0	719.3	668.4	625.8	621.2
50°	3108.6	2621.1	1131.0	729.7	724.6	774.4	751.5	690.2	632.0	577.5	572.8
52.5°	3297.8	2715.7	960.0	656.9	698.0	771.3	738.1	670.5	599.3	542.1	535.9
55°	3458.5	2764.6	795.2	594.6	659.6	744.8	721.9	647.1	553.0	492.2	487.0
57.5°	3549.9	2725.1	658.0	533.3	606.6	701.1	694.4	597.2	497.9	451.1	445.0
60°	3510.4	2565.0	545.7	479.7	556.2	653.8	646.6	547.9	455.8	411.6	405.4
62.5°	3292.6	2259.9	456.8	433.0	510.4	605.5	598.8	509.8	423.6	381.0	374.2
65°	2854.0	1838.3	387.8	394.0	464.1	547.3	557.2	478.2	398.1	356.6	349.8
67.5°	2176.7	1331.6	333.6	360.2	418.9	490.2	518.8	455.3	376.8	337.3	331.1
70°	1240.7	756.2	287.9	327.5	378.9	437.2	489.1	437.2	353.9	321.2	317.0
72.5°	470.4	347.2	249.0	294.7	340.4	392.4	456.3	408.6	327.5	303.0	298.9
75°	251.0	211.6	209.5	256.2	296.2	348.7	415.3	380.5	307.7	320.2	330.6
77.5°	171.0	149.6	175.2	219.4	247.9	300.4	371.7	337.8	266.6	265.6	244.8
80°	118.5	106.0	142.4	176.7	191.8	252.6	324.3	290.0	217.3	202.7	193.8
82.5°	71.2	69.1	106.6	132.0	135.6	195.0	268.8	243.2	177.7	154.9	155.9
85°	38.9	41.1	68.1	77.5	79.0	136.2	210.5	188.2	136.7	114.9	115.9
87.5°	10.9	14.0	24.9	30.6	37.9	70.7	125.3	111.7	68.6	47.9	47.9
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)