

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: P961444

Luminaire Tested: **NAV-SB2A-740-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961444
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-SB2A-740-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9986.6 lumens
Efficiency: N/A
Efficacy: 174.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
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



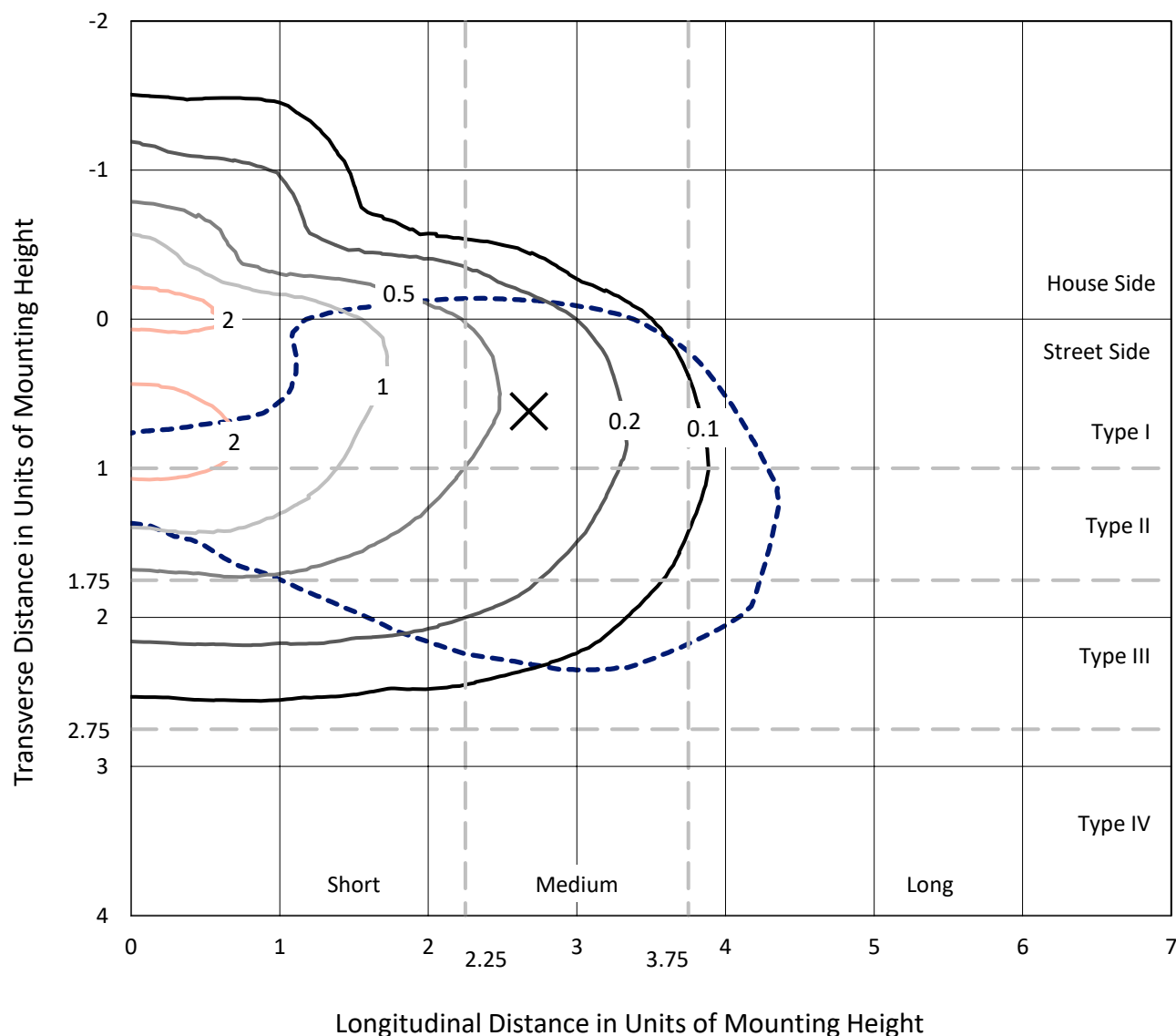
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd



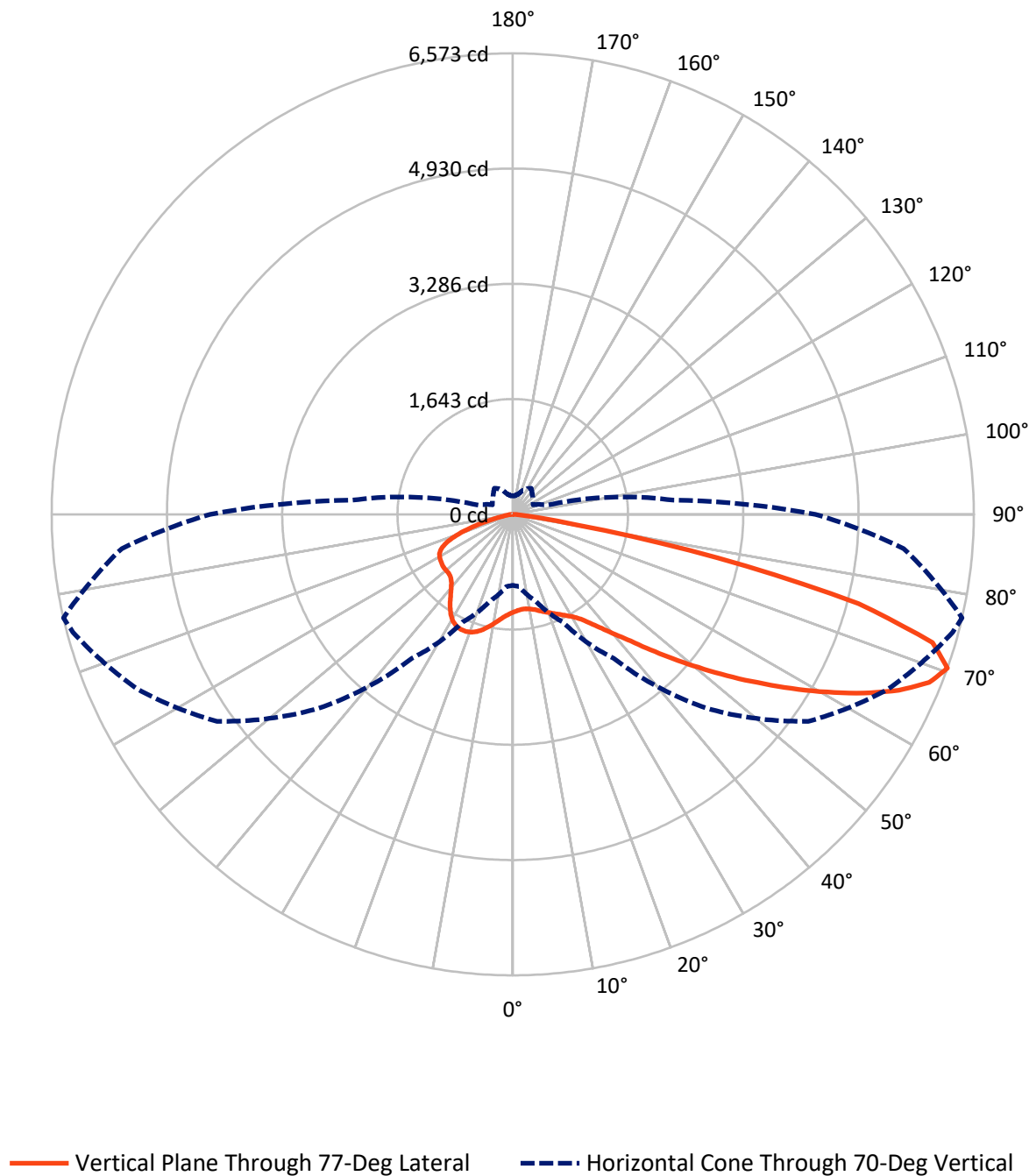
Based on 25 foot mounting height. Maximum calculated value = 2.6 fc

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	2186.9	0.0	2186.9
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	7799.7	0.0	7799.7
	% Fixture	78.1	0.0	78.1
Total	Lumens	9986.6	0.0	9986.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.9	1.3
10°-20°	383.5	3.8
20°-30°	655.8	6.6
30°-40°	1054.6	10.6
40°-50°	1646.6	16.5
50°-60°	2199.4	22.0
60°-70°	2344.2	23.5
70°-80°	1443.1	14.5
80°-90°	126.4	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°	9986.6	100.0
0°-180°	9986.6	100.0

Coefficient of Utilization



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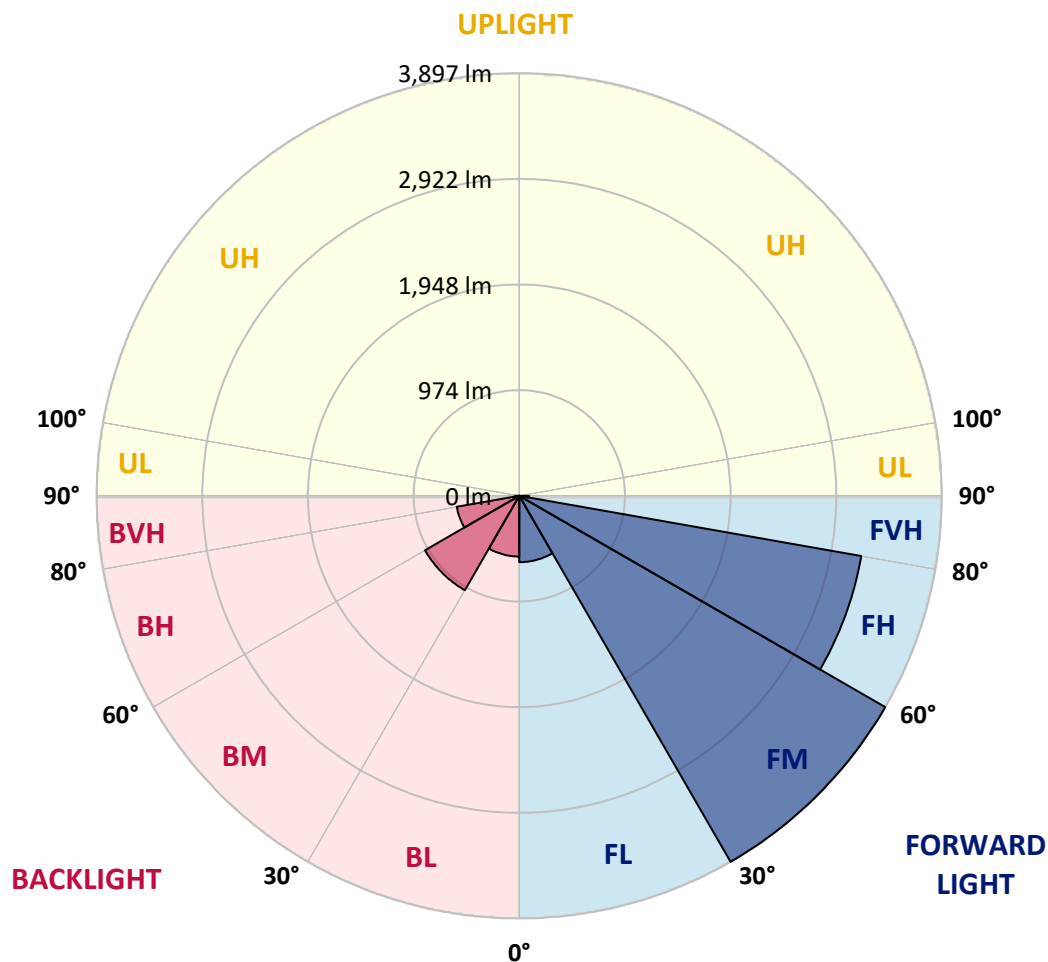
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	611.8	6.1			
FM	(30°-60°)	3896.6	39.0			
FH	(60°-80°)	3202.9	32.1			G2/5000
FVH	(80°-90°)	88.4	0.9			G1/100
BL	(0°-30°)	560.4	5.6	B2/1000		
BM	(30°-60°)	1004.1	10.1	B2/2500		
BH	(60°-80°)	584.5	5.9	B2/1000		G2/1000
BVH	(80°-90°)	38.0	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°	1393.2	1393.2	1393.2	1393.2	1393.2	1393.2	1393.2	1393.2	1393.2	1393.2	1393.2
2.5°	1284.3	1283.8	1290.4	1292.4	1304.7	1313.4	1329.8	1347.2	1369.7	1372.3	1386.1
5°	1210.1	1210.1	1217.8	1226.0	1241.8	1259.2	1284.3	1314.5	1353.3	1359.5	1393.7
7.5°	1147.2	1151.3	1157.9	1173.8	1192.2	1217.3	1255.6	1298.6	1349.7	1359.5	1414.7
10°	1096.5	1101.2	1109.4	1122.2	1149.7	1184.6	1234.7	1289.9	1358.4	1373.8	1445.4
12.5°	1080.8	1085.3	1089.9	1099.6	1125.2	1166.1	1226.0	1294.0	1379.4	1394.7	1487.4
15°	1117.6	1123.2	1119.6	1117.0	1130.4	1167.7	1230.1	1308.8	1405.5	1427.5	1538.9
17.5°	1202.4	1204.5	1196.3	1172.3	1170.2	1190.1	1249.5	1329.3	1438.2	1462.3	1591.1
20°	1339.5	1336.0	1319.1	1271.5	1244.4	1240.2	1282.8	1360.0	1472.0	1497.5	1647.4
22.5°	1525.7	1521.6	1487.8	1412.7	1352.3	1312.4	1330.9	1399.8	1509.8	1538.4	1702.1
25°	1757.9	1752.2	1702.6	1600.3	1506.7	1408.0	1396.3	1452.5	1556.4	1583.0	1759.4
27.5°	2029.0	2024.4	1970.7	1835.7	1700.6	1538.9	1477.6	1514.4	1604.9	1635.2	1823.9
30°	2320.5	2333.8	2238.7	2093.4	1922.6	1709.8	1587.1	1590.6	1667.9	1694.9	1902.1
32.5°	2663.2	2686.2	2571.6	2387.5	2154.2	1895.4	1725.2	1697.0	1759.4	1782.0	2000.8
35°	3002.7	3028.9	2933.8	2730.2	2461.6	2114.4	1869.4	1819.3	1881.2	1905.7	2131.8
37.5°	3296.4	3331.1	3282.0	3105.0	2790.6	2378.3	2057.6	1963.0	2031.0	2061.7	2307.7
40°	3528.0	3581.2	3577.7	3467.2	3178.2	2698.4	2296.4	2140.5	2217.2	2250.4	2521.0
42.5°	3716.2	3762.3	3802.2	3796.6	3582.8	3062.1	2577.3	2371.1	2429.5	2467.8	2760.8
45°	3846.2	3895.3	3981.2	4073.8	3972.0	3451.4	2899.0	2644.8	2698.0	2755.7	3046.8
47.5°	3962.2	4018.0	4129.5	4276.3	4302.4	3842.1	3251.4	2963.4	3012.0	3071.8	3333.7
50°	3972.5	4020.6	4193.5	4401.7	4537.2	4217.5	3629.8	3320.9	3366.4	3430.4	3641.1
52.5°	3725.5	3801.2	4103.0	4398.1	4645.1	4531.5	4005.8	3692.8	3743.9	3820.6	3959.2
55°	2891.8	3002.7	3837.5	4261.0	4606.8	4734.6	4363.2	4088.1	4153.6	4233.9	4279.4
57.5°	2490.9	2539.4	3046.3	4011.3	4431.8	4787.3	4665.0	4487.6	4592.9	4680.9	4617.9
60°	2238.7	2279.1	2578.8	3623.2	4201.7	4703.9	4898.3	4859.9	5042.0	5146.8	4964.3
62.5°	1968.6	2007.0	2279.6	3025.3	3907.1	4565.2	5045.6	5203.6	5502.3	5616.9	5290.5
65°	1700.6	1733.4	1994.6	2542.0	3532.7	4426.7	5121.7	5500.8	5928.3	6047.0	5561.6
67.5°	1401.9	1429.1	1676.1	2144.5	3077.5	4236.9	5159.6	5734.5	6299.1	6400.9	5695.6
70°	1011.7	1032.7	1287.8	1696.0	2506.1	3910.6	5144.3	5900.2	6491.4	6572.8	5594.3
72.5°	478.3	497.1	796.8	1101.2	1770.2	3275.4	4833.8	5768.8	6296.1	6255.7	4974.4
75°	255.2	271.6	457.8	604.0	934.9	2245.3	3955.7	4969.3	5287.0	5090.6	3676.4
77.5°	172.9	185.6	283.3	362.6	427.1	1065.9	2542.5	3440.6	3310.1	2985.9	1841.2
80°	137.0	150.4	232.2	245.5	206.6	385.1	1050.5	1592.6	1144.1	915.0	523.8
82.5°	105.4	120.2	195.4	177.9	112.5	158.1	305.9	503.8	293.0	223.0	126.8
85°	64.5	80.3	153.4	113.6	63.4	72.2	103.8	140.1	89.5	74.7	45.5
87.5°	32.7	46.0	77.7	41.4	28.6	16.9	27.6	27.6	23.6	20.5	11.8
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°	1393.2	1393.2	1393.2	1393.2	1393.2	1393.2	1393.2	1393.2	1393.2	1393.2	1393.2
2.5°	1398.3	1408.6	1426.0	1442.3	1455.1	1467.4	1479.7	1486.4	1488.3	1496.5	1501.1
5°	1414.7	1433.7	1467.4	1499.1	1519.0	1531.4	1540.0	1545.1	1546.1	1548.7	1552.8
7.5°	1444.8	1475.1	1522.1	1553.8	1568.7	1567.6	1564.0	1551.2	1546.1	1541.5	1542.5
10°	1487.4	1527.2	1585.1	1607.0	1597.8	1573.3	1541.5	1504.2	1486.9	1470.0	1464.8
12.5°	1540.0	1590.6	1647.4	1646.4	1600.8	1538.0	1464.3	1407.0	1370.7	1344.6	1338.4
15°	1603.9	1662.2	1705.7	1671.0	1571.2	1458.2	1350.2	1275.6	1242.8	1214.2	1211.1
17.5°	1669.9	1732.4	1752.2	1663.3	1496.5	1340.0	1217.8	1159.0	1126.8	1111.4	1116.0
20°	1734.4	1796.2	1779.9	1619.3	1383.0	1206.0	1097.1	1064.9	1058.2	1061.8	1060.3
22.5°	1802.4	1857.6	1785.6	1534.4	1238.2	1069.0	1009.1	1010.1	1025.0	1035.7	1038.2
25°	1872.0	1909.3	1770.7	1411.6	1082.8	968.2	953.4	969.8	998.9	1019.9	1025.5
27.5°	1939.0	1955.3	1738.5	1259.7	949.3	896.1	898.6	932.4	976.4	1005.5	1012.7
30°	2014.6	1996.2	1676.6	1088.9	856.7	834.1	855.7	895.0	939.0	965.1	971.3
32.5°	2100.0	2031.5	1578.4	930.9	791.2	784.5	819.9	845.4	864.9	872.6	876.7
35°	2206.4	2081.2	1452.5	819.9	732.4	748.2	782.0	769.3	761.6	757.5	761.6
37.5°	2344.6	2148.1	1305.2	747.7	684.8	722.2	735.9	696.1	665.9	651.1	654.7
40°	2510.7	2246.3	1163.6	692.0	654.7	699.7	675.7	627.6	589.2	568.3	569.8
42.5°	2695.4	2349.1	1044.4	650.1	637.8	681.2	631.1	573.9	512.0	505.3	512.0
45°	2889.3	2455.0	963.1	617.9	629.7	665.4	605.6	513.0	469.0	496.1	510.4
47.5°	3083.1	2552.1	914.0	593.8	625.6	647.5	583.0	479.2	448.0	487.4	505.8
50°	3299.0	2639.2	892.0	576.5	620.9	640.3	549.3	470.6	426.1	452.1	471.6
52.5°	3513.2	2706.6	875.7	559.0	614.3	634.7	532.9	460.3	399.4	401.0	411.7
55°	3727.0	2750.6	857.7	536.0	599.4	622.5	531.4	449.1	379.5	372.4	377.5
57.5°	3955.2	2775.7	835.7	510.4	573.9	591.2	529.8	440.3	373.4	361.6	363.2
60°	4187.3	2812.5	807.1	479.2	539.6	553.9	526.3	437.3	369.8	349.8	351.4
62.5°	4395.5	2825.3	772.8	449.6	495.6	517.1	518.6	434.7	360.1	325.8	325.8
65°	4532.0	2770.1	713.0	415.8	448.0	479.2	503.8	426.1	342.7	308.4	308.4
67.5°	4526.4	2612.5	619.4	372.4	402.0	437.3	482.3	411.2	321.7	286.9	288.4
70°	4315.7	2301.5	500.7	321.7	351.4	392.3	454.7	389.2	296.6	263.4	266.5
72.5°	3701.5	1801.3	363.7	262.4	292.5	345.7	418.9	362.6	271.1	242.4	240.9
75°	2644.3	1140.0	246.5	201.5	227.6	293.0	374.4	331.4	247.5	243.4	229.6
77.5°	1350.7	544.7	163.2	147.3	158.6	231.1	314.6	296.1	251.1	201.0	179.0
80°	439.3	201.0	102.8	100.2	105.4	154.0	243.4	242.9	190.2	136.5	120.7
82.5°	140.1	86.4	67.0	64.5	61.9	96.7	169.8	192.3	128.3	86.4	85.9
85°	55.8	51.7	39.4	36.3	26.0	45.5	89.0	127.8	95.6	62.4	64.0
87.5°	20.5	20.5	10.8	7.7	5.6	15.4	24.1	38.3	54.7	32.2	31.7
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)