

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: P882251

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

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882251  
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-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: ELECTRONIC DRIVER

**Summary**

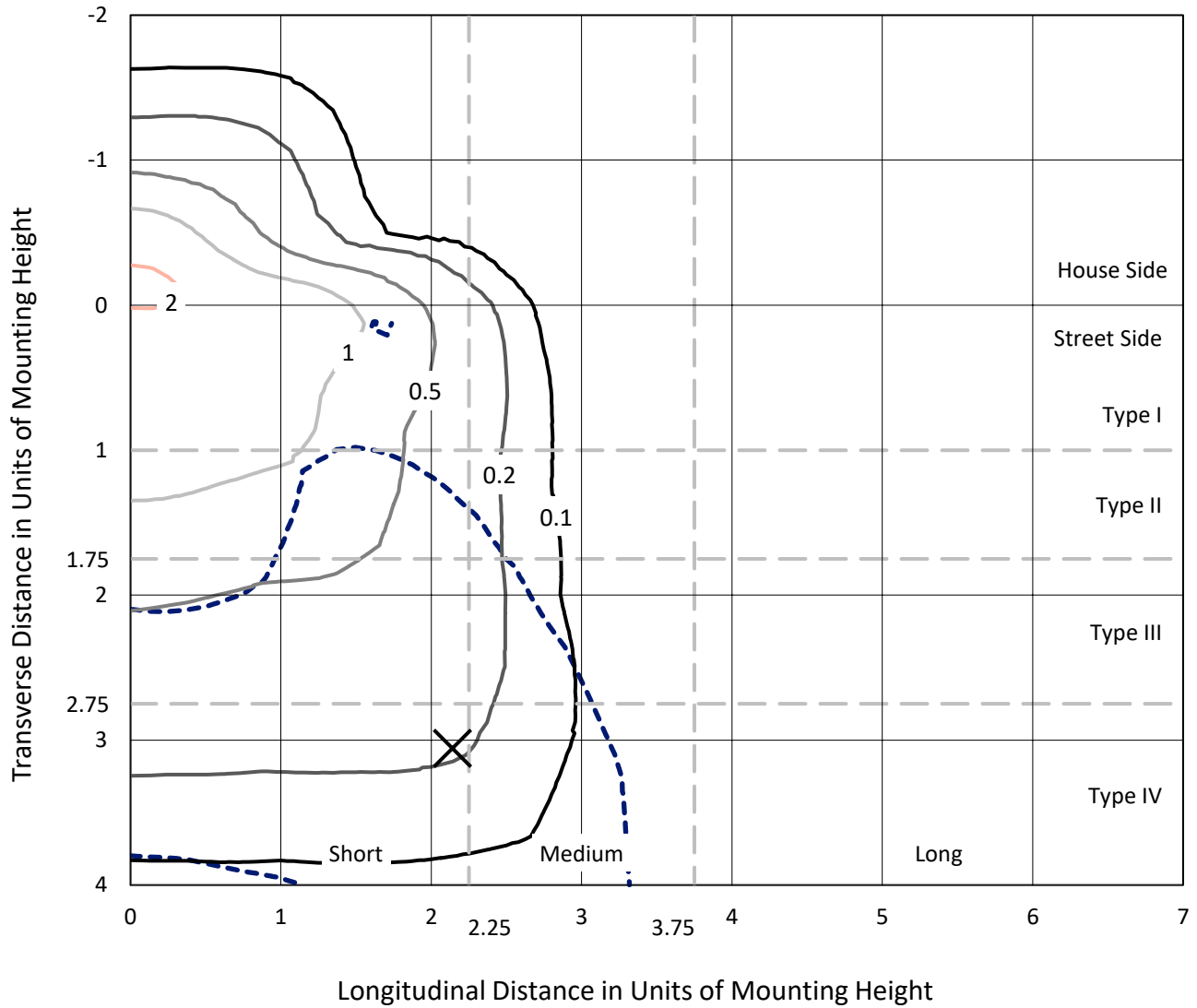
Lumens per Lamp: N/A  
Luminaire Lumens: 9742 lumens  
Efficiency: N/A  
Efficacy: 170.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 57.3  
Input Voltage (V): 120.0  
Input Current (Ain): 0.484  
Voltage Rise (V): NR  
Power Factor: 0.994  
Total Harmonic Distortion (THDi): 9.038  
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

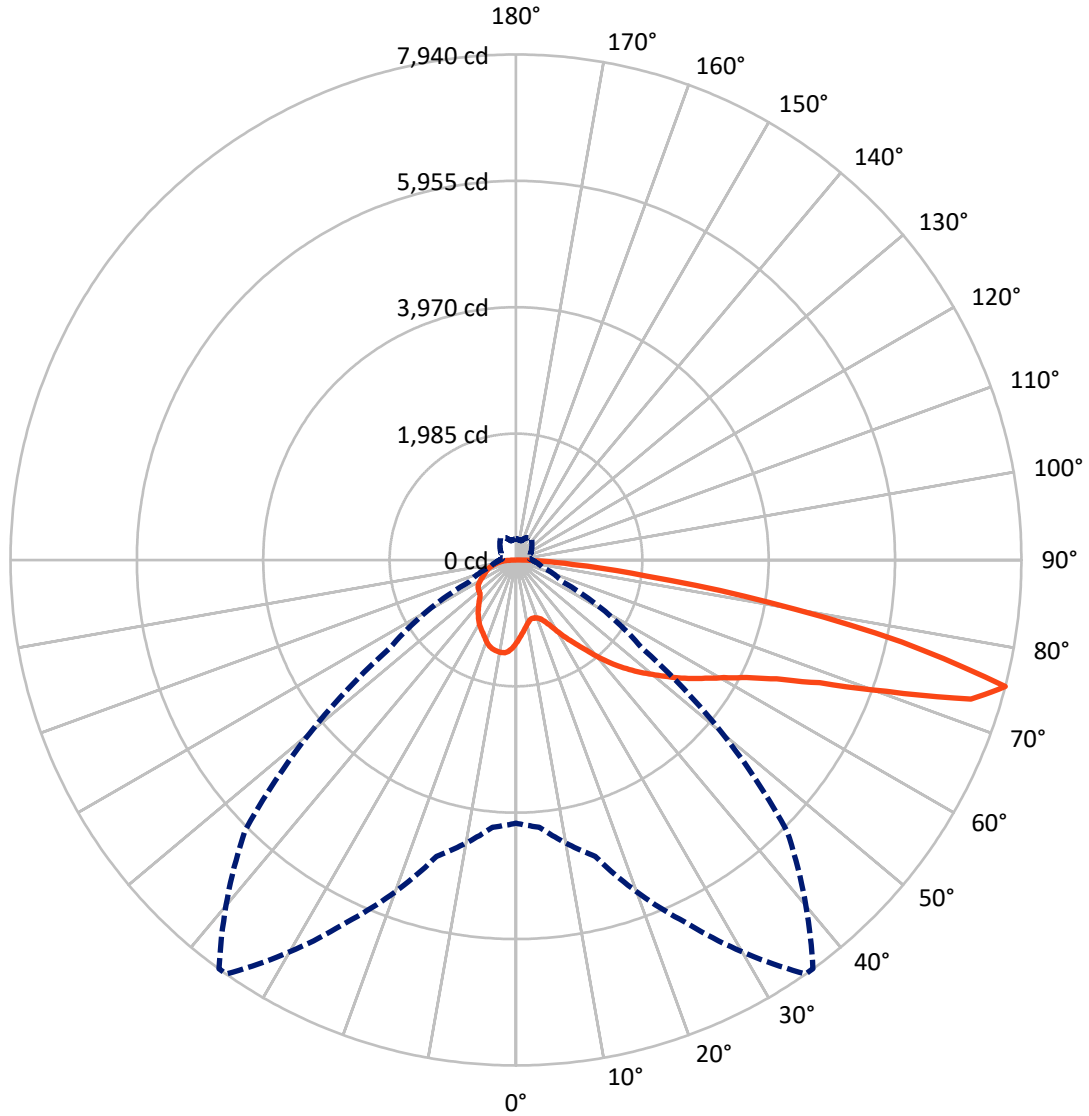
× Max cd  
 - - - 1/2 Max cd



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



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

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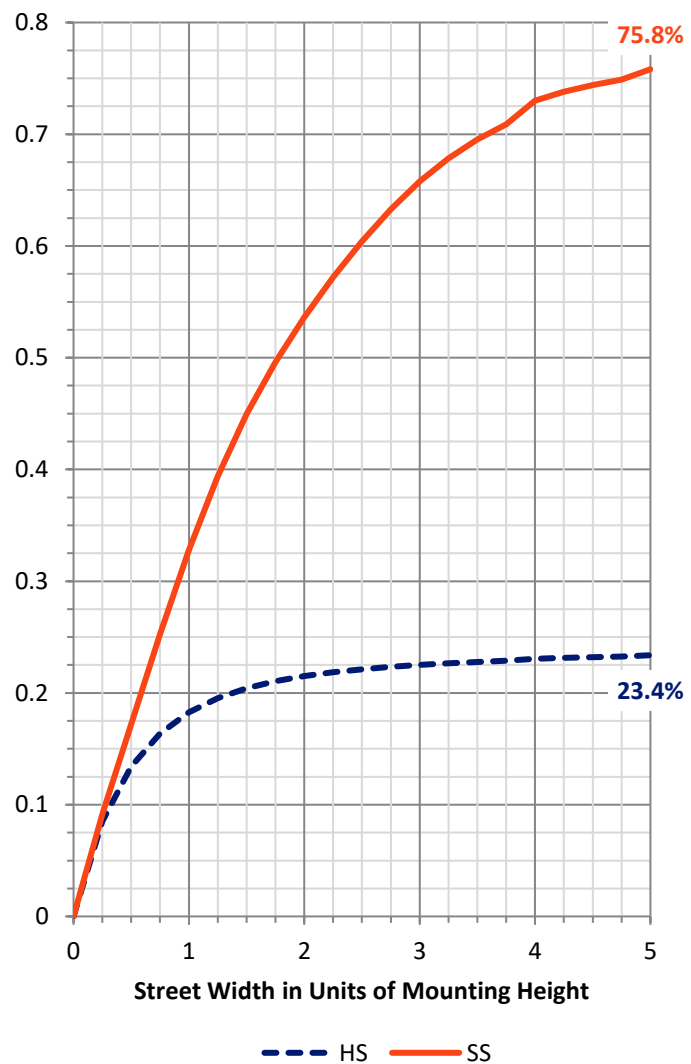
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2318.4	0.0	2318.4
	% Fixture	23.8	0.0	23.8
<b>Street Side</b>	Lumens	7423.6	0.0	7423.6
	% Fixture	76.2	0.0	76.2
<b>Total</b>	Lumens	9742.0	0.0	9742.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.9	1.3
10°-20°	354.5	3.6
20°-30°	595.4	6.1
30°-40°	925.3	9.5
40°-50°	1373.3	14.1
50°-60°	1896.0	19.5
60°-70°	2300.2	23.6
70°-80°	1901.0	19.5
80°-90°	273.4	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°	9742.0	100.0
0°-180°	9742.0	100.0

**Coefficient of Utilization**



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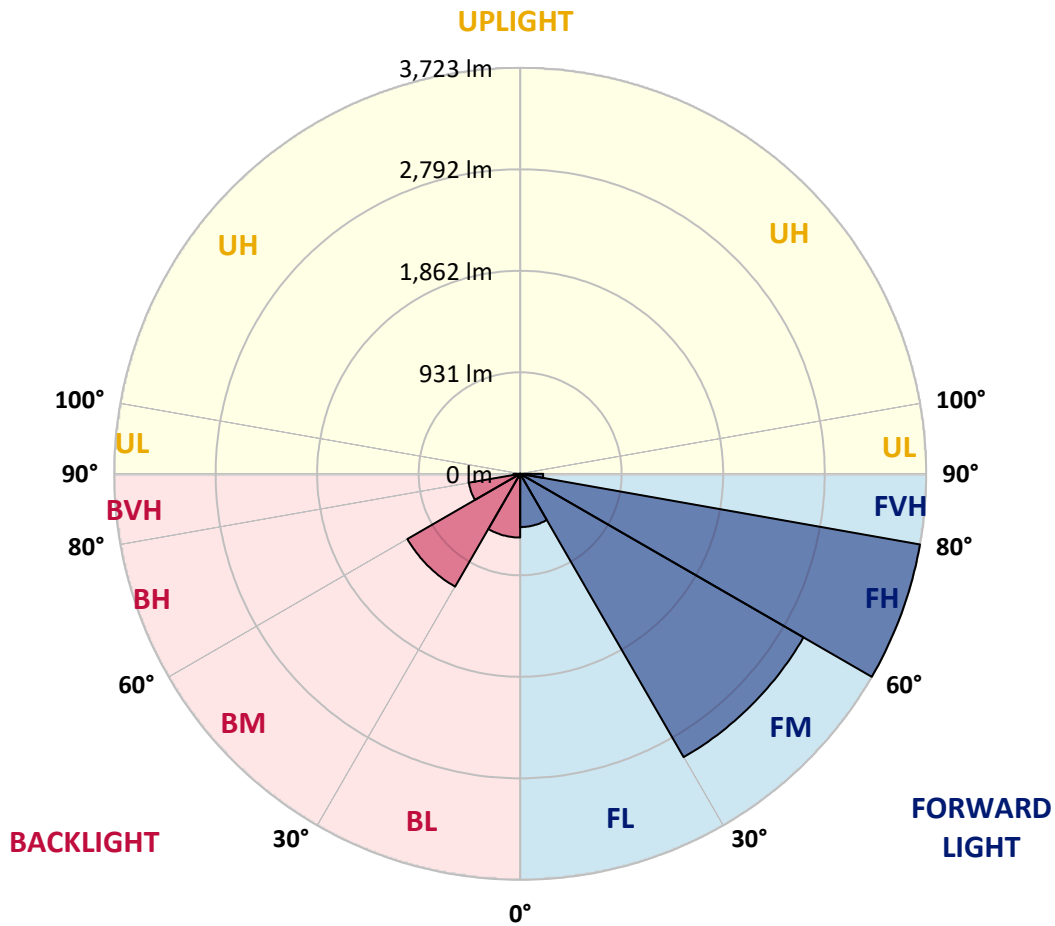
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	488.5	5.0			
FM (30°-60°)	3000.0	30.8			
FH (60°-80°)	3723.2	38.2			G2/5000
FVH (80°-90°)	211.9	2.2			G2/225
BL (0°-30°)	584.3	6.0	B2/1000		
BM (30°-60°)	1194.6	12.3	B2/2500		
BH (60°-80°)	478.0	4.9	B1/500		G1/500
BVH (80°-90°)	61.6	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°	1298.2	1298.2	1298.2	1298.2	1298.2	1298.2	1298.2	1298.2	1298.2	1298.2	1298.2
2.5°	1197.1	1204.4	1207.6	1206.0	1213.9	1212.9	1223.9	1237.6	1256.6	1275.0	1301.9
5°	1104.9	1112.8	1119.7	1126.0	1141.2	1146.0	1163.4	1189.7	1224.5	1259.7	1304.0
7.5°	1019.1	1025.9	1036.4	1048.0	1073.8	1078.6	1107.5	1148.6	1197.1	1248.7	1309.8
10°	949.0	955.9	966.9	980.1	1012.2	1018.0	1054.9	1109.6	1172.8	1238.1	1316.1
12.5°	919.0	921.1	927.4	940.6	968.5	972.2	1012.7	1075.4	1149.1	1230.2	1325.6
15°	917.4	921.6	922.2	929.0	952.2	953.8	991.2	1053.3	1134.4	1228.7	1339.8
17.5°	933.2	936.4	931.6	935.9	955.3	958.0	987.5	1042.8	1129.7	1235.5	1364.0
20°	975.4	978.0	963.8	958.0	972.2	974.3	1003.3	1049.6	1134.4	1249.7	1397.2
22.5°	1064.9	1066.5	1031.7	1008.0	1009.1	1010.1	1035.4	1077.5	1152.8	1275.5	1439.3
25°	1204.4	1203.4	1148.1	1102.3	1075.9	1070.1	1087.0	1122.8	1183.9	1309.8	1493.6
27.5°	1367.7	1359.8	1304.5	1236.0	1178.6	1170.2	1166.5	1181.8	1228.1	1355.1	1559.9
30°	1552.0	1544.7	1485.1	1395.6	1316.1	1302.4	1267.6	1259.7	1294.0	1416.7	1652.1
32.5°	1754.3	1749.5	1678.4	1569.9	1463.6	1447.8	1389.3	1368.2	1395.1	1509.9	1780.6
35°	1923.8	1919.6	1860.6	1749.0	1618.9	1599.4	1539.9	1516.2	1529.9	1629.4	1948.6
37.5°	2077.1	2075.0	2024.4	1936.5	1802.2	1778.5	1711.6	1703.7	1701.1	1786.9	2152.4
40°	2219.3	2214.0	2161.4	2115.0	2015.5	1993.9	1934.9	1928.1	1908.0	1980.7	2383.1
42.5°	2376.8	2363.1	2286.7	2265.1	2238.3	2220.3	2185.1	2186.1	2141.9	2199.3	2627.4
45°	2505.3	2497.4	2418.9	2406.3	2435.2	2427.8	2458.4	2466.3	2380.4	2428.4	2881.3
47.5°	2643.2	2635.9	2569.5	2560.6	2639.0	2641.1	2749.1	2751.7	2613.2	2666.4	3135.7
50°	2813.4	2802.8	2737.0	2748.0	2836.0	2843.9	3041.4	3023.5	2827.6	2908.2	3387.9
52.5°	2925.5	2931.8	2917.6	2935.5	3055.6	3063.0	3328.9	3283.1	3039.8	3146.7	3635.5
55°	3008.2	3020.9	3065.1	3106.2	3287.3	3294.7	3600.2	3530.1	3215.7	3367.9	3868.2
57.5°	3114.6	3096.7	3179.4	3259.4	3507.5	3527.0	3864.0	3768.2	3371.6	3558.6	4027.8
60°	3267.3	3254.7	3318.9	3437.4	3753.9	3785.0	4143.1	3982.5	3485.9	3709.7	4058.9
62.5°	3577.0	3545.4	3555.4	3660.2	4064.7	4105.7	4458.1	4169.5	3542.8	3768.7	3892.5
65°	4039.9	3985.7	3935.1	4007.8	4502.3	4542.9	4813.6	4316.4	3521.7	3654.4	3450.6
67.5°	4622.9	4569.2	4507.1	4575.5	5146.9	5179.1	5252.3	4399.1	3355.8	3214.1	2669.6
70°	5103.7	5083.7	5158.0	5439.7	6176.5	6177.6	5814.7	4330.6	2901.3	2278.8	1544.7
72.5°	5040.0	5027.9	5419.2	6290.3	7474.2	7446.3	6347.2	3812.4	1954.4	1028.0	578.8
75°	4134.7	4213.2	4819.4	6275.0	7940.3	7936.6	6021.2	2423.6	808.4	426.1	299.1
77.5°	2217.2	2341.5	3128.8	4632.9	6198.6	6291.9	4233.2	847.9	347.1	272.8	207.0
80°	723.1	831.6	1247.1	2358.9	4027.8	4010.4	1814.3	332.8	237.5	193.3	143.2
82.5°	307.0	319.7	557.2	1113.9	2067.1	2035.0	577.7	191.2	166.9	132.2	88.5
85°	120.1	134.3	245.9	515.1	895.3	875.8	208.6	94.8	106.9	86.4	52.7
87.5°	39.5	47.9	88.0	176.4	278.6	268.6	51.1	32.7	46.3	39.5	19.0
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°	1298.2	1298.2	1298.2	1298.2	1298.2	1298.2	1298.2	1298.2	1298.2	1298.2	1298.2
2.5°	1309.2	1317.7	1327.7	1342.4	1355.1	1365.6	1376.7	1383.5	1386.1	1394.0	1393.5
5°	1318.7	1337.2	1361.9	1386.1	1409.8	1424.1	1436.7	1443.0	1448.8	1453.0	1454.1
7.5°	1334.5	1358.2	1397.2	1428.8	1448.8	1460.4	1468.8	1466.7	1468.8	1469.9	1471.5
10°	1348.2	1381.4	1427.7	1457.8	1473.0	1473.6	1471.5	1464.1	1460.4	1460.9	1462.0
12.5°	1364.5	1401.4	1451.4	1476.7	1480.9	1469.3	1460.4	1447.8	1443.0	1440.9	1439.9
15°	1386.7	1428.8	1477.2	1486.7	1476.2	1461.4	1446.2	1425.6	1415.1	1406.7	1409.3
17.5°	1413.5	1459.9	1497.3	1490.4	1467.8	1443.5	1418.8	1387.7	1366.1	1357.2	1357.7
20°	1450.9	1492.5	1512.5	1482.5	1448.3	1411.4	1369.3	1331.4	1311.4	1302.4	1301.3
22.5°	1496.2	1536.2	1527.3	1468.8	1420.4	1361.4	1308.7	1280.8	1270.8	1264.5	1265.5
25°	1550.5	1584.7	1537.8	1448.8	1374.6	1295.0	1254.5	1245.5	1240.8	1236.0	1236.0
27.5°	1621.0	1639.5	1545.7	1419.3	1302.9	1224.5	1209.7	1211.3	1209.7	1201.8	1203.4
30°	1714.2	1710.6	1553.1	1371.4	1220.8	1160.7	1161.8	1168.6	1169.7	1164.4	1167.1
32.5°	1836.9	1799.6	1556.8	1309.2	1142.3	1104.9	1106.0	1113.3	1118.6	1109.6	1113.9
35°	1985.5	1903.3	1551.0	1231.3	1081.7	1051.7	1043.8	1045.9	1047.5	1039.1	1044.9
37.5°	2158.7	2019.7	1525.2	1144.9	1031.7	999.6	982.7	968.5	960.1	952.2	957.4
40°	2348.9	2146.6	1477.8	1060.7	975.9	944.3	919.0	892.1	863.7	853.2	857.9
42.5°	2547.9	2277.2	1420.4	980.1	911.6	885.8	859.0	820.0	777.3	755.7	758.4
45°	2754.4	2411.0	1364.0	900.6	845.8	834.7	803.7	756.8	710.4	683.1	681.0
47.5°	2956.6	2537.4	1281.3	820.5	784.2	796.3	772.1	728.9	677.3	634.1	629.3
50°	3149.9	2655.9	1146.0	739.4	734.1	784.7	761.5	699.4	640.4	585.1	580.4
52.5°	3341.6	2751.7	972.7	665.7	707.3	781.5	747.8	679.4	607.2	549.3	543.0
55°	3504.3	2801.2	805.8	602.5	668.3	754.7	731.5	655.7	560.4	498.7	493.5
57.5°	3597.0	2761.2	666.7	540.3	614.6	710.4	703.6	605.1	504.5	457.1	450.8
60°	3557.0	2599.0	553.0	486.1	563.5	662.5	655.2	555.1	461.9	417.1	410.8
62.5°	3336.3	2289.9	462.9	438.7	517.2	613.5	606.7	516.6	429.2	386.0	379.2
65°	2891.8	1862.8	392.9	399.2	470.3	554.6	564.6	484.5	403.4	361.3	354.4
67.5°	2205.6	1349.3	338.1	365.0	424.5	496.6	525.6	461.3	381.8	341.8	335.5
70°	1257.1	766.3	291.8	331.8	383.9	442.9	495.6	442.9	358.6	325.5	321.3
72.5°	476.6	351.8	252.3	298.6	345.0	397.6	462.4	413.9	331.8	307.0	302.8
75°	254.4	214.3	212.2	259.6	300.2	353.4	420.8	385.5	311.8	324.4	334.9
77.5°	173.3	151.7	177.5	222.2	251.2	304.4	376.6	342.3	270.2	269.1	248.1
80°	120.1	107.4	144.3	179.1	194.3	256.0	328.6	293.9	220.1	205.4	196.4
82.5°	72.2	70.0	108.0	133.8	137.5	197.5	272.3	246.5	180.1	156.9	158.0
85°	39.5	41.6	69.0	78.5	80.1	138.0	213.3	190.6	138.5	116.4	117.4
87.5°	11.1	14.2	25.3	31.1	38.4	71.6	126.9	113.2	69.5	48.5	48.5
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)