

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: P961046

Luminaire Tested: **NAV-SB1D-830-U-T4W**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P961046  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1D-830-U-T4W  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 80 CRI, 3000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9357.2 lumens  
Efficiency: N/A  
Efficacy: 117.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G2

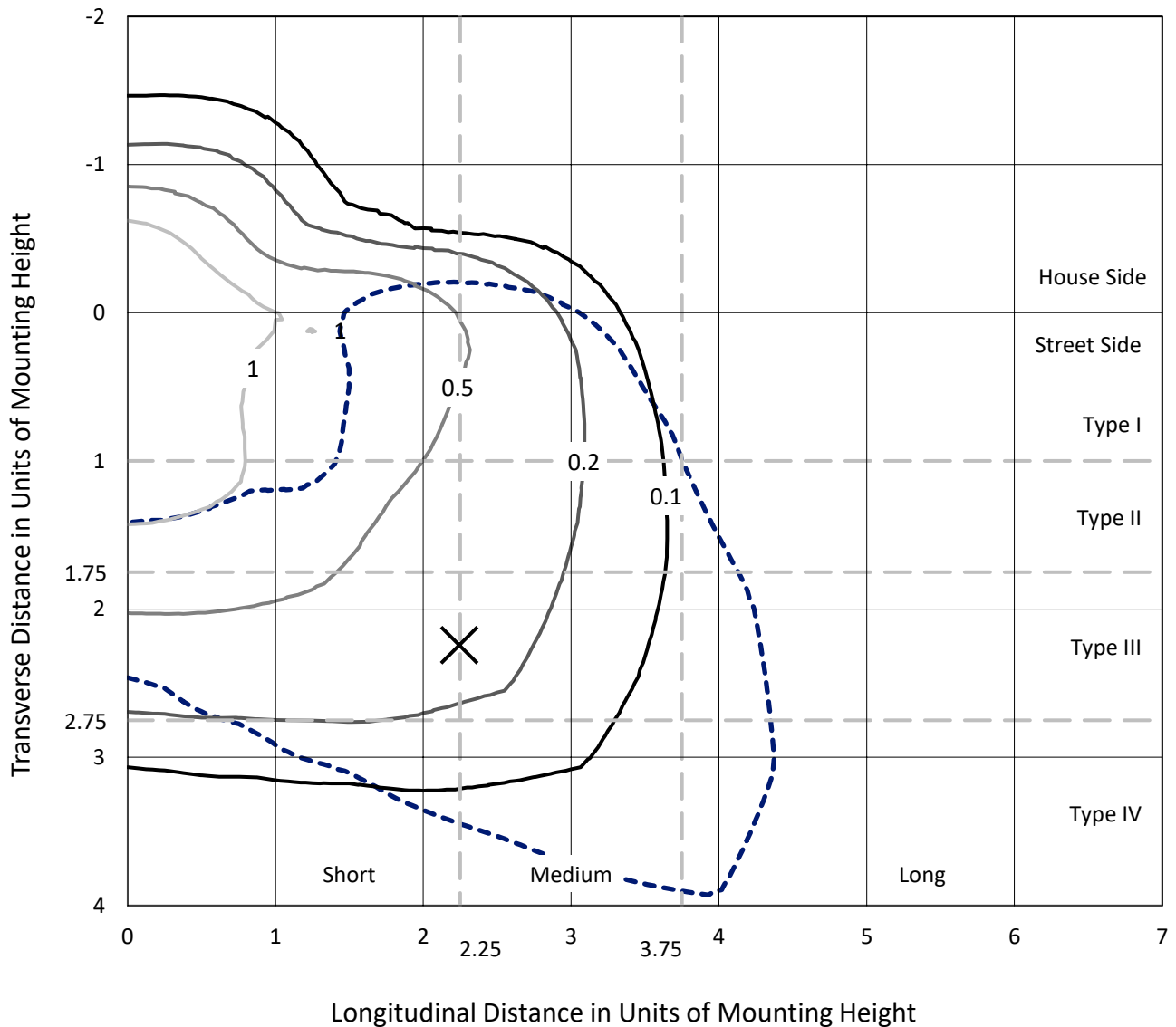
Input Watts (W): 79.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

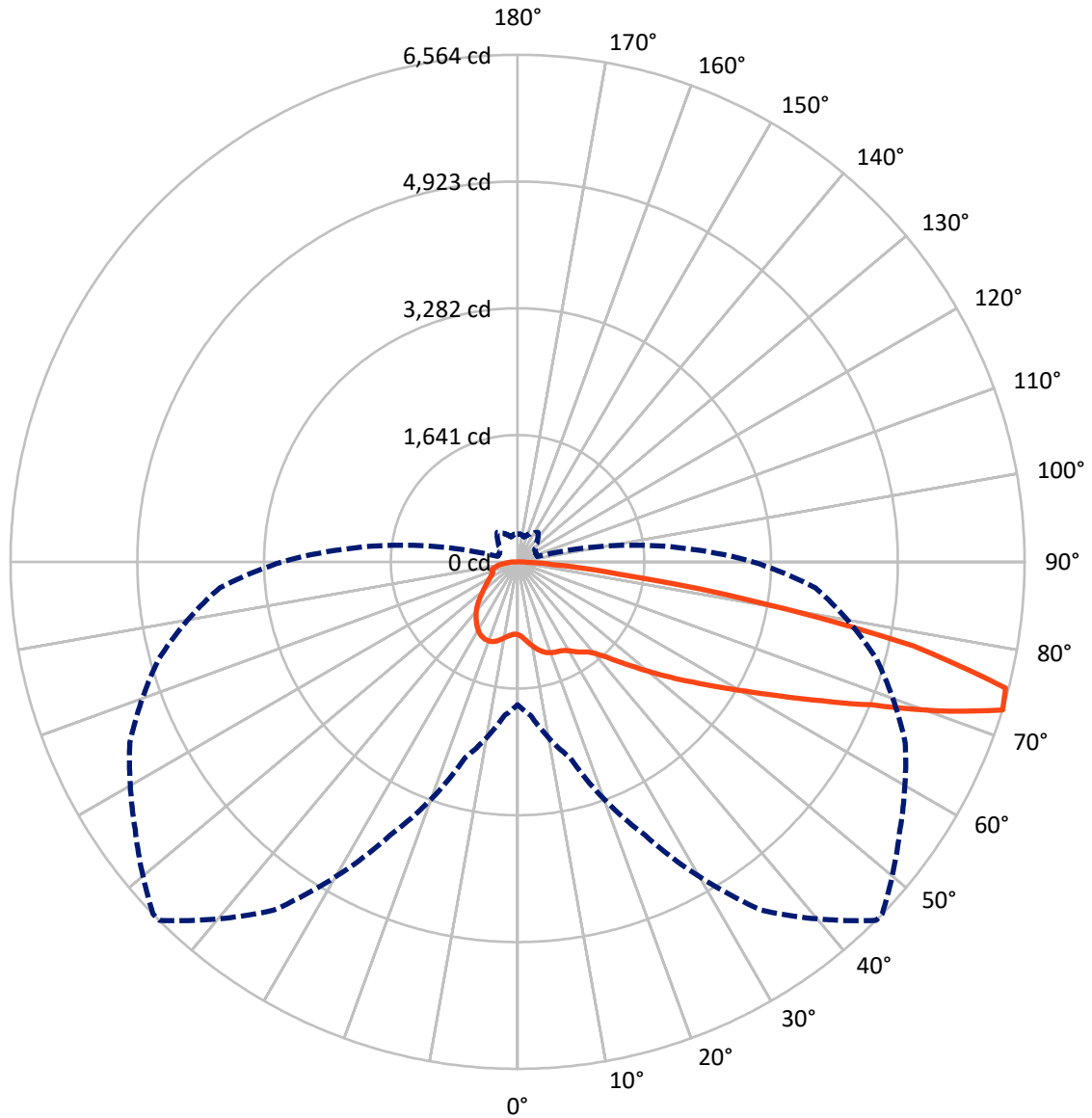
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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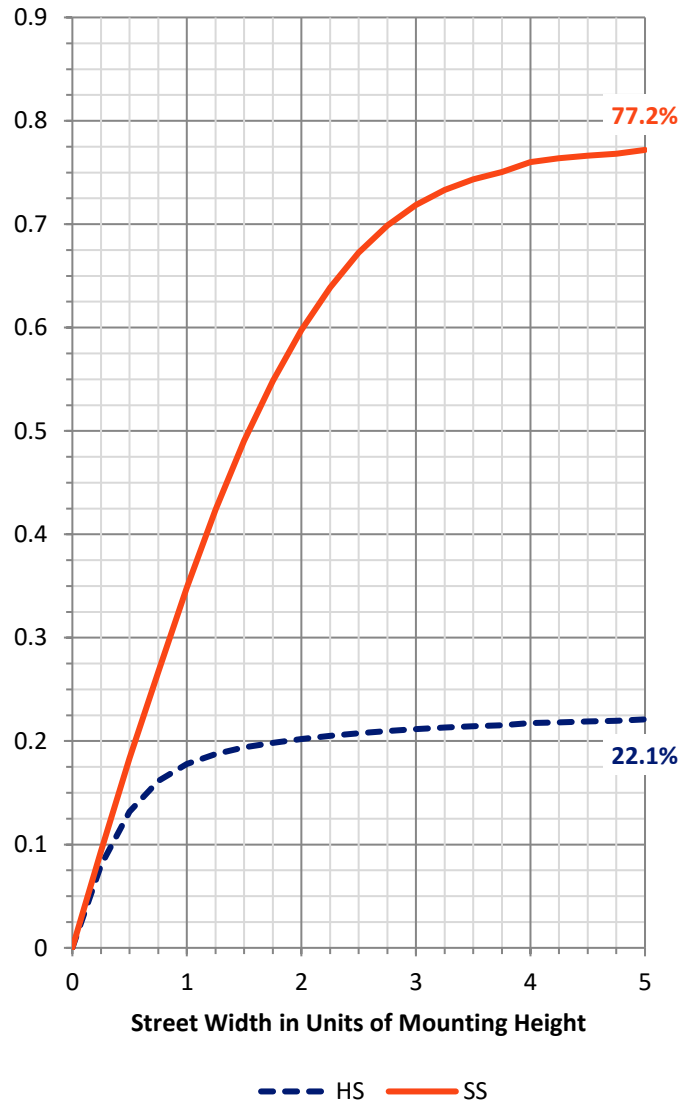
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2115.3	0.0	2115.3
	% Fixture	22.6	0.0	22.6
<b>Street Side</b>	Lumens	7241.9	0.0	7241.9
	% Fixture	77.4	0.0	77.4
<b>Total</b>	Lumens	9357.2	0.0	9357.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.1	1.0
10°-20°	320.3	3.4
20°-30°	557.2	6.0
30°-40°	798.8	8.5
40°-50°	1124.8	12.0
50°-60°	1722.9	18.4
60°-70°	2495.8	26.7
70°-80°	1993.1	21.3
80°-90°	248.2	2.7
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°	9357.2	100.0
0°-180°	9357.2	100.0

**Coefficient of Utilization**

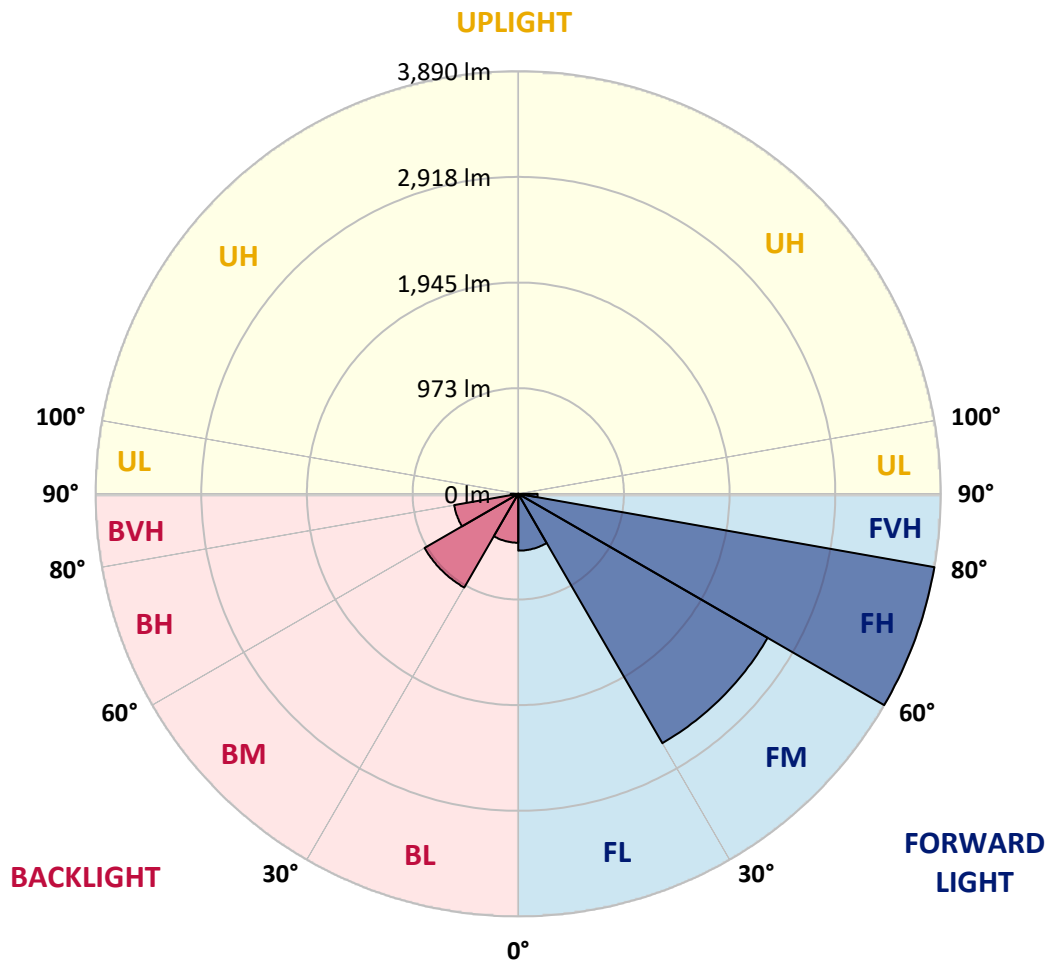


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	523.3	5.6			
FM (30°-60°)	2650.5	28.3			
FH (60°-80°)	3890.1	41.6			G2/5000
FVH (80°-90°)	178.1	1.9			G2/225
BL (0°-30°)	450.4	4.8	B1/500		
BM (30°-60°)	996.0	10.6	B1/1000		
BH (60°-80°)	598.8	6.4	B2/1000		G2/1000
BVH (80°-90°)	70.2	0.7			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°	45°	46°	55°	65°	75°	85°
0°	943.9	943.9	943.9	943.9	943.9	943.9	943.9	943.9	943.9	943.9	943.9
2.5°	980.9	987.4	981.4	976.0	973.5	967.1	966.7	962.7	960.2	953.4	951.4
5°	1049.5	1057.8	1048.0	1037.1	1027.3	1011.5	1009.5	998.1	985.3	970.6	962.2
7.5°	1126.9	1134.3	1122.9	1106.6	1089.4	1063.2	1062.7	1042.0	1021.8	996.7	982.4
10°	1194.3	1204.3	1188.9	1166.8	1145.0	1115.5	1112.0	1088.3	1062.7	1030.2	1008.5
12.5°	1254.0	1261.0	1246.1	1219.0	1193.9	1164.3	1159.9	1133.8	1105.2	1068.2	1040.6
15°	1301.3	1310.3	1290.5	1261.4	1234.8	1205.7	1201.8	1178.1	1149.5	1110.6	1075.1
17.5°	1332.4	1339.8	1319.6	1287.1	1261.4	1237.3	1234.3	1214.6	1189.4	1150.0	1112.0
20°	1344.2	1352.1	1331.0	1297.9	1274.2	1255.5	1254.0	1239.7	1222.5	1186.4	1148.0
22.5°	1356.1	1363.5	1335.9	1301.3	1280.6	1268.8	1268.3	1258.9	1252.0	1222.5	1185.0
25°	1403.8	1405.8	1368.9	1319.1	1289.6	1279.2	1278.7	1278.2	1281.1	1258.0	1225.0
27.5°	1445.2	1444.7	1413.3	1366.4	1320.6	1298.9	1298.4	1303.3	1312.7	1293.4	1266.4
30°	1505.9	1500.5	1463.0	1414.2	1372.3	1338.8	1335.9	1331.4	1338.8	1323.5	1307.7
32.5°	1634.6	1617.3	1556.7	1470.0	1415.2	1389.6	1385.6	1358.0	1361.0	1351.6	1343.8
35°	1818.9	1796.2	1715.4	1575.4	1468.4	1431.9	1430.0	1395.0	1389.1	1380.7	1383.6
37.5°	2038.3	2010.1	1916.0	1728.3	1560.2	1481.2	1478.3	1446.8	1422.6	1413.7	1430.5
40°	2258.6	2223.1	2145.2	1914.5	1695.1	1563.5	1554.2	1506.4	1478.8	1464.0	1499.5
42.5°	2472.5	2443.0	2376.5	2123.6	1861.8	1683.9	1663.2	1581.4	1560.7	1546.8	1610.9
45°	2661.8	2635.2	2586.4	2346.8	2057.0	1847.5	1827.3	1693.7	1687.3	1687.3	1780.0
47.5°	2815.6	2809.7	2758.0	2574.6	2287.2	2033.8	1998.9	1849.9	1867.2	1893.8	2020.1
50°	2986.1	2969.9	2914.7	2798.9	2557.8	2247.3	2218.7	2041.7	2106.3	2179.3	2367.0
52.5°	3143.0	3151.8	3090.2	3032.5	2863.4	2485.3	2435.1	2268.0	2407.5	2528.3	2773.8
55°	3304.1	3304.6	3287.4	3279.5	3183.9	2748.5	2693.4	2540.1	2761.9	2911.7	3247.9
57.5°	3455.5	3456.4	3482.0	3551.5	3555.5	3052.2	2989.6	2874.3	3155.8	3308.6	3736.9
60°	3590.5	3597.4	3667.4	3830.1	3882.3	3400.2	3341.1	3269.1	3562.9	3716.6	4251.0
62.5°	3635.9	3661.0	3816.8	4047.9	4205.2	3827.1	3768.9	3726.1	3990.7	4133.7	4680.9
65°	3559.0	3616.6	3917.9	4227.8	4537.5	4334.3	4276.7	4229.9	4435.4	4570.0	5033.8
67.5°	3370.2	3444.6	3911.9	4416.6	4940.6	4944.6	4890.9	4780.9	4912.0	4963.8	5148.7
70°	2872.8	2984.2	3567.3	4487.1	5403.5	5779.2	5727.4	5444.4	5387.7	5137.3	4825.3
72.5°	1850.9	2000.8	2626.9	3907.0	5506.5	6564.3	6561.4	6043.3	5538.1	4800.2	3870.0
75°	675.3	767.0	1220.5	2452.3	4622.2	6524.4	6543.7	5940.8	5055.5	3707.8	2410.9
77.5°	246.0	269.2	398.3	942.5	2842.7	5234.9	5274.9	4749.3	3598.4	1860.8	955.3
80°	129.1	142.0	204.1	365.7	1218.0	3108.9	3171.6	2822.5	1691.2	560.5	286.4
82.5°	71.4	77.4	114.4	198.6	548.7	1329.4	1366.9	1115.0	595.0	237.6	118.3
85°	38.4	40.9	53.7	108.4	268.1	460.8	471.2	333.2	237.1	139.5	57.2
87.5°	11.4	13.8	17.7	34.5	105.0	103.5	106.0	66.0	93.7	70.5	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

REPORT NUMBER: P961046  
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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	943.9	943.9	943.9	943.9	943.9	943.9	943.9	943.9	943.9	943.9	943.9
2.5°	948.4	946.9	941.5	939.0	936.0	935.6	938.1	938.5	939.0	939.5	941.5
5°	957.2	952.3	947.4	944.4	945.5	946.0	950.9	954.3	956.7	958.8	959.7
7.5°	974.6	970.6	962.2	961.8	963.2	967.6	974.1	982.0	986.4	989.8	990.8
10°	1000.2	992.7	982.9	984.4	987.4	993.7	1007.1	1013.4	1020.9	1027.3	1025.8
12.5°	1026.3	1019.9	1008.5	1009.5	1014.4	1025.8	1038.6	1046.5	1051.4	1056.4	1058.3
15°	1060.3	1049.0	1036.6	1036.6	1045.5	1057.8	1063.7	1070.2	1073.1	1078.5	1080.5
17.5°	1095.3	1080.5	1064.3	1063.2	1074.1	1080.0	1083.4	1084.4	1085.5	1091.3	1093.4
20°	1130.3	1114.1	1090.8	1088.9	1091.3	1090.4	1089.9	1088.9	1090.4	1097.8	1100.7
22.5°	1164.8	1146.1	1114.1	1105.2	1098.3	1088.9	1088.3	1087.9	1088.9	1096.2	1101.2
25°	1205.2	1182.5	1139.7	1113.0	1089.9	1077.1	1078.5	1079.0	1080.0	1085.9	1093.8
27.5°	1249.1	1224.0	1163.3	1110.6	1068.7	1059.8	1057.3	1058.8	1062.3	1071.6	1081.0
30°	1292.9	1263.4	1185.0	1100.7	1042.0	1029.7	1021.8	1025.3	1036.2	1045.5	1055.9
32.5°	1332.9	1303.3	1202.2	1079.0	1008.1	988.8	978.5	982.9	993.7	997.2	1009.5
35°	1379.8	1346.2	1209.6	1044.5	971.1	941.5	927.7	921.3	926.7	923.2	934.1
37.5°	1431.9	1397.0	1208.7	999.2	927.7	893.7	874.4	850.3	839.0	827.2	834.6
40°	1509.3	1459.1	1196.8	944.4	873.9	843.0	808.4	767.5	741.9	718.7	720.2
42.5°	1614.9	1545.3	1175.2	884.3	813.3	784.2	737.4	689.6	649.2	610.7	607.3
45°	1772.1	1658.2	1148.0	820.2	747.7	719.1	668.4	614.7	568.9	519.6	513.6
47.5°	1998.9	1810.0	1122.4	747.3	678.8	652.6	606.8	557.0	502.8	455.0	449.6
50°	2310.4	2028.0	1098.7	676.3	610.7	591.0	554.5	503.8	449.1	410.6	408.2
52.5°	2706.7	2324.2	1088.9	607.8	547.1	539.8	510.7	463.4	411.6	379.0	376.6
55°	3161.6	2678.6	1088.9	542.2	491.5	493.9	473.8	429.9	385.0	355.9	352.9
57.5°	3626.0	3037.5	1069.2	481.5	444.1	454.5	441.7	403.2	362.7	332.7	327.8
60°	4053.9	3338.1	989.3	426.4	402.2	418.5	410.1	377.1	327.8	302.7	298.7
62.5°	4382.7	3507.7	835.5	382.5	367.8	386.4	382.0	342.6	321.4	311.1	307.6
65°	4547.3	3480.1	638.9	343.6	338.7	367.8	358.3	356.9	340.1	328.3	324.3
67.5°	4446.2	3242.5	463.4	315.0	321.8	350.4	386.4	392.4	361.3	338.1	334.3
70°	4003.1	2812.7	345.0	287.9	300.7	351.0	440.6	410.6	354.4	327.3	322.9
72.5°	3045.3	2097.5	267.6	259.3	273.1	353.4	464.8	402.2	334.7	361.8	358.9
75°	1741.5	1151.5	214.9	224.3	238.6	330.3	452.5	380.6	319.4	332.2	332.2
77.5°	664.0	442.7	177.4	189.7	191.8	288.3	432.8	379.0	304.1	296.7	270.6
80°	230.2	173.0	146.9	150.9	148.4	256.4	415.0	329.7	249.0	222.8	215.5
82.5°	94.2	86.3	116.3	111.4	105.5	199.2	335.2	269.7	203.6	179.9	177.9
85°	40.9	54.7	76.9	67.5	61.1	138.1	268.7	228.3	172.0	148.4	147.9
87.5°	8.4	20.7	32.5	30.5	31.6	92.1	190.8	162.2	121.8	91.2	71.4
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)