

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: P881734

Luminaire Tested: **NAV-SB1B-740-U-SL4**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P881734  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1B-740-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 4000K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV SPILL LIGHT  
ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

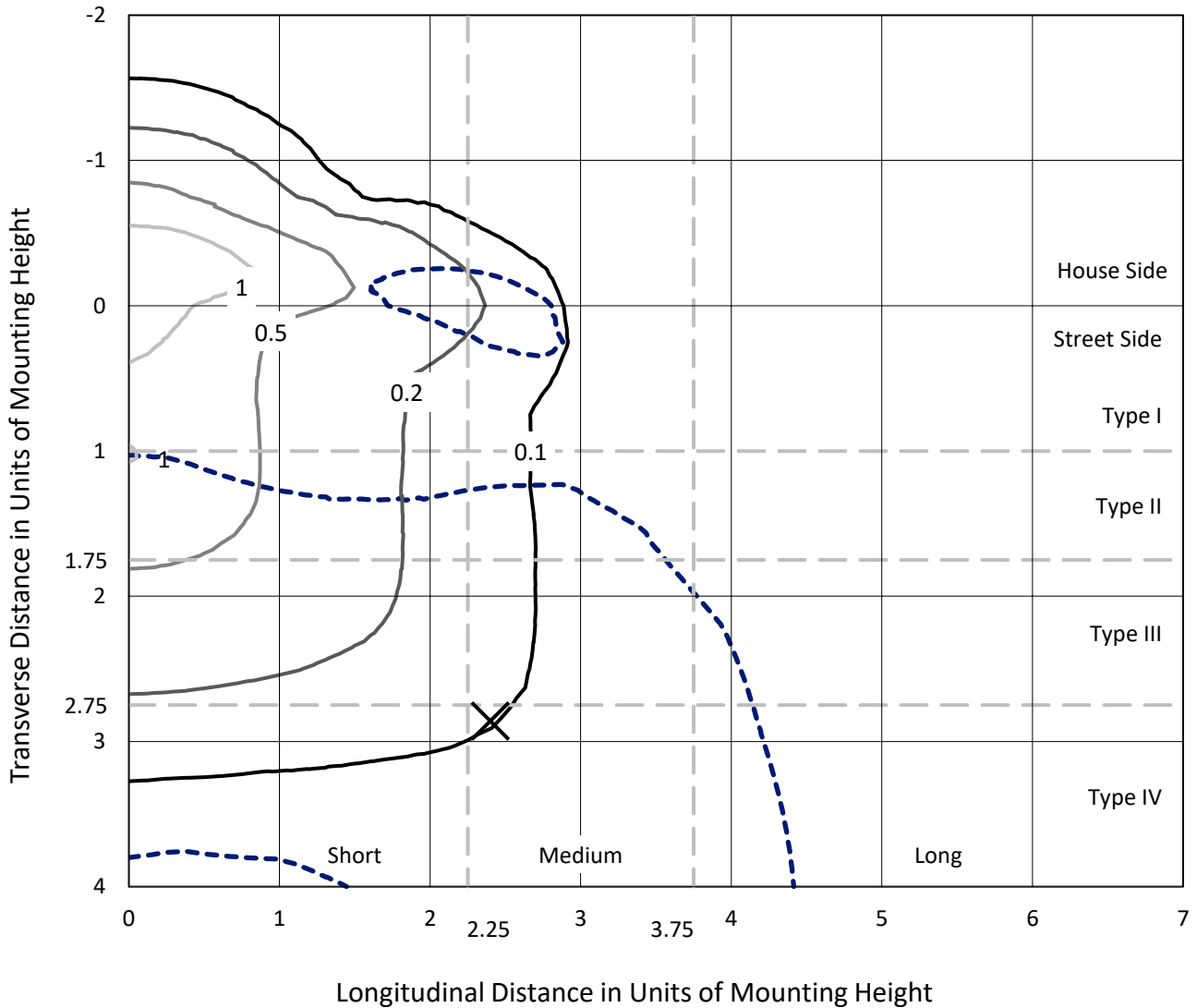
Lumens per Lamp: N/A  
Luminaire Lumens: 6023 lumens  
Efficiency: N/A  
Efficacy: 151.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 39.8  
Input Voltage (V): 120.0  
Input Current (Ain): 0.33  
Voltage Rise (V): NR  
Power Factor: 0.996  
Total Harmonic Distortion (THDi): 5.305  
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

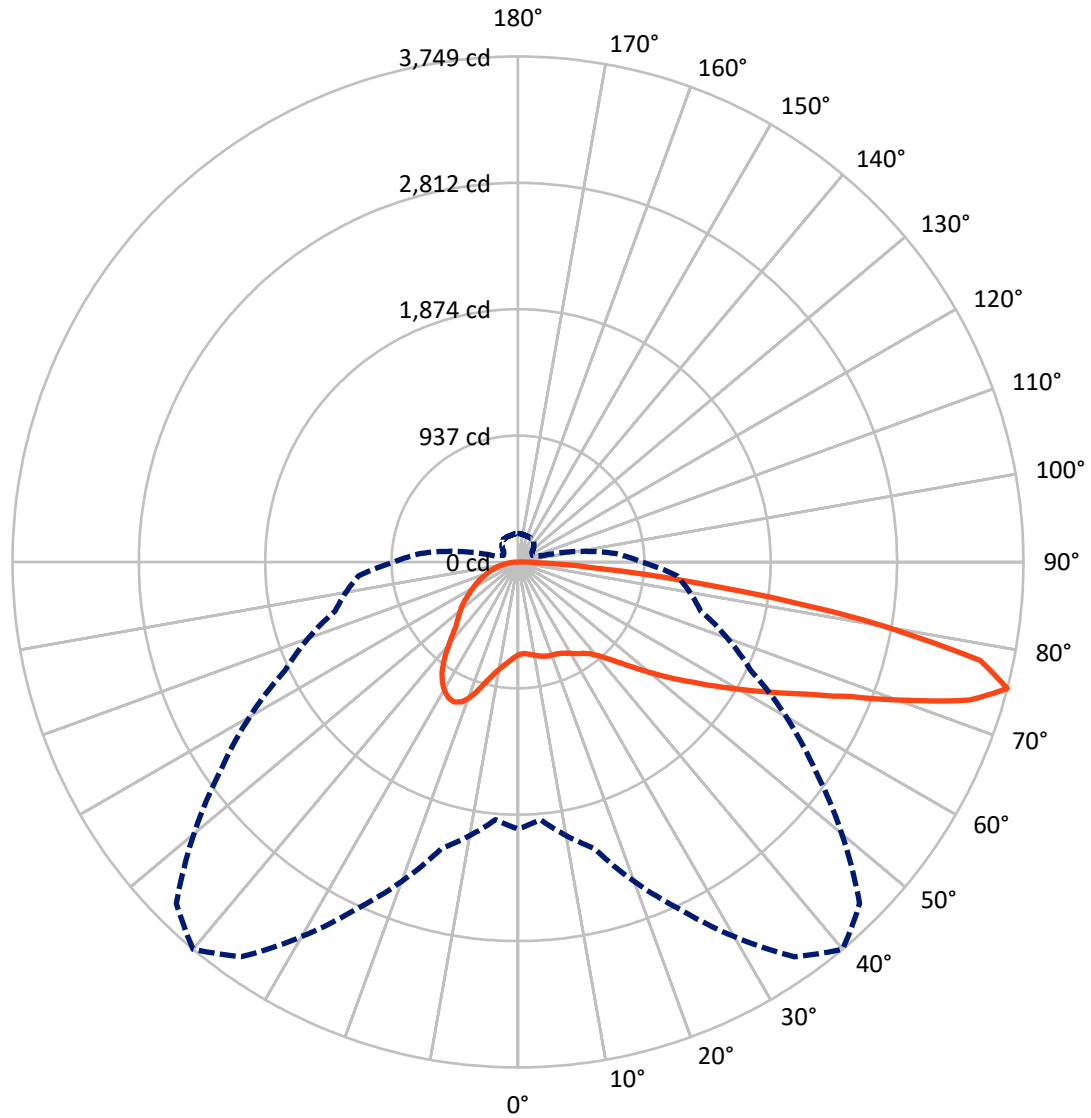
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 fc  
 Type IV - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical

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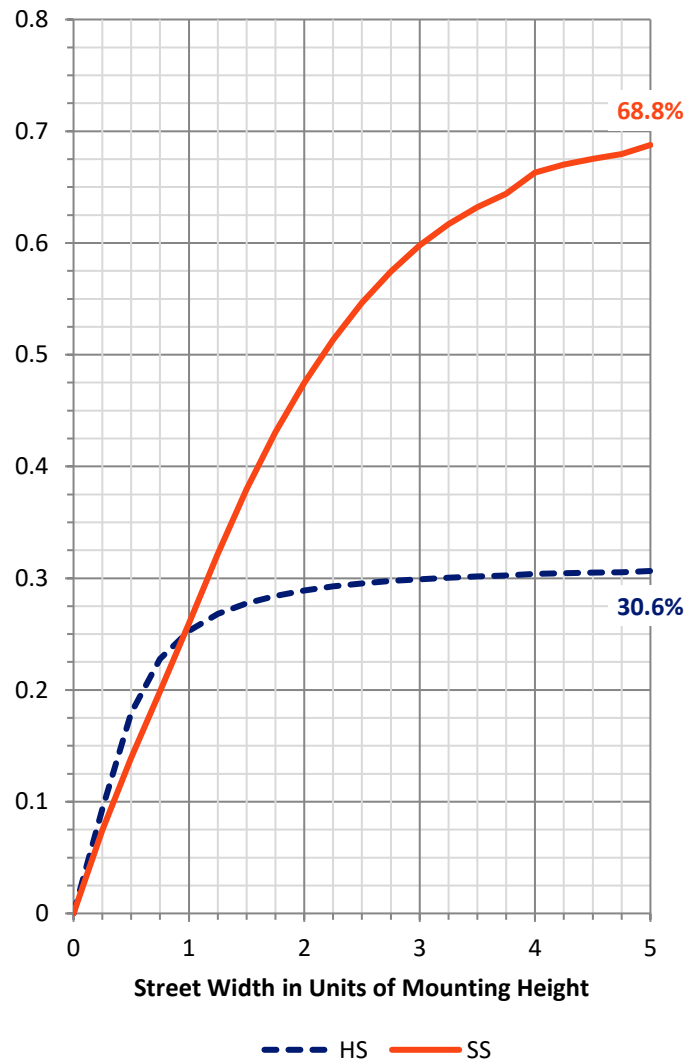
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1866.1	0.0	1866.1
	% Fixture	31.0	0.0	31.0
<b>Street Side</b>	Lumens	4156.9	0.0	4156.9
	% Fixture	69.0	0.0	69.0
<b>Total</b>	Lumens	6023.0	0.0	6023.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.7	1.1
10°-20°	230.8	3.8
20°-30°	421.5	7.0
30°-40°	597.8	9.9
40°-50°	807.1	13.4
50°-60°	1085.8	18.0
60°-70°	1378.2	22.9
70°-80°	1250.8	20.8
80°-90°	182.3	3.0
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°	6023.0	100.0
0°-180°	6023.0	100.0

**Coefficient of Utilization**



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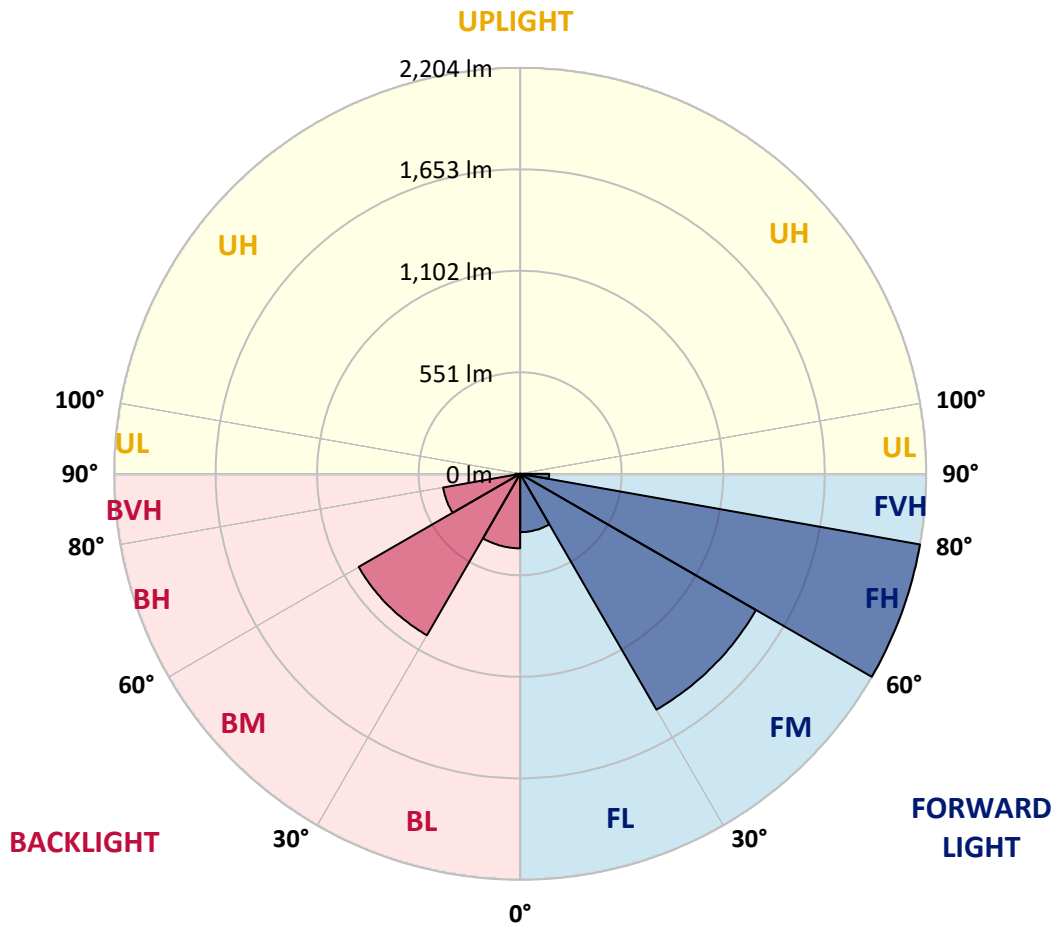
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	316.8	5.3			
FM (30°-60°)	1478.5	24.5			
FH (60°-80°)	2204.3	36.6			G2/5000
FVH (80°-90°)	157.2	2.6			G2/225
BL (0°-30°)	404.2	6.7	B1/500		
BM (30°-60°)	1012.2	16.8	B2/2500		
BH (60°-80°)	424.6	7.0	B1/500		G1/500
BVH (80°-90°)	25.1	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 IV Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	688.7	688.7	688.7	688.7	688.7	688.7	688.7	688.7	688.7	688.7	688.7
2.5°	678.2	682.0	681.1	679.8	679.8	680.1	679.8	682.0	684.3	686.5	690.0
5°	685.2	689.1	687.1	685.5	684.3	683.9	683.0	682.7	683.9	686.8	691.6
7.5°	699.0	702.8	699.9	697.0	694.5	693.2	691.9	690.0	689.1	690.7	697.4
10°	714.3	718.1	714.6	709.5	705.3	703.8	702.5	700.6	699.3	700.2	707.6
12.5°	729.6	733.5	728.7	721.6	716.2	715.3	713.7	713.0	712.7	712.4	719.7
15°	744.0	747.2	741.1	732.8	727.1	725.5	723.9	724.8	726.4	728.4	736.7
17.5°	755.2	758.4	749.4	738.6	733.1	732.5	731.5	734.7	739.2	744.0	754.2
20°	765.4	768.6	757.1	742.4	736.0	736.0	736.3	743.0	749.4	756.5	770.5
22.5°	779.8	782.3	768.3	748.2	738.9	739.5	742.1	748.8	756.8	766.4	785.9
25°	801.2	803.1	785.9	759.0	748.5	750.4	752.6	755.8	763.5	774.7	800.9
27.5°	835.7	837.3	814.6	778.2	762.2	765.4	768.6	766.4	769.9	779.5	813.0
30°	884.2	885.2	856.5	808.2	785.5	787.1	787.8	778.5	771.8	779.5	821.6
32.5°	941.7	941.4	907.2	844.6	812.0	810.4	805.0	786.8	771.2	777.9	829.3
35°	1030.9	1027.4	983.3	895.7	842.1	832.2	819.4	796.1	774.4	776.3	836.0
37.5°	1178.5	1167.6	1106.6	979.4	886.8	861.6	842.7	811.1	781.4	775.6	844.0
40°	1344.9	1331.2	1264.1	1094.1	953.9	913.3	883.0	832.5	792.9	778.5	855.8
42.5°	1542.3	1522.8	1450.6	1229.3	1038.9	980.1	934.4	859.6	809.8	787.8	871.8
45°	1784.8	1758.9	1656.7	1381.6	1145.9	1067.6	1006.6	900.9	835.7	805.7	895.7
47.5°	2029.8	2036.2	1890.8	1556.0	1274.3	1175.6	1097.0	962.8	873.4	834.4	934.4
50°	2290.1	2294.6	2123.7	1749.3	1420.0	1297.6	1198.6	1032.1	925.8	875.3	992.2
52.5°	2493.3	2494.0	2335.2	1951.5	1571.7	1431.8	1308.2	1111.4	986.5	929.6	1069.2
55°	2620.5	2618.9	2483.4	2142.9	1746.1	1572.7	1429.5	1201.5	1060.6	993.5	1166.0
57.5°	2712.8	2708.0	2585.6	2307.4	1932.0	1739.1	1566.9	1303.7	1148.1	1069.5	1293.5
60°	2747.9	2745.0	2655.0	2449.6	2127.5	1923.1	1725.4	1418.0	1247.5	1159.3	1457.3
62.5°	2761.3	2766.8	2723.0	2587.2	2336.8	2126.9	1899.5	1554.8	1359.3	1260.9	1630.2
65°	2808.6	2818.5	2809.6	2767.4	2573.2	2365.5	2130.4	1717.4	1481.3	1369.8	1810.7
67.5°	2902.2	2912.1	2916.0	2983.0	2862.0	2663.0	2418.6	1919.9	1624.1	1482.9	1946.4
70°	2900.0	2897.1	2964.8	3154.6	3223.6	3074.7	2807.0	2169.1	1794.4	1576.8	1963.7
72.5°	2639.6	2616.6	2776.7	3152.7	3524.5	3504.7	3281.4	2490.4	1941.3	1588.3	1704.0
75°	1980.3	1918.9	2201.7	2841.2	3574.7	3748.8	3583.0	2689.8	1906.5	1403.4	1185.8
77.5°	846.9	785.2	1118.4	2103.3	3199.3	3504.4	3306.3	2346.7	1521.9	928.0	582.4
80°	221.7	221.4	338.0	953.6	2175.8	2587.9	2270.3	1515.5	869.5	331.6	160.7
82.5°	91.7	89.4	124.3	370.9	1063.1	1452.2	1185.2	676.0	314.0	89.8	53.3
85°	34.2	33.9	60.4	128.1	375.0	599.0	433.5	172.8	78.3	43.8	24.0
87.5°	9.6	9.3	13.1	44.4	91.4	138.6	74.1	28.4	22.0	17.3	7.0
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°	688.7	688.7	688.7	688.7	688.7	688.7	688.7	688.7	688.7	688.7	688.7
2.5°	691.0	692.6	695.4	697.7	700.6	703.8	708.2	711.1	714.0	715.9	714.6
5°	693.8	697.4	704.7	712.1	720.7	728.7	737.9	744.6	750.1	751.7	752.3
7.5°	700.2	706.0	718.4	730.9	744.6	757.7	771.2	782.7	791.9	795.4	795.8
10°	711.4	719.1	736.7	754.2	772.4	792.6	809.8	826.4	839.5	845.0	845.3
12.5°	725.5	735.1	758.1	782.3	807.6	835.4	857.7	878.2	894.5	901.8	901.8
15°	743.7	756.1	785.5	818.1	855.2	893.8	922.3	944.9	963.1	972.1	971.5
17.5°	763.5	780.1	817.2	866.4	919.4	970.2	1003.4	1020.0	1038.9	1047.5	1047.2
20°	782.7	803.1	856.1	927.7	998.3	1052.3	1079.1	1083.6	1084.9	1085.8	1088.4
22.5°	802.5	829.9	905.0	1005.0	1080.7	1118.1	1121.9	1102.7	1075.9	1063.5	1067.0
25°	824.2	860.6	968.9	1090.3	1151.6	1156.1	1126.7	1080.1	1029.3	1006.0	1009.5
27.5°	845.3	896.1	1045.6	1171.7	1202.7	1163.4	1100.2	1034.1	972.7	948.1	951.0
30°	866.4	936.6	1130.2	1243.0	1226.1	1145.2	1058.3	984.6	922.9	897.0	899.9
32.5°	887.8	983.9	1227.7	1294.4	1221.9	1106.6	1006.3	929.0	874.7	847.5	851.0
35°	912.0	1042.1	1320.0	1322.5	1194.1	1049.7	937.6	862.5	815.2	793.5	798.3
37.5°	943.7	1115.8	1401.4	1329.6	1145.6	966.3	852.3	783.9	745.0	735.1	742.1
40°	983.0	1204.7	1463.7	1318.4	1073.7	865.1	759.0	704.4	682.3	684.6	692.3
42.5°	1034.1	1304.0	1507.5	1289.6	973.7	760.6	677.2	653.0	663.5	672.4	680.8
45°	1100.5	1407.2	1534.6	1240.8	860.6	672.1	629.0	634.8	642.7	643.7	650.1
47.5°	1185.5	1511.6	1552.5	1167.0	745.3	609.8	598.3	599.6	598.0	591.3	596.4
50°	1291.5	1613.2	1568.5	1069.2	647.2	570.9	555.5	551.1	529.0	507.3	510.2
52.5°	1412.3	1706.5	1575.2	947.8	570.9	538.3	513.4	485.2	444.0	437.3	439.6
55°	1546.5	1792.8	1558.0	798.6	506.7	496.4	458.7	424.9	420.4	414.6	415.6
57.5°	1706.8	1885.7	1522.8	632.2	440.8	447.6	410.8	414.6	406.7	397.7	396.1
60°	1882.2	1981.9	1461.2	480.5	372.8	386.5	398.4	398.0	395.8	388.5	385.9
62.5°	2040.0	2045.1	1339.8	368.0	313.1	339.3	371.5	371.2	369.3	365.1	363.5
65°	2133.9	2035.5	1137.2	289.7	263.9	300.3	335.1	337.7	338.0	337.7	337.7
67.5°	2117.3	1923.4	859.3	230.6	223.3	260.7	299.0	302.5	305.1	305.7	306.4
70°	1929.5	1677.1	560.3	184.0	187.2	225.9	264.8	268.3	270.6	273.1	274.4
72.5°	1504.0	1233.1	320.7	148.9	155.6	195.8	231.0	235.1	236.4	241.2	243.1
75°	916.5	725.2	173.1	117.2	127.8	167.4	197.4	202.2	204.4	210.2	210.8
77.5°	435.7	314.0	98.7	91.4	102.9	136.7	166.8	172.2	166.1	169.3	166.8
80°	147.3	116.6	62.3	69.6	78.6	106.7	133.5	139.0	126.2	125.5	124.3
82.5°	51.4	47.3	39.6	46.3	50.8	76.3	100.9	108.0	93.9	93.6	89.1
85°	20.1	19.2	22.0	25.2	30.3	47.0	66.4	70.0	57.8	46.6	46.0
87.5°	4.2	4.5	5.4	5.8	9.3	16.3	24.0	29.4	23.3	19.8	18.2
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)