

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: P882959

Luminaire Tested: **NAV-SB3A-827-U-T3**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882959  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3A-827-U-T3  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

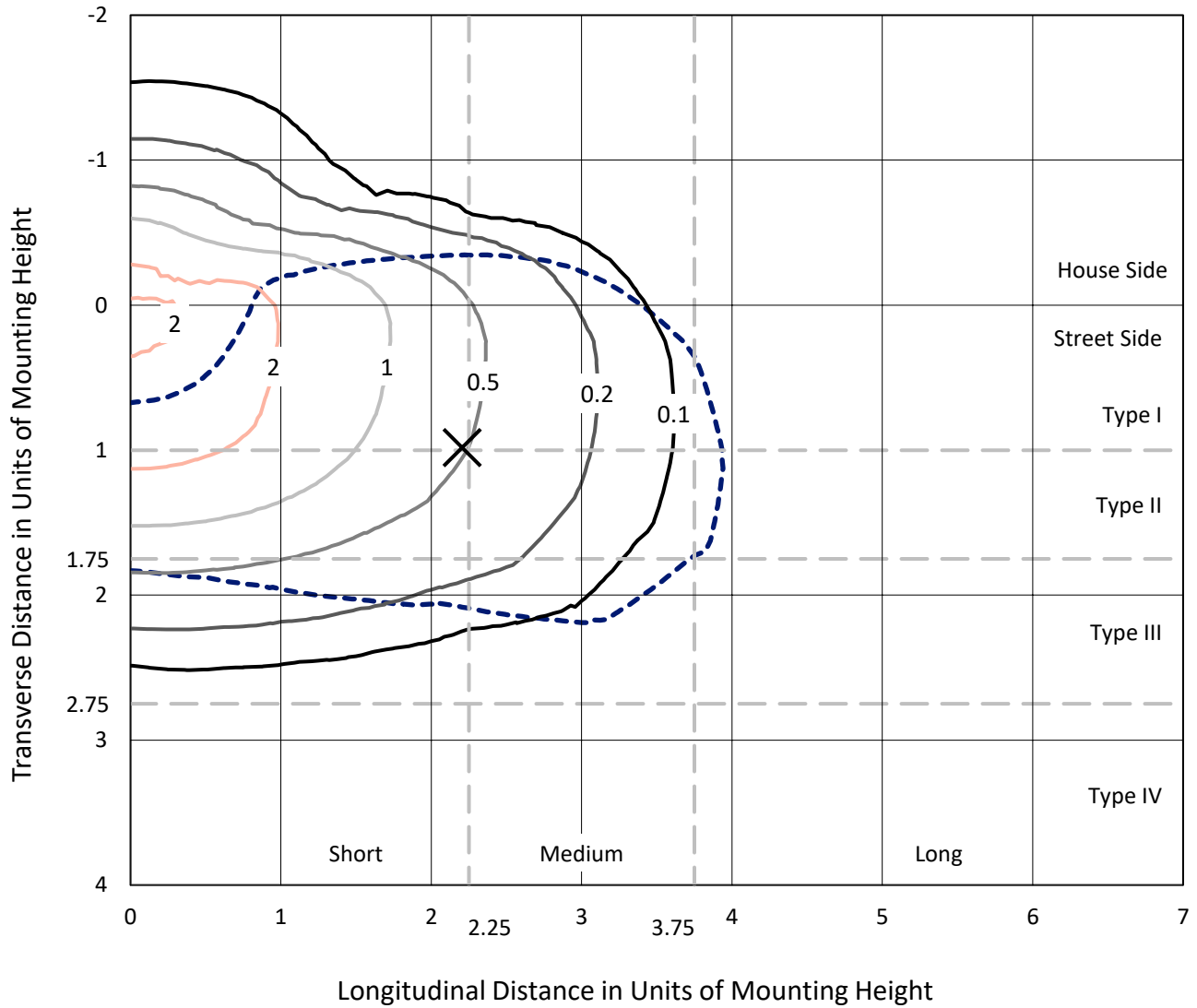
Lumens per Lamp: N/A  
Luminaire Lumens: 10940 lumens  
Efficiency: N/A  
Efficacy: 129.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 84.7  
Input Voltage (V): 120.0  
Input Current (Ain): 0.717  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 11.969  
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

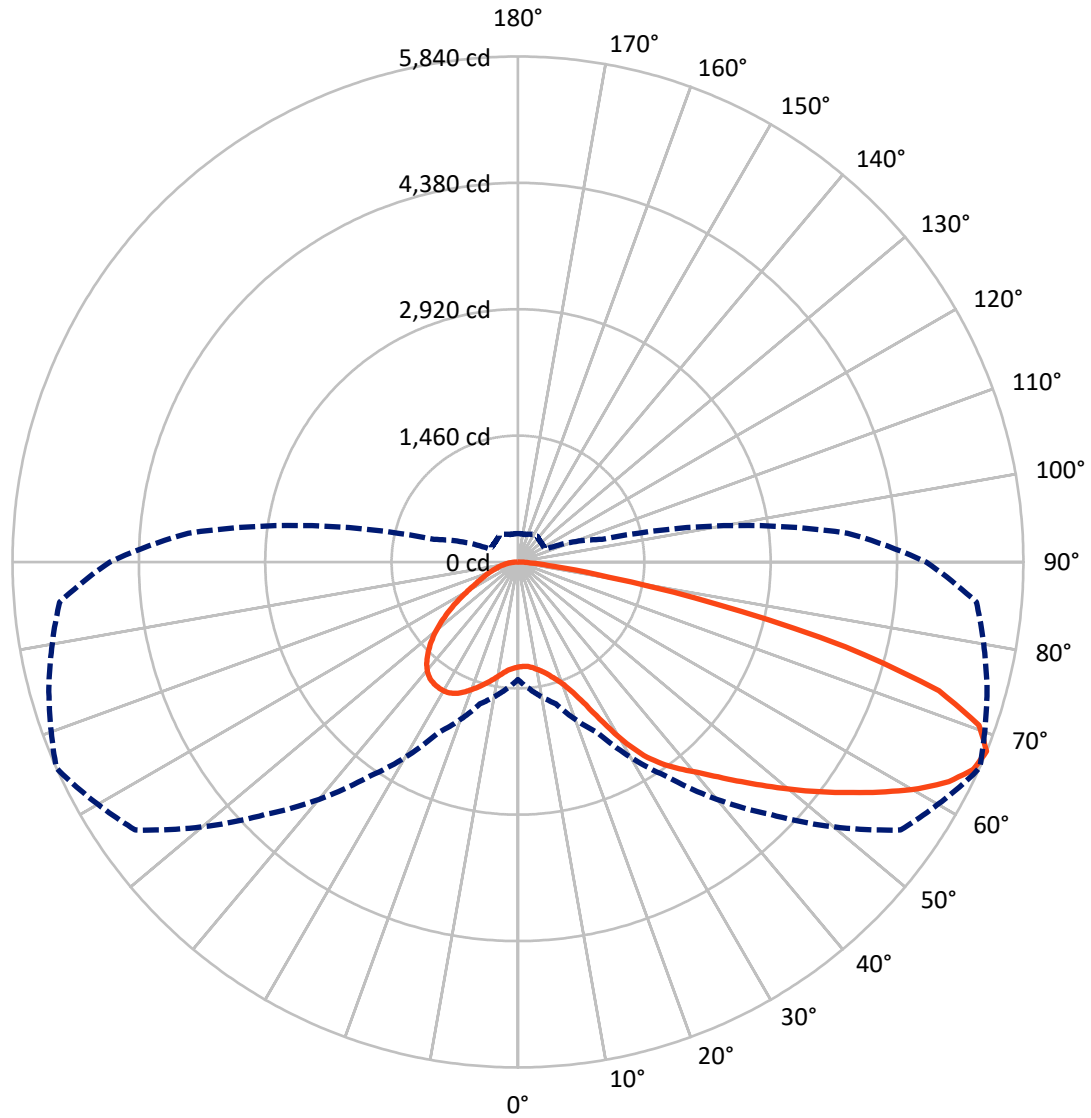
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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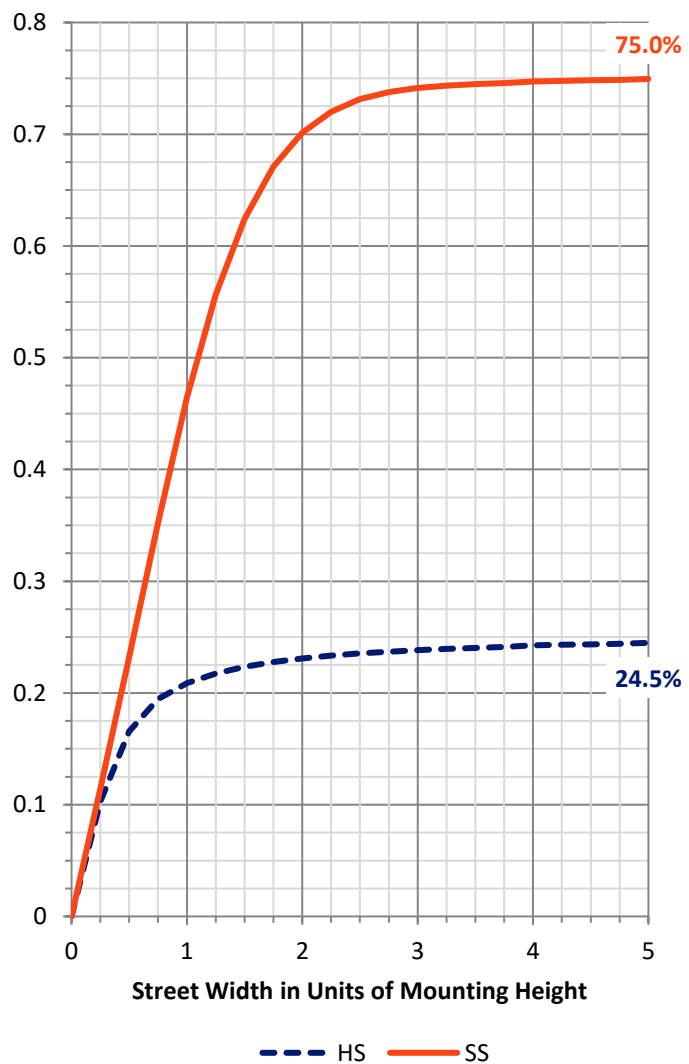
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2720.2	0.0	2720.2
	% Fixture	24.9	0.0	24.9
<b>Street Side</b>	Lumens	8219.8	0.0	8219.8
	% Fixture	75.1	0.0	75.1
<b>Total</b>	Lumens	10940.0	0.0	10940.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.3	1.1
10°-20°	397.5	3.6
20°-30°	766.1	7.0
30°-40°	1343.2	12.3
40°-50°	1997.0	18.3
50°-60°	2531.3	23.1
60°-70°	2476.9	22.6
70°-80°	1181.5	10.8
80°-90°	126.3	1.2
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°	10940.0	100.0
0°-180°	10940.0	100.0

**Coefficient of Utilization**



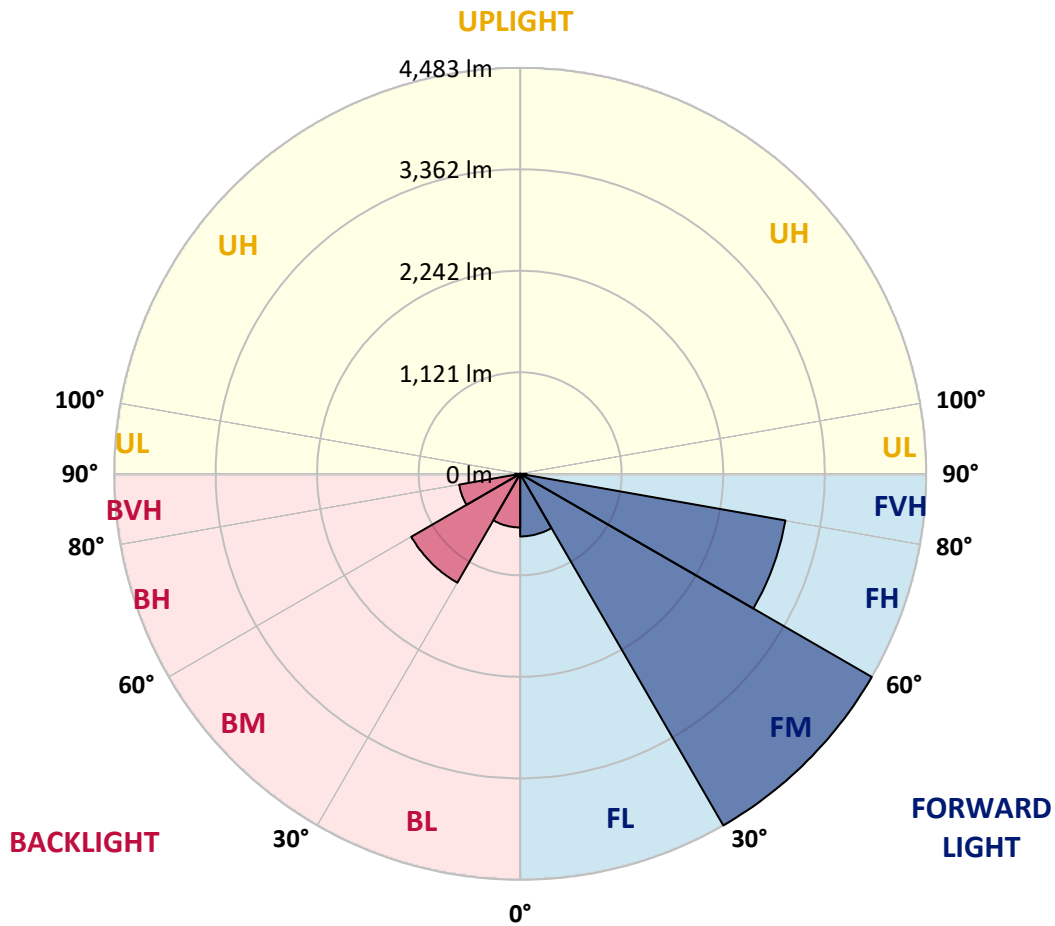
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	691.3	6.3			
FM (30°-60°)	4483.1	41.0			
FH (60°-80°)	2973.8	27.2			G2/5000
FVH (80°-90°)	71.6	0.7			G1/100
BL (0°-30°)	592.6	5.4	B2/1000		
BM (30°-60°)	1388.4	12.7	B2/2500		
BH (60°-80°)	684.5	6.3	B2/1000		G2/1000
BVH (80°-90°)	54.7	0.5			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 Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	1213.4	1213.4	1213.4	1213.4	1213.4	1213.4	1213.4	1213.4	1213.4	1213.4	1213.4
2.5°	1200.7	1207.6	1205.9	1203.0	1202.5	1203.6	1205.3	1207.1	1206.5	1209.4	1214.0
5°	1197.3	1204.2	1203.6	1203.6	1205.9	1210.5	1213.4	1216.3	1213.4	1216.8	1223.2
7.5°	1199.6	1204.8	1207.1	1209.4	1215.1	1223.7	1230.6	1237.0	1233.5	1237.5	1245.6
10°	1228.9	1232.9	1235.2	1235.2	1239.3	1249.0	1255.9	1267.4	1264.5	1270.9	1281.2
12.5°	1282.4	1286.4	1286.4	1284.1	1287.0	1293.3	1295.6	1308.2	1303.1	1313.4	1323.8
15°	1347.9	1355.9	1349.6	1345.6	1346.7	1353.1	1352.5	1362.3	1357.1	1365.7	1374.9
17.5°	1420.3	1430.7	1420.3	1419.7	1417.4	1424.3	1424.9	1433.5	1424.3	1430.7	1437.0
20°	1506.0	1520.3	1511.7	1514.6	1509.4	1512.3	1515.2	1527.8	1513.4	1518.0	1516.3
22.5°	1626.7	1643.9	1634.7	1645.6	1642.2	1639.9	1639.3	1661.7	1639.3	1641.0	1624.4
25°	1802.6	1823.2	1807.2	1822.1	1822.1	1829.6	1838.2	1866.9	1829.6	1818.6	1775.5
27.5°	2062.4	2083.1	2051.4	2060.6	2057.8	2076.2	2067.0	2138.2	2098.0	2080.2	1993.4
30°	2375.0	2411.8	2352.1	2349.8	2346.9	2376.2	2389.4	2436.6	2395.7	2377.9	2273.3
32.5°	2713.0	2751.5	2680.3	2659.6	2648.7	2666.5	2655.5	2693.5	2665.3	2637.7	2508.4
35°	3070.6	3108.5	3040.7	3000.4	2956.7	2919.4	2880.3	2890.1	2863.6	2821.7	2687.7
37.5°	3408.5	3478.1	3406.2	3363.1	3282.6	3209.7	3100.4	3055.0	3030.3	2991.8	2856.7
40°	3752.8	3792.5	3737.9	3701.1	3613.7	3499.3	3324.6	3228.6	3195.3	3157.9	3043.5
42.5°	4006.3	4044.3	4014.9	3989.6	3921.2	3788.5	3562.6	3442.4	3394.2	3352.2	3255.1
45°	4207.5	4235.7	4217.3	4226.5	4197.1	4068.4	3809.2	3671.8	3621.8	3570.6	3494.2
47.5°	4288.5	4318.4	4347.7	4402.3	4452.4	4357.5	4074.1	3920.1	3867.2	3814.9	3739.6
50°	4279.3	4309.8	4394.9	4511.0	4666.2	4634.6	4353.5	4184.5	4135.6	4075.9	4006.3
52.5°	4205.8	4240.3	4349.5	4542.6	4789.8	4842.1	4638.0	4457.5	4411.5	4340.3	4270.7
55°	4012.6	4033.3	4197.1	4470.7	4819.1	4986.9	4916.8	4748.4	4702.4	4603.0	4527.1
57.5°	3654.5	3684.4	3923.0	4277.0	4745.5	5085.2	5161.7	5054.2	5009.9	4866.8	4787.5
60°	3187.2	3234.9	3508.0	3951.7	4558.1	5084.6	5384.1	5354.8	5318.0	5126.6	5043.8
62.5°	2658.4	2713.6	2976.3	3491.9	4230.5	4940.4	5523.2	5606.5	5587.6	5366.3	5260.5
65°	2041.7	2079.6	2341.1	2897.0	3720.6	4630.5	5539.3	5778.4	5781.9	5548.5	5373.8
67.5°	1359.4	1468.6	1695.6	2173.9	3037.8	4124.1	5397.9	5806.6	5839.9	5611.1	5316.8
70°	663.3	807.0	1029.5	1412.8	2173.9	3347.6	5028.3	5575.5	5649.7	5428.4	4977.7
72.5°	275.3	321.9	443.2	697.2	1247.9	2258.9	4285.7	4949.0	5086.4	4809.9	4185.1
75°	185.7	201.2	253.5	357.5	568.5	1114.0	3090.7	3690.2	3911.5	3632.7	2969.4
77.5°	143.1	152.9	184.5	250.0	338.0	421.3	1654.3	2223.9	2338.3	2164.7	1545.0
80°	112.7	120.1	138.0	182.2	239.7	225.3	563.9	1007.6	1073.7	900.7	496.6
82.5°	97.7	100.6	98.9	123.6	159.2	131.6	185.1	371.9	410.4	297.7	162.1
85°	70.7	78.7	82.2	76.4	84.5	66.7	75.9	131.6	144.8	129.3	91.4
87.5°	28.7	42.5	52.3	49.4	31.0	19.0	23.6	38.5	44.3	48.3	29.9
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°	1213.4	1213.4	1213.4	1213.4	1213.4	1213.4	1213.4	1213.4	1213.4	1213.4	1213.4
2.5°	1214.5	1218.6	1221.4	1224.9	1227.2	1230.6	1237.5	1241.6	1242.1	1245.0	1244.4
5°	1225.5	1231.2	1237.5	1246.7	1257.1	1265.7	1278.9	1288.1	1291.6	1294.4	1293.9
7.5°	1249.0	1257.1	1268.6	1284.7	1299.6	1311.1	1327.2	1338.1	1349.0	1353.1	1353.6
10°	1284.1	1295.6	1312.3	1334.1	1350.2	1365.1	1381.8	1391.0	1401.9	1406.5	1408.8
12.5°	1327.8	1339.8	1361.7	1392.2	1407.1	1417.4	1423.2	1420.9	1423.2	1427.2	1428.4
15°	1377.8	1391.0	1415.7	1448.5	1458.8	1449.6	1437.0	1425.5	1423.8	1424.9	1428.9
17.5°	1437.0	1446.8	1475.5	1503.1	1495.6	1457.7	1430.1	1411.7	1402.5	1399.6	1403.6
20°	1519.8	1519.8	1543.3	1560.6	1510.6	1446.2	1403.1	1373.2	1354.2	1346.2	1344.4
22.5°	1620.3	1611.1	1626.1	1614.0	1507.7	1414.0	1354.2	1302.5	1273.7	1262.2	1260.5
25°	1747.9	1737.0	1733.0	1658.3	1487.0	1362.8	1265.7	1203.0	1177.8	1171.4	1172.6
27.5°	1940.5	1912.9	1860.6	1682.4	1449.1	1282.4	1162.2	1104.2	1089.8	1090.4	1092.1
30°	2196.9	2141.7	2013.5	1686.4	1387.0	1168.6	1056.5	1015.1	1008.2	1011.1	1020.8
32.5°	2434.3	2381.9	2169.8	1668.1	1291.6	1057.0	961.6	934.0	923.7	927.1	931.7
35°	2620.5	2606.1	2314.7	1642.2	1174.3	952.4	876.6	853.0	832.9	828.3	831.7
37.5°	2796.4	2790.6	2423.3	1606.0	1058.2	878.3	808.2	777.1	747.8	731.7	732.3
40°	2989.5	2983.8	2494.6	1550.2	955.3	813.9	746.7	705.8	669.6	640.3	643.2
42.5°	3206.8	3172.9	2528.5	1470.3	867.9	759.3	696.7	641.5	593.8	566.7	568.5
45°	3444.2	3367.7	2527.9	1368.6	794.4	709.3	643.2	565.0	520.8	495.5	494.3
47.5°	3695.9	3554.0	2496.9	1255.9	723.1	654.1	560.4	500.6	471.3	455.8	452.4
50°	3955.7	3728.1	2444.0	1126.6	650.1	591.5	508.7	467.9	445.5	431.1	425.9
52.5°	4200.0	3886.2	2380.2	980.0	575.9	530.5	485.7	454.1	430.5	414.4	407.5
55°	4427.1	4022.4	2290.0	830.0	515.6	489.7	474.8	448.3	421.3	402.4	394.9
57.5°	4628.8	4110.9	2134.2	689.2	472.5	461.6	463.3	438.6	407.5	391.4	381.1
60°	4796.7	4175.9	1903.7	558.7	437.4	434.0	445.5	420.2	384.0	365.6	357.5
62.5°	4897.2	4174.7	1620.9	457.5	407.5	408.7	421.9	397.2	360.4	343.2	338.0
65°	4888.6	4072.4	1310.5	391.4	378.8	379.9	397.2	371.9	340.9	330.5	329.9
67.5°	4715.6	3823.0	1005.3	348.3	347.2	352.3	372.5	354.6	328.8	327.6	329.4
70°	4247.2	3305.1	724.2	313.8	314.4	321.9	348.3	343.7	322.5	324.8	324.2
72.5°	3405.7	2519.9	486.3	277.6	278.2	290.3	325.3	335.1	316.1	346.6	351.2
75°	2268.1	1571.5	312.7	239.1	239.7	255.2	305.2	318.4	298.9	345.5	348.3
77.5°	1089.8	706.4	226.5	201.2	201.2	215.5	263.8	285.1	254.6	268.4	246.0
80°	376.5	265.6	178.2	162.1	158.6	168.4	222.4	247.2	219.6	202.3	189.7
82.5°	148.3	138.0	143.1	125.9	114.4	120.7	173.0	204.1	161.5	146.0	145.4
85°	85.1	89.7	101.2	83.3	66.1	74.1	127.0	146.6	121.9	107.5	109.8
87.5°	23.0	31.6	46.6	43.1	29.9	31.6	60.4	81.0	70.1	54.0	55.8
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)