

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: P960809

Luminaire Tested: **NAV-SB1D-727-U-SL4-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P960809  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1D-727-U-SL4-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV SPILL LIGHT  
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

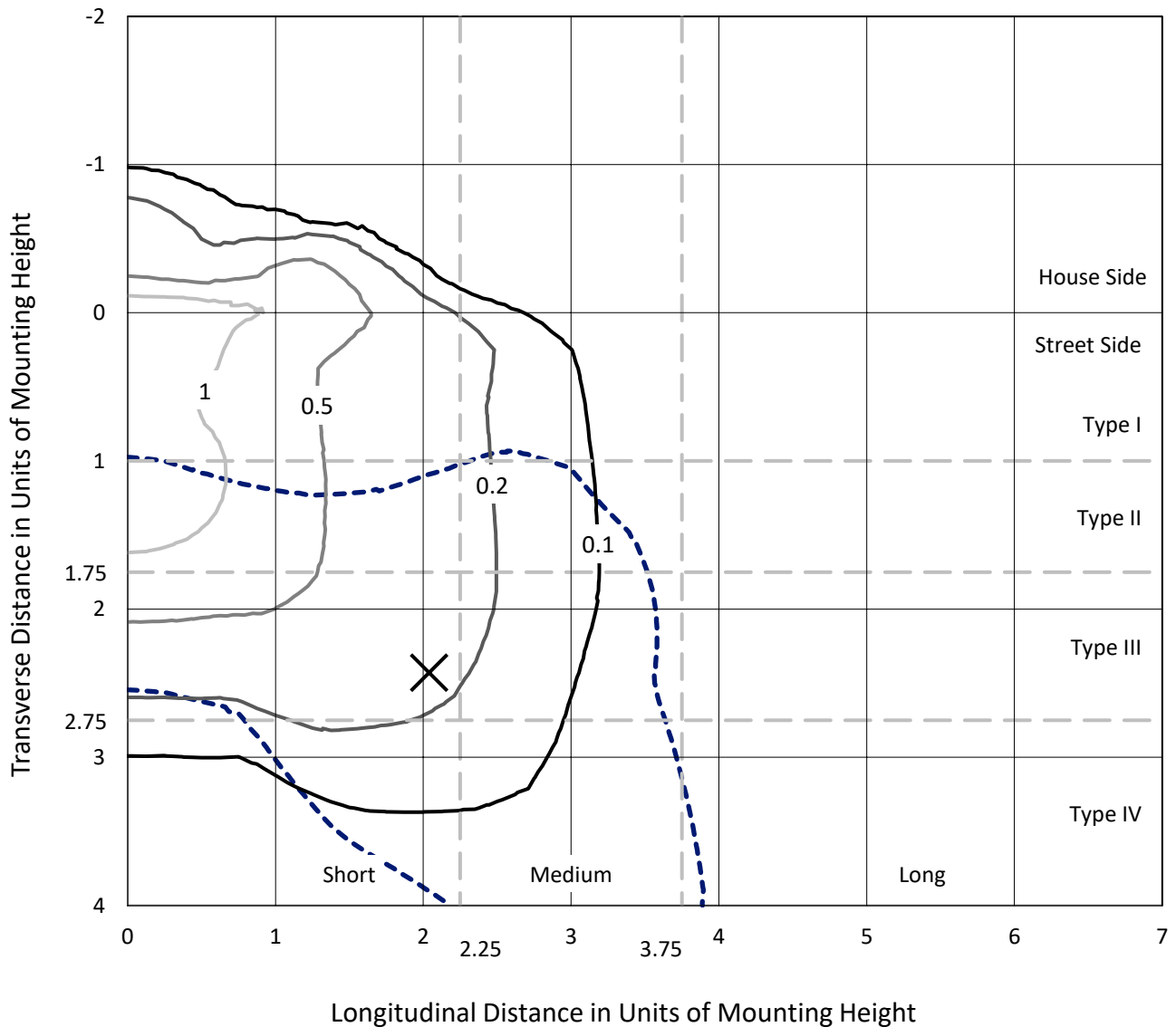
Lumens per Lamp: N/A  
Luminaire Lumens: 6755.8 lumens  
Efficiency: N/A  
Efficacy: 84.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 79.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
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

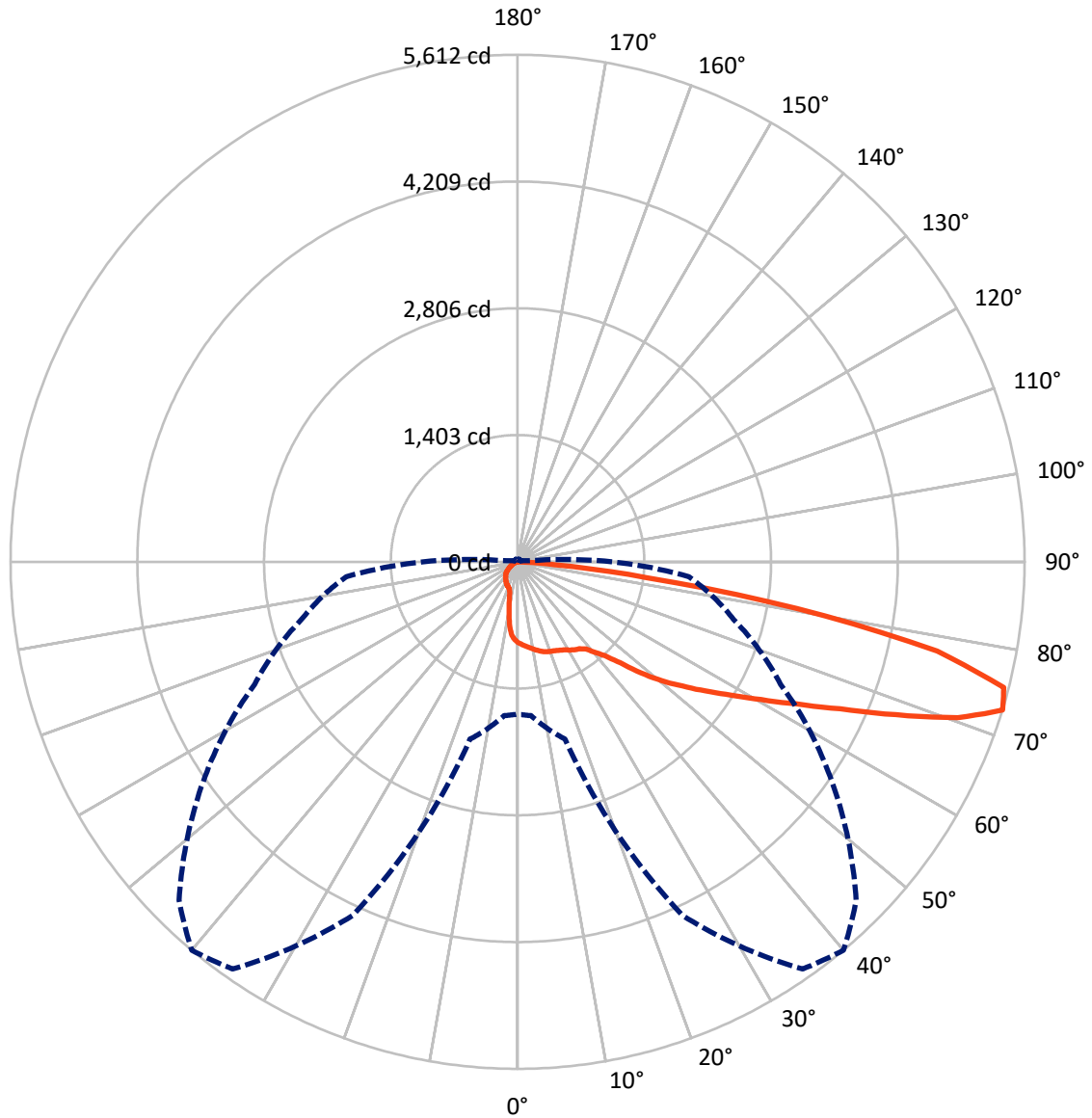
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.6 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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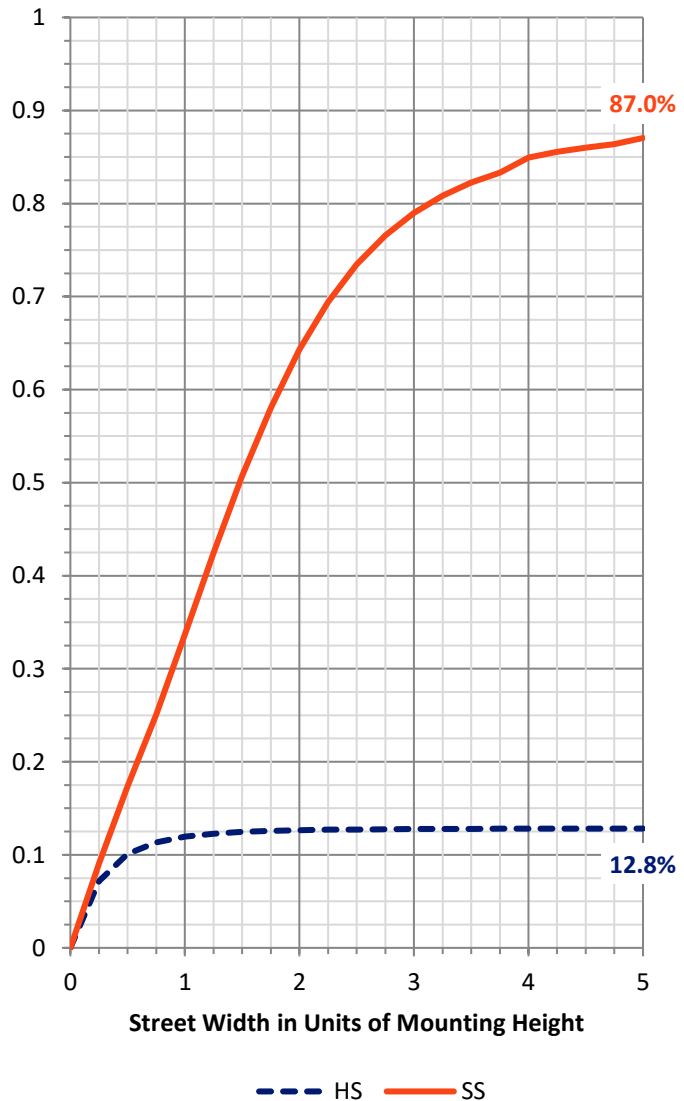
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	872.4	0.0	872.4
	% Fixture	12.9	0.0	12.9
<b>Street Side</b>	Lumens	5883.3	0.0	5883.3
	% Fixture	87.1	0.0	87.1
<b>Total</b>	Lumens	6755.8	0.0	6755.8
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.7	1.2
10°-20°	221.8	3.3
20°-30°	359.0	5.3
30°-40°	530.0	7.8
40°-50°	892.0	13.2
50°-60°	1385.0	20.5
60°-70°	1733.0	25.7
70°-80°	1418.8	21.0
80°-90°	134.5	2.0
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°	6755.8	100.0
0°-180°	6755.8	100.0

**Coefficient of Utilization**



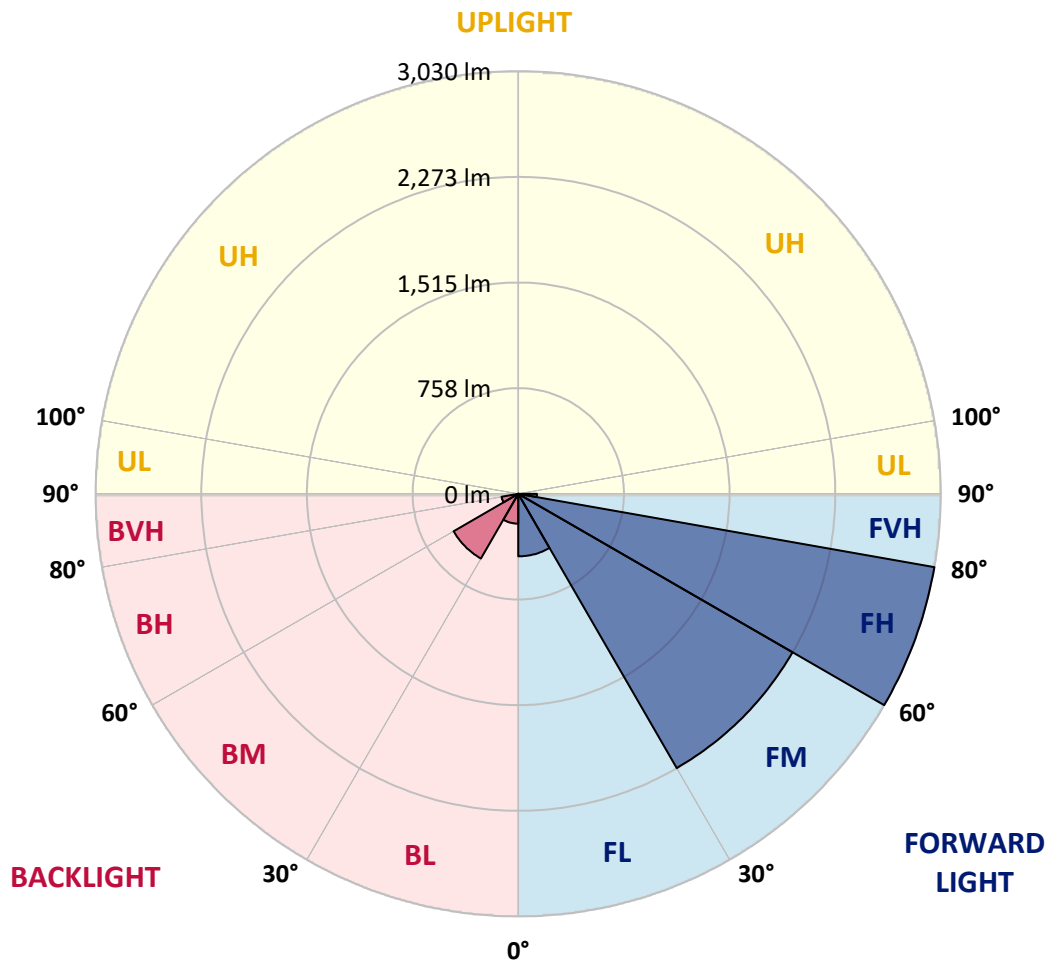
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	448.4	6.6			
FM (30°-60°)	2271.2	33.6			
FH (60°-80°)	3030.3	44.9			G2/5000
FVH (80°-90°)	133.5	2.0			G2/225
BL (0°-30°)	214.1	3.2	B1/500		
BM (30°-60°)	535.7	7.9	B1/1000		
BH (60°-80°)	121.5	1.8	B1/500		G1/500
BVH (80°-90°)	1.0	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	894.5	894.5	894.5	894.5	894.5	894.5	894.5	894.5	894.5	894.5	894.5
2.5°	921.5	925.1	923.0	918.9	917.9	915.9	913.4	912.4	908.8	905.7	902.1
5°	947.4	951.0	948.4	942.9	940.3	937.8	934.2	931.1	924.0	917.4	909.3
7.5°	975.9	979.0	975.9	967.8	963.7	960.6	955.6	951.0	942.9	933.2	923.0
10°	1007.5	1010.0	1005.4	994.8	988.1	983.6	979.0	973.9	966.3	955.6	943.4
12.5°	1037.0	1040.1	1032.9	1020.2	1012.6	1008.0	1002.9	998.9	991.2	981.0	968.3
15°	1063.9	1068.6	1056.4	1042.6	1033.9	1030.3	1025.3	1022.7	1017.6	1010.5	998.9
17.5°	1084.3	1087.3	1074.6	1058.3	1048.7	1046.1	1042.6	1044.1	1043.1	1039.6	1031.9
20°	1101.6	1103.6	1086.8	1067.0	1056.4	1056.9	1055.9	1060.9	1062.9	1062.9	1062.4
22.5°	1123.0	1123.5	1102.1	1077.2	1064.5	1068.0	1069.6	1075.1	1079.2	1083.3	1092.4
25°	1151.0	1149.9	1124.5	1090.4	1079.2	1084.3	1087.8	1089.9	1094.5	1101.1	1122.0
27.5°	1192.7	1189.6	1157.1	1111.8	1098.6	1103.1	1109.8	1108.7	1106.7	1111.8	1146.9
30°	1245.6	1241.6	1198.3	1141.8	1129.6	1133.6	1135.7	1126.6	1111.8	1116.3	1168.8
32.5°	1329.5	1322.5	1262.4	1175.4	1156.6	1161.1	1158.6	1139.8	1117.9	1122.5	1190.6
35°	1475.6	1458.3	1373.3	1245.6	1187.1	1182.0	1175.9	1157.5	1130.6	1126.1	1209.0
37.5°	1786.0	1755.4	1610.5	1382.5	1256.3	1223.2	1204.4	1186.0	1144.3	1126.1	1229.8
40°	2136.1	2105.0	1937.7	1611.5	1371.2	1315.3	1270.6	1219.6	1158.6	1132.6	1262.4
42.5°	2501.4	2467.3	2295.3	1895.4	1535.7	1420.6	1337.2	1246.6	1182.0	1153.0	1305.6
45°	2909.5	2866.7	2641.8	2191.6	1774.3	1595.7	1444.5	1302.1	1222.7	1189.1	1364.7
47.5°	3340.0	3284.5	2987.4	2479.0	2031.2	1837.9	1640.9	1401.3	1282.8	1243.0	1444.5
50°	3721.6	3666.6	3344.1	2779.7	2271.4	2068.3	1864.9	1538.7	1372.8	1319.4	1552.0
52.5°	3995.9	3954.1	3668.7	3090.1	2521.2	2284.6	2067.8	1698.4	1486.8	1417.1	1678.6
55°	4179.5	4141.3	3898.7	3384.2	2811.8	2522.7	2267.8	1872.0	1624.2	1534.1	1818.6
57.5°	4291.0	4269.0	4065.0	3646.7	3099.8	2783.3	2496.8	2062.8	1786.0	1672.0	1974.8
60°	4330.6	4312.8	4168.4	3897.2	3447.8	3096.2	2766.0	2278.1	1982.4	1828.7	2135.1
62.5°	4224.8	4228.3	4242.6	4193.8	3814.6	3462.6	3088.6	2536.5	2200.2	2006.3	2285.6
65°	3726.7	3756.2	4026.8	4522.5	4300.6	3921.5	3499.2	2852.0	2449.5	2208.4	2405.3
67.5°	3085.6	3128.3	3465.1	4714.8	4818.6	4517.4	4071.1	3254.0	2746.7	2413.9	2450.5
70°	2362.0	2407.7	2815.9	4674.6	5303.6	5168.7	4778.4	3765.3	3054.5	2556.4	2335.1
72.5°	1685.7	1709.2	2030.7	4316.9	5502.5	5612.4	5299.5	4249.8	3211.7	2477.5	1904.6
75°	1184.6	1180.5	1393.7	3476.3	5192.5	5558.5	5116.8	3987.7	2906.4	1968.1	1174.3
77.5°	516.0	517.0	696.1	2111.1	4144.4	4747.4	4253.3	2497.8	2026.1	1043.1	495.6
80°	133.9	137.9	255.4	840.6	2495.3	3133.3	2594.0	1098.1	936.2	254.4	94.6
82.5°	47.4	50.3	117.6	264.0	920.4	1436.9	1155.1	351.1	244.3	72.8	25.4
85°	13.7	16.3	63.1	80.9	190.3	406.0	280.3	68.2	60.1	37.6	6.7
87.5°	0.0	2.0	12.7	11.2	11.2	7.6	14.2	7.6	9.6	4.6	2.0
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°	894.5	894.5	894.5	894.5	894.5	894.5	894.5	894.5	894.5	894.5	894.5
2.5°	899.1	895.5	887.9	879.8	872.2	865.0	862.9	855.4	851.8	852.3	851.8
5°	903.6	897.1	882.3	864.5	846.1	825.3	808.0	783.6	762.7	760.1	758.7
7.5°	915.9	905.2	881.3	846.6	800.9	743.4	689.9	637.0	607.0	590.7	589.7
10°	934.7	920.4	883.9	817.6	720.5	617.8	536.8	470.2	436.0	420.2	417.3
12.5°	957.1	941.4	887.9	768.3	616.7	481.9	394.3	353.6	346.6	345.5	345.0
15°	988.6	971.4	892.5	701.7	504.2	366.8	326.7	327.2	332.8	335.8	335.3
17.5°	1023.8	1006.4	885.9	620.2	393.3	313.4	312.4	317.0	325.1	328.2	327.7
20°	1059.3	1043.1	862.4	524.6	318.1	298.7	302.8	307.8	316.0	320.0	320.0
22.5°	1096.0	1081.8	825.3	422.8	287.0	288.0	293.0	298.2	307.3	311.9	311.9
25°	1135.2	1123.0	775.9	338.9	273.8	276.9	283.4	289.6	299.2	304.8	304.8
27.5°	1174.9	1165.7	720.0	282.9	261.6	265.1	272.8	280.8	290.6	297.1	297.7
30°	1218.1	1213.1	675.2	262.1	249.8	252.9	261.6	270.7	281.4	289.6	290.6
32.5°	1262.4	1261.4	653.3	277.3	239.1	241.2	248.8	258.0	271.2	281.4	282.4
35°	1306.2	1308.2	640.6	320.5	235.5	230.0	235.0	243.2	259.0	271.7	273.8
37.5°	1362.1	1367.2	640.1	367.4	244.3	218.8	222.3	228.0	241.7	256.5	259.0
40°	1445.6	1472.5	672.7	407.5	259.5	208.6	209.6	210.6	217.8	230.0	234.1
42.5°	1556.5	1635.4	790.2	435.0	265.6	199.5	195.9	190.3	189.3	195.9	199.5
45°	1694.4	1832.3	996.8	450.3	259.5	189.3	179.6	164.8	159.3	163.8	163.8
47.5°	1856.7	2048.1	1241.6	453.9	249.3	176.6	159.3	139.9	135.3	136.8	136.3
50°	2014.9	2209.8	1456.7	424.4	232.6	160.3	136.8	120.6	117.6	118.1	118.1
52.5°	2154.9	2265.4	1517.8	354.6	210.1	140.4	117.6	106.4	104.3	104.3	103.8
55°	2247.5	2205.3	1353.5	271.2	182.1	120.1	100.8	95.1	94.1	93.6	92.6
57.5°	2266.8	2009.8	1022.2	195.9	142.5	101.3	89.6	86.5	84.5	82.4	81.4
60°	2197.6	1684.2	650.8	136.8	106.8	86.5	79.3	77.4	73.3	69.2	67.6
62.5°	2048.1	1272.0	360.3	95.1	86.0	73.8	70.2	67.6	60.1	53.4	51.4
65°	1847.0	845.6	159.3	74.3	70.2	62.1	60.1	56.5	47.4	39.7	38.1
67.5°	1645.0	487.0	71.8	59.6	56.5	50.8	49.4	46.8	40.2	33.1	32.1
70°	1414.5	246.8	49.4	47.4	43.8	38.6	40.2	39.7	33.1	27.0	25.9
72.5°	1053.3	122.6	37.1	35.6	31.6	27.5	33.1	32.6	25.9	20.4	19.4
75°	596.3	60.6	27.0	24.9	18.9	20.4	26.4	24.9	17.8	13.2	12.2
77.5°	236.6	31.1	17.8	15.3	11.2	13.7	19.4	16.8	9.1	5.6	5.1
80°	54.4	15.3	9.1	6.7	5.1	8.1	10.1	6.1	2.6	0.5	0.0
82.5°	15.3	6.7	3.1	2.6	2.6	3.1	2.6	1.0	0.0	0.0	0.0
85°	5.1	3.1	1.0	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0
87.5°	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)