

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: P882043

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

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882043  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
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: ELECTRONIC DRIVER

**Summary**

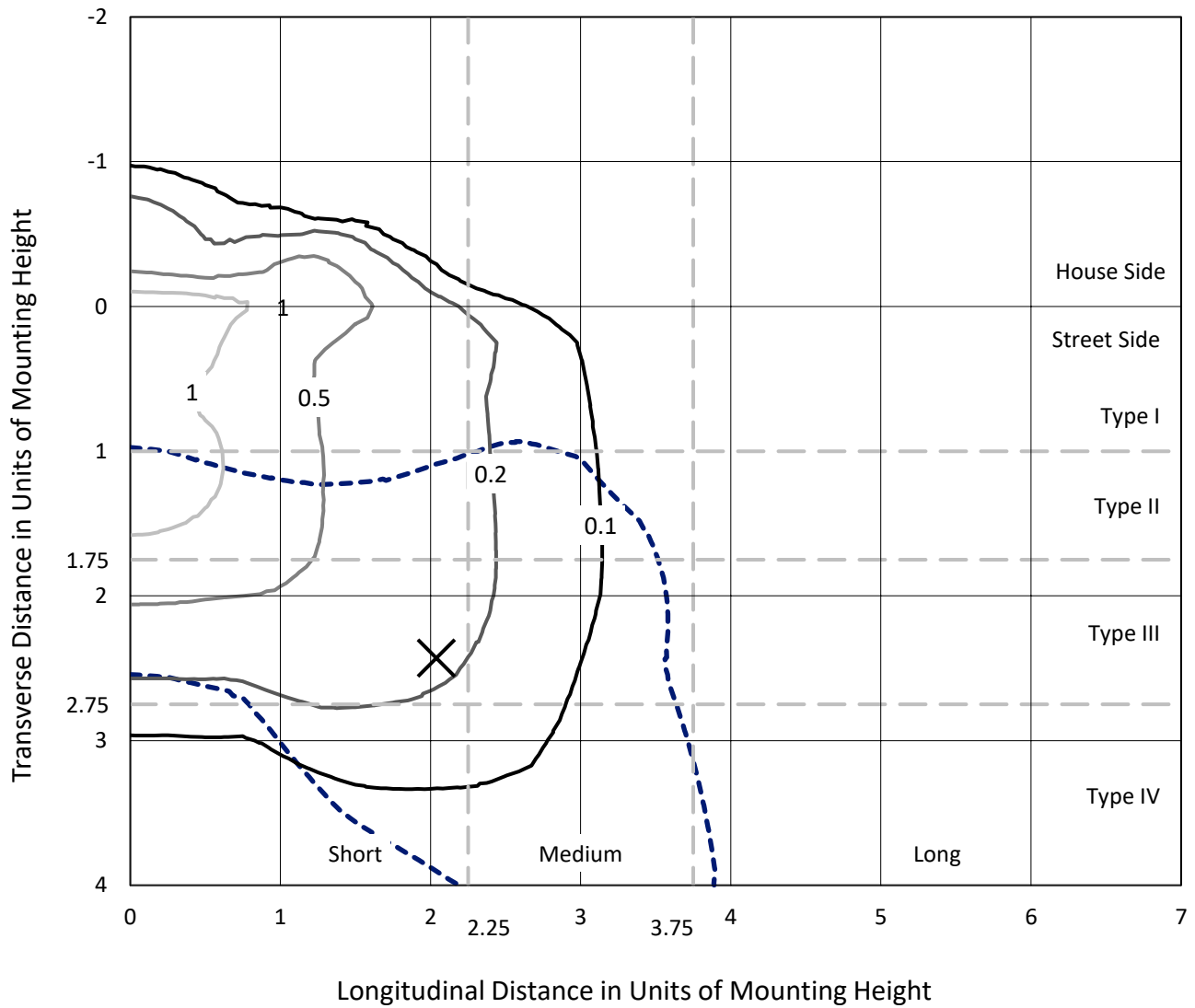
Lumens per Lamp: N/A  
Luminaire Lumens: 6443 lumens  
Efficiency: N/A  
Efficacy: 80.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 79.6  
Input Voltage (V): 120.0  
Input Current (Ain): 0.638  
Voltage Rise (V): NR  
Power Factor: 0.997  
Total Harmonic Distortion (THDi): 6.673  
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

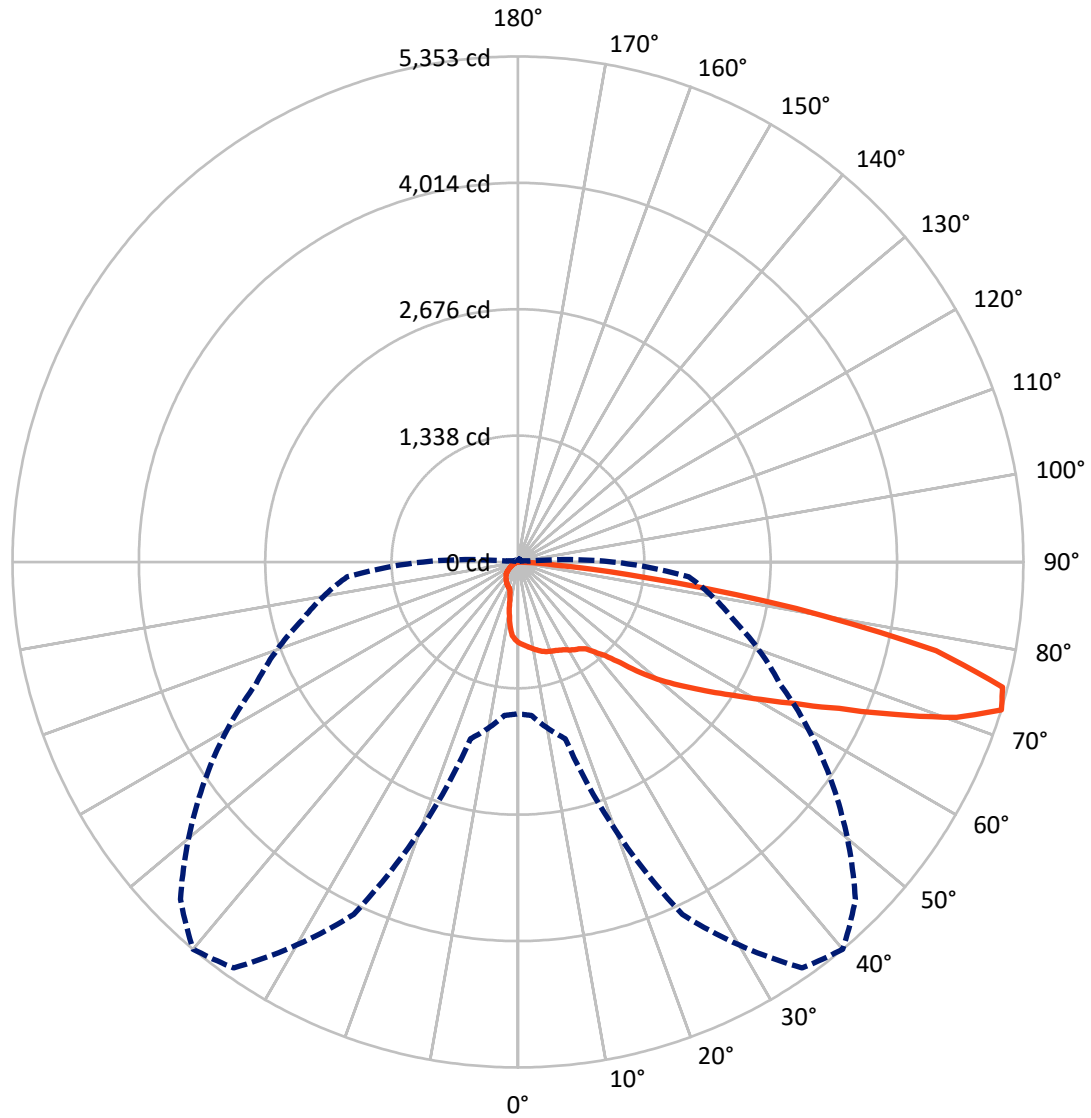
✕ Max cd  
 - - - 1/2 Max cd



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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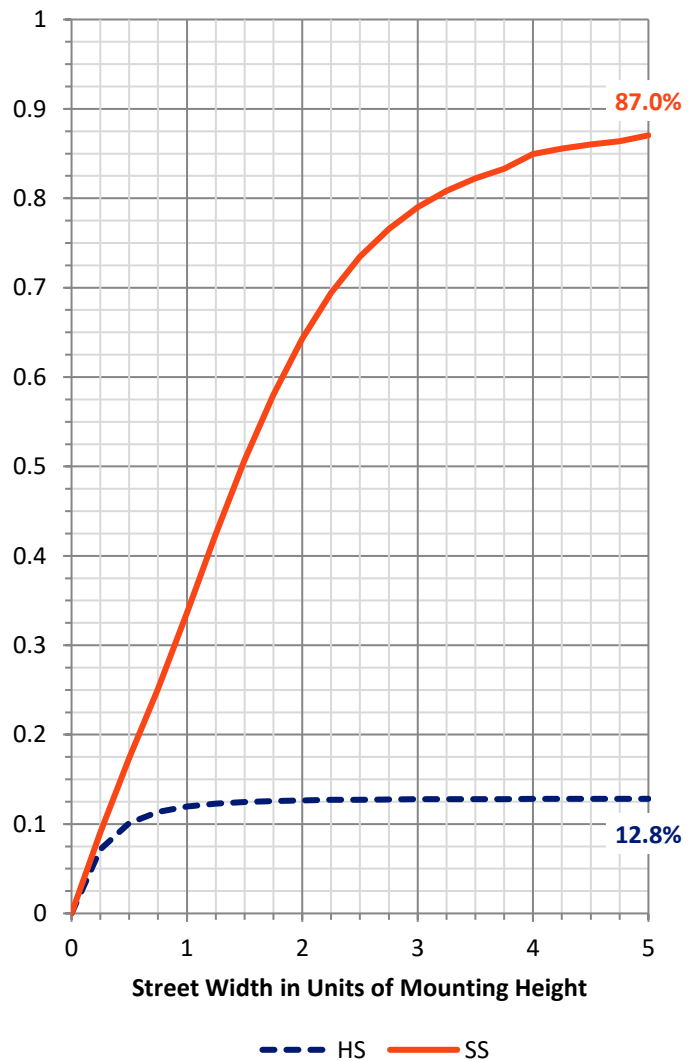
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	832.0	0.0	832.0
	% Fixture	12.9	0.0	12.9
<b>Street Side</b>	Lumens	5611.0	0.0	5611.0
	% Fixture	87.1	0.0	87.1
<b>Total</b>	Lumens	6443.0	0.0	6443.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.9	1.2
10°-20°	211.6	3.3
20°-30°	342.4	5.3
30°-40°	505.4	7.8
40°-50°	850.7	13.2
50°-60°	1320.9	20.5
60°-70°	1652.8	25.7
70°-80°	1353.1	21.0
80°-90°	128.3	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°	6443.0	100.0
0°-180°	6443.0	100.0

**Coefficient of Utilization**



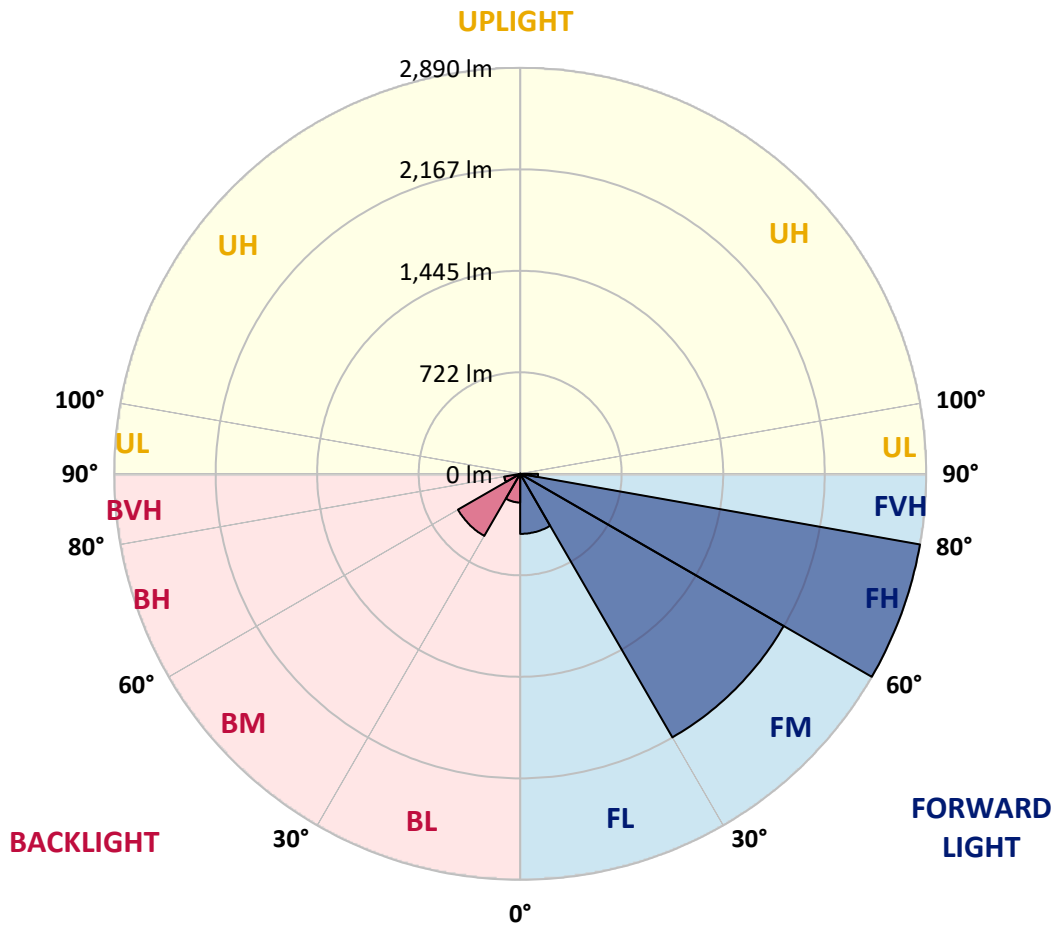
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	427.6	6.6			
FM (30°-60°)	2166.0	33.6			
FH (60°-80°)	2890.0	44.9			G2/5000
FVH (80°-90°)	127.3	2.0			G2/225
BL (0°-30°)	204.2	3.2	B1/500		
BM (30°-60°)	510.9	7.9	B1/1000		
BH (60°-80°)	115.9	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°	853.1	853.1	853.1	853.1	853.1	853.1	853.1	853.1	853.1	853.1	853.1
2.5°	878.8	882.2	880.3	876.4	875.4	873.5	871.1	870.1	866.7	863.8	860.4
5°	903.6	907.0	904.5	899.2	896.8	894.4	891.0	888.0	881.3	874.9	867.2
7.5°	930.7	933.7	930.7	923.0	919.1	916.2	911.3	907.0	899.2	890.0	880.3
10°	960.8	963.3	958.9	948.7	942.4	938.0	933.7	928.8	921.5	911.3	899.7
12.5°	989.0	991.9	985.1	973.0	965.7	961.3	956.5	952.6	945.3	935.6	923.5
15°	1014.7	1019.1	1007.4	994.3	986.1	982.7	977.8	975.4	970.5	963.7	952.6
17.5°	1034.1	1037.0	1024.9	1009.4	1000.1	997.7	994.3	995.8	994.8	991.4	984.1
20°	1050.6	1052.6	1036.5	1017.6	1007.4	1007.9	1006.9	1011.8	1013.7	1013.7	1013.2
22.5°	1071.0	1071.5	1051.1	1027.3	1015.2	1018.6	1020.0	1025.4	1029.3	1033.1	1041.9
25°	1097.7	1096.7	1072.4	1039.9	1029.3	1034.1	1037.5	1039.4	1043.8	1050.1	1070.0
27.5°	1137.5	1134.6	1103.5	1060.3	1047.7	1052.1	1058.4	1057.4	1055.5	1060.3	1093.8
30°	1187.9	1184.1	1142.8	1088.9	1077.3	1081.2	1083.1	1074.4	1060.3	1064.7	1114.7
32.5°	1268.0	1261.2	1204.0	1121.0	1103.0	1107.4	1105.0	1087.0	1066.1	1070.5	1135.5
35°	1407.3	1390.8	1309.7	1187.9	1132.1	1127.3	1121.5	1104.0	1078.3	1073.9	1153.0
37.5°	1703.3	1674.2	1535.9	1318.5	1198.1	1166.6	1148.6	1131.2	1091.4	1073.9	1172.9
40°	2037.2	2007.6	1847.9	1536.9	1307.8	1254.4	1211.7	1163.2	1105.0	1080.2	1204.0
42.5°	2385.6	2353.1	2189.1	1807.6	1464.5	1354.9	1275.3	1188.9	1127.3	1099.6	1245.2
45°	2774.8	2734.0	2519.5	2090.1	1692.1	1521.8	1377.7	1241.8	1166.1	1134.1	1301.5
47.5°	3185.3	3132.4	2849.0	2364.2	1937.2	1752.8	1565.0	1336.4	1223.4	1185.5	1377.7
50°	3549.3	3496.9	3189.2	2651.0	2166.2	1972.6	1778.5	1467.5	1309.3	1258.3	1480.1
52.5°	3810.8	3771.0	3498.8	2947.0	2404.5	2178.9	1972.1	1619.8	1418.0	1351.5	1600.9
55°	3986.0	3949.6	3718.1	3227.5	2681.6	2406.0	2162.9	1785.3	1549.0	1463.1	1734.4
57.5°	4092.3	4071.4	3876.8	3477.9	2956.3	2654.4	2381.2	1967.3	1703.3	1594.6	1883.3
60°	4130.1	4113.2	3975.3	3716.7	3288.2	2952.9	2637.9	2172.6	1890.6	1744.1	2036.2
62.5°	4029.2	4032.6	4046.2	3999.6	3638.1	3302.3	2945.6	2419.1	2098.3	1913.4	2179.8
65°	3554.1	3582.3	3840.4	4313.1	4101.5	3740.0	3337.2	2719.9	2336.1	2106.1	2293.9
67.5°	2942.7	2983.4	3304.7	4496.5	4595.5	4308.2	3882.6	3103.3	2619.5	2302.1	2337.1
70°	2252.6	2296.3	2685.5	4458.2	5058.0	4929.4	4557.2	3591.0	2913.1	2438.0	2226.9
72.5°	1607.7	1630.0	1936.7	4117.0	5247.7	5352.5	5054.1	4053.0	3063.0	2362.8	1816.4
75°	1129.7	1125.8	1329.2	3315.4	4952.2	5301.1	4879.9	3803.1	2771.9	1877.0	1120.0
77.5°	492.1	493.0	663.8	2013.4	3952.5	4527.6	4056.4	2382.2	1932.3	994.8	472.7
80°	127.6	131.5	243.6	801.7	2379.8	2988.3	2473.9	1047.2	892.9	242.6	90.3
82.5°	45.1	48.0	112.1	251.9	877.9	1370.4	1101.6	334.8	232.9	69.4	24.3
85°	13.1	15.5	60.2	77.2	181.5	387.2	267.4	65.0	57.3	35.9	6.3
87.5°	0.0	1.9	12.1	10.7	10.7	7.3	13.6	7.3	9.2	4.4	1.9
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°	853.1	853.1	853.1	853.1	853.1	853.1	853.1	853.1	853.1	853.1	853.1
2.5°	857.5	854.1	846.8	839.0	831.8	825.0	823.0	815.7	812.3	812.8	812.3
5°	861.8	855.5	841.5	824.5	807.0	787.1	770.6	747.3	727.4	725.0	723.5
7.5°	873.5	863.3	840.5	807.5	763.8	709.0	658.0	607.6	578.9	563.4	562.4
10°	891.4	877.9	842.9	779.8	687.1	589.1	512.0	448.4	415.9	400.8	397.9
12.5°	912.8	897.8	846.8	732.8	588.1	459.6	376.1	337.3	330.5	329.5	329.0
15°	942.9	926.4	851.2	669.2	480.9	349.9	311.5	312.0	317.4	320.3	319.8
17.5°	976.4	959.9	844.9	591.5	375.1	298.9	298.0	302.3	310.1	313.0	312.5
20°	1010.3	994.8	822.5	500.3	303.3	284.9	288.7	293.6	301.4	305.2	305.2
22.5°	1045.3	1031.7	787.1	403.3	273.7	274.7	279.5	284.4	293.1	297.5	297.5
25°	1082.6	1071.0	740.0	323.2	261.1	264.0	270.3	276.1	285.3	290.7	290.7
27.5°	1120.5	1111.8	686.7	269.8	249.4	252.8	260.1	267.9	277.1	283.4	283.9
30°	1161.7	1156.9	644.0	249.9	238.3	241.2	249.4	258.2	268.4	276.1	277.1
32.5°	1204.0	1203.0	623.1	264.5	228.1	230.0	237.3	246.0	258.6	268.4	269.3
35°	1245.7	1247.6	611.0	305.7	224.7	219.3	224.2	232.0	247.0	259.1	261.1
37.5°	1299.1	1303.9	610.5	350.4	232.9	208.7	212.1	217.4	230.5	244.6	247.0
40°	1378.7	1404.4	641.5	388.7	247.5	199.0	199.9	200.9	207.7	219.3	223.2
42.5°	1484.4	1559.7	753.6	414.9	253.3	190.2	186.8	181.5	180.5	186.8	190.2
45°	1616.0	1747.5	950.6	429.5	247.5	180.5	171.3	157.2	151.9	156.3	156.3
47.5°	1770.8	1953.2	1184.1	432.9	237.8	168.4	151.9	133.4	129.1	130.5	130.1
50°	1921.7	2107.5	1389.3	404.7	221.8	152.9	130.5	115.0	112.1	112.6	112.6
52.5°	2055.1	2160.4	1447.6	338.2	200.4	133.9	112.1	101.4	99.5	99.5	99.0
55°	2143.4	2103.2	1290.8	258.6	173.7	114.5	96.1	90.7	89.8	89.3	88.3
57.5°	2161.9	1916.8	974.9	186.8	135.9	96.6	85.4	82.5	80.6	78.6	77.6
60°	2095.9	1606.2	620.7	130.5	101.9	82.5	75.7	73.8	69.9	66.0	64.5
62.5°	1953.2	1213.2	343.6	90.7	82.0	70.4	67.0	64.5	57.3	51.0	49.0
65°	1761.5	806.5	151.9	70.8	67.0	59.2	57.3	53.9	45.1	37.9	36.4
67.5°	1568.9	464.4	68.4	56.8	53.9	48.5	47.1	44.6	38.3	31.5	30.6
70°	1349.1	235.4	47.1	45.1	41.7	36.9	38.3	37.9	31.5	25.7	24.7
72.5°	1004.5	117.0	35.4	34.0	30.1	26.2	31.5	31.1	24.7	19.4	18.4
75°	568.7	57.7	25.7	23.8	18.0	19.4	25.2	23.8	17.0	12.6	11.6
77.5°	225.7	29.6	17.0	14.6	10.7	13.1	18.4	16.0	8.7	5.3	4.9
80°	51.9	14.6	8.7	6.3	4.9	7.8	9.7	5.8	2.4	0.5	0.0
82.5°	14.6	6.3	2.9	2.4	2.4	2.9	2.4	1.0	0.0	0.0	0.0
85°	4.9	2.9	1.0	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0
87.5°	1.9	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)