

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: P459879

Luminaire Tested: **NAV-SA6A-AMB-U-SL4**

Issue Date: 1/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P459879  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2003-697-18)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/6/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SA6A-AMB-U-SL4  
Description: NAVION AREA AND ROADWAY LUMINAIRE  
(6) NARROW BAND AMBER, 500mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV  
SPILL LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5876 lumens  
Efficiency: N/A  
Efficacy: 49.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G3

Input Watts (W): 119  
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: 28.75 FT

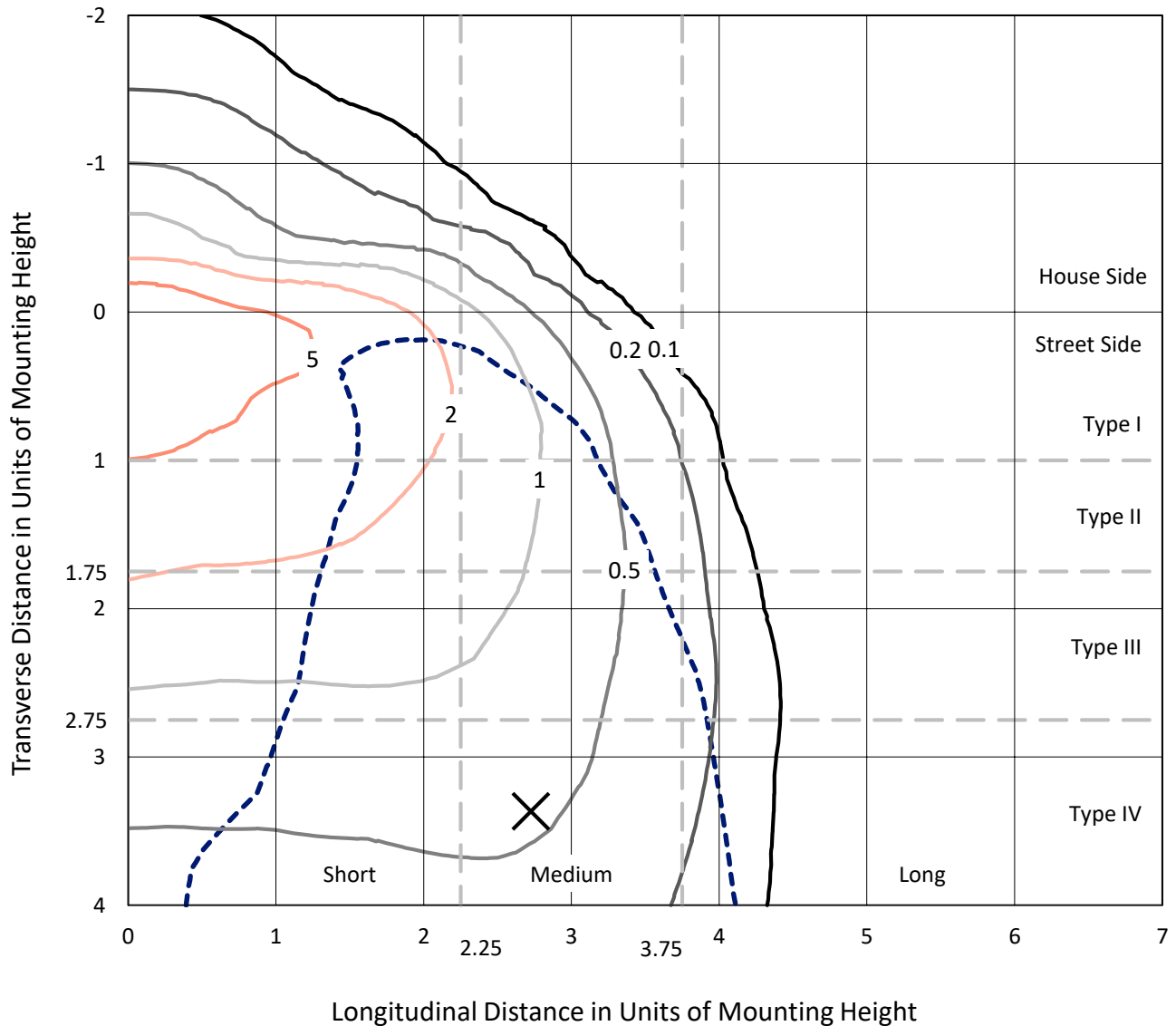


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

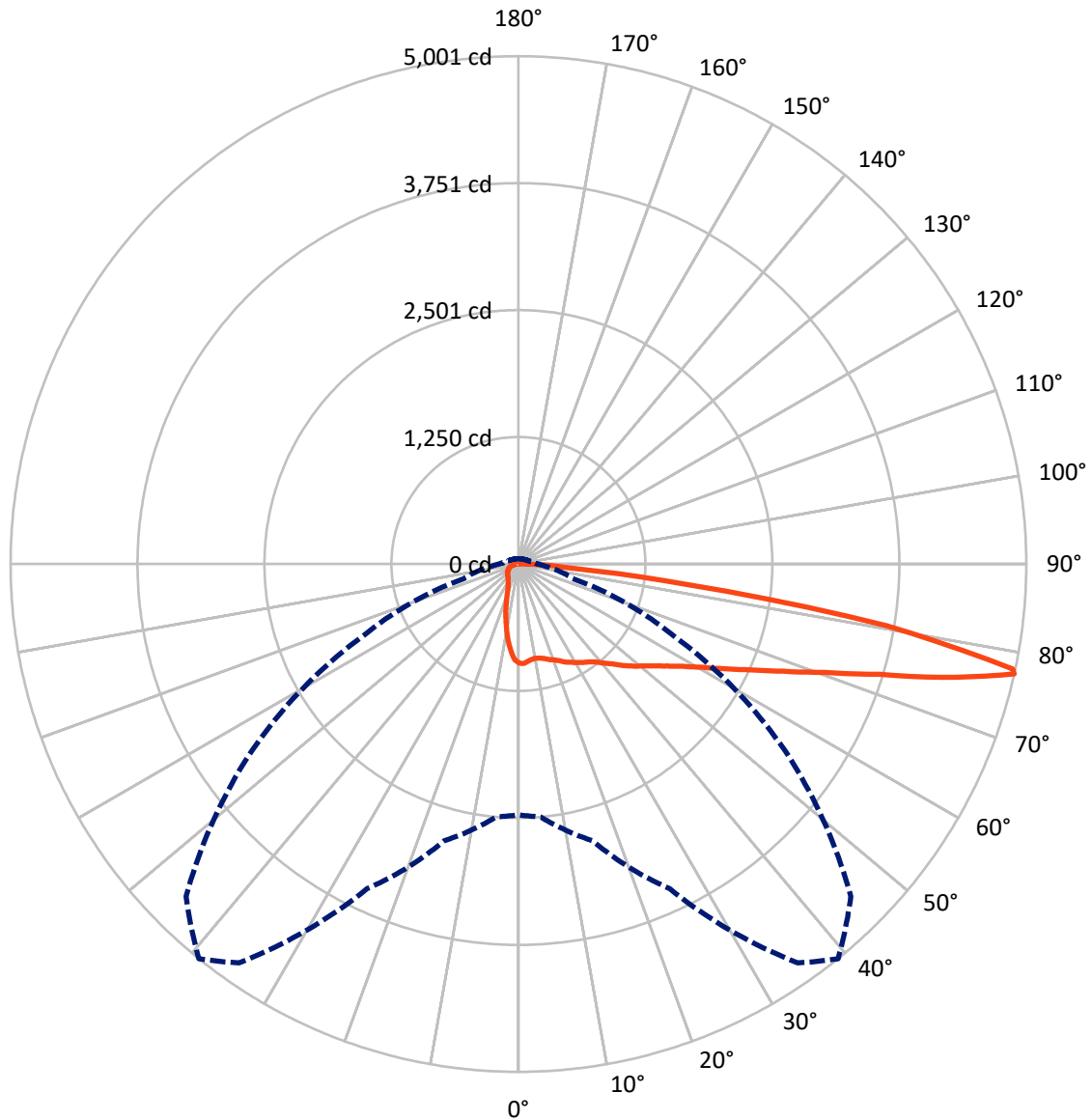


Based on 10 foot mounting height. Maximum calculated value = 9.8 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral      - - - Horizontal Cone Through 77-Deg Vertical

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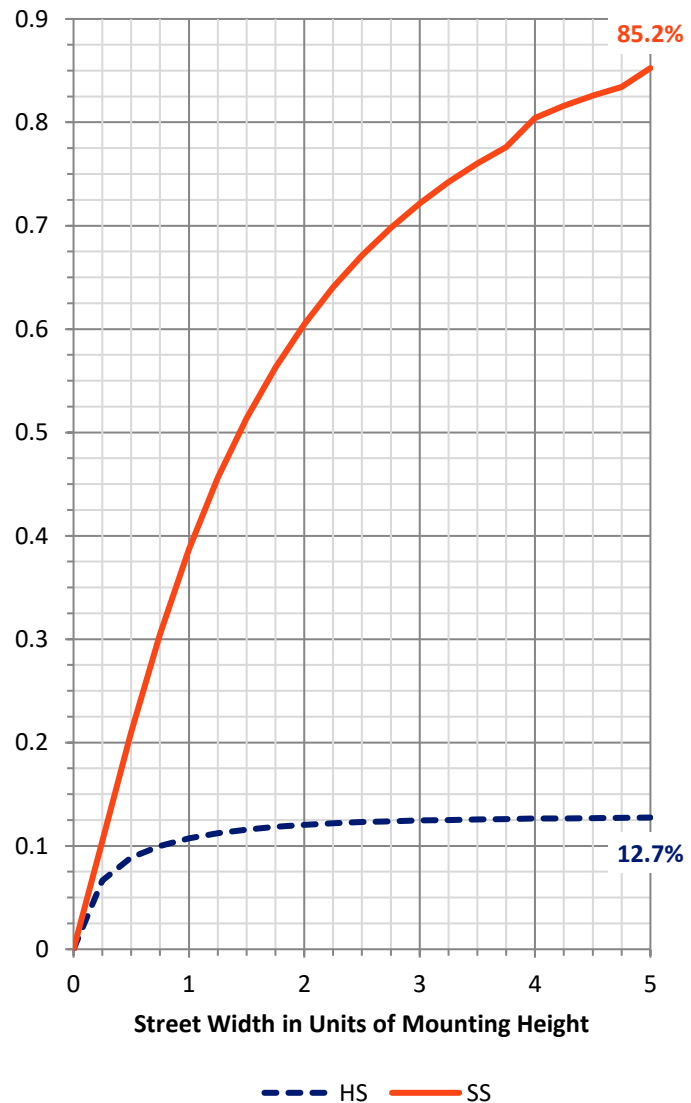
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	758.1	0.0	758.1
	% Fixture	12.9	0.0	12.9
<b>Street Side</b>	Lumens	5117.9	0.0	5117.9
	% Fixture	87.1	0.0	87.1
<b>Total</b>	Lumens	5876.0	0.0	5876.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.3	1.5
10°-20°	214.0	3.6
20°-30°	327.0	5.6
30°-40°	470.2	8.0
40°-50°	682.6	11.6
50°-60°	979.8	16.7
60°-70°	1349.5	23.0
70°-80°	1456.1	24.8
80°-90°	311.5	5.3
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°	5876.0	100.0
0°-180°	5876.0	100.0



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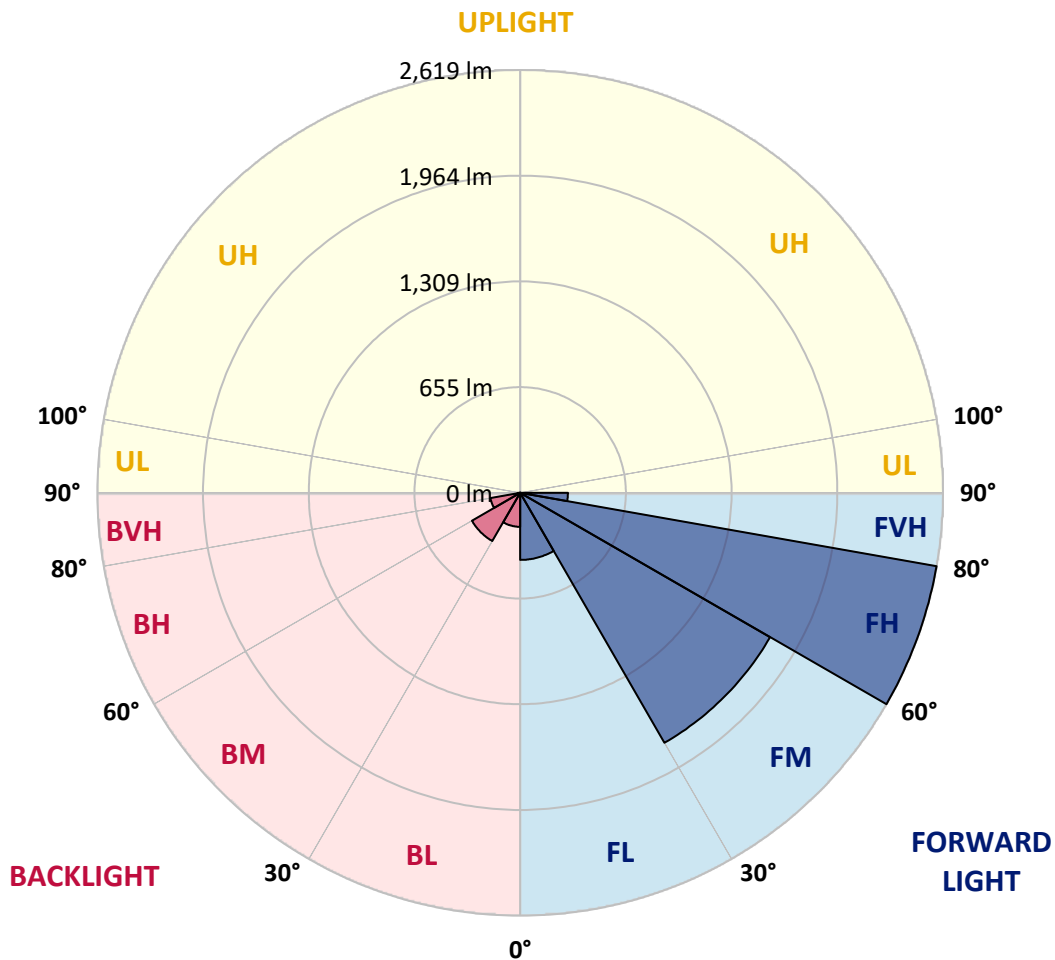
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	415.6	7.1			
FM	(30°-60°)	1787.6	30.4			
FH	(60°-80°)	2618.9	44.6			G2/5000
FVH	(80°-90°)	295.8	5.0			G3/500
BL	(0°-30°)	210.6	3.6	B1/500		
BM	(30°-60°)	345.0	5.9	B1/1000		
BH	(60°-80°)	186.8	3.2	B1/500		G1/500
BVH	(80°-90°)	15.7	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G3**

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	976.5	976.5	976.5	976.5	976.5	976.5	976.5	976.5	976.5	976.5	976.5
2.5°	987.0	979.1	979.1	987.0	981.7	981.7	976.5	981.7	976.5	971.2	976.5
5°	973.8	968.5	965.9	973.8	968.5	963.3	968.5	965.9	963.3	952.7	952.7
7.5°	950.1	944.8	944.8	952.7	955.3	947.4	950.1	952.7	944.8	934.2	936.9
10°	929.0	926.3	931.6	942.1	947.4	942.1	947.4	944.8	934.2	923.7	921.0
12.5°	913.1	910.5	918.4	939.5	950.1	950.1	952.7	944.8	936.9	923.7	913.1
15°	902.6	902.6	918.4	944.8	960.6	965.9	968.5	963.3	944.8	926.3	913.1
17.5°	907.8	905.2	926.3	958.0	976.5	989.7	989.7	981.7	958.0	934.2	918.4
20°	921.0	915.8	942.1	981.7	1005.5	1008.1	1013.4	997.6	973.8	947.4	929.0
22.5°	926.3	939.5	968.5	1013.4	1026.6	1034.5	1034.5	1018.7	984.4	965.9	944.8
25°	968.5	971.2	1005.5	1045.1	1058.3	1068.8	1063.5	1029.2	1000.2	989.7	971.2
27.5°	1013.4	1016.0	1050.4	1079.4	1087.3	1095.2	1097.9	1050.4	1021.3	1018.7	994.9
30°	1053.0	1063.5	1097.9	1119.0	1119.0	1126.9	1124.2	1082.0	1050.4	1055.6	1031.9
32.5°	1121.6	1119.0	1153.3	1155.9	1142.7	1155.9	1155.9	1108.4	1087.3	1111.0	1074.1
35°	1179.7	1190.2	1206.1	1192.9	1174.4	1184.9	1190.2	1145.4	1134.8	1182.3	1142.7
37.5°	1258.8	1250.9	1258.8	1235.1	1208.7	1221.9	1235.1	1195.5	1200.8	1269.4	1219.3
40°	1319.5	1306.3	1311.6	1279.9	1253.6	1279.9	1293.1	1256.2	1279.9	1390.8	1330.1
42.5°	1369.7	1359.1	1348.6	1330.1	1309.0	1343.3	1364.4	1335.4	1385.5	1525.4	1467.3
45°	1404.0	1396.1	1380.2	1377.6	1380.2	1422.5	1448.9	1425.1	1493.7	1694.3	1620.4
47.5°	1425.1	1417.2	1419.8	1425.1	1446.2	1501.6	1549.1	1525.4	1636.2	1871.1	1765.5
50°	1454.1	1440.9	1443.6	1488.4	1520.1	1578.2	1654.7	1644.1	1789.3	2058.5	1923.9
52.5°	1491.1	1470.0	1470.0	1549.1	1599.3	1665.3	1762.9	1776.1	1947.6	2251.1	2084.9
55°	1551.8	1525.4	1506.9	1615.1	1702.2	1773.5	1886.9	1945.0	2119.2	2451.7	2232.7
57.5°	1617.8	1591.4	1562.3	1699.6	1815.7	1900.1	2029.4	2113.9	2314.5	2631.2	2338.2
60°	1720.7	1673.2	1644.1	1807.8	1974.0	2061.1	2219.5	2327.7	2520.3	2794.8	2433.2
62.5°	1794.6	1757.6	1749.7	1945.0	2169.3	2269.6	2420.0	2533.5	2710.3	2953.1	2515.0
65°	1871.1	1850.0	1852.6	2092.8	2401.6	2512.4	2676.0	2797.4	2955.8	3098.3	2523.0
67.5°	1979.3	1958.2	2003.1	2272.2	2670.7	2815.9	2982.2	3087.7	3188.0	3122.0	2380.4
70°	2121.8	2095.4	2177.2	2488.6	3005.9	3193.3	3383.3	3496.8	3301.5	3040.2	1923.9
72.5°	2269.6	2251.1	2385.7	2797.4	3475.7	3715.8	3932.2	3868.9	3356.9	2607.4	1253.6
75°	2449.1	2454.3	2670.7	3195.9	4225.2	4454.8	4636.8	4011.4	2834.4	1541.2	477.7
77°	2470.2	2499.2	2821.2	3528.4	4795.2	5001.0	4628.9	3203.8	1704.8	551.6	269.2
77.5°	2383.1	2409.5	2786.9	3575.9	4863.8	4977.3	4483.8	2992.7	1367.0	443.4	237.5
80°	1776.1	1749.7	2161.4	2982.2	3908.5	3676.2	2683.9	1161.2	398.5	229.6	145.1
82.5°	702.0	749.5	1010.8	1470.0	1910.7	1678.4	1005.5	506.7	240.2	124.0	60.7
85°	324.6	348.4	380.0	390.6	493.5	509.3	377.4	469.8	174.2	58.1	36.9
87.5°	237.5	248.1	279.7	248.1	240.2	227.0	277.1	512.0	87.1	34.3	18.5
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°	976.5	976.5	976.5	976.5	976.5	976.5	976.5	976.5	976.5	976.5	976.5
2.5°	968.5	960.6	963.3	960.6	955.3	950.1	944.8	939.5	942.1	942.1	934.2
5°	947.4	936.9	931.6	918.4	902.6	886.7	868.3	855.1	844.5	839.2	844.5
7.5°	926.3	913.1	902.6	870.9	844.5	799.6	770.6	731.0	725.7	720.5	715.2
10°	910.5	899.9	873.5	831.3	775.9	723.1	657.1	614.9	588.5	572.7	578.0
12.5°	899.9	886.7	844.5	778.5	707.3	628.1	554.2	498.8	467.1	446.0	440.7
15°	897.3	873.5	812.8	725.7	630.7	541.0	467.1	401.1	351.0	335.2	329.9
17.5°	897.3	865.6	783.8	670.3	559.5	459.2	377.4	316.7	274.5	258.6	253.4
20°	902.6	863.0	749.5	614.9	488.2	377.4	306.1	256.0	232.2	221.7	221.7
22.5°	910.5	860.3	712.5	554.2	419.6	316.7	253.4	224.3	213.8	205.8	205.8
25°	926.3	857.7	680.9	498.8	358.9	271.8	227.0	208.5	197.9	195.3	195.3
27.5°	947.4	860.3	649.2	446.0	303.5	240.2	208.5	197.9	192.7	190.0	190.0
30°	968.5	865.6	614.9	387.9	263.9	216.4	195.3	187.4	184.7	182.1	182.1
32.5°	992.3	870.9	575.3	340.4	234.9	197.9	184.7	179.5	179.5	176.8	174.2
35°	1031.9	881.5	530.5	295.6	211.1	184.7	176.8	171.5	171.5	168.9	168.9
37.5°	1087.3	894.6	485.6	263.9	195.3	174.2	166.3	166.3	163.6	163.6	161.0
40°	1169.1	931.6	448.6	237.5	182.1	166.3	161.0	158.3	158.3	155.7	155.7
42.5°	1261.5	976.5	414.3	219.0	174.2	158.3	153.1	153.1	153.1	150.4	147.8
45°	1369.7	1018.7	382.7	205.8	166.3	153.1	147.8	147.8	145.1	142.5	142.5
47.5°	1485.8	1071.5	361.6	197.9	163.6	150.4	145.1	139.9	139.9	137.2	137.2
50°	1601.9	1116.3	343.1	192.7	161.0	145.1	139.9	137.2	134.6	129.3	129.3
52.5°	1712.8	1163.8	337.8	187.4	155.7	142.5	134.6	132.0	129.3	124.0	124.0
55°	1807.8	1219.3	343.1	184.7	153.1	137.2	129.3	126.7	124.0	118.8	118.8
57.5°	1876.4	1248.3	345.7	184.7	150.4	129.3	121.4	124.0	118.8	116.1	116.1
60°	1947.6	1274.7	343.1	184.7	147.8	121.4	113.5	118.8	116.1	113.5	113.5
62.5°	1995.1	1264.1	329.9	184.7	145.1	116.1	108.2	116.1	118.8	113.5	116.1
65°	1926.5	1145.4	290.3	179.5	145.1	110.8	100.3	113.5	121.4	118.8	118.8
67.5°	1678.4	865.6	242.8	168.9	139.9	108.2	92.4	102.9	113.5	110.8	113.5
70°	1190.2	522.5	200.6	150.4	126.7	102.9	87.1	87.1	89.7	92.4	95.0
72.5°	617.5	285.0	163.6	132.0	110.8	92.4	79.2	73.9	73.9	73.9	76.5
75°	271.8	187.4	134.6	108.2	92.4	79.2	71.3	63.3	63.3	60.7	60.7
77°	190.0	147.8	110.8	89.7	76.5	66.0	63.3	55.4	55.4	52.8	52.8
77.5°	171.5	137.2	108.2	84.5	73.9	63.3	60.7	52.8	52.8	52.8	52.8
80°	116.1	108.2	81.8	63.3	58.1	50.1	47.5	44.9	42.2	42.2	42.2
82.5°	68.6	79.2	58.1	44.9	42.2	36.9	34.3	34.3	34.3	31.7	29.0
85°	42.2	58.1	36.9	29.0	29.0	23.8	23.8	21.1	21.1	18.5	18.5
87.5°	18.5	36.9	21.1	13.2	10.6	7.9	10.6	7.9	7.9	5.3	7.9
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)