

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: P961329

Luminaire Tested: **NAV-SB2A-727-U-AFL-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P961329  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2A-727-U-AFL-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE  
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

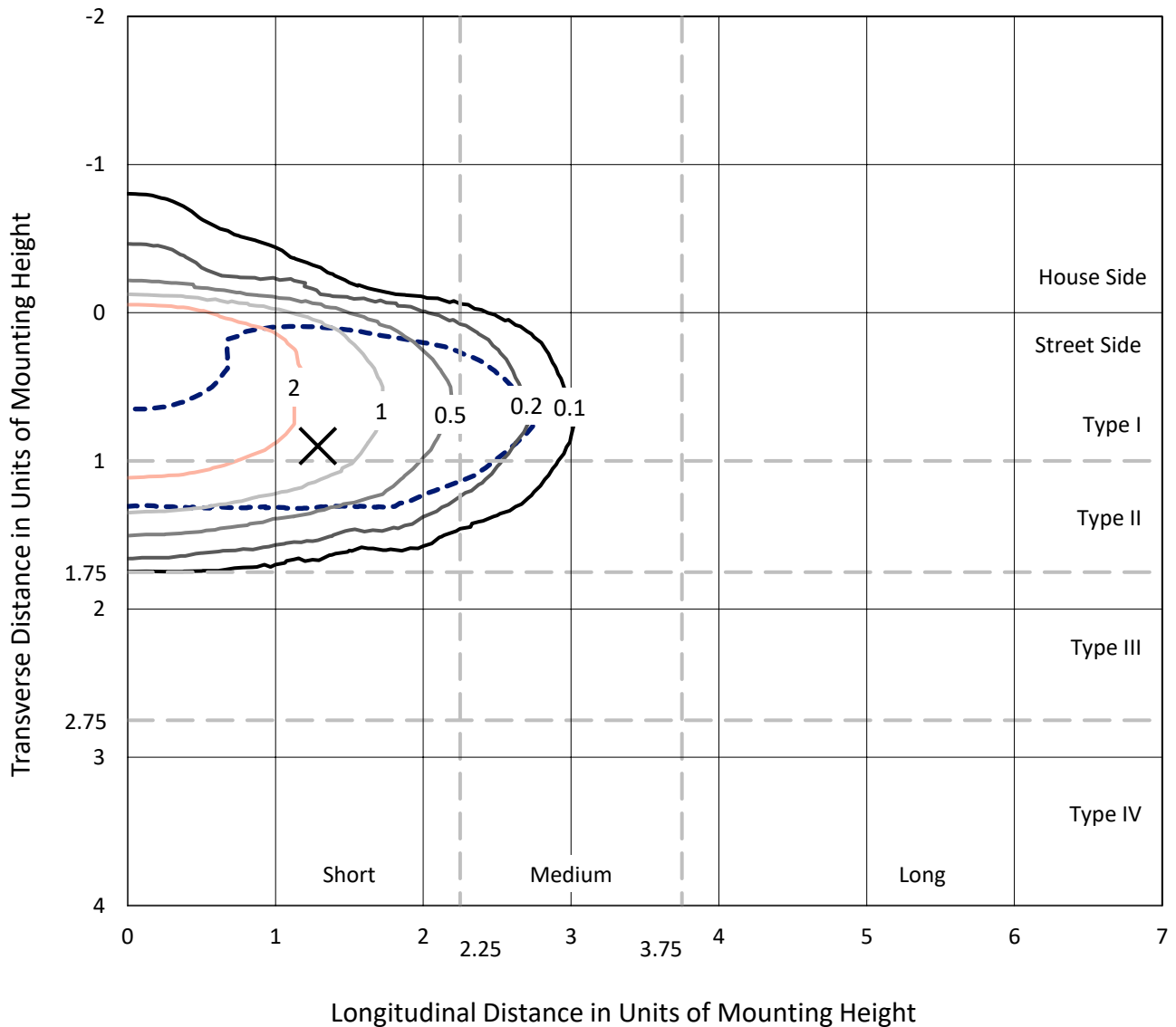
Lumens per Lamp: N/A  
Luminaire Lumens: 7271.3 lumens  
Efficiency: N/A  
Efficacy: 126.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G1  
  
Input Watts (W): 57.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
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

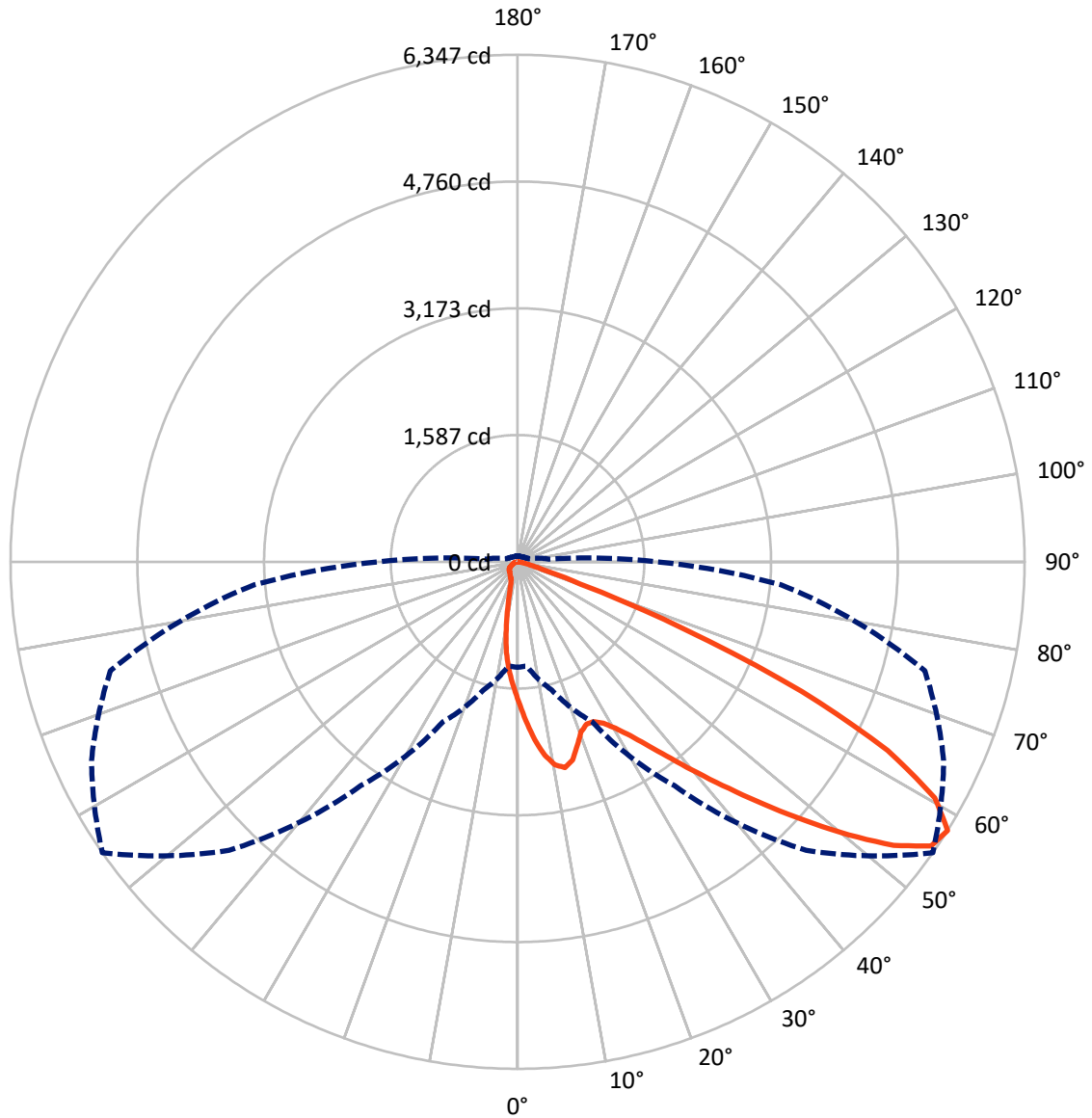
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral      - - - Horizontal Cone Through 57.5-Deg Vertical

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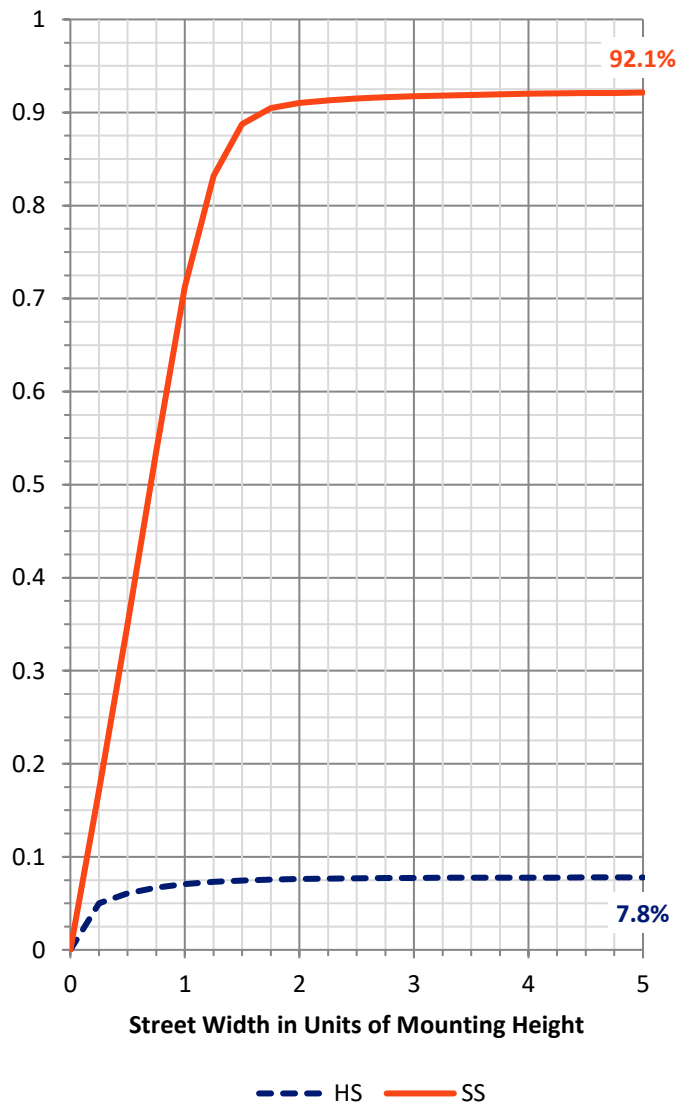
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	567.8	0.0	567.8
	% Fixture	7.8	0.0	7.8
<b>Street Side</b>	Lumens	6703.5	0.0	6703.5
	% Fixture	92.2	0.0	92.2
<b>Total</b>	Lumens	7271.3	0.0	7271.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	163.0	2.2
10°-20°	393.8	5.4
20°-30°	630.1	8.7
30°-40°	1066.5	14.7
40°-50°	1750.9	24.1
50°-60°	1924.4	26.5
60°-70°	1103.8	15.2
70°-80°	225.5	3.1
80°-90°	13.3	0.2
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°	7271.3	100.0
0°-180°	7271.3	100.0

**Coefficient of Utilization**

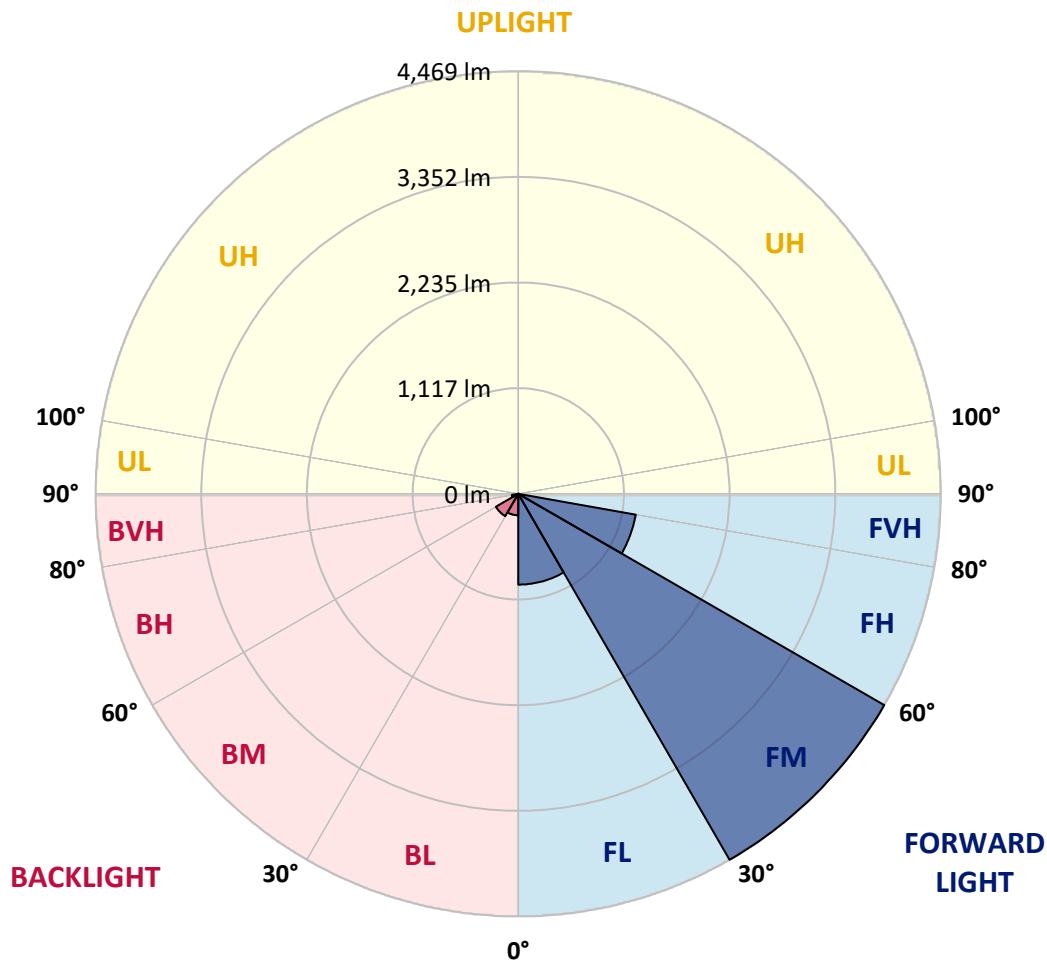


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	960.2	13.2			
FM (30°-60°)	4469.0	61.5			
FH (60°-80°)	1261.8	17.4			G1/1800
FVH (80°-90°)	12.4	0.2			G1/100
BL (0°-30°)	226.7	3.1	B1/500		
BM (30°-60°)	272.7	3.8	B1/1000		
BH (60°-80°)	67.5	0.9	B0/110		G0/110
BVH (80°-90°)	0.9	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-G1**  
 Type II Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1752.2	1752.2	1752.2	1752.2	1752.2	1752.2	1752.2	1752.2	1752.2	1752.2	1752.2
2.5°	2174.1	2146.8	2142.8	2137.3	2085.4	2046.3	1989.8	1928.0	1858.5	1787.6	1756.2
5°	2511.8	2490.2	2486.2	2461.1	2401.9	2335.6	2235.1	2108.2	1978.7	1826.2	1760.7
7.5°	2577.3	2573.2	2591.5	2590.7	2582.6	2530.1	2445.3	2294.3	2099.7	1873.7	1772.4
10°	2285.3	2295.6	2350.3	2398.3	2527.9	2603.2	2584.8	2460.2	2224.4	1928.0	1785.3
12.5°	2019.5	2007.4	2046.3	2100.6	2251.2	2475.5	2642.7	2598.7	2366.9	1989.4	1804.7
15°	1852.7	1847.8	1869.7	1894.8	2009.6	2235.5	2575.4	2711.2	2504.2	2062.0	1833.8
17.5°	1799.3	1795.3	1802.0	1808.3	1882.7	2057.6	2415.3	2780.3	2635.5	2145.0	1866.1
20°	1842.7	1837.4	1836.5	1831.6	1862.5	1981.7	2270.5	2785.2	2753.5	2220.4	1893.9
22.5°	1969.6	1963.4	1941.5	1921.7	1924.4	1992.1	2206.0	2735.9	2842.2	2290.7	1911.4
25°	2199.6	2189.4	2143.7	2077.3	2035.1	2063.8	2215.8	2670.9	2926.9	2345.8	1902.9
27.5°	2487.6	2474.0	2415.3	2316.7	2220.4	2185.3	2287.1	2626.0	2997.3	2388.0	1884.5
30°	2769.5	2752.0	2694.2	2617.5	2476.8	2366.5	2415.8	2645.8	3081.1	2431.9	1860.3
32.5°	3074.0	3057.4	2980.7	2885.7	2769.1	2620.7	2592.0	2742.2	3183.9	2493.4	1843.3
35°	3459.2	3433.1	3324.2	3194.6	3070.9	2920.6	2830.5	2908.5	3320.6	2587.1	1852.7
37.5°	3897.7	3862.7	3745.2	3566.3	3404.8	3236.7	3121.1	3137.2	3521.0	2712.7	1881.8
40°	4311.0	4279.2	4170.7	4002.1	3799.5	3595.5	3472.2	3436.3	3797.6	2865.5	1932.9
42.5°	4559.0	4530.3	4484.6	4413.2	4242.5	4034.4	3878.8	3801.2	4125.0	3048.5	1995.3
45°	4572.9	4547.8	4609.2	4692.1	4658.5	4519.9	4330.3	4188.2	4453.6	3220.1	2059.8
47.5°	4350.5	4333.5	4519.9	4809.6	4954.0	5012.2	4837.4	4542.8	4724.8	3343.4	2086.3
50°	3744.3	3738.1	4121.8	4653.6	5066.6	5443.6	5372.3	4872.8	4935.2	3407.1	2061.2
52.5°	3246.6	3223.7	3447.5	4154.1	4902.9	5670.5	5895.1	5196.5	5082.3	3419.2	2002.4
55°	2462.5	2442.3	2722.9	3318.3	4375.1	5589.7	6277.6	5530.6	5187.6	3388.3	1897.1
57.5°	1320.9	1308.3	1663.0	2208.7	3420.1	5105.5	6346.6	5883.9	5276.4	3306.2	1749.6
60°	514.2	512.0	644.7	1071.6	2078.6	4153.7	5998.2	6096.0	5331.9	3205.4	1626.3
62.5°	311.2	317.9	339.4	481.1	918.3	2580.3	5195.2	5854.8	5369.2	3113.0	1524.5
65°	257.4	257.8	260.5	330.5	439.8	1079.6	3911.1	5061.1	5277.3	2948.4	1380.1
67.5°	220.6	224.7	234.9	262.3	310.3	473.4	2251.7	3920.5	4718.2	2565.6	1155.0
70°	173.9	179.4	192.4	215.7	239.4	296.3	832.2	2608.6	3604.4	1933.8	873.4
72.5°	146.6	146.2	152.9	175.3	190.1	208.5	320.1	1461.6	2094.8	923.2	432.2
75°	113.5	117.9	126.5	146.6	155.6	151.1	173.5	534.0	750.6	279.8	147.1
77.5°	88.8	92.4	99.9	119.7	128.6	107.1	99.9	191.0	241.2	100.4	66.3
80°	39.9	43.0	68.2	88.4	105.0	74.0	54.2	97.8	107.1	45.7	33.6
82.5°	7.2	12.1	39.9	46.6	53.8	48.0	28.3	50.6	52.5	18.3	11.7
85°	0.4	0.9	13.9	17.0	21.5	15.7	8.5	20.2	17.5	6.3	4.5
87.5°	0.0	0.0	0.0	0.4	0.4	2.3	2.7	3.6	2.7	2.3	1.7
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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1752.2	1752.2	1752.2	1752.2	1752.2	1752.2	1752.2	1752.2	1752.2	1752.2
2.5°	1723.9	1660.3	1598.4	1547.7	1518.1	1467.9	1434.8	1429.4	1415.5	1427.6
5°	1690.8	1576.9	1461.6	1358.5	1273.8	1164.4	1082.8	1048.3	1018.2	1028.6
7.5°	1675.1	1495.3	1316.0	1139.7	958.6	783.7	653.7	599.4	558.2	564.1
10°	1654.0	1410.6	1129.4	860.4	617.9	445.3	355.6	322.4	304.0	304.4
12.5°	1637.8	1309.2	912.9	583.3	376.2	284.2	256.5	248.4	243.0	243.4
15°	1629.9	1189.9	699.0	388.8	269.1	240.8	234.0	230.4	226.8	226.4
17.5°	1616.3	1057.3	511.6	283.8	235.4	225.5	219.7	215.7	211.2	210.3
20°	1596.2	906.6	373.9	239.8	220.6	213.0	204.9	199.6	194.1	193.2
22.5°	1558.9	747.4	287.4	221.9	209.8	201.3	191.5	185.2	179.8	178.9
25°	1489.9	598.1	242.1	210.7	200.4	190.1	179.4	170.9	165.8	165.0
27.5°	1402.5	469.9	219.7	200.4	188.3	178.9	166.8	158.8	154.3	153.3
30°	1299.4	361.8	206.7	188.8	173.9	165.8	155.2	148.4	145.8	145.8
32.5°	1188.2	289.2	201.3	177.1	161.4	152.4	143.9	141.2	140.3	139.9
35°	1083.7	251.1	198.6	167.7	150.2	141.7	138.1	138.6	140.3	140.3
37.5°	990.9	239.0	197.3	160.9	140.3	132.7	135.0	139.0	137.2	137.2
40°	907.0	240.4	196.4	156.0	132.2	127.8	132.2	129.1	124.6	124.2
42.5°	843.0	251.5	194.5	152.0	127.3	124.2	122.4	117.5	117.1	117.9
45°	796.3	261.4	194.1	150.2	122.0	116.1	113.9	109.0	117.9	120.1
47.5°	741.2	261.4	194.1	143.9	113.0	110.7	107.1	101.8	110.7	113.0
50°	669.8	244.8	186.5	136.7	105.8	104.4	98.2	91.4	89.7	91.0
52.5°	579.7	214.7	167.3	126.9	98.6	95.9	88.4	83.4	82.0	82.0
55°	477.0	179.8	141.2	112.5	91.0	86.1	80.7	78.5	77.1	76.3
57.5°	387.9	147.5	113.5	99.9	83.8	77.6	75.7	73.1	70.8	69.5
60°	318.4	116.1	93.7	88.8	76.7	70.8	70.4	66.8	61.0	60.1
62.5°	245.7	85.2	78.9	77.1	69.5	64.6	63.7	56.5	47.6	45.7
65°	173.5	66.3	63.7	67.8	61.9	57.4	55.1	44.4	35.0	33.6
67.5°	122.0	55.6	50.2	59.1	53.8	48.0	46.6	37.6	29.1	28.3
70°	87.0	45.3	41.2	50.6	43.0	42.1	39.5	31.4	23.8	22.9
72.5°	61.4	34.5	31.9	44.0	29.6	36.3	32.3	24.2	17.9	17.0
75°	45.3	24.7	22.4	25.5	21.5	27.4	22.9	16.1	11.2	10.8
77.5°	33.2	15.7	13.4	12.5	12.5	17.0	12.5	6.8	4.9	4.5
80°	23.3	7.2	6.3	5.3	4.9	4.0	1.7	0.9	0.4	0.4
82.5°	13.9	3.2	3.2	2.3	1.3	0.0	0.0	0.0	0.0	0.0
85°	3.2	1.3	1.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.4	0.4	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

(END OF REPORT)