

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: P881616

Luminaire Tested: **NAV-SB1A-835-U-T2-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P881616  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1A-835-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 80 CRI, 3500K, 350mA LIGHTSQUARE WITH 26 LEDS AND TYPE II OPTICS WITH  
HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

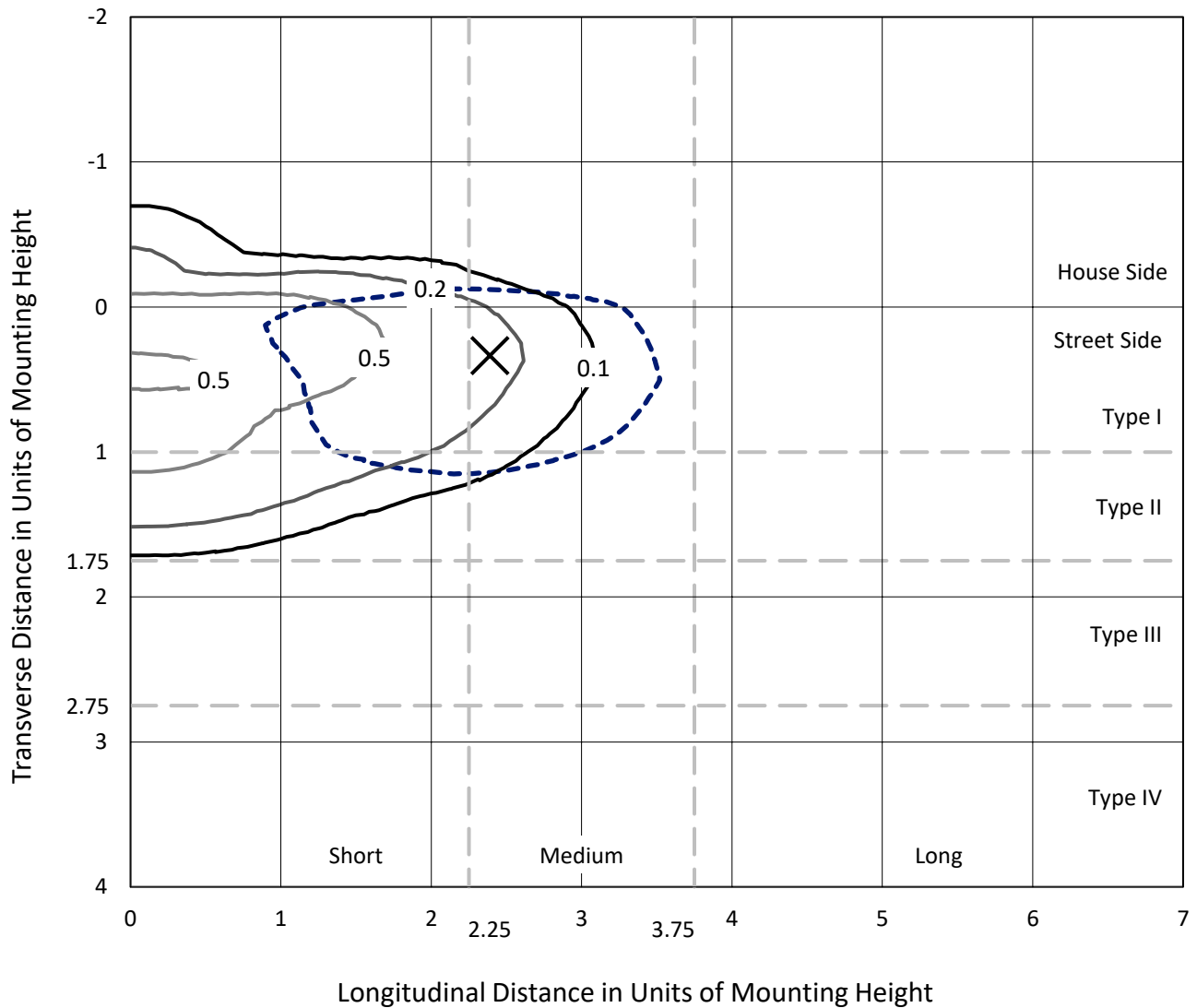
Lumens per Lamp: N/A  
Luminaire Lumens: 2766 lumens  
Efficiency: N/A  
Efficacy: 89.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G1  
  
Input Watts (W): 30.9  
Input Voltage (V): 120.0  
Input Current (Ain): 0.263  
Voltage Rise (V): NR  
Power Factor: 0.995  
Total Harmonic Distortion (THDi): 6.356  
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

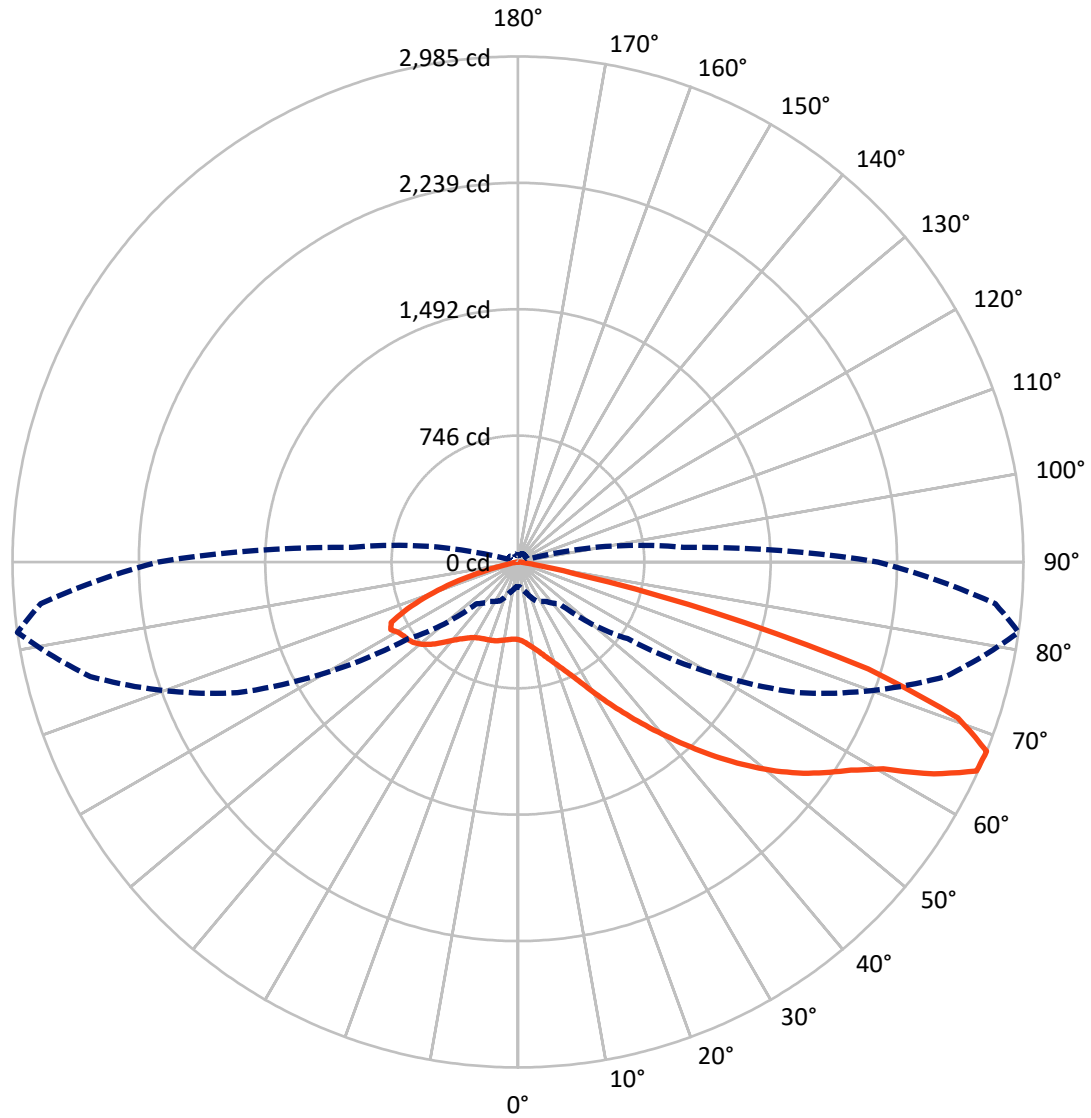
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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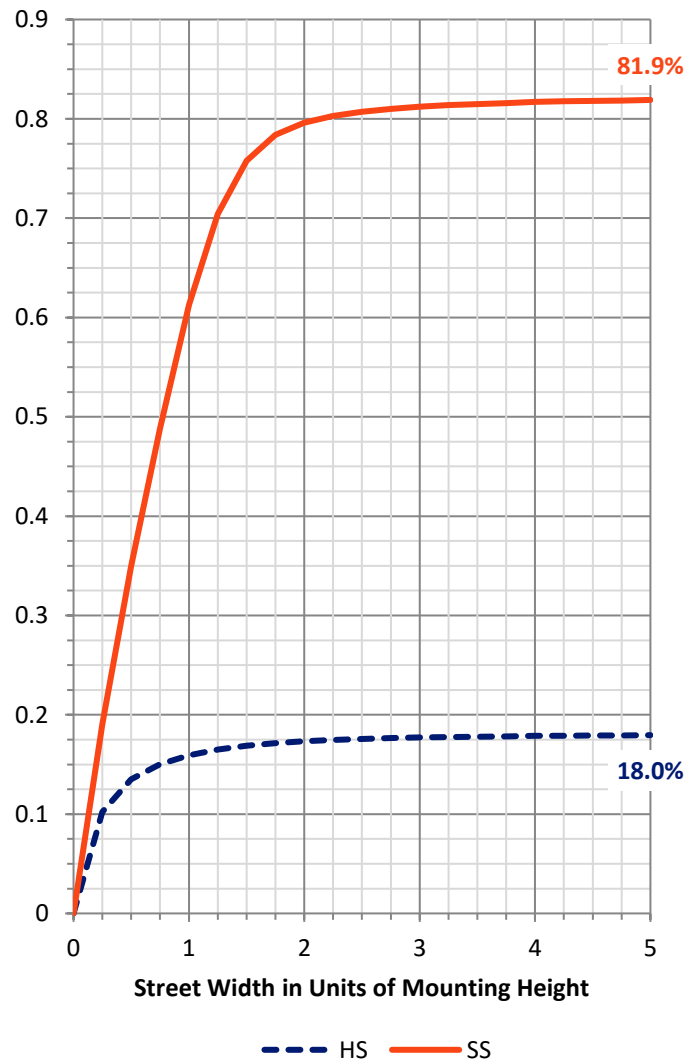
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	501.0	0.0	501.0
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	2265.0	0.0	2265.0
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	2766.0	0.0	2766.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.8	1.5
10°-20°	106.1	3.8
20°-30°	169.9	6.1
30°-40°	300.5	10.9
40°-50°	526.5	19.0
50°-60°	702.1	25.4
60°-70°	653.7	23.6
70°-80°	250.9	9.1
80°-90°	15.6	0.6
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°	2766.0	100.0
0°-180°	2766.0	100.0

**Coefficient of Utilization**



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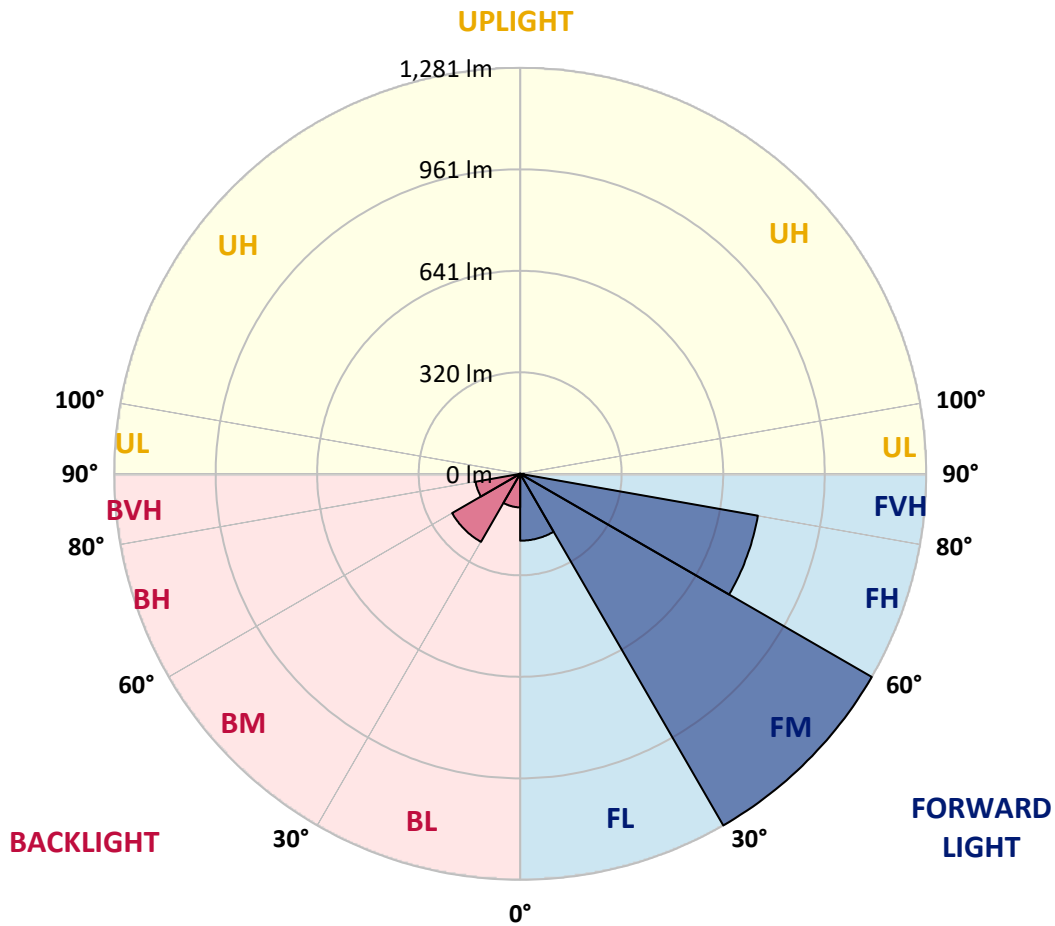
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	211.0	7.6			
FM (30°-60°)	1281.1	46.3			
FH (60°-80°)	761.5	27.5			G1/1800
FVH (80°-90°)	11.3	0.4			G1/100
BL (0°-30°)	105.8	3.8	B0/110		
BM (30°-60°)	248.0	9.0	B1/1000		
BH (60°-80°)	143.0	5.2	B1/500		G1/500
BVH (80°-90°)	4.3	0.2			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 Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	458.2	458.2	458.2	458.2	458.2	458.2	458.2	458.2	458.2	458.2	458.2
2.5°	484.3	487.1	485.5	484.7	483.3	481.3	479.7	474.8	469.6	466.2	465.0
5°	494.1	496.9	496.7	497.5	498.5	499.1	498.7	493.1	485.7	479.9	476.6
7.5°	485.7	488.9	491.5	495.5	502.4	509.8	513.4	512.2	504.6	496.7	492.5
10°	462.0	465.4	471.6	480.9	495.7	511.6	524.9	531.1	526.3	517.6	511.8
12.5°	418.6	422.0	434.1	454.4	479.1	506.8	532.3	548.8	550.0	541.3	534.5
15°	369.8	373.2	386.1	411.6	449.3	493.7	536.3	567.6	578.1	570.6	562.4
17.5°	339.5	342.5	352.3	372.8	412.0	467.4	534.9	587.5	611.6	605.6	595.8
20°	330.4	333.0	337.6	351.9	384.5	440.1	525.7	606.2	647.6	644.2	633.3
22.5°	340.1	342.5	343.9	350.3	370.8	422.2	514.2	625.3	689.4	689.8	676.5
25°	362.6	365.0	363.4	367.4	376.4	416.6	509.8	647.8	742.0	746.4	731.3
27.5°	399.7	399.9	396.1	395.9	397.3	425.0	514.4	671.9	808.3	816.5	797.8
30°	474.0	471.0	456.4	440.7	433.5	450.1	527.1	700.4	886.6	901.1	877.6
32.5°	588.5	584.1	557.4	519.8	481.9	490.5	550.0	732.9	971.8	998.1	969.4
35°	712.7	711.5	683.7	627.7	561.6	548.0	587.3	775.5	1064.8	1106.6	1072.6
37.5°	828.2	827.6	811.7	745.8	665.3	628.3	647.0	831.2	1164.4	1224.9	1184.7
40°	933.8	935.6	919.7	860.7	779.7	731.3	728.3	900.1	1275.1	1353.8	1306.0
42.5°	1025.0	1027.0	1010.9	967.2	892.6	845.2	828.0	984.6	1383.3	1492.2	1435.6
45°	1086.9	1099.3	1096.9	1062.0	1008.5	959.3	947.9	1090.5	1506.5	1639.0	1572.6
47.5°	1104.5	1115.8	1133.7	1138.5	1105.9	1057.5	1071.0	1218.2	1631.2	1785.9	1710.5
50°	1061.2	1071.8	1109.0	1158.6	1181.3	1166.4	1190.7	1355.0	1758.8	1932.5	1845.7
52.5°	976.0	986.8	1033.8	1112.2	1204.8	1251.8	1310.8	1489.8	1882.5	2071.3	1973.7
55°	852.7	864.1	924.4	1013.2	1160.0	1287.1	1410.9	1624.4	1995.8	2196.2	2089.2
57.5°	685.1	693.4	756.2	880.4	1047.3	1252.0	1484.8	1771.4	2102.6	2318.8	2203.7
60°	446.5	453.9	526.7	665.3	860.5	1134.9	1499.6	1935.3	2244.4	2478.4	2358.1
62.5°	296.9	301.9	345.1	446.9	606.0	910.1	1413.3	2066.1	2452.3	2756.0	2622.7
65°	203.7	208.7	251.9	322.8	391.5	602.0	1165.4	2048.8	2640.7	2976.4	2818.9
67.5°	145.4	149.6	186.2	253.1	283.4	349.7	790.0	1827.4	2613.6	2984.8	2829.5
70°	104.2	106.5	136.8	197.2	225.2	210.1	439.3	1397.6	2288.4	2756.2	2614.0
72.5°	72.9	73.7	95.0	150.2	181.4	153.3	209.1	931.8	1730.8	2163.3	2026.5
75°	49.4	50.4	63.9	110.1	145.6	117.1	110.7	499.7	1016.0	1197.5	1073.4
77.5°	30.3	30.7	41.2	75.3	108.9	89.2	71.3	211.7	393.1	385.9	329.0
80°	17.1	17.1	26.3	46.8	74.3	57.6	50.0	90.0	124.5	109.3	96.4
82.5°	9.6	9.8	19.1	29.1	49.2	34.1	27.5	41.6	53.8	47.6	41.4
85°	4.0	4.4	11.7	13.7	23.5	16.9	11.2	17.5	19.9	17.7	12.9
87.5°	0.4	0.6	3.6	2.6	2.8	3.4	1.6	3.4	2.8	2.8	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°	458.2	458.2	458.2	458.2	458.2	458.2	458.2	458.2	458.2	458.2	458.2
2.5°	461.2	458.2	450.7	441.9	430.4	424.8	417.2	412.0	407.6	408.0	404.1
5°	470.2	462.6	445.7	424.6	398.3	379.6	359.7	345.9	334.8	332.4	327.0
7.5°	482.5	470.6	440.9	402.9	358.5	324.8	294.7	275.4	261.7	257.3	252.9
10°	498.5	481.1	434.7	375.6	311.7	268.8	236.6	221.4	212.1	208.9	206.5
12.5°	517.0	493.3	426.6	342.3	263.5	222.2	201.7	194.2	191.2	190.2	189.6
15°	540.3	508.4	414.2	302.9	222.6	193.8	185.0	184.0	184.4	184.0	183.8
17.5°	568.0	524.9	394.1	262.3	195.2	179.2	176.0	176.8	177.8	177.6	177.2
20°	598.2	541.3	368.4	226.2	176.4	168.9	167.1	167.9	168.7	168.3	168.1
22.5°	632.7	558.8	339.9	198.1	163.9	159.3	157.3	157.5	157.5	156.7	156.3
25°	673.9	578.1	310.1	178.2	154.3	150.8	148.4	147.6	146.4	144.0	143.6
27.5°	723.1	598.6	281.4	164.3	146.8	143.4	140.6	138.6	135.6	131.6	131.2
30°	778.5	623.5	257.1	155.5	140.8	137.4	134.2	131.2	126.9	121.9	121.5
32.5°	843.6	650.2	239.4	149.8	135.4	131.8	128.1	124.5	119.7	114.7	114.9
35°	921.2	682.5	229.0	145.8	131.2	126.5	122.3	118.3	114.7	110.3	109.9
37.5°	1005.5	716.7	225.8	143.8	128.4	121.1	116.3	113.5	113.1	110.5	110.3
40°	1097.7	757.3	228.2	142.6	125.5	115.9	110.7	110.1	111.1	106.5	106.7
42.5°	1195.3	805.5	232.2	141.2	121.3	110.7	105.7	105.7	104.9	98.6	98.6
45°	1300.8	861.1	236.2	137.8	116.3	105.5	101.8	100.4	97.0	90.8	90.6
47.5°	1407.2	917.7	239.2	131.6	110.3	101.2	97.8	94.6	89.6	84.0	83.8
50°	1508.1	968.4	236.0	122.5	103.6	97.0	93.4	89.0	83.6	79.9	79.3
52.5°	1598.3	1012.5	222.4	111.7	96.4	92.6	89.4	84.8	80.5	76.5	76.1
55°	1676.8	1048.1	198.5	101.6	90.0	88.8	85.6	79.9	73.9	70.5	70.1
57.5°	1752.1	1075.2	168.7	93.2	84.2	84.6	79.9	74.7	69.1	65.5	65.1
60°	1852.2	1111.4	138.4	85.4	78.1	79.3	74.1	70.3	63.3	58.7	58.2
62.5°	2012.4	1167.8	109.9	75.9	70.9	71.3	69.1	64.5	56.2	50.8	50.4
65°	2139.4	1147.1	86.6	65.5	62.7	63.3	63.3	58.3	49.4	43.2	42.6
67.5°	2125.1	982.2	69.1	55.4	55.0	55.4	56.8	52.6	43.8	38.8	38.0
70°	1957.6	781.2	55.4	46.0	47.8	46.8	50.8	48.0	39.4	34.5	33.9
72.5°	1597.3	562.8	42.2	38.0	36.6	38.2	45.8	43.2	32.9	27.3	26.7
75°	933.4	300.3	31.5	30.1	26.5	31.9	40.6	36.8	25.1	20.1	19.5
77.5°	303.9	104.8	23.1	22.1	19.7	25.7	34.7	31.1	20.5	15.9	15.3
80°	81.5	31.7	15.7	14.5	12.7	19.1	27.5	24.7	14.7	10.4	10.2
82.5°	32.7	13.3	9.2	8.2	7.0	13.1	21.7	19.9	11.0	6.6	6.6
85°	10.6	4.4	3.4	2.6	3.2	8.2	12.9	13.5	7.8	3.4	2.6
87.5°	1.4	0.6	0.6	0.8	0.6	1.4	4.0	3.8	2.2	0.4	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)