

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: P881618

Luminaire Tested: **NAV-SB1A-835-U-T3-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P881618  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1A-835-U-T3-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 80 CRI, 3500K, 350mA LIGHTSQUARE WITH 26 LEDS AND TYPE III OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

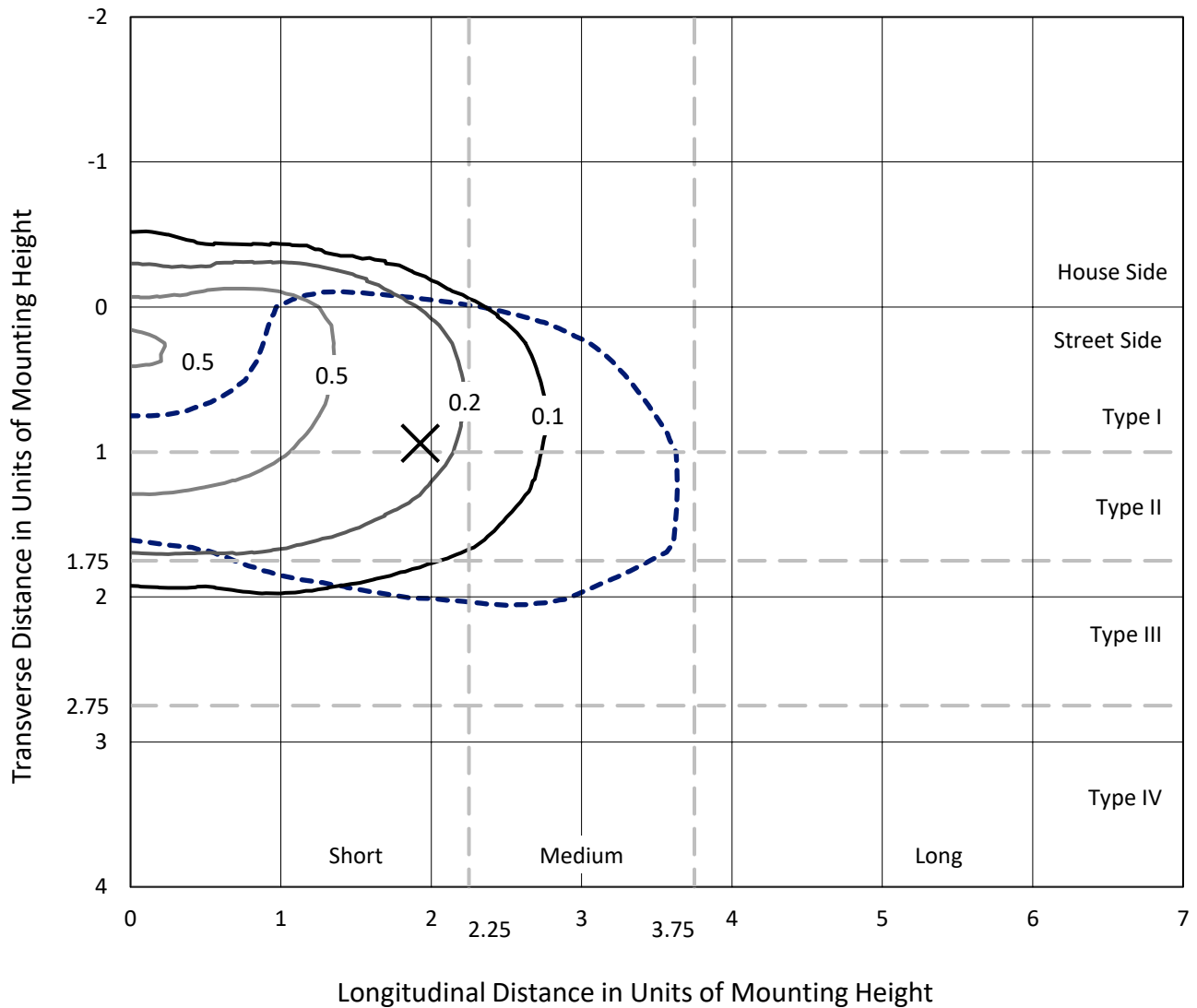
Lumens per Lamp: N/A  
Luminaire Lumens: 2971 lumens  
Efficiency: N/A  
Efficacy: 96.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G1  
  
Input Watts (W): 30.9  
Input Voltage (V): 120.0  
Input Current (Ain): 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

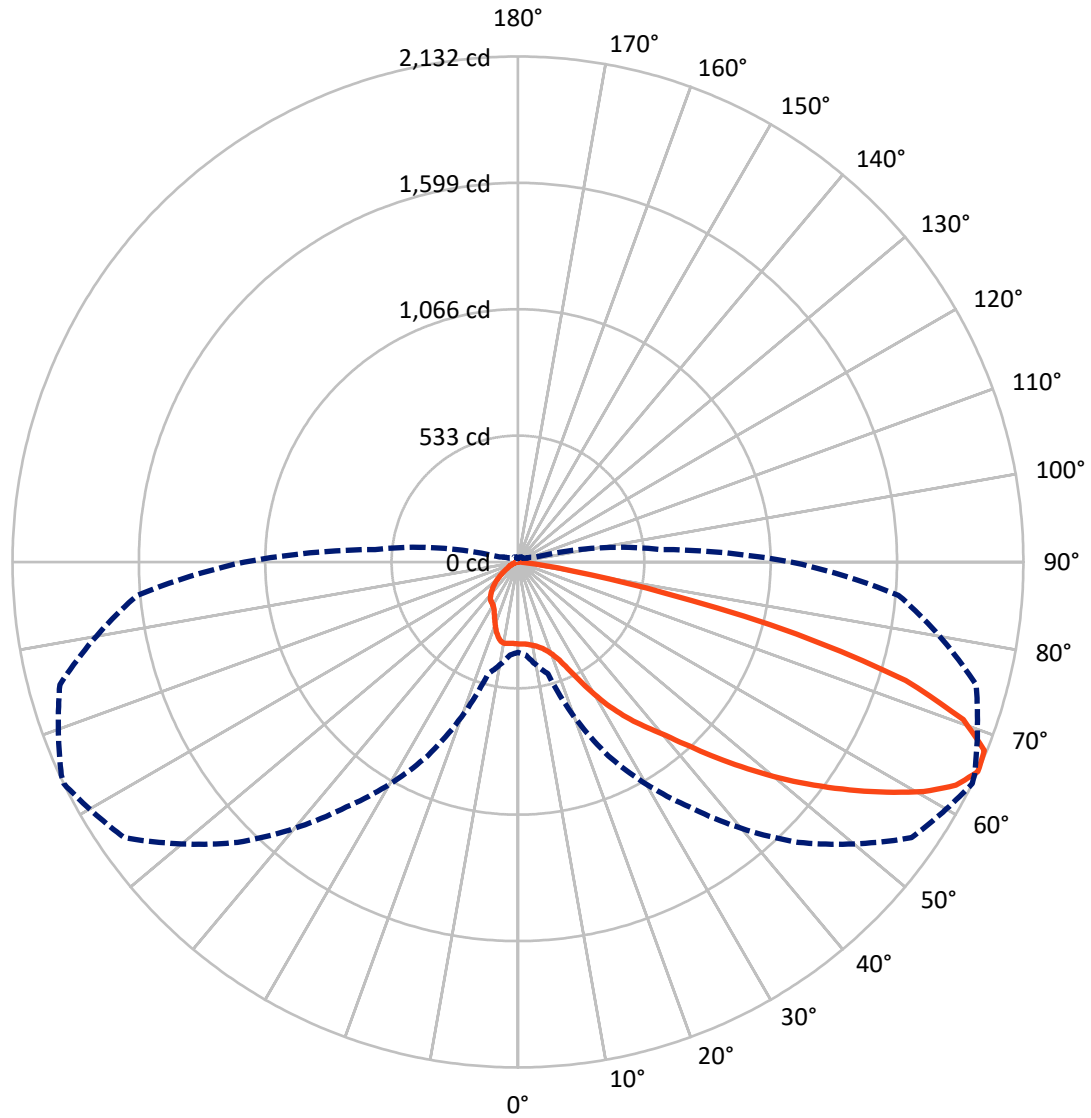
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.9 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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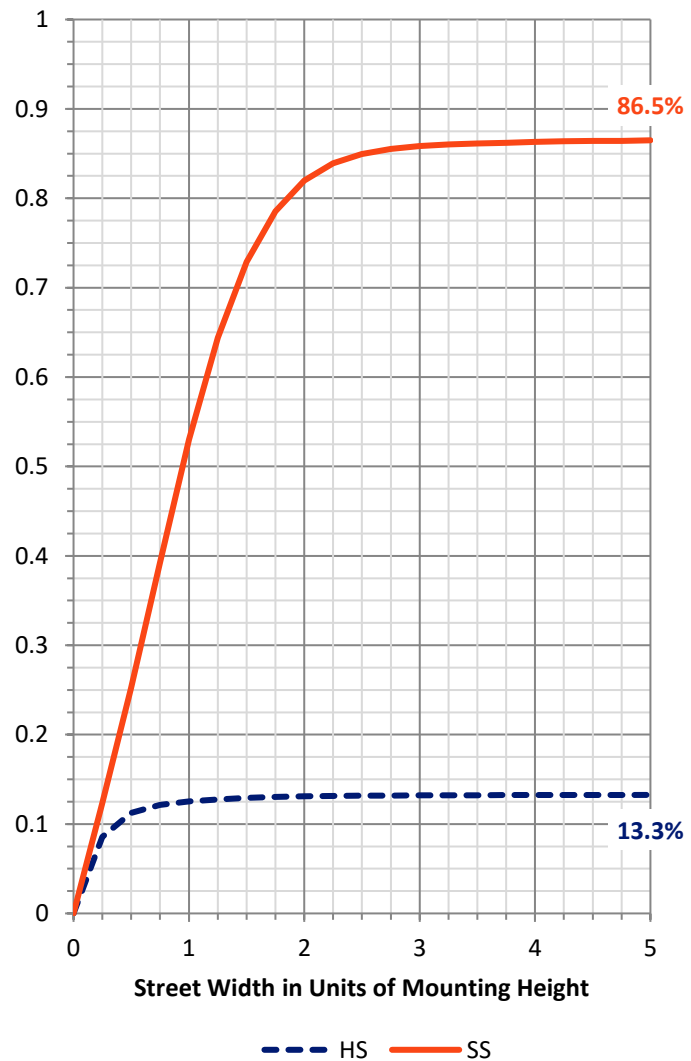
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	397.3	0.0	397.3
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	2573.7	0.0	2573.7
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	2971.0	0.0	2971.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.9	1.1
10°-20°	86.5	2.9
20°-30°	163.9	5.5
30°-40°	331.6	11.2
40°-50°	564.8	19.0
50°-60°	768.1	25.9
60°-70°	721.3	24.3
70°-80°	289.0	9.7
80°-90°	14.0	0.5
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°	2971.0	100.0
0°-180°	2971.0	100.0

**Coefficient of Utilization**



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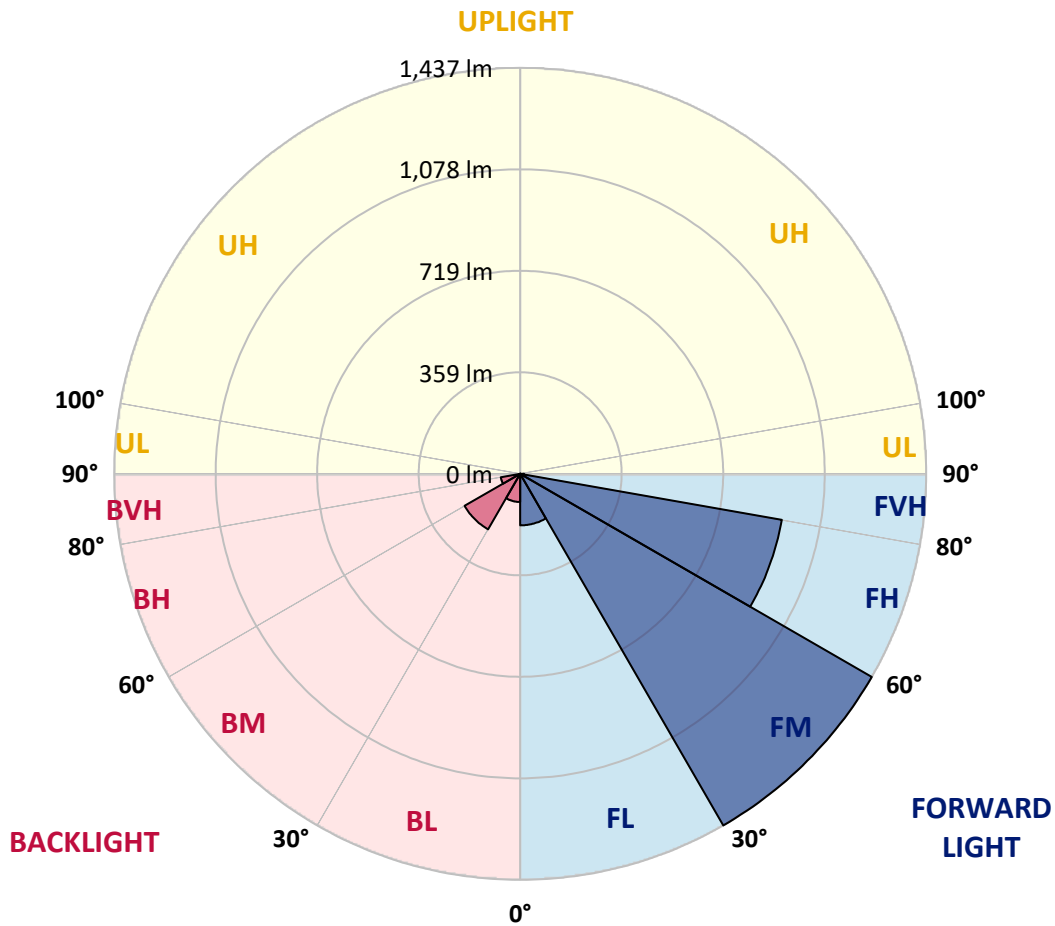
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	182.5	6.1			
FM (30°-60°)	1437.4	48.4			
FH (60°-80°)	940.5	31.7			G1/1800
FVH (80°-90°)	13.3	0.4			G1/100
BL (0°-30°)	99.8	3.4	B0/110		
BM (30°-60°)	227.1	7.6	B1/1000		
BH (60°-80°)	69.7	2.3	B0/110		G0/110
BVH (80°-90°)	0.7	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 III Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	345.6	345.6	345.6	345.6	345.6	345.6	345.6	345.6	345.6	345.6	345.6
2.5°	344.4	346.8	346.2	345.6	345.4	345.8	346.0	345.8	345.8	345.8	346.0
5°	337.8	339.8	339.8	341.2	343.2	345.6	347.4	347.7	348.1	348.7	348.5
7.5°	325.2	326.8	328.0	332.6	337.6	344.0	349.3	352.1	352.5	354.7	355.5
10°	316.7	318.7	320.7	325.4	332.6	342.2	351.3	358.1	359.1	364.3	366.7
12.5°	316.3	318.3	320.9	326.0	334.4	344.6	355.7	365.5	367.3	374.8	379.8
15°	320.5	322.9	325.2	331.6	340.6	352.9	364.9	377.0	378.8	389.6	395.0
17.5°	329.0	332.2	334.0	340.4	349.9	363.7	379.4	393.4	395.0	407.5	414.3
20°	346.0	349.7	350.3	355.5	364.9	379.6	398.3	415.7	417.7	432.0	439.6
22.5°	381.0	386.4	381.6	384.2	392.6	407.3	427.6	449.5	452.3	468.6	475.4
25°	442.8	450.3	438.0	433.6	437.2	452.5	478.0	505.7	508.9	522.0	525.4
27.5°	564.0	554.3	535.6	517.2	506.5	515.3	543.9	578.2	582.2	594.9	590.9
30°	697.3	688.7	663.4	622.8	597.3	595.9	622.4	660.6	665.2	677.4	665.2
32.5°	830.7	822.6	795.1	745.1	700.9	679.0	697.3	739.7	742.1	749.9	731.9
35°	962.0	953.6	926.1	874.9	820.6	770.8	767.2	815.0	815.8	824.0	797.3
37.5°	1094.0	1087.1	1057.8	1007.6	954.0	885.3	852.0	886.3	887.3	895.3	867.6
40°	1188.2	1191.2	1171.1	1132.3	1086.3	1011.2	947.2	962.2	956.2	969.6	953.0
42.5°	1269.1	1275.1	1257.6	1238.0	1211.3	1145.2	1065.2	1062.6	1053.0	1060.2	1043.0
45°	1339.0	1344.0	1328.3	1323.7	1323.1	1276.7	1194.0	1178.5	1165.1	1163.7	1143.2
47.5°	1364.7	1374.3	1381.0	1396.4	1426.2	1406.7	1327.3	1303.2	1288.2	1277.3	1244.8
50°	1374.5	1384.6	1407.7	1452.3	1523.0	1531.4	1459.9	1432.8	1414.5	1394.6	1346.8
52.5°	1361.3	1379.4	1410.5	1485.6	1588.2	1631.4	1587.2	1563.5	1542.6	1510.1	1439.2
55°	1283.8	1302.0	1365.5	1485.2	1620.6	1701.5	1707.5	1696.9	1673.4	1622.2	1513.9
57.5°	1120.5	1147.4	1248.0	1434.6	1620.0	1761.8	1825.4	1833.0	1806.7	1733.4	1572.6
60°	894.3	930.7	1053.4	1322.5	1570.0	1794.5	1928.8	1966.6	1938.7	1842.9	1620.2
62.5°	624.0	666.2	782.3	1146.8	1455.7	1771.0	2004.2	2074.1	2053.0	1940.9	1638.6
65°	380.6	394.2	487.8	902.4	1261.3	1672.6	2027.5	2132.3	2125.3	2000.9	1611.5
67.5°	253.5	264.9	291.8	618.8	979.1	1476.0	1971.8	2122.1	2124.1	1991.1	1512.3
70°	152.8	162.5	180.0	359.9	634.6	1168.3	1799.1	1992.7	2004.2	1860.6	1324.3
72.5°	62.9	69.5	85.4	163.1	328.6	741.5	1432.6	1710.9	1737.7	1564.5	1016.4
75°	35.7	39.0	50.2	81.9	142.6	345.6	867.8	1214.5	1254.2	1078.3	611.4
77.5°	23.7	25.3	32.5	53.0	80.3	117.9	370.9	632.8	708.4	588.9	264.7
80°	15.9	17.3	22.3	35.5	52.2	50.6	118.1	234.4	288.4	202.4	64.5
82.5°	10.8	11.0	15.9	23.3	33.1	24.5	34.9	72.9	91.6	58.6	24.5
85°	6.2	6.0	11.8	13.5	14.7	10.2	10.6	21.9	28.7	24.7	13.9
87.5°	0.8	1.2	4.6	3.6	2.0	2.2	2.2	3.8	5.6	6.0	3.0
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°	345.6	345.6	345.6	345.6	345.6	345.6	345.6	345.6	345.6	345.6	345.6
2.5°	346.0	345.8	345.2	344.6	343.2	342.4	342.8	342.4	342.2	342.4	343.2
5°	348.5	347.9	346.4	344.4	341.6	338.2	336.0	332.8	329.8	328.0	328.4
7.5°	355.5	354.9	352.7	347.2	338.2	324.0	311.1	299.7	291.2	286.2	286.4
10°	366.7	365.7	362.3	349.9	326.4	295.6	269.9	248.6	234.6	228.0	227.5
12.5°	379.8	378.6	372.6	347.4	304.1	255.9	220.5	196.8	183.8	178.1	177.5
15°	395.4	393.8	382.0	335.0	271.7	212.1	179.7	161.9	153.6	148.4	148.6
17.5°	414.7	411.9	389.0	316.5	236.4	178.7	154.6	141.2	133.8	128.9	128.5
20°	439.8	435.2	394.6	294.4	203.9	157.5	137.6	126.5	120.9	116.5	115.7
22.5°	474.8	468.2	401.3	270.5	181.0	143.0	125.1	116.9	112.3	107.4	106.6
25°	518.2	510.5	409.7	248.4	165.3	130.5	115.9	109.1	103.8	98.0	97.4
27.5°	579.0	565.0	419.6	230.2	151.8	119.7	107.6	100.0	93.8	89.0	88.0
30°	646.7	623.8	428.4	219.3	139.4	109.7	96.6	89.0	83.3	79.9	79.3
32.5°	710.8	679.8	434.2	214.5	128.3	98.4	84.6	76.5	72.1	71.1	71.7
35°	771.4	730.4	433.6	209.9	118.3	87.0	72.9	64.5	61.1	61.7	61.7
37.5°	841.1	784.3	429.4	202.8	110.1	76.7	62.7	55.4	52.4	52.6	53.4
40°	922.2	846.7	426.8	189.2	101.2	67.1	54.4	48.4	46.2	45.4	45.2
42.5°	1008.6	907.0	427.2	173.9	90.0	58.6	48.6	43.6	41.6	41.0	40.8
45°	1095.4	964.6	427.8	157.9	78.3	52.0	44.4	40.2	39.0	38.2	38.2
47.5°	1177.1	1013.6	416.7	140.8	66.7	47.0	41.0	38.2	37.2	36.2	36.2
50°	1253.2	1046.2	389.8	120.9	57.6	43.0	38.4	36.4	35.5	34.5	34.5
52.5°	1312.3	1051.4	345.4	100.4	51.2	40.0	36.8	35.1	33.9	32.9	32.7
55°	1338.6	1018.9	282.2	81.3	46.2	37.4	35.3	33.5	32.1	31.1	30.9
57.5°	1331.8	950.6	220.1	65.3	41.4	34.9	33.3	32.1	30.5	28.9	28.7
60°	1298.6	859.2	165.9	54.4	37.0	32.1	31.1	30.1	27.9	25.5	25.1
62.5°	1241.0	744.3	118.3	45.0	32.3	28.9	28.5	27.7	24.5	20.1	19.7
65°	1153.0	604.7	79.7	37.4	27.7	25.3	25.5	24.1	19.9	14.9	14.5
67.5°	1024.3	442.2	51.0	30.7	23.1	21.1	21.3	20.5	16.9	12.7	12.1
70°	860.4	292.8	33.3	23.3	18.5	16.3	17.5	17.7	14.3	10.4	10.0
72.5°	630.8	172.9	23.3	17.3	13.5	11.4	14.3	14.7	11.6	7.8	7.4
75°	359.5	82.1	17.5	12.5	8.4	8.0	11.2	11.2	8.0	5.2	4.8
77.5°	151.0	34.3	12.3	8.2	4.8	4.6	7.6	7.0	4.0	2.4	2.4
80°	43.6	15.3	6.6	4.0	2.0	1.8	3.0	2.2	1.0	0.4	0.4
82.5°	17.1	6.8	2.6	1.6	0.8	0.8	0.4	0.0	0.0	0.0	0.0
85°	10.2	2.8	1.2	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.6	0.6	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	0.0

(END OF REPORT)