

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: P882116

Luminaire Tested: **NAV-SB1D-830-U-T2-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882116  
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-SB1D-830-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 80 CRI, 3000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II OPTICS WITH  
HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

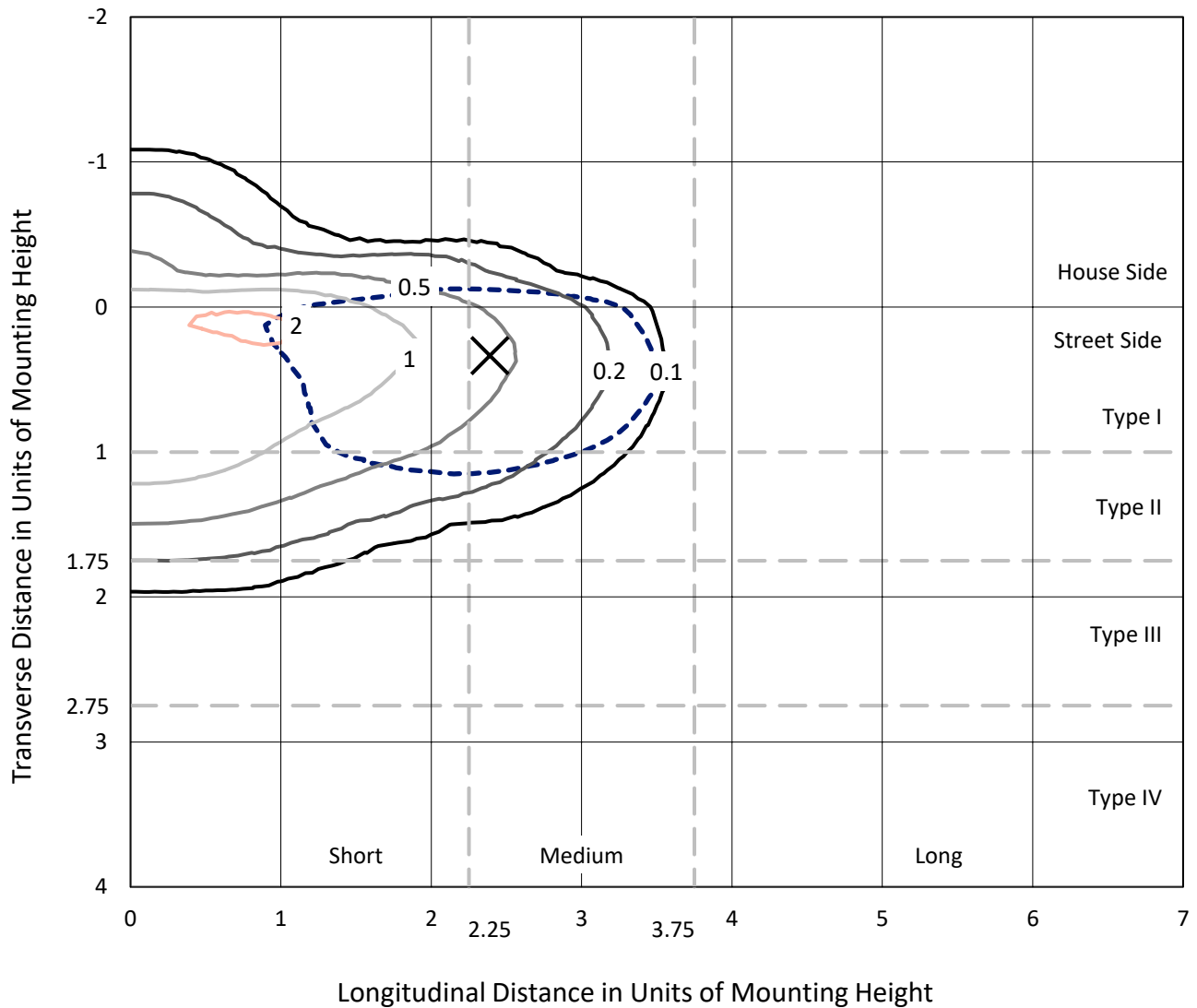
Lumens per Lamp: N/A  
Luminaire Lumens: 6507 lumens  
Efficiency: N/A  
Efficacy: 81.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G1  
  
Input Watts (W): 79.6  
Input Voltage (V): 120.0  
Input Current (Ain): 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

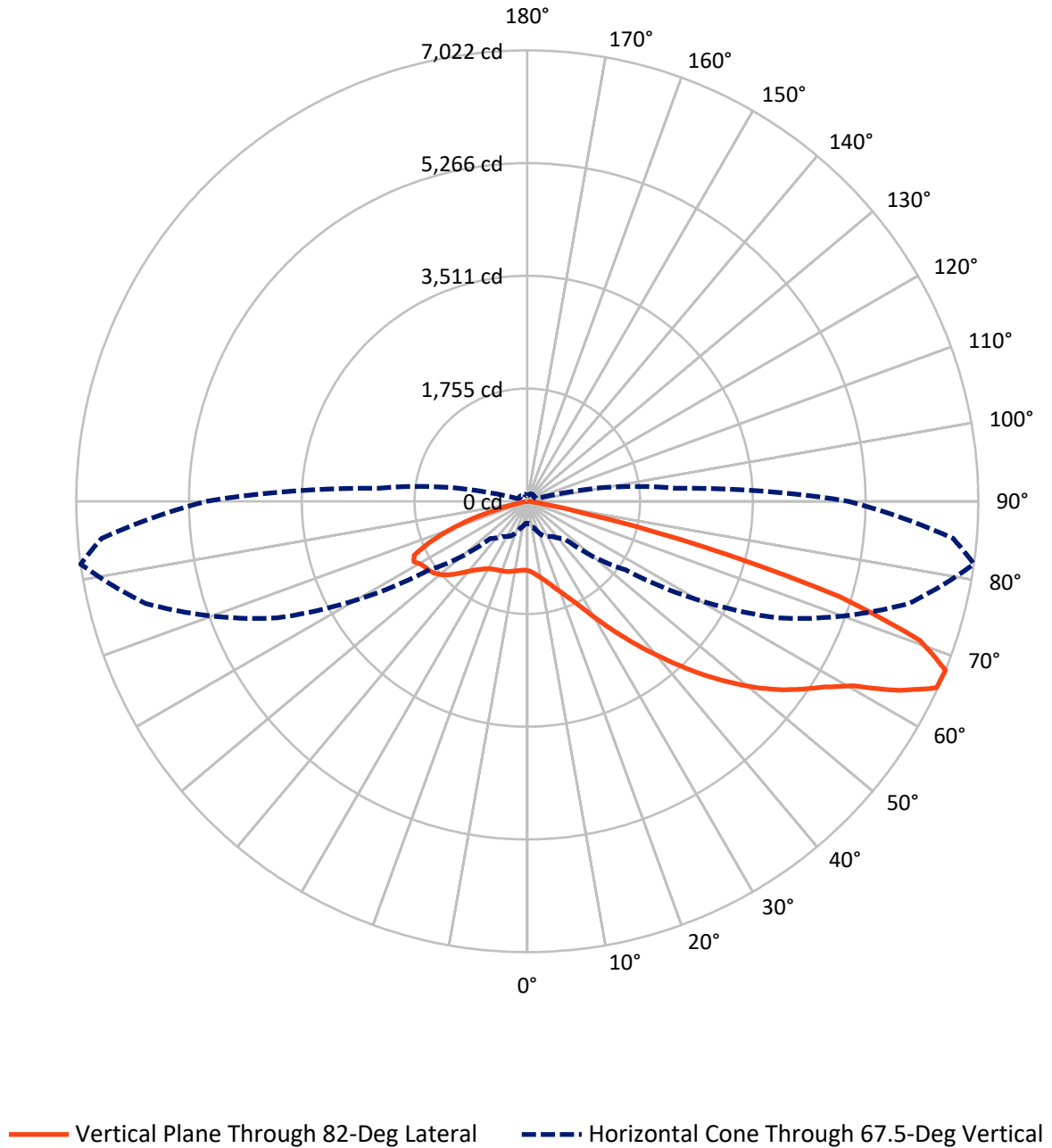
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1178.7	0.0	1178.7
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	5328.3	0.0	5328.3
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	6507.0	0.0	6507.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.0	1.5
10°-20°	249.6	3.8
20°-30°	399.7	6.1
30°-40°	706.9	10.9
40°-50°	1238.5	19.0
50°-60°	1651.8	25.4
60°-70°	1537.7	23.6
70°-80°	590.2	9.1
80°-90°	36.7	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°	6507.0	100.0
0°-180°	6507.0	100.0

**Coefficient of Utilization**



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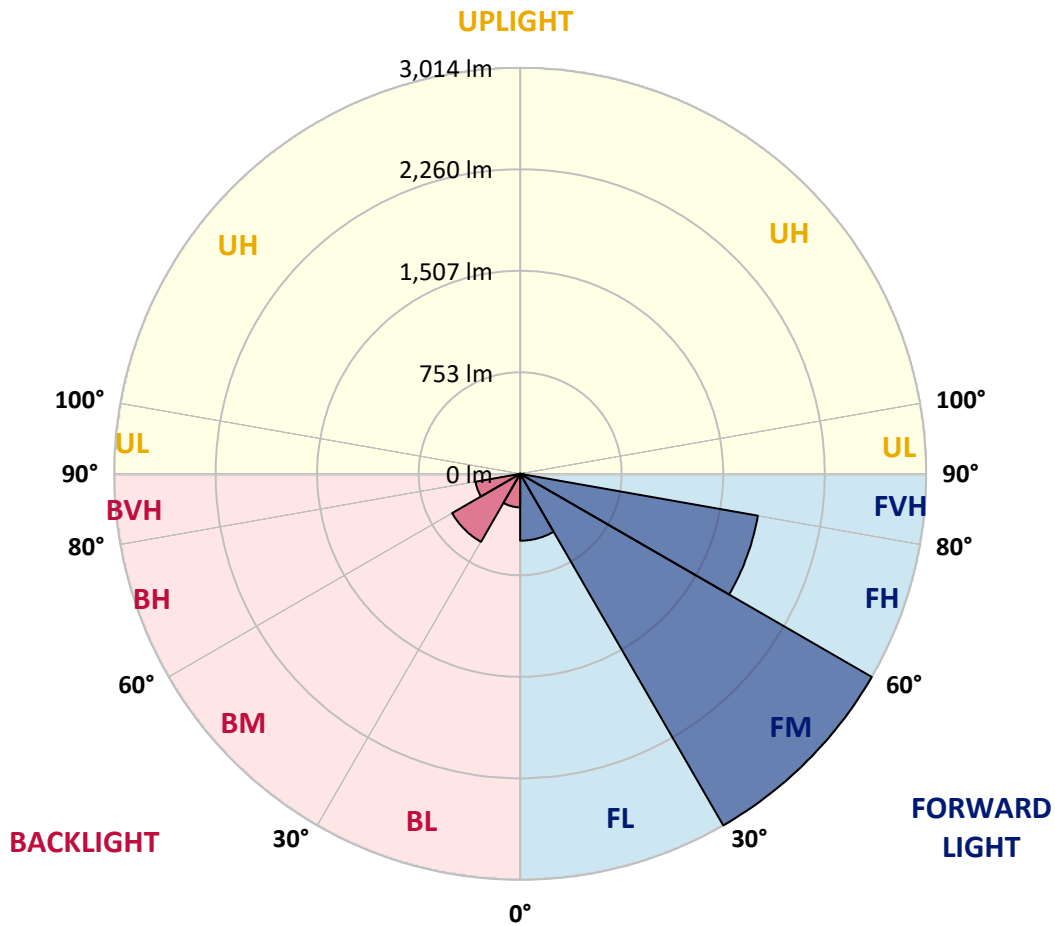
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	496.4	7.6			
FM (30°-60°)	3013.8	46.3			
FH (60°-80°)	1791.5	27.5			G1/1800
FVH (80°-90°)	26.6	0.4			G1/100
BL (0°-30°)	248.9	3.8	B1/500		
BM (30°-60°)	583.3	9.0	B1/1000		
BH (60°-80°)	336.4	5.2	B1/500		G1/500
BVH (80°-90°)	10.0	0.2			G1/100
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°	1078.0	1078.0	1078.0	1078.0	1078.0	1078.0	1078.0	1078.0	1078.0	1078.0	1078.0
2.5°	1139.4	1145.9	1142.2	1140.3	1137.0	1132.3	1128.6	1116.9	1104.7	1096.7	1093.9
5°	1162.3	1168.9	1168.4	1170.3	1172.6	1174.0	1173.1	1160.0	1142.6	1129.1	1121.1
7.5°	1142.6	1150.1	1156.2	1165.6	1182.0	1199.3	1207.8	1204.9	1187.1	1168.4	1158.6
10°	1086.9	1094.9	1109.4	1131.4	1166.1	1203.5	1234.9	1249.5	1238.2	1217.6	1204.0
12.5°	984.8	992.7	1021.3	1069.1	1127.2	1192.3	1252.3	1291.2	1294.0	1273.3	1257.4
15°	870.0	877.9	908.4	968.4	1056.9	1161.4	1261.6	1335.2	1360.0	1342.2	1323.0
17.5°	798.8	805.8	828.8	877.0	969.3	1099.5	1258.4	1382.0	1438.7	1424.7	1401.7
20°	777.2	783.3	794.1	827.8	904.6	1035.4	1236.8	1426.1	1523.5	1515.6	1489.8
22.5°	800.2	805.8	809.1	824.1	872.3	993.2	1209.6	1471.1	1621.9	1622.8	1591.5
25°	853.1	858.7	855.0	864.4	885.4	980.1	1199.3	1524.0	1745.6	1755.9	1720.3
27.5°	940.3	940.7	931.8	931.4	934.6	999.8	1210.1	1580.7	1901.6	1920.8	1876.8
30°	1115.0	1108.0	1073.8	1036.8	1019.9	1058.8	1240.1	1647.7	2085.7	2119.9	2064.6
32.5°	1384.4	1374.1	1311.3	1222.8	1133.7	1153.9	1294.0	1724.0	2286.2	2348.1	2280.6
35°	1676.7	1673.9	1608.3	1476.7	1321.1	1289.3	1381.6	1824.3	2505.0	2603.4	2523.3
37.5°	1948.4	1947.0	1909.6	1754.5	1565.2	1478.1	1522.1	1955.5	2739.2	2881.7	2787.0
40°	2196.7	2201.0	2163.5	2024.8	1834.1	1720.3	1713.3	2117.6	2999.7	3184.8	3072.3
42.5°	2411.3	2416.0	2378.0	2275.4	2099.8	1988.3	1948.0	2316.2	3254.1	3510.4	3377.3
45°	2557.0	2586.1	2580.4	2498.4	2372.4	2256.7	2230.0	2565.4	3544.1	3855.7	3699.6
47.5°	2598.2	2624.9	2667.1	2678.3	2601.5	2487.7	2519.5	2865.7	3837.4	4201.4	4023.8
50°	2496.6	2521.4	2609.0	2725.7	2779.1	2743.9	2801.1	3187.6	4137.7	4546.2	4341.9
52.5°	2296.1	2321.4	2431.9	2616.5	2834.3	2944.9	3083.6	3504.8	4428.6	4872.7	4643.2
55°	2006.1	2032.8	2174.7	2383.7	2728.9	3027.8	3319.2	3821.5	4695.2	5166.5	4914.9
57.5°	1611.6	1631.3	1778.8	2071.2	2463.8	2945.4	3493.0	4167.2	4946.3	5455.1	5184.3
60°	1050.3	1067.7	1239.1	1565.2	2024.3	2669.9	3527.7	4552.8	5279.9	5830.3	5547.4
62.5°	698.5	710.2	811.9	1051.3	1425.6	2141.0	3324.9	4860.6	5769.0	6483.4	6170.0
65°	479.3	491.0	592.6	759.4	921.0	1416.2	2741.6	4819.8	6212.1	7002.0	6631.4
67.5°	342.0	351.8	438.0	595.4	666.7	822.7	1858.5	4298.8	6148.4	7021.7	6656.3
70°	245.0	250.6	321.9	463.8	529.9	494.3	1033.5	3287.8	5383.4	6483.9	6149.4
72.5°	171.5	173.3	223.5	353.2	426.8	360.7	491.9	2192.1	4071.6	5089.2	4767.3
75°	116.2	118.5	150.4	259.1	342.5	275.5	260.5	1175.4	2390.2	2817.0	2525.1
77.5°	71.2	72.1	97.0	177.1	256.3	209.9	167.7	498.0	924.8	907.9	773.9
80°	40.3	40.3	61.8	110.1	174.7	135.4	117.6	211.8	292.8	257.2	226.7
82.5°	22.5	23.0	45.0	68.4	115.7	80.1	64.7	97.9	126.5	112.0	97.4
85°	9.4	10.3	27.6	32.3	55.3	39.8	26.2	41.2	46.8	41.7	30.5
87.5°	0.9	1.4	8.4	6.1	6.6	8.0	3.7	8.0	6.6	6.6	4.7
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1078.0	1078.0	1078.0	1078.0	1078.0	1078.0	1078.0	1078.0	1078.0	1078.0	1078.0
2.5°	1085.0	1078.0	1060.2	1039.6	1012.4	999.3	981.5	969.3	959.0	959.9	950.6
5°	1106.1	1088.3	1048.5	998.8	937.0	892.9	846.1	813.8	787.5	781.9	769.3
7.5°	1135.1	1107.0	1037.2	947.8	843.3	764.1	693.4	647.9	615.6	605.3	595.0
10°	1172.6	1131.9	1022.7	883.6	733.2	632.5	556.6	521.0	498.9	491.4	485.8
12.5°	1216.2	1160.4	1003.5	805.3	619.8	522.8	474.6	456.8	449.7	447.4	446.0
15°	1271.0	1196.0	974.5	712.6	523.8	455.8	435.2	432.9	433.8	432.9	432.4
17.5°	1336.1	1234.9	927.1	617.0	459.1	421.6	414.1	416.0	418.4	417.9	417.0
20°	1407.3	1273.3	866.7	532.2	415.1	397.3	393.1	394.9	396.8	395.9	395.4
22.5°	1488.4	1314.6	799.7	466.1	385.6	374.8	370.1	370.6	370.6	368.7	367.8
25°	1585.4	1360.0	729.4	419.3	363.1	354.6	349.0	347.1	344.3	338.7	337.8
27.5°	1701.1	1408.3	662.0	386.5	345.3	337.3	330.8	326.1	319.0	309.7	308.7
30°	1831.3	1466.8	604.8	365.9	331.2	323.3	315.8	308.7	298.4	286.7	285.8
32.5°	1984.5	1529.6	563.1	352.3	318.6	310.1	301.2	292.8	281.6	269.8	270.3
35°	2167.2	1605.5	538.8	342.9	308.7	297.5	287.7	278.3	269.8	259.5	258.6
37.5°	2365.4	1686.1	531.3	338.2	302.2	284.8	273.6	267.0	266.1	260.0	259.5
40°	2582.3	1781.7	536.9	335.4	295.1	272.7	260.5	259.1	261.4	250.6	251.1
42.5°	2811.9	1895.0	546.3	332.2	285.3	260.5	248.8	248.8	246.9	231.9	231.9
45°	3060.2	2025.7	555.6	324.2	273.6	248.3	239.4	236.1	228.2	213.6	213.2
47.5°	3310.3	2158.8	562.7	309.7	259.5	238.0	230.0	222.5	210.8	197.7	197.2
50°	3547.9	2278.3	555.2	288.1	243.6	228.2	219.7	209.4	196.8	187.9	186.5
52.5°	3760.1	2381.8	523.3	262.8	226.7	217.8	210.4	199.6	189.3	179.9	179.0
55°	3944.7	2465.6	467.1	238.9	211.8	208.9	201.4	187.9	173.8	165.8	164.9
57.5°	4121.8	2529.4	396.8	219.3	198.2	199.1	187.9	175.7	162.6	154.1	153.2
60°	4357.4	2614.6	325.6	201.0	183.6	186.5	174.3	165.4	149.0	138.2	136.8
62.5°	4734.1	2747.2	258.6	178.5	166.8	167.7	162.6	151.8	132.1	119.5	118.5
65°	5033.0	2698.5	203.8	154.1	147.6	149.0	149.0	137.3	116.2	101.7	100.3
67.5°	4999.2	2310.6	162.6	130.2	129.3	130.2	133.5	123.7	103.1	91.4	89.5
70°	4605.2	1837.9	130.2	108.2	112.4	110.1	119.5	112.9	92.8	81.0	79.6
72.5°	3757.7	1323.9	99.3	89.5	86.2	89.9	107.8	101.7	77.3	64.2	62.8
75°	2195.8	706.5	74.0	70.7	62.3	75.0	95.6	86.7	59.0	47.3	45.9
77.5°	714.9	246.4	54.3	52.0	46.4	60.4	81.5	73.1	48.3	37.5	36.1
80°	191.6	74.5	37.0	34.2	30.0	45.0	64.7	58.1	34.7	24.4	23.9
82.5°	76.8	31.4	21.6	19.2	16.4	30.9	51.1	46.8	25.8	15.5	15.5
85°	24.8	10.3	8.0	6.1	7.5	19.2	30.5	31.9	18.3	8.0	6.1
87.5°	3.3	1.4	1.4	1.9	1.4	3.3	9.4	8.9	5.2	0.9	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)