

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: P882106

Luminaire Tested: **NAV-SB1D-827-U-T2-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882106  
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-827-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 80 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

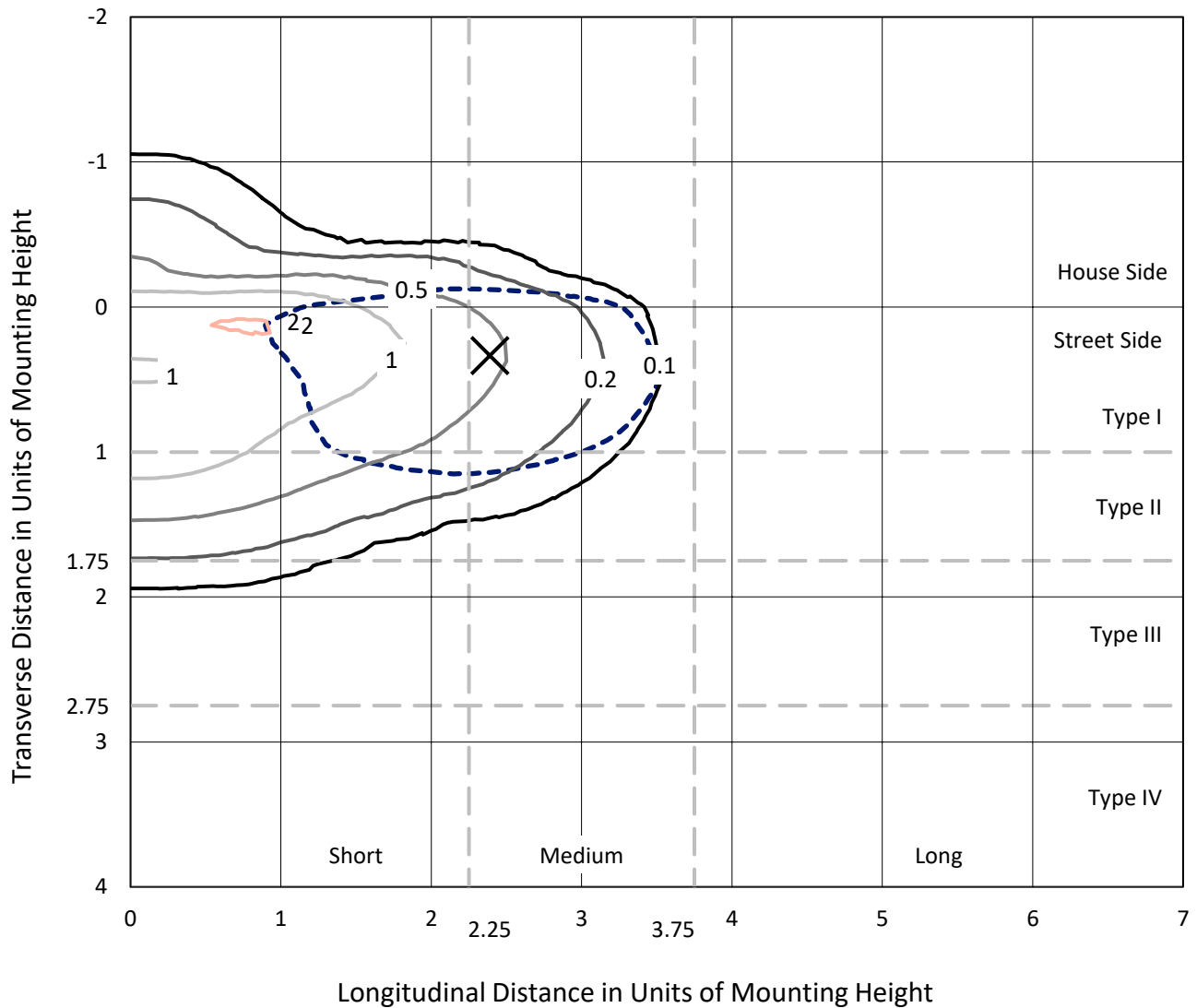
Lumens per Lamp: N/A  
Luminaire Lumens: 6043 lumens  
Efficiency: N/A  
Efficacy: 75.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G1  
  
Input Watts (W): 79.6  
Input Voltage (V): 120.0  
Input Current (Ain): 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

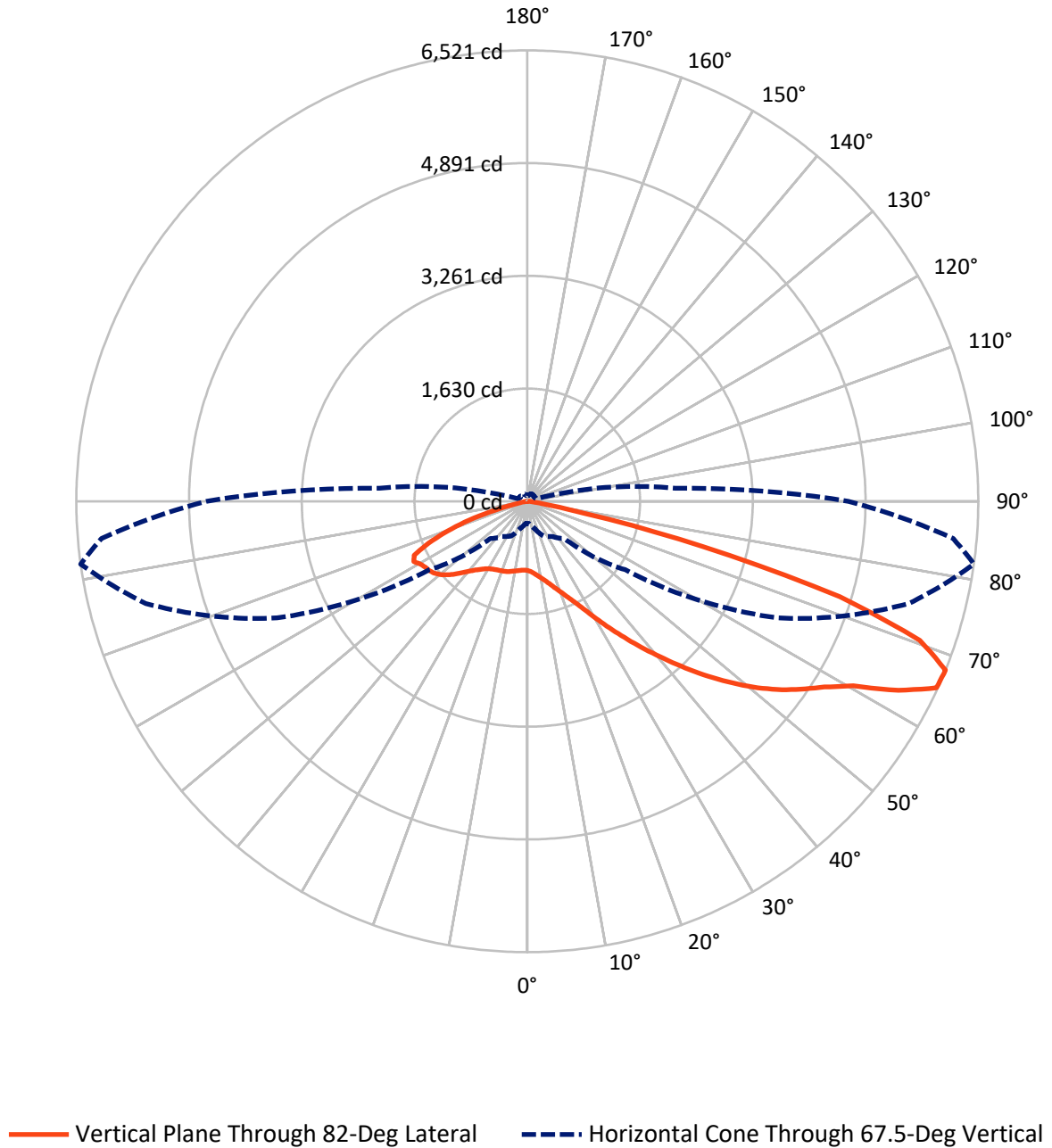
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 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	1094.6	0.0	1094.6
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	4948.4	0.0	4948.4
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	6043.0	0.0	6043.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.2	1.5
10°-20°	231.8	3.8
20°-30°	371.2	6.1
30°-40°	656.4	10.9
40°-50°	1150.2	19.0
50°-60°	1534.0	25.4
60°-70°	1428.1	23.6
70°-80°	548.1	9.1
80°-90°	34.0	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°	6043.0	100.0
0°-180°	6043.0	100.0

**Coefficient of Utilization**



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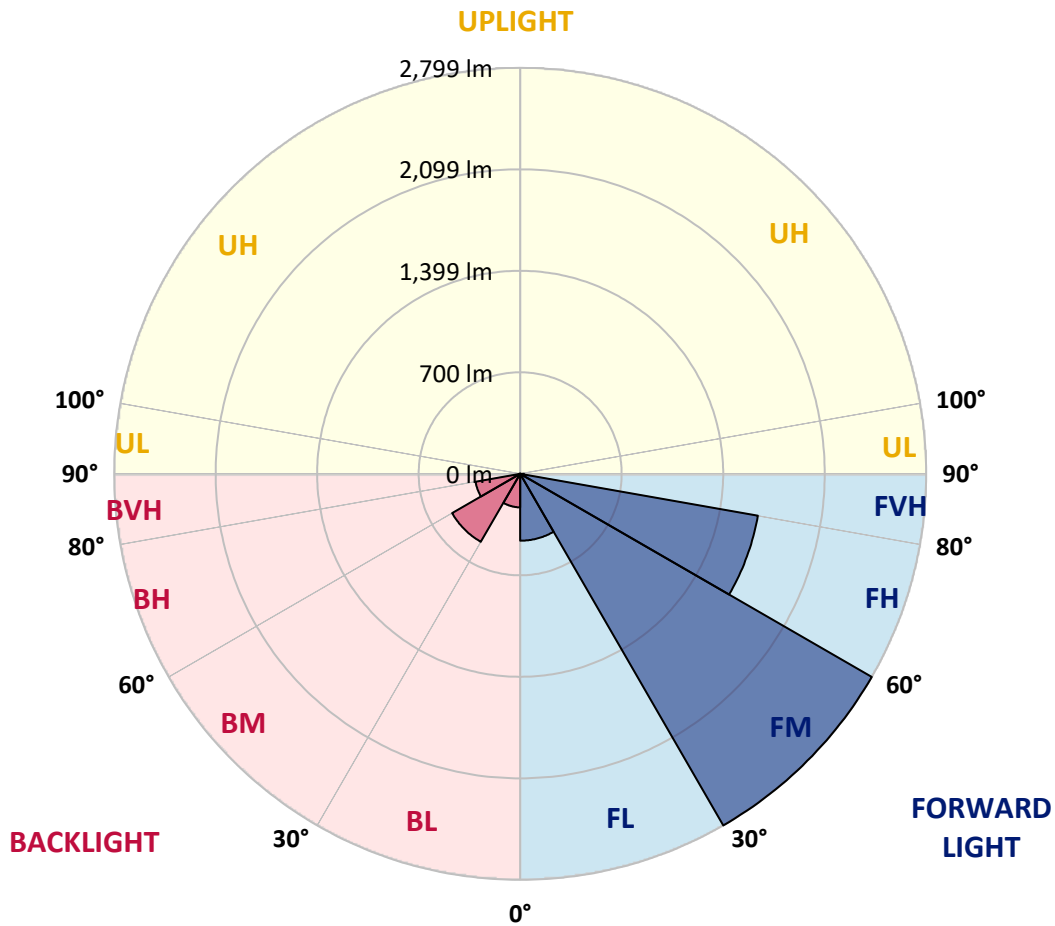
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	461.0	7.6			
FM (30°-60°)	2798.9	46.3			
FH (60°-80°)	1663.7	27.5			G1/1800
FVH (80°-90°)	24.8	0.4			G1/100
BL (0°-30°)	231.2	3.8	B1/500		
BM (30°-60°)	541.7	9.0	B1/1000		
BH (60°-80°)	312.4	5.2	B1/500		G1/500
BVH (80°-90°)	9.3	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°	1001.1	1001.1	1001.1	1001.1	1001.1	1001.1	1001.1	1001.1	1001.1	1001.1	1001.1
2.5°	1058.1	1064.2	1060.7	1059.0	1055.9	1051.6	1048.1	1037.2	1025.9	1018.5	1015.9
5°	1079.4	1085.5	1085.1	1086.8	1089.0	1090.3	1089.4	1077.3	1061.2	1048.5	1041.1
7.5°	1061.2	1068.1	1073.8	1082.5	1097.7	1113.8	1121.6	1119.0	1102.5	1085.1	1076.0
10°	1009.4	1016.8	1030.3	1050.7	1082.9	1117.7	1146.9	1160.4	1149.9	1130.8	1118.2
12.5°	914.5	921.9	948.5	992.9	1046.8	1107.3	1163.0	1199.1	1201.7	1182.5	1167.8
15°	807.9	815.3	843.6	899.3	981.5	1078.6	1171.7	1240.0	1263.0	1246.5	1228.7
17.5°	741.8	748.3	769.7	814.5	900.2	1021.1	1168.6	1283.5	1336.1	1323.1	1301.8
20°	721.8	727.5	737.5	768.8	840.1	961.5	1148.6	1324.4	1414.9	1407.5	1383.6
22.5°	743.1	748.3	751.4	765.3	810.1	922.4	1123.4	1366.2	1506.2	1507.1	1478.0
25°	792.3	797.5	794.0	802.7	822.3	910.2	1113.8	1415.3	1621.1	1630.7	1597.6
27.5°	873.2	873.6	865.4	864.9	868.0	928.5	1123.8	1468.0	1766.0	1783.8	1742.9
30°	1035.5	1029.0	997.2	962.8	947.2	983.3	1151.7	1530.2	1937.0	1968.7	1917.4
32.5°	1285.7	1276.1	1217.8	1135.6	1052.9	1071.6	1201.7	1601.1	2123.2	2180.6	2118.0
35°	1557.2	1554.5	1493.6	1371.4	1226.9	1197.3	1283.1	1694.2	2326.4	2417.7	2343.3
37.5°	1809.5	1808.2	1773.4	1629.4	1453.6	1372.7	1413.6	1816.0	2543.9	2676.2	2588.3
40°	2040.1	2044.0	2009.2	1880.4	1703.3	1597.6	1591.1	1966.6	2785.8	2957.7	2853.3
42.5°	2239.4	2243.7	2208.5	2113.2	1950.0	1846.5	1809.1	2151.0	3022.1	3260.1	3136.5
45°	2374.7	2401.6	2396.4	2320.3	2203.2	2095.8	2071.0	2382.5	3291.4	3580.7	3435.8
47.5°	2413.0	2437.8	2476.9	2487.4	2416.0	2310.3	2339.9	2661.4	3563.7	3901.8	3736.9
50°	2318.5	2341.6	2423.0	2531.3	2580.9	2548.3	2601.3	2960.3	3842.6	4222.0	4032.3
52.5°	2132.3	2155.8	2258.5	2429.9	2632.2	2734.9	2863.7	3254.8	4112.8	4525.3	4312.1
55°	1863.0	1887.8	2019.6	2213.7	2534.3	2811.9	3082.5	3549.0	4360.4	4798.1	4564.4
57.5°	1496.7	1515.0	1652.0	1923.5	2288.1	2735.4	3244.0	3870.0	4593.6	5066.1	4814.6
60°	975.5	991.5	1150.8	1453.6	1880.0	2479.5	3276.2	4228.1	4903.4	5414.6	5151.8
62.5°	648.7	659.6	754.0	976.3	1324.0	1988.3	3087.8	4514.0	5357.6	6021.1	5730.0
65°	445.1	456.0	550.4	705.3	855.4	1315.2	2546.1	4476.1	5769.2	6502.7	6158.6
67.5°	317.6	326.7	406.8	553.0	619.1	764.0	1726.0	3992.3	5710.0	6521.0	6181.6
70°	227.5	232.8	298.9	430.7	492.1	459.0	959.8	3053.4	4999.5	6021.5	5710.9
72.5°	159.2	161.0	207.5	328.1	396.4	335.0	456.8	2035.7	3781.3	4726.3	4427.4
75°	107.9	110.1	139.7	240.6	318.0	255.8	241.9	1091.6	2219.8	2616.1	2345.1
77.5°	66.1	67.0	90.1	164.5	238.0	194.9	155.8	462.5	858.8	843.2	718.8
80°	37.4	37.4	57.4	102.2	162.3	125.7	109.2	196.7	271.9	238.9	210.6
82.5°	20.9	21.3	41.8	63.5	107.5	74.4	60.0	90.9	117.5	104.0	90.5
85°	8.7	9.6	25.7	30.0	51.3	37.0	24.4	38.3	43.5	38.7	28.3
87.5°	0.9	1.3	7.8	5.7	6.1	7.4	3.5	7.4	6.1	6.1	4.4
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°	1001.1	1001.1	1001.1	1001.1	1001.1	1001.1	1001.1	1001.1	1001.1	1001.1	1001.1
2.5°	1007.6	1001.1	984.6	965.4	940.2	928.0	911.5	900.2	890.6	891.5	882.8
5°	1027.2	1010.7	973.7	927.6	870.2	829.3	785.8	755.7	731.4	726.1	714.4
7.5°	1054.2	1028.1	963.3	880.2	783.1	709.6	643.9	601.7	571.7	562.1	552.6
10°	1089.0	1051.2	949.8	820.6	680.9	587.4	516.9	483.8	463.4	456.4	451.2
12.5°	1129.5	1077.7	931.9	747.9	575.6	485.6	440.7	424.2	417.7	415.5	414.2
15°	1180.4	1110.8	905.0	661.8	486.4	423.3	404.2	402.0	402.9	402.0	401.6
17.5°	1240.9	1146.9	861.0	573.0	426.4	391.6	384.6	386.4	388.5	388.1	387.2
20°	1307.0	1182.5	804.9	494.3	385.5	368.9	365.0	366.8	368.5	367.6	367.2
22.5°	1382.3	1220.8	742.7	432.9	358.1	348.1	343.7	344.1	344.1	342.4	341.5
25°	1472.3	1263.0	677.4	389.4	337.2	329.4	324.1	322.4	319.8	314.6	313.7
27.5°	1579.8	1307.9	614.8	358.9	320.7	313.3	307.2	302.8	296.3	287.6	286.7
30°	1700.7	1362.2	561.7	339.8	307.6	300.2	293.2	286.7	277.1	266.3	265.4
32.5°	1843.0	1420.5	523.0	327.2	295.9	288.0	279.8	271.9	261.5	250.6	251.0
35°	2012.7	1491.0	500.3	318.5	286.7	276.3	267.1	258.4	250.6	241.0	240.2
37.5°	2196.7	1565.9	493.4	314.1	280.6	264.5	254.1	248.0	247.1	241.5	241.0
40°	2398.2	1654.6	498.6	311.5	274.1	253.2	241.9	240.6	242.8	232.8	233.2
42.5°	2611.4	1759.9	507.3	308.5	265.0	241.9	231.0	231.0	229.3	215.4	215.4
45°	2841.9	1881.3	516.0	301.1	254.1	230.6	222.3	219.3	211.9	198.4	198.0
47.5°	3074.3	2004.9	522.5	287.6	241.0	221.0	213.6	206.7	195.8	183.6	183.2
50°	3294.9	2115.8	515.6	267.6	226.2	211.9	204.1	194.5	182.7	174.5	173.2
52.5°	3492.0	2212.0	486.0	244.1	210.6	202.3	195.4	185.3	175.8	167.1	166.2
55°	3663.4	2289.8	433.8	221.9	196.7	194.0	187.1	174.5	161.4	154.0	153.1
57.5°	3827.8	2349.0	368.5	203.6	184.0	184.9	174.5	163.2	151.0	143.1	142.3
60°	4046.7	2428.2	302.4	186.6	170.6	173.2	161.9	153.6	138.4	128.3	127.0
62.5°	4396.5	2551.3	240.2	165.8	154.9	155.8	151.0	141.0	122.7	110.9	110.1
65°	4674.1	2506.1	189.3	143.1	137.1	138.4	138.4	127.5	107.9	94.4	93.1
67.5°	4642.7	2145.8	151.0	121.0	120.1	121.0	124.0	114.9	95.7	84.8	83.1
70°	4276.8	1706.8	121.0	100.5	104.4	102.2	110.9	104.9	86.1	75.3	74.0
72.5°	3489.8	1229.5	92.2	83.1	80.1	83.5	100.1	94.4	71.8	59.6	58.3
75°	2039.2	656.1	68.7	65.7	57.9	69.6	88.8	80.5	54.8	43.9	42.6
77.5°	663.9	228.9	50.5	48.3	43.1	56.1	75.7	67.9	44.8	34.8	33.5
80°	177.9	69.2	34.4	31.8	27.8	41.8	60.0	54.0	32.2	22.6	22.2
82.5°	71.4	29.2	20.0	17.8	15.2	28.7	47.4	43.5	23.9	14.4	14.4
85°	23.1	9.6	7.4	5.7	7.0	17.8	28.3	29.6	17.0	7.4	5.7
87.5°	3.0	1.3	1.3	1.7	1.3	3.0	8.7	8.3	4.8	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)