

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: P882109

Luminaire Tested: **NAV-SB1D-827-U-T3**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882109  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1D-827-U-T3  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 80 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

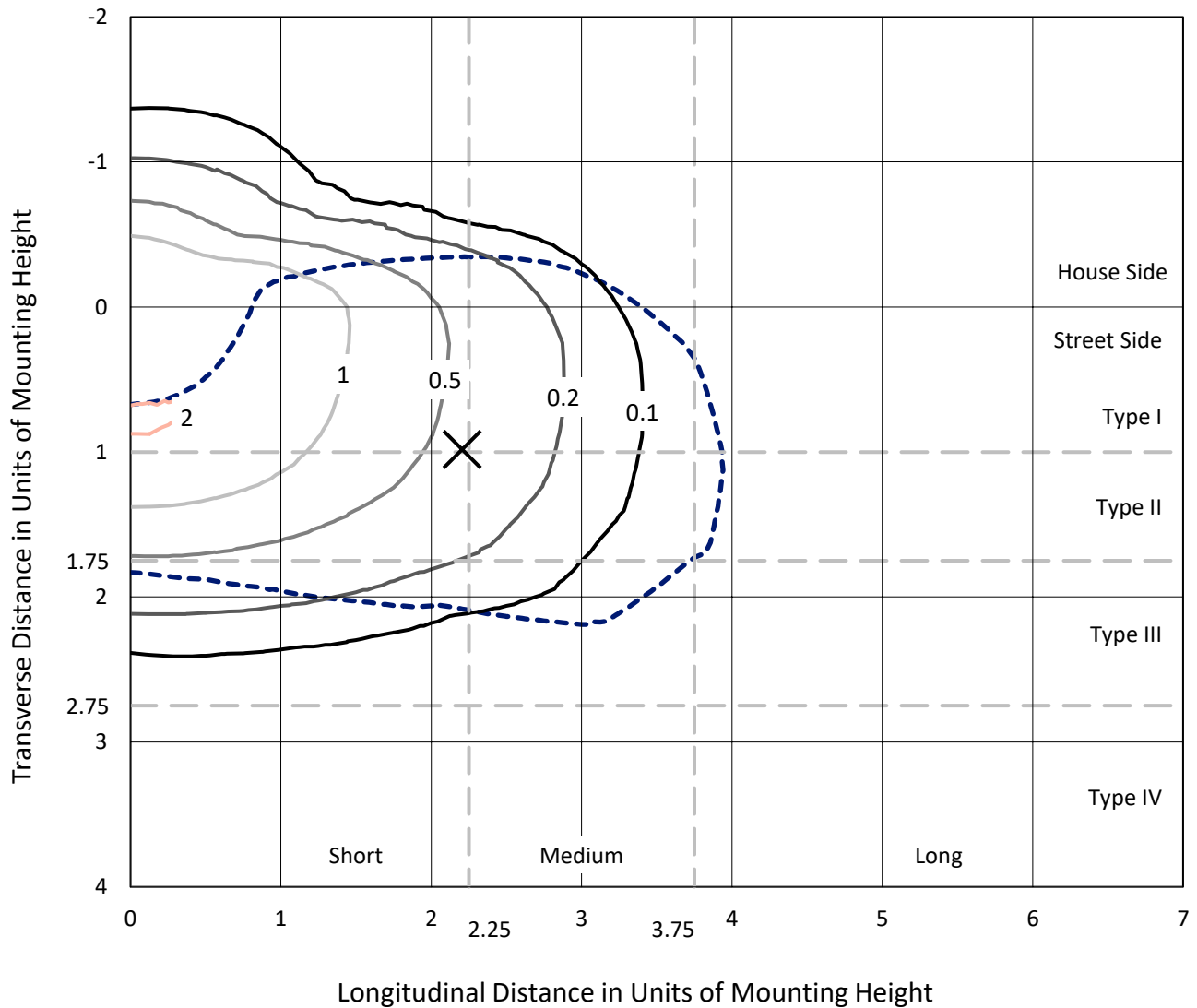
Lumens per Lamp: N/A  
Luminaire Lumens: 8281 lumens  
Efficiency: N/A  
Efficacy: 104.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 79.6  
Input Voltage (V): 120.0  
Input Current (Ain): 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

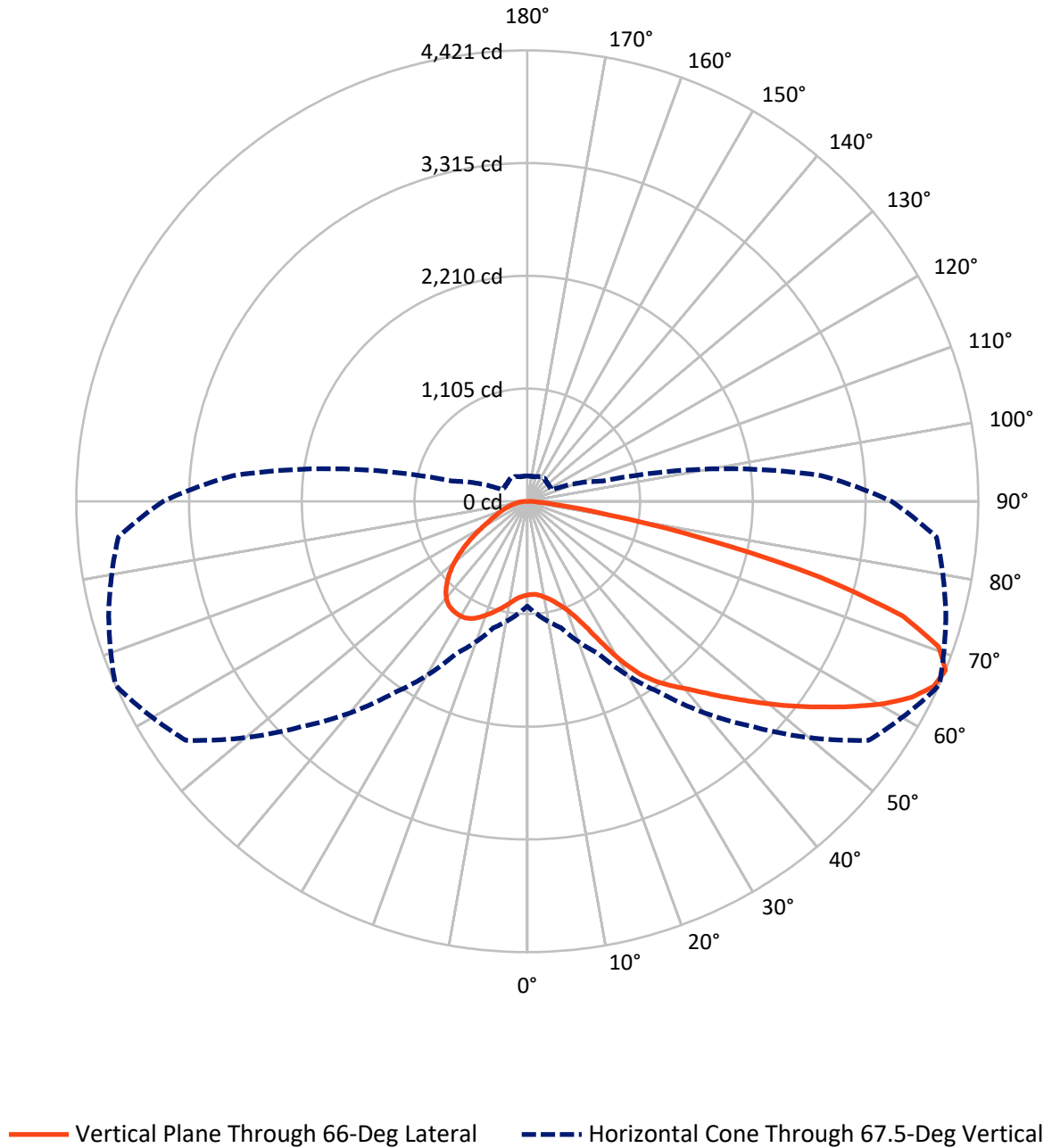
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2059.0	0.0	2059.0
	% Fixture	24.9	0.0	24.9
<b>Street Side</b>	Lumens	6222.0	0.0	6222.0
	% Fixture	75.1	0.0	75.1
<b>Total</b>	Lumens	8281.0	0.0	8281.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.1	1.1
10°-20°	300.9	3.6
20°-30°	579.9	7.0
30°-40°	1016.8	12.3
40°-50°	1511.6	18.3
50°-60°	1916.1	23.1
60°-70°	1874.8	22.6
70°-80°	894.3	10.8
80°-90°	95.6	1.2
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°	8281.0	100.0
0°-180°	8281.0	100.0

**Coefficient of Utilization**



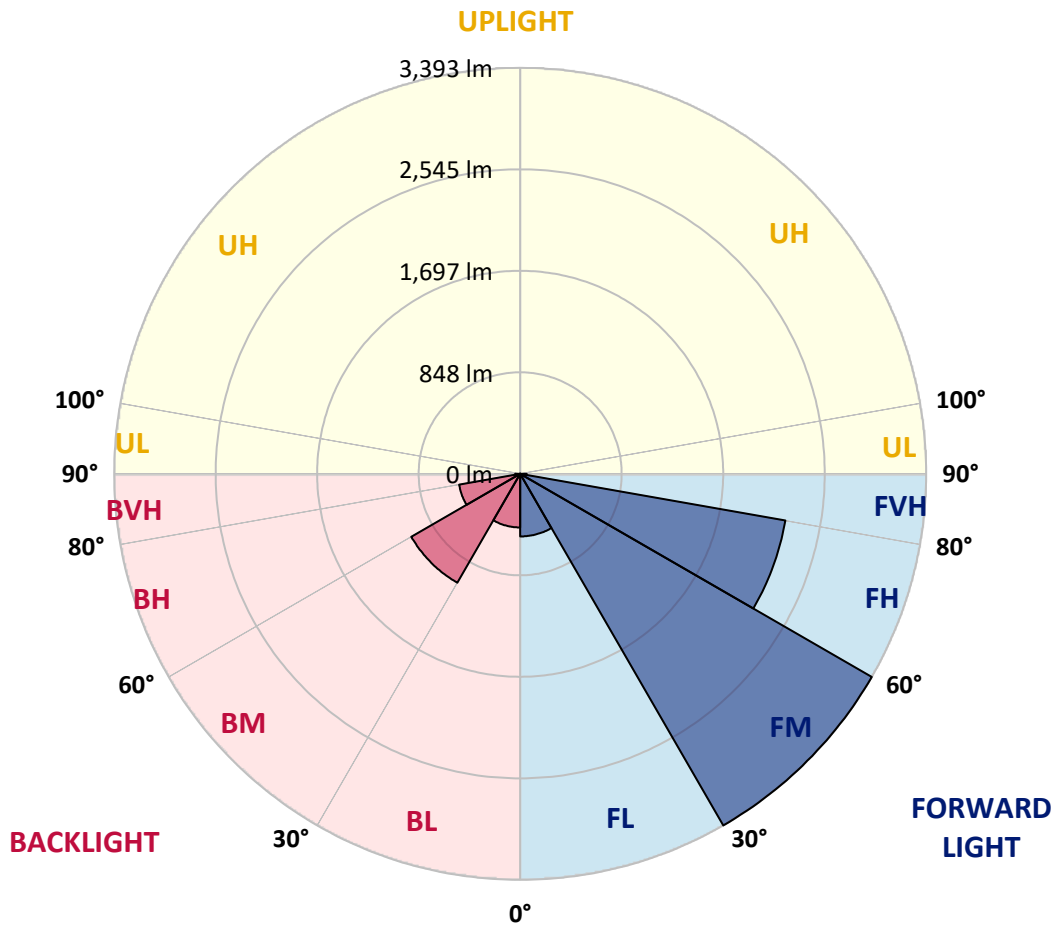
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	523.3	6.3			
FM (30°-60°)	3393.5	41.0			
FH (60°-80°)	2251.0	27.2			G2/5000
FVH (80°-90°)	54.2	0.7			G1/100
BL (0°-30°)	448.5	5.4	B1/500		
BM (30°-60°)	1051.0	12.7	B2/2500		
BH (60°-80°)	518.2	6.3	B2/1000		G2/1000
BVH (80°-90°)	41.4	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	918.5	918.5	918.5	918.5	918.5	918.5	918.5	918.5	918.5	918.5	918.5
2.5°	908.9	914.1	912.8	910.6	910.2	911.1	912.4	913.7	913.3	915.4	918.9
5°	906.3	911.5	911.1	911.1	912.8	916.3	918.5	920.6	918.5	921.1	925.9
7.5°	908.0	911.9	913.7	915.4	919.8	926.3	931.5	936.3	933.7	936.7	942.8
10°	930.2	933.3	935.0	935.0	938.1	945.4	950.7	959.4	957.2	962.0	969.8
12.5°	970.7	973.7	973.7	972.0	974.2	978.9	980.7	990.3	986.3	994.2	1002.0
15°	1020.3	1026.4	1021.6	1018.5	1019.4	1024.2	1023.8	1031.2	1027.2	1033.8	1040.7
17.5°	1075.1	1082.9	1075.1	1074.7	1072.9	1078.1	1078.6	1085.1	1078.1	1082.9	1087.7
20°	1139.9	1150.8	1144.3	1146.5	1142.5	1144.7	1146.9	1156.5	1145.6	1149.1	1147.8
22.5°	1231.3	1244.4	1237.4	1245.7	1243.0	1241.3	1240.9	1257.8	1240.9	1242.2	1229.6
25°	1364.4	1380.1	1367.9	1379.2	1379.2	1384.9	1391.4	1413.2	1384.9	1376.6	1344.0
27.5°	1561.1	1576.8	1552.8	1559.8	1557.6	1571.5	1564.6	1618.5	1588.1	1574.6	1508.9
30°	1797.8	1825.6	1780.4	1778.6	1776.5	1798.7	1808.7	1844.3	1813.4	1800.0	1720.8
32.5°	2053.6	2082.8	2028.8	2013.2	2004.9	2018.4	2010.1	2038.8	2017.5	1996.6	1898.7
35°	2324.2	2353.0	2301.6	2271.2	2238.1	2209.8	2180.2	2187.6	2167.6	2135.9	2034.5
37.5°	2580.1	2632.7	2578.3	2545.7	2484.8	2429.5	2346.9	2312.5	2293.8	2264.6	2162.4
40°	2840.7	2870.7	2829.4	2801.5	2735.4	2648.8	2516.6	2443.9	2418.7	2390.4	2303.8
42.5°	3032.6	3061.3	3039.1	3020.0	2968.2	2867.7	2696.7	2605.7	2569.2	2537.4	2463.9
45°	3184.8	3206.2	3192.2	3199.2	3177.0	3079.6	2883.3	2779.3	2741.5	2702.8	2644.9
47.5°	3246.2	3268.8	3291.0	3332.3	3370.2	3298.4	3083.9	2967.3	2927.3	2887.7	2830.7
50°	3239.2	3262.3	3326.7	3414.6	3532.1	3508.1	3295.4	3167.4	3130.5	3085.2	3032.6
52.5°	3183.5	3209.6	3292.3	3438.5	3625.6	3665.2	3510.7	3374.1	3339.3	3285.4	3232.7
55°	3037.4	3053.0	3177.0	3384.1	3647.8	3774.8	3721.7	3594.3	3559.5	3484.2	3426.8
57.5°	2766.3	2788.9	2969.5	3237.5	3592.1	3849.2	3907.1	3825.7	3792.2	3683.9	3623.9
60°	2412.6	2448.7	2655.3	2991.2	3450.3	3848.8	4075.5	4053.3	4025.4	3880.6	3817.9
62.5°	2012.3	2054.1	2252.9	2643.2	3202.3	3739.6	4180.8	4243.9	4229.5	4062.0	3981.9
65°	1545.4	1574.2	1772.1	2192.8	2816.3	3505.1	4193.0	4373.9	4376.6	4199.9	4067.6
67.5°	1029.0	1111.7	1283.5	1645.5	2299.4	3121.8	4085.9	4395.3	4420.5	4247.3	4024.6
70°	502.1	610.9	779.2	1069.4	1645.5	2534.0	3806.2	4220.4	4276.5	4109.0	3767.9
72.5°	208.4	243.6	335.5	527.8	944.6	1709.9	3244.0	3746.1	3850.1	3640.8	3167.9
75°	140.5	152.3	191.9	270.6	430.3	843.2	2339.5	2793.3	2960.8	2749.8	2247.7
77.5°	108.3	115.7	139.7	189.3	255.8	318.9	1252.2	1683.4	1769.9	1638.5	1169.5
80°	85.3	90.9	104.4	137.9	181.4	170.6	426.8	762.7	812.7	681.8	375.9
82.5°	74.0	76.1	74.8	93.5	120.5	99.6	140.1	281.5	310.7	225.4	122.7
85°	53.5	59.6	62.2	57.9	64.0	50.5	57.4	99.6	109.6	97.9	69.2
87.5°	21.8	32.2	39.6	37.4	23.5	14.4	17.8	29.2	33.5	36.5	22.6
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°	918.5	918.5	918.5	918.5	918.5	918.5	918.5	918.5	918.5	918.5	918.5
2.5°	919.3	922.4	924.6	927.2	928.9	931.5	936.7	939.8	940.2	942.4	942.0
5°	927.6	932.0	936.7	943.7	951.5	958.1	968.1	975.0	977.6	979.8	979.4
7.5°	945.4	951.5	960.2	972.4	983.7	992.4	1004.6	1012.9	1021.2	1024.2	1024.6
10°	972.0	980.7	993.3	1009.8	1022.0	1033.3	1046.0	1052.9	1061.2	1064.7	1066.4
12.5°	1005.1	1014.2	1030.7	1053.8	1065.1	1072.9	1077.3	1075.5	1077.3	1080.3	1081.2
15°	1042.9	1052.9	1071.6	1096.4	1104.3	1097.3	1087.7	1079.0	1077.7	1078.6	1081.6
17.5°	1087.7	1095.1	1116.9	1137.8	1132.1	1103.4	1082.5	1068.6	1061.6	1059.4	1062.5
20°	1150.4	1150.4	1168.2	1181.3	1143.4	1094.7	1062.1	1039.4	1025.1	1019.0	1017.7
22.5°	1226.5	1219.6	1230.9	1221.7	1141.2	1070.3	1025.1	985.9	964.2	955.5	954.1
25°	1323.1	1314.8	1311.8	1255.2	1125.6	1031.6	958.1	910.6	891.5	886.7	887.6
27.5°	1468.9	1448.0	1408.4	1273.5	1096.9	970.7	879.7	835.8	824.9	825.4	826.7
30°	1662.9	1621.1	1524.1	1276.6	1049.9	884.5	799.7	768.4	763.1	765.3	772.7
32.5°	1842.6	1803.0	1642.5	1262.6	977.6	800.1	727.9	707.0	699.2	701.8	705.3
35°	1983.6	1972.7	1752.1	1243.0	888.9	720.9	663.5	645.7	630.4	627.0	629.6
37.5°	2116.7	2112.4	1834.3	1215.6	801.0	664.8	611.7	588.2	566.1	553.9	554.3
40°	2262.9	2258.5	1888.3	1173.4	723.1	616.1	565.2	534.3	506.9	484.7	486.9
42.5°	2427.4	2401.7	1914.0	1113.0	657.0	574.8	527.3	485.6	449.4	429.0	430.3
45°	2607.1	2549.2	1913.5	1035.9	601.3	536.9	486.9	427.7	394.2	375.0	374.2
47.5°	2797.6	2690.2	1890.0	950.7	547.3	495.1	424.2	379.0	356.8	345.0	342.4
50°	2994.3	2822.0	1850.0	852.8	492.1	447.7	385.1	354.2	337.2	326.3	322.4
52.5°	3179.2	2941.6	1801.7	741.8	436.0	401.6	367.6	343.7	325.9	313.7	308.5
55°	3351.1	3044.8	1733.4	628.3	390.3	370.7	359.4	339.4	318.9	304.6	298.9
57.5°	3503.8	3111.8	1615.5	521.7	357.6	349.4	350.7	332.0	308.5	296.3	288.5
60°	3630.8	3160.9	1441.0	422.9	331.1	328.5	337.2	318.0	290.6	276.7	270.6
62.5°	3707.0	3160.0	1227.0	346.3	308.5	309.3	319.4	300.6	272.8	259.7	255.8
65°	3700.4	3082.6	992.0	296.3	286.7	287.6	300.6	281.5	258.0	250.2	249.7
67.5°	3569.5	2893.8	761.0	263.7	262.8	266.7	281.9	268.4	248.9	248.0	249.3
70°	3214.9	2501.8	548.2	237.6	238.0	243.6	263.7	260.2	244.1	245.8	245.4
72.5°	2577.9	1907.4	368.1	210.1	210.6	219.7	246.3	253.7	239.3	262.4	265.8
75°	1716.9	1189.5	236.7	181.0	181.4	193.2	231.0	241.0	226.2	261.5	263.7
77.5°	824.9	534.7	171.4	152.3	152.3	163.2	199.7	215.8	192.7	203.2	186.2
80°	285.0	201.0	134.9	122.7	120.1	127.5	168.4	187.1	166.2	153.2	143.6
82.5°	112.3	104.4	108.3	95.3	86.6	91.4	131.0	154.5	122.3	110.5	110.1
85°	64.4	67.9	76.6	63.1	50.0	56.1	96.2	110.9	92.2	81.4	83.1
87.5°	17.4	23.9	35.2	32.6	22.6	23.9	45.7	61.3	53.1	40.9	42.2
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)