

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: P882219

Luminaire Tested: **NAV-SB2A-727-U-T3**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882219  
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-SB2A-727-U-T3  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

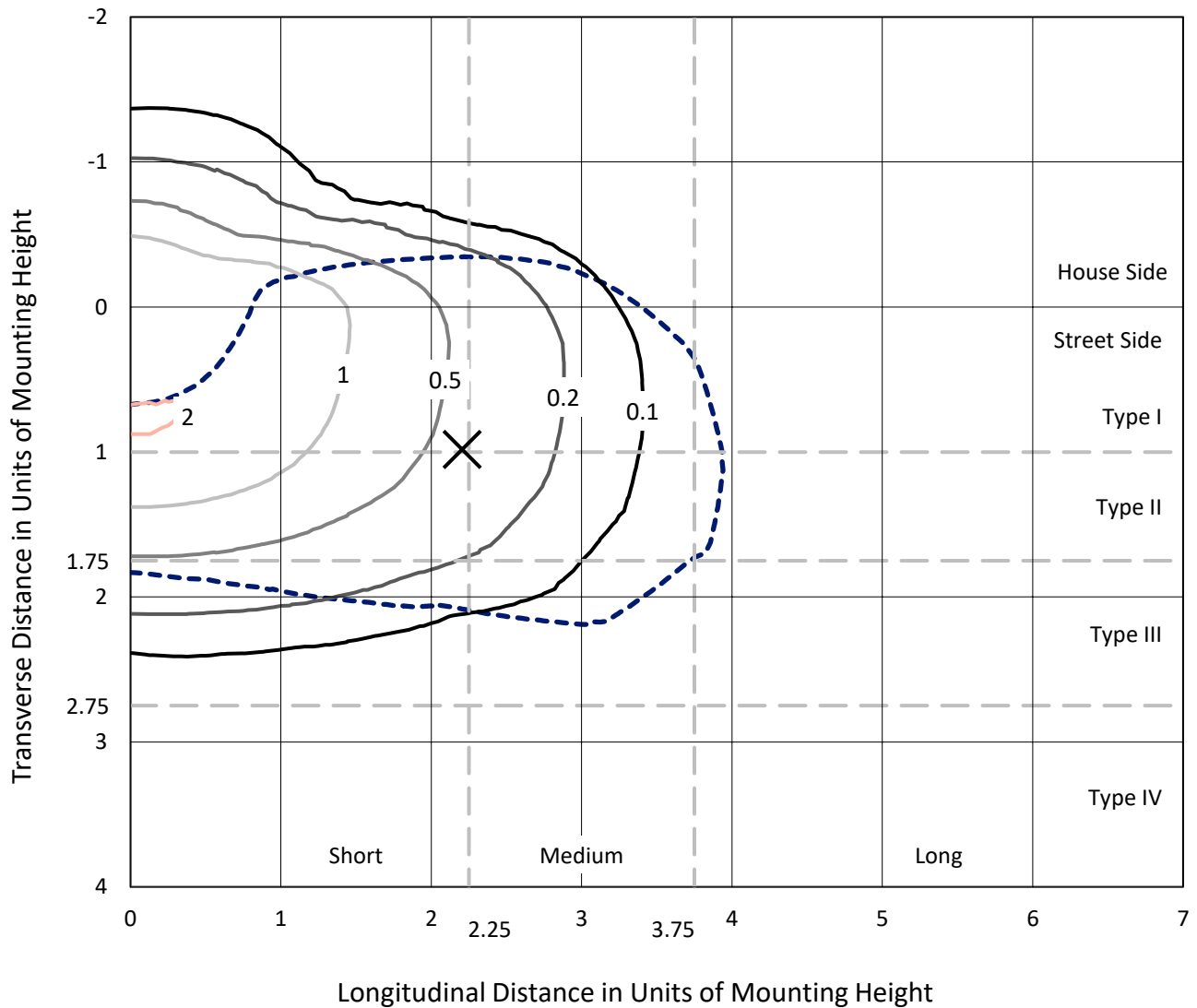
Lumens per Lamp: N/A  
Luminaire Lumens: 8291 lumens  
Efficiency: N/A  
Efficacy: 144.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 57.3  
Input Voltage (V): 120.0  
Input Current (Ain): 0.484  
Voltage Rise (V): NR  
Power Factor: 0.994  
Total Harmonic Distortion (THDi): 9.038  
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

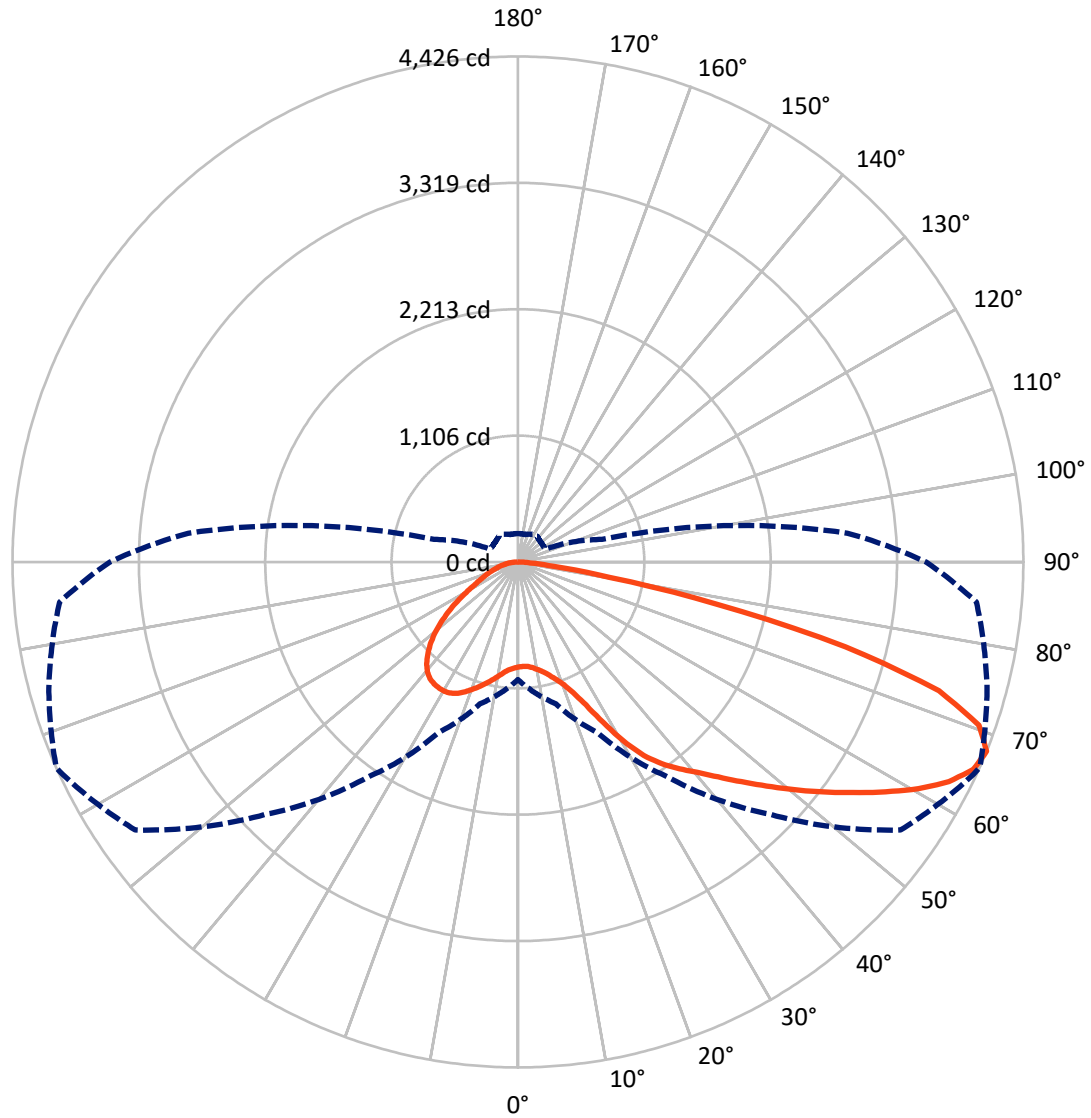
✕ Max cd  
 - - - 1/2 Max cd



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



— Vertical Plane Through 66-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2061.5	0.0	2061.5
	% Fixture	24.9	0.0	24.9
<b>Street Side</b>	Lumens	6229.5	0.0	6229.5
	% Fixture	75.1	0.0	75.1
<b>Total</b>	Lumens	8291.0	0.0	8291.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.2	1.1
10°-20°	301.2	3.6
20°-30°	580.6	7.0
30°-40°	1018.0	12.3
40°-50°	1513.4	18.3
50°-60°	1918.4	23.1
60°-70°	1877.1	22.6
70°-80°	895.4	10.8
80°-90°	95.7	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°	8291.0	100.0
0°-180°	8291.0	100.0

**Coefficient of Utilization**



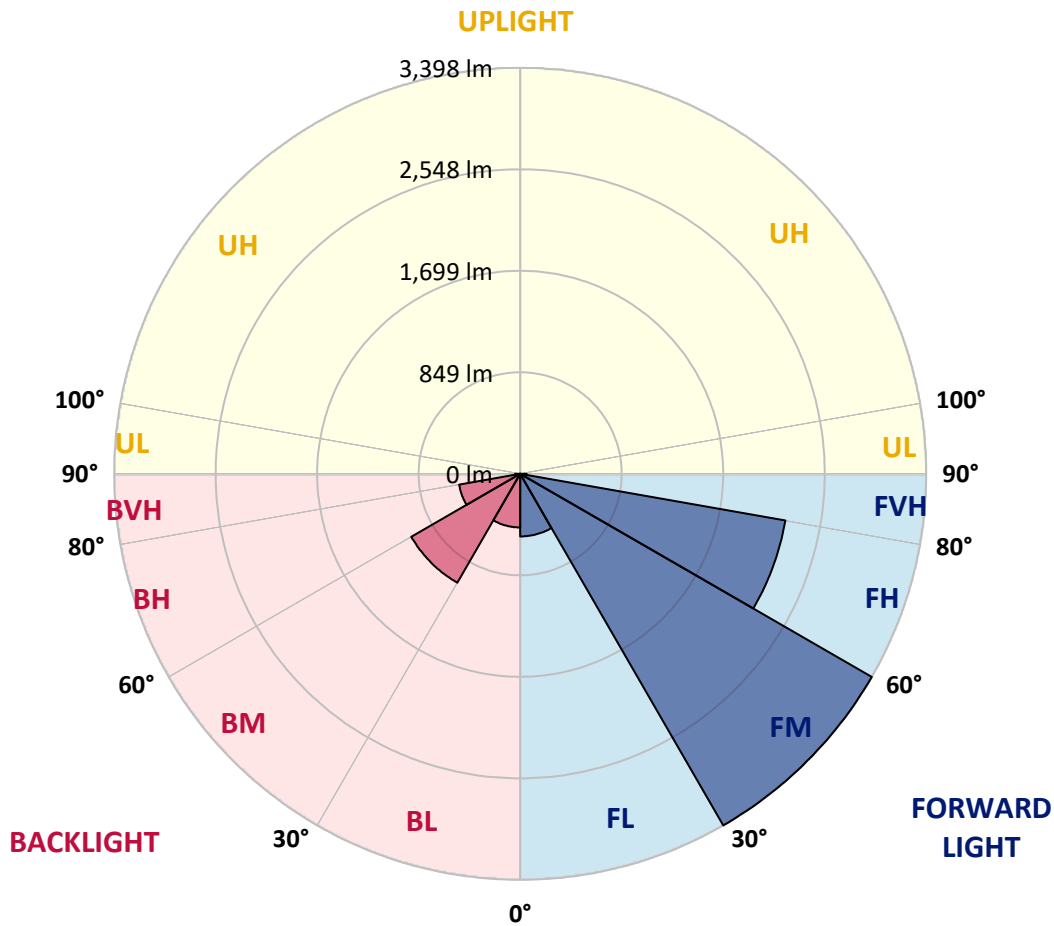
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	523.9	6.3			
FM (30°-60°)	3397.6	41.0			
FH (60°-80°)	2253.7	27.2			G2/5000
FVH (80°-90°)	54.3	0.7			G1/100
BL (0°-30°)	449.1	5.4	B1/500		
BM (30°-60°)	1052.2	12.7	B2/2500		
BH (60°-80°)	518.8	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°	919.6	919.6	919.6	919.6	919.6	919.6	919.6	919.6	919.6	919.6	919.6
2.5°	910.0	915.2	913.9	911.7	911.3	912.2	913.5	914.8	914.4	916.5	920.0
5°	907.4	912.6	912.2	912.2	913.9	917.4	919.6	921.8	919.6	922.2	927.0
7.5°	909.1	913.0	914.8	916.5	920.9	927.4	932.6	937.4	934.8	937.9	944.0
10°	931.3	934.4	936.1	936.1	939.2	946.6	951.8	960.5	958.4	963.1	971.0
12.5°	971.9	974.9	974.9	973.2	975.3	980.1	981.9	991.5	987.5	995.4	1003.2
15°	1021.5	1027.6	1022.8	1019.8	1020.6	1025.4	1025.0	1032.4	1028.5	1035.0	1042.0
17.5°	1076.4	1084.2	1076.4	1076.0	1074.2	1079.5	1079.9	1086.4	1079.5	1084.2	1089.0
20°	1141.3	1152.2	1145.7	1147.8	1143.9	1146.1	1148.3	1157.9	1147.0	1150.5	1149.2
22.5°	1232.8	1245.9	1238.9	1247.2	1244.5	1242.8	1242.4	1259.4	1242.4	1243.7	1231.0
25°	1366.1	1381.8	1369.6	1380.9	1380.9	1386.6	1393.1	1414.9	1386.6	1378.3	1345.6
27.5°	1563.0	1578.7	1554.7	1561.7	1559.5	1573.4	1566.5	1620.5	1590.0	1576.5	1510.7
30°	1800.0	1827.8	1782.5	1780.8	1778.6	1800.8	1810.8	1846.6	1815.6	1802.1	1722.9
32.5°	2056.1	2085.3	2031.3	2015.6	2007.3	2020.8	2012.5	2041.3	2019.9	1999.0	1901.0
35°	2327.1	2355.8	2304.4	2273.9	2240.8	2212.5	2182.9	2190.3	2170.2	2138.4	2036.9
37.5°	2583.2	2635.9	2581.4	2548.8	2487.8	2432.5	2349.7	2315.3	2296.6	2267.4	2165.0
40°	2844.1	2874.2	2832.8	2804.9	2738.7	2652.0	2519.6	2446.8	2421.6	2393.3	2306.6
42.5°	3036.2	3065.0	3042.8	3023.6	2971.8	2871.1	2699.9	2608.9	2572.3	2540.5	2466.9
45°	3188.7	3210.0	3196.1	3203.1	3180.9	3083.3	2886.8	2782.7	2744.8	2706.0	2648.1
47.5°	3250.1	3272.8	3295.0	3336.4	3374.3	3302.4	3087.6	2970.9	2930.8	2891.2	2834.1
50°	3243.1	3266.2	3330.7	3418.7	3536.3	3512.4	3299.3	3171.3	3134.2	3088.9	3036.2
52.5°	3187.4	3213.5	3296.3	3442.7	3630.0	3669.6	3515.0	3378.2	3343.3	3289.3	3236.6
55°	3041.0	3056.7	3180.9	3388.2	3652.2	3779.4	3726.2	3598.6	3563.8	3488.4	3430.9
57.5°	2769.6	2792.3	2973.1	3241.4	3596.4	3853.9	3911.8	3830.4	3796.8	3688.3	3628.2
60°	2415.5	2451.6	2658.6	2994.8	3454.4	3853.4	4080.4	4058.2	4030.3	3885.2	3822.5
62.5°	2014.7	2056.5	2255.6	2646.4	3206.1	3744.1	4185.8	4249.0	4234.6	4066.9	3986.7
65°	1547.3	1576.1	1774.3	2195.5	2819.7	3509.3	4198.0	4379.2	4381.8	4205.0	4072.6
67.5°	1030.2	1113.0	1285.1	1647.5	2302.2	3125.5	4090.9	4400.6	4425.8	4252.5	4029.4
70°	502.7	611.6	780.2	1070.7	1647.5	2537.0	3810.8	4225.5	4281.7	4113.9	3772.4
72.5°	208.7	243.9	335.9	528.4	945.7	1712.0	3247.9	3750.6	3854.7	3645.2	3171.7
75°	140.7	152.5	192.1	271.0	430.8	844.2	2342.3	2796.6	2964.4	2753.1	2250.4
77.5°	108.5	115.9	139.8	189.5	256.1	319.3	1253.7	1685.4	1772.1	1640.5	1170.9
80°	85.4	91.0	104.5	138.1	181.7	170.8	427.3	763.6	813.7	682.6	376.4
82.5°	74.1	76.2	74.9	93.7	120.7	99.8	140.3	281.8	311.0	225.6	122.8
85°	53.6	59.7	62.3	57.9	64.0	50.5	57.5	99.8	109.8	98.0	69.3
87.5°	21.8	32.2	39.6	37.5	23.5	14.4	17.9	29.2	33.5	36.6	22.7
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°	919.6	919.6	919.6	919.6	919.6	919.6	919.6	919.6	919.6	919.6	919.6
2.5°	920.5	923.5	925.7	928.3	930.0	932.6	937.9	940.9	941.4	943.5	943.1
5°	928.7	933.1	937.9	944.8	952.7	959.2	969.2	976.2	978.8	981.0	980.6
7.5°	946.6	952.7	961.4	973.6	984.9	993.6	1005.8	1014.1	1022.4	1025.4	1025.9
10°	973.2	981.9	994.5	1011.1	1023.3	1034.6	1047.2	1054.2	1062.5	1065.9	1067.7
12.5°	1006.3	1015.4	1032.0	1055.1	1066.4	1074.2	1078.6	1076.8	1078.6	1081.6	1082.5
15°	1044.2	1054.2	1072.9	1097.7	1105.6	1098.6	1089.0	1080.3	1079.0	1079.9	1082.9
17.5°	1089.0	1096.4	1118.2	1139.1	1133.5	1104.7	1083.8	1069.9	1062.9	1060.7	1063.8
20°	1151.8	1151.8	1169.6	1182.7	1144.8	1096.0	1063.3	1040.7	1026.3	1020.2	1018.9
22.5°	1228.0	1221.0	1232.4	1223.2	1142.6	1071.6	1026.3	987.1	965.3	956.6	955.3
25°	1324.7	1316.4	1313.4	1256.7	1126.9	1032.8	959.2	911.7	892.6	887.8	888.7
27.5°	1470.6	1449.7	1410.1	1275.0	1098.2	971.9	880.8	836.8	825.9	826.4	827.7
30°	1664.9	1623.1	1526.0	1278.1	1051.1	885.6	800.7	769.3	764.1	766.2	773.7
32.5°	1844.8	1805.2	1644.4	1264.2	978.8	801.1	728.8	707.9	700.0	702.6	706.1
35°	1986.0	1975.1	1754.2	1244.5	890.0	721.8	664.3	646.5	631.2	627.7	630.3
37.5°	2119.3	2114.9	1836.5	1217.1	802.0	665.6	612.5	589.0	566.7	554.5	555.0
40°	2265.6	2261.3	1890.6	1174.9	724.0	616.8	565.9	534.9	507.5	485.3	487.5
42.5°	2430.3	2404.6	1916.3	1114.3	657.8	575.4	528.0	486.1	450.0	429.5	430.8
45°	2610.2	2552.3	1915.8	1037.2	602.0	537.5	487.5	428.2	394.7	375.5	374.6
47.5°	2801.0	2693.4	1892.3	951.8	548.0	495.7	424.7	379.4	357.2	345.4	342.8
50°	2997.9	2825.4	1852.2	853.8	492.7	448.2	385.5	354.6	337.6	326.7	322.8
52.5°	3183.0	2945.2	1803.9	742.7	436.5	402.1	368.1	344.1	326.3	314.1	308.9
55°	3355.1	3048.4	1735.5	629.0	390.7	371.1	359.8	339.8	319.3	304.9	299.3
57.5°	3508.0	3115.5	1617.4	522.3	358.1	349.8	351.1	332.4	308.9	296.7	288.8
60°	3635.2	3164.7	1442.8	423.4	331.5	328.9	337.6	318.4	291.0	277.1	271.0
62.5°	3711.4	3163.9	1228.4	346.7	308.9	309.7	319.7	301.0	273.1	260.1	256.1
65°	3704.9	3086.3	993.2	296.7	287.1	287.9	301.0	281.8	258.3	250.5	250.0
67.5°	3573.8	2897.3	761.9	264.0	263.1	267.0	282.3	268.8	249.2	248.3	249.6
70°	3218.8	2504.8	548.9	237.8	238.3	243.9	264.0	260.5	244.4	246.1	245.7
72.5°	2581.0	1909.7	368.5	210.4	210.8	220.0	246.6	254.0	239.6	262.7	266.2
75°	1718.9	1191.0	237.0	181.2	181.7	193.4	231.3	241.3	226.5	261.8	264.0
77.5°	825.9	535.4	171.6	152.5	152.5	163.4	199.9	216.1	193.0	203.4	186.4
80°	285.3	201.3	135.0	122.8	120.2	127.6	168.6	187.3	166.4	153.3	143.8
82.5°	112.4	104.5	108.5	95.4	86.7	91.5	131.1	154.6	122.4	110.6	110.2
85°	64.5	68.0	76.7	63.2	50.1	56.2	96.3	111.1	92.4	81.5	83.2
87.5°	17.4	24.0	35.3	32.7	22.7	24.0	45.7	61.4	53.1	40.9	42.3
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)