

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: P882299

Luminaire Tested: **NAV-SB2A-835-U-T3**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882299  
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-835-U-T3  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7719 lumens  
Efficiency: N/A  
Efficacy: 134.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G2

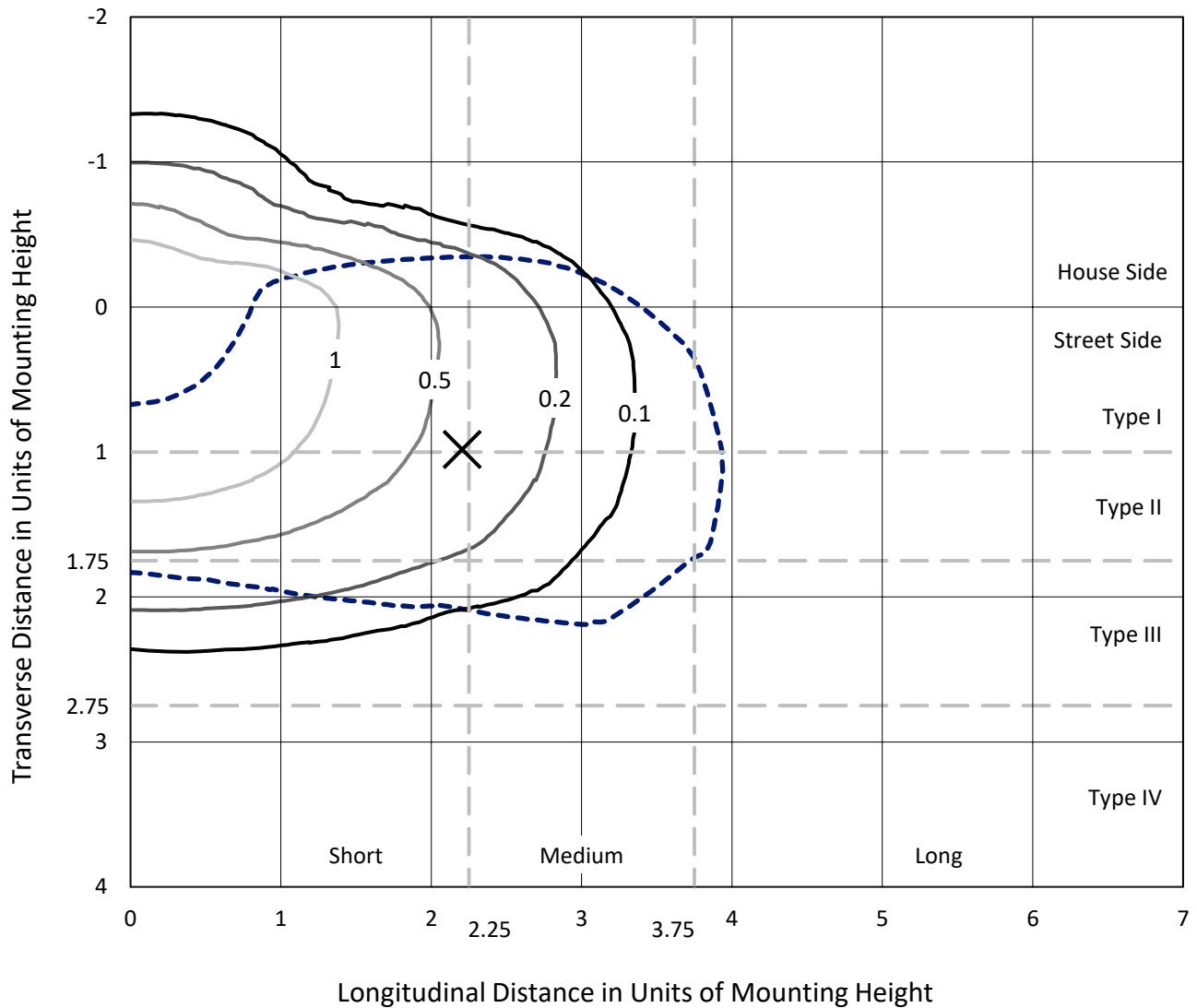
Input Watts (W): 57.3  
Input Voltage (V): 120.0  
Input Current (Ain): 0.484  
Voltage Rise (V): NR  
Power Factor: 0.994  
Total Harmonic Distortion (THDi): 9.038  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

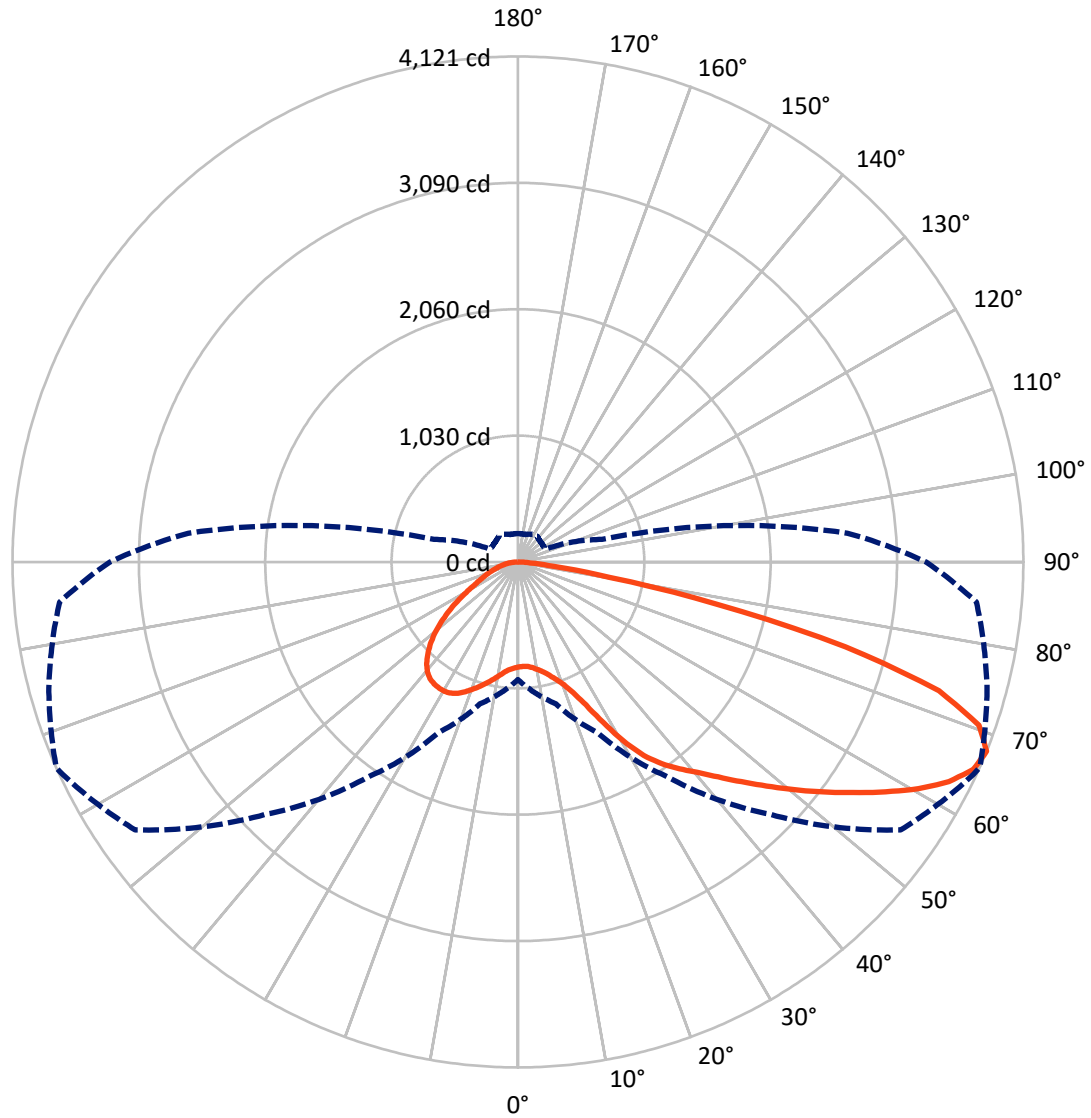
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 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	1919.3	0.0	1919.3
	% Fixture	24.9	0.0	24.9
<b>Street Side</b>	Lumens	5799.7	0.0	5799.7
	% Fixture	75.1	0.0	75.1
<b>Total</b>	Lumens	7719.0	0.0	7719.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.9	1.1
10°-20°	280.4	3.6
20°-30°	540.5	7.0
30°-40°	947.8	12.3
40°-50°	1409.0	18.3
50°-60°	1786.0	23.1
60°-70°	1747.6	22.6
70°-80°	833.6	10.8
80°-90°	89.1	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°	7719.0	100.0
0°-180°	7719.0	100.0

**Coefficient of Utilization**



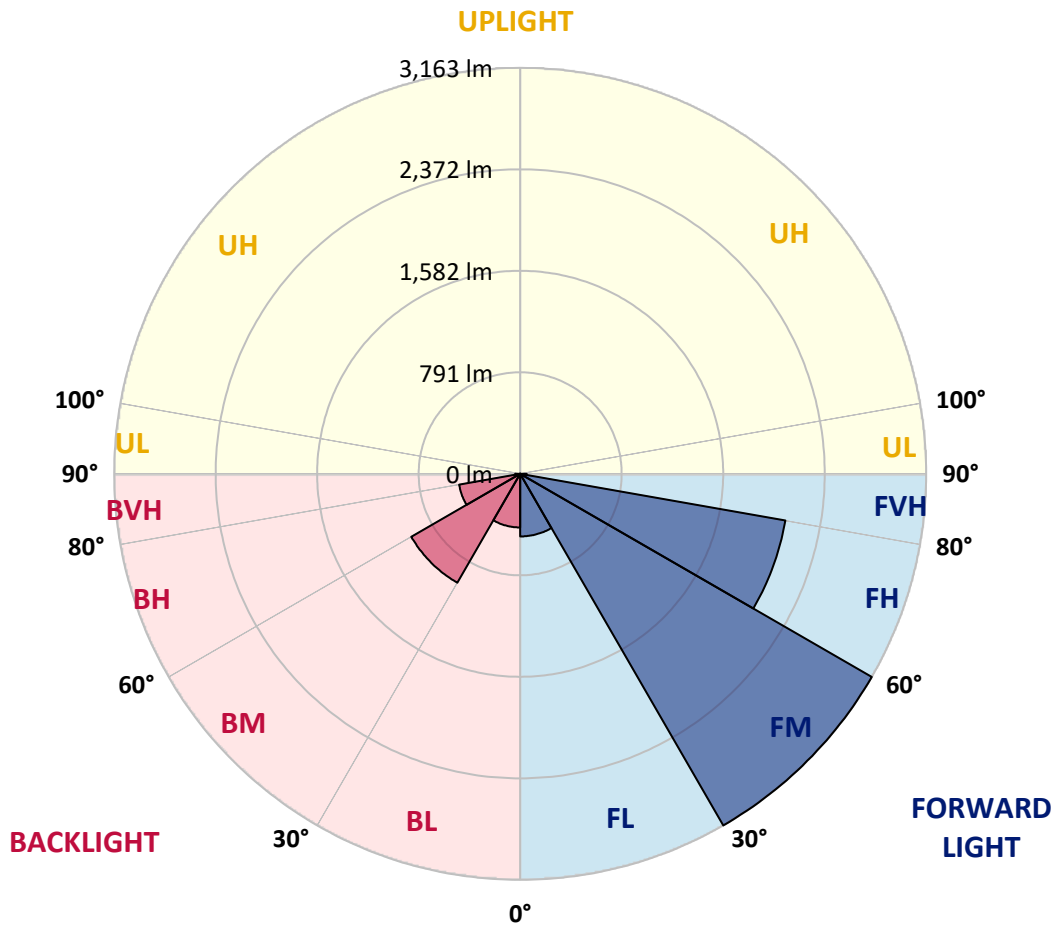
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	487.8	6.3			
FM (30°-60°)	3163.2	41.0			
FH (60°-80°)	2098.2	27.2			G2/5000
FVH (80°-90°)	50.5	0.7			G1/100
BL (0°-30°)	418.1	5.4	B1/500		
BM (30°-60°)	979.6	12.7	B1/1000		
BH (60°-80°)	483.0	6.3	B1/500		G1/500
BVH (80°-90°)	38.6	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	856.1	856.1	856.1	856.1	856.1	856.1	856.1	856.1	856.1	856.1	856.1
2.5°	847.2	852.1	850.9	848.8	848.4	849.2	850.5	851.7	851.3	853.3	856.5
5°	844.8	849.7	849.2	849.2	850.9	854.1	856.1	858.2	856.1	858.6	863.0
7.5°	846.4	850.1	851.7	853.3	857.4	863.4	868.3	872.8	870.3	873.2	878.9
10°	867.1	869.9	871.6	871.6	874.4	881.3	886.2	894.3	892.2	896.7	904.0
12.5°	904.8	907.6	907.6	906.0	908.1	912.5	914.1	923.1	919.4	926.7	934.0
15°	951.0	956.7	952.3	949.4	950.2	954.7	954.3	961.2	957.5	963.6	970.1
17.5°	1002.1	1009.4	1002.1	1001.7	1000.1	1005.0	1005.4	1011.5	1005.0	1009.4	1013.9
20°	1062.6	1072.7	1066.6	1068.7	1065.0	1067.0	1069.1	1078.0	1067.8	1071.1	1069.9
22.5°	1147.7	1159.9	1153.4	1161.1	1158.7	1157.1	1156.7	1172.5	1156.7	1157.9	1146.1
25°	1271.8	1286.4	1275.1	1285.6	1285.6	1290.9	1297.0	1317.3	1290.9	1283.2	1252.8
27.5°	1455.2	1469.8	1447.4	1453.9	1451.9	1464.9	1458.4	1508.7	1480.3	1467.7	1406.5
30°	1675.8	1701.7	1659.6	1657.9	1655.9	1676.6	1685.9	1719.2	1690.4	1677.8	1604.0
32.5°	1914.2	1941.4	1891.1	1876.5	1868.8	1881.4	1873.7	1900.5	1880.6	1861.1	1769.9
35°	2166.5	2193.3	2145.4	2117.0	2086.2	2059.8	2032.3	2039.2	2020.5	1990.9	1896.4
37.5°	2405.0	2454.0	2403.4	2372.9	2316.2	2264.7	2187.6	2155.6	2138.1	2110.9	2015.6
40°	2647.9	2675.9	2637.4	2611.4	2549.8	2469.1	2345.8	2278.0	2254.5	2228.2	2147.4
42.5°	2826.8	2853.5	2832.8	2815.0	2766.7	2673.1	2513.7	2428.9	2394.8	2365.2	2296.7
45°	2968.7	2988.6	2975.6	2982.1	2961.4	2870.6	2687.7	2590.7	2555.4	2519.3	2465.4
47.5°	3025.9	3047.0	3067.7	3106.2	3141.5	3074.6	2874.6	2765.9	2728.6	2691.7	2638.6
50°	3019.4	3040.9	3100.9	3182.8	3292.3	3270.0	3071.7	2952.5	2918.0	2875.8	2826.8
52.5°	2967.5	2991.8	3068.9	3205.1	3379.5	3416.4	3272.5	3145.1	3112.7	3062.4	3013.3
55°	2831.2	2845.8	2961.4	3154.5	3400.2	3518.6	3469.2	3350.3	3317.9	3247.7	3194.2
57.5°	2578.6	2599.6	2768.0	3017.8	3348.3	3588.0	3641.9	3566.1	3534.9	3433.9	3377.9
60°	2248.8	2282.5	2475.1	2788.2	3216.1	3587.6	3798.9	3778.2	3752.2	3617.2	3558.8
62.5°	1875.7	1914.7	2100.0	2463.8	2984.9	3485.8	3897.0	3955.8	3942.5	3786.3	3711.7
65°	1440.6	1467.3	1651.8	2044.0	2625.2	3267.2	3908.4	4077.1	4079.5	3914.9	3791.6
67.5°	959.2	1036.2	1196.4	1533.8	2143.4	2909.9	3808.6	4097.0	4120.5	3959.1	3751.4
70°	468.0	569.4	726.4	996.9	1533.8	2362.0	3547.8	3933.9	3986.3	3830.1	3512.2
72.5°	194.3	227.1	312.7	491.9	880.5	1593.9	3023.9	3491.9	3588.8	3393.7	2952.9
75°	131.0	141.9	178.9	252.3	401.1	786.0	2180.7	2603.7	2759.8	2563.1	2095.1
77.5°	101.0	107.9	130.2	176.4	238.5	297.3	1167.2	1569.1	1649.8	1527.3	1090.1
80°	79.5	84.8	97.3	128.6	169.1	159.0	397.9	710.9	757.6	635.5	350.4
82.5°	68.9	71.0	69.8	87.2	112.3	92.9	130.6	262.4	289.6	210.1	114.4
85°	49.9	55.6	58.0	53.9	59.6	47.0	53.5	92.9	102.2	91.3	64.5
87.5°	20.3	30.0	36.9	34.9	21.9	13.4	16.6	27.2	31.2	34.1	21.1
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°	856.1	856.1	856.1	856.1	856.1	856.1	856.1	856.1	856.1	856.1	856.1
2.5°	857.0	859.8	861.8	864.3	865.9	868.3	873.2	876.0	876.4	878.4	878.0
5°	864.7	868.7	873.2	879.7	887.0	893.0	902.4	908.9	911.3	913.3	912.9
7.5°	881.3	887.0	895.1	906.4	917.0	925.1	936.4	944.1	951.9	954.7	955.1
10°	906.0	914.1	925.9	941.3	952.7	963.2	975.0	981.5	989.2	992.4	994.0
12.5°	936.8	945.4	960.8	982.3	992.8	1000.1	1004.2	1002.5	1004.2	1007.0	1007.8
15°	972.1	981.5	998.9	1022.0	1029.3	1022.8	1013.9	1005.8	1004.6	1005.4	1008.2
17.5°	1013.9	1020.8	1041.1	1060.5	1055.3	1028.5	1009.0	996.1	989.6	987.5	990.4
20°	1072.3	1072.3	1088.9	1101.1	1065.8	1020.4	990.0	968.9	955.5	949.8	948.6
22.5°	1143.3	1136.8	1147.3	1138.8	1063.8	997.7	955.5	919.0	898.7	890.6	889.4
25°	1233.3	1225.6	1222.8	1170.0	1049.2	961.6	893.0	848.8	831.0	826.5	827.3
27.5°	1369.2	1349.7	1312.8	1187.1	1022.4	904.8	820.0	779.1	768.9	769.3	770.6
30°	1550.1	1511.1	1420.7	1189.9	978.6	824.5	745.4	716.2	711.4	713.4	720.3
32.5°	1717.6	1680.6	1531.0	1176.9	911.3	745.8	678.5	659.0	651.7	654.2	657.4
35°	1849.0	1838.8	1633.2	1158.7	828.6	672.0	618.5	601.9	587.7	584.4	586.8
37.5°	1973.1	1969.0	1709.8	1133.1	746.6	619.7	570.2	548.3	527.6	516.3	516.7
40°	2109.3	2105.3	1760.1	1093.8	674.0	574.3	526.8	498.0	472.5	451.8	453.8
42.5°	2262.6	2238.7	1784.1	1037.4	612.4	535.7	491.5	452.6	418.9	399.9	401.1
45°	2430.1	2376.2	1783.7	965.6	560.5	500.5	453.8	398.7	367.4	349.6	348.8
47.5°	2607.8	2507.6	1761.8	886.2	510.2	461.5	395.4	353.2	332.6	321.6	319.2
50°	2791.1	2630.5	1724.4	794.9	458.7	417.3	358.9	330.1	314.3	304.2	300.5
52.5°	2963.4	2742.0	1679.4	691.5	406.4	374.3	342.7	320.4	303.8	292.4	287.5
55°	3123.6	2838.1	1615.8	585.6	363.8	345.5	335.0	316.3	297.3	283.9	278.6
57.5°	3266.0	2900.6	1505.8	486.3	333.4	325.7	326.9	309.4	287.5	276.2	268.9
60°	3384.4	2946.4	1343.2	394.2	308.6	306.2	314.3	296.5	270.9	257.9	252.3
62.5°	3455.4	2945.6	1143.7	322.8	287.5	288.4	297.7	280.2	254.3	242.1	238.5
65°	3449.3	2873.4	924.7	276.2	267.3	268.1	280.2	262.4	240.5	233.2	232.8
67.5°	3327.2	2697.4	709.3	245.8	245.0	248.6	262.8	250.2	232.0	231.2	232.4
70°	2996.7	2332.0	511.0	221.4	221.8	227.1	245.8	242.5	227.5	229.1	228.7
72.5°	2402.9	1778.0	343.1	195.9	196.3	204.8	229.5	236.4	223.1	244.6	247.8
75°	1600.3	1108.8	220.6	168.7	169.1	180.1	215.4	224.7	210.9	243.7	245.8
77.5°	768.9	498.4	159.8	141.9	141.9	152.1	186.2	201.2	179.7	189.4	173.6
80°	265.6	187.4	125.7	114.4	111.9	118.8	157.0	174.4	154.9	142.8	133.8
82.5°	104.6	97.3	101.0	88.8	80.7	85.2	122.1	144.0	114.0	103.0	102.6
85°	60.0	63.3	71.4	58.8	46.6	52.3	89.6	103.4	86.0	75.8	77.5
87.5°	16.2	22.3	32.9	30.4	21.1	22.3	42.6	57.2	49.5	38.1	39.3
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)