

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: P882229

Luminaire Tested: **NAV-SB2A-730-U-T3**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882229  
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-730-U-T3  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9006 lumens  
Efficiency: N/A  
Efficacy: 157.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G2

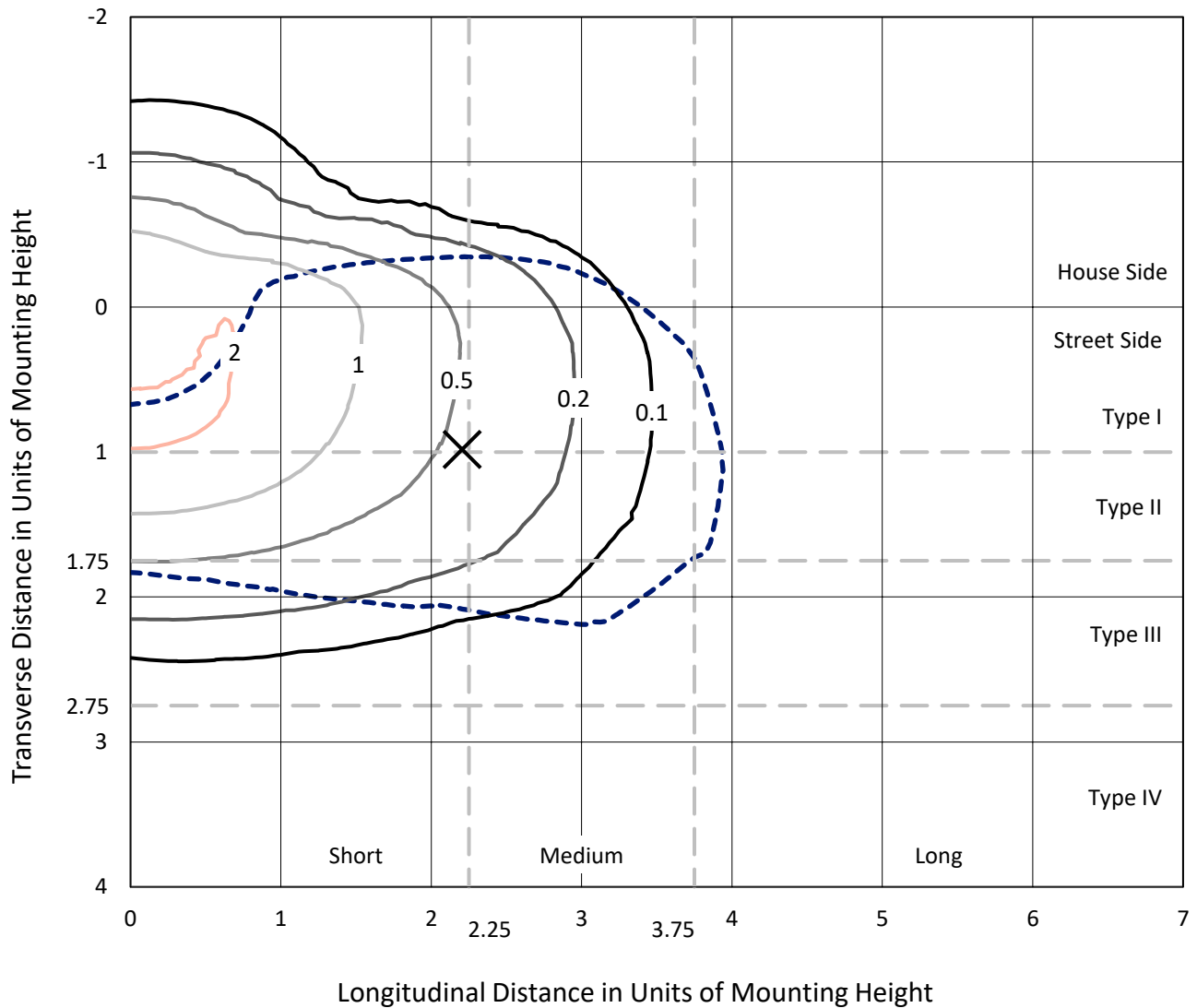
Input Watts (W): 57.3  
Input Voltage (V): 120.0  
Input Current (Ain): 0.484  
Voltage Rise (V): NR  
Power Factor: 0.994  
Total Harmonic Distortion (THDi): 9.038  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

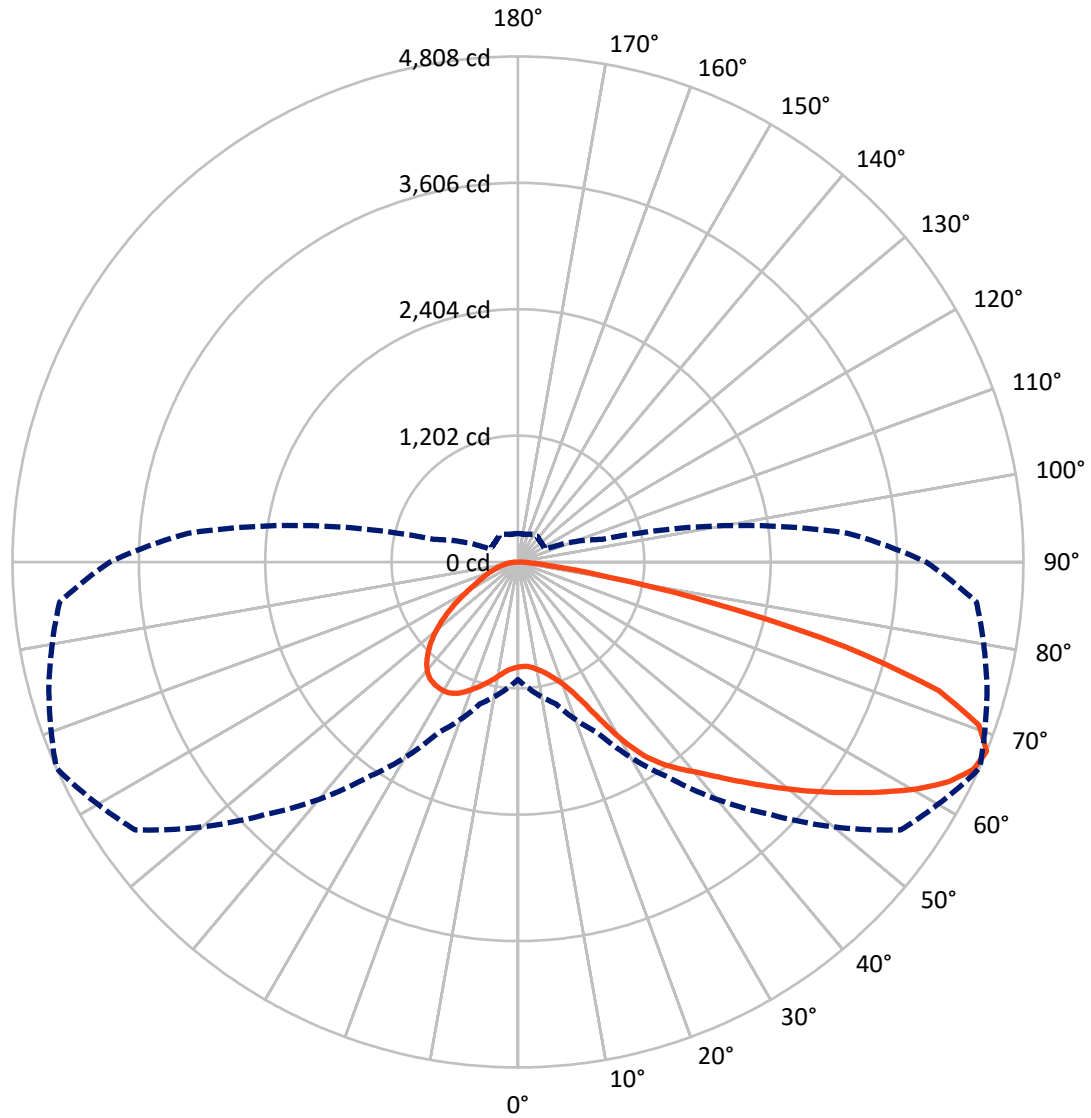
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 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	2239.3	0.0	2239.3
	% Fixture	24.9	0.0	24.9
<b>Street Side</b>	Lumens	6766.7	0.0	6766.7
	% Fixture	75.1	0.0	75.1
<b>Total</b>	Lumens	9006.0	0.0	9006.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.0	1.1
10°-20°	327.2	3.6
20°-30°	630.7	7.0
30°-40°	1105.8	12.3
40°-50°	1643.9	18.3
50°-60°	2083.8	23.1
60°-70°	2039.0	22.6
70°-80°	972.6	10.8
80°-90°	103.9	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°	9006.0	100.0
0°-180°	9006.0	100.0

**Coefficient of Utilization**



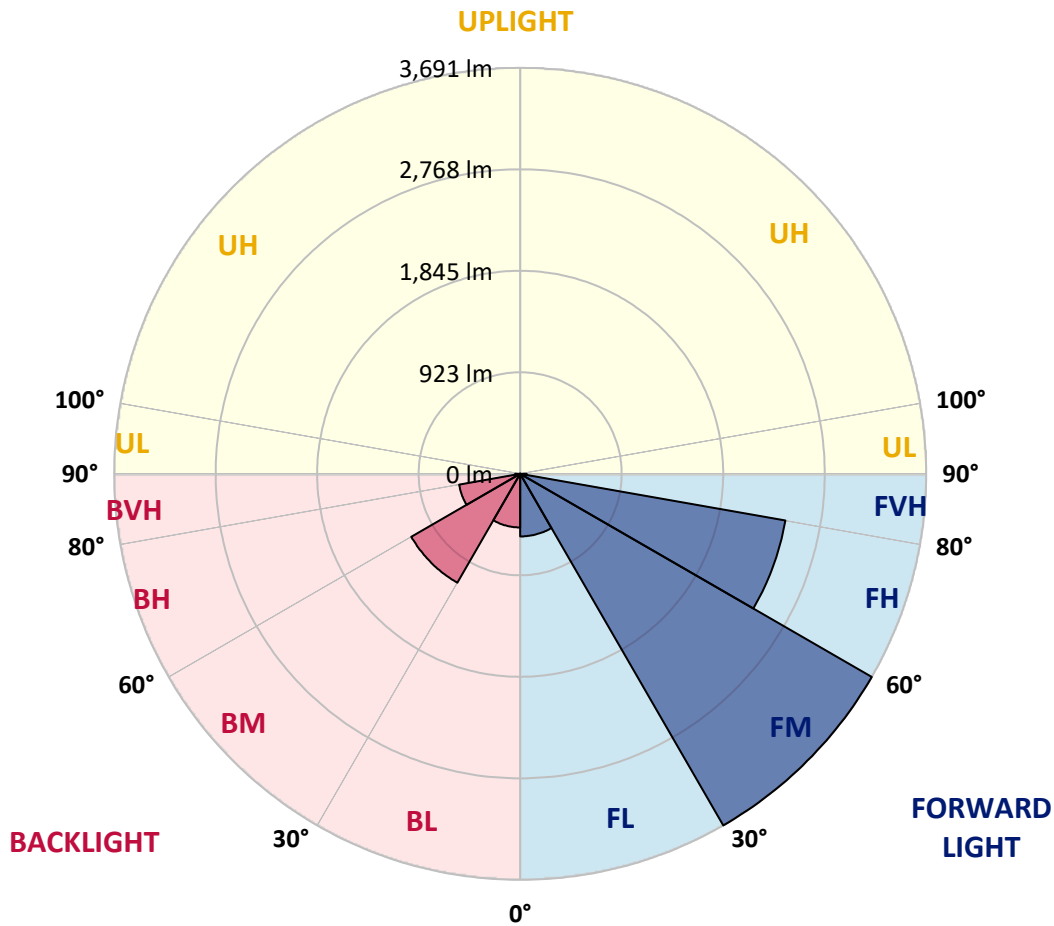
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	569.1	6.3			
FM (30°-60°)	3690.6	41.0			
FH (60°-80°)	2448.1	27.2			G2/5000
FVH (80°-90°)	58.9	0.7			G1/100
BL (0°-30°)	487.8	5.4	B1/500		
BM (30°-60°)	1143.0	12.7	B2/2500		
BH (60°-80°)	563.5	6.3	B2/1000		G2/1000
BVH (80°-90°)	45.0	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°	998.9	998.9	998.9	998.9	998.9	998.9	998.9	998.9	998.9	998.9	998.9
2.5°	988.5	994.2	992.7	990.4	989.9	990.8	992.3	993.7	993.2	995.6	999.4
5°	985.6	991.3	990.8	990.8	992.7	996.5	998.9	1001.3	998.9	1001.7	1006.9
7.5°	987.5	991.8	993.7	995.6	1000.3	1007.4	1013.1	1018.3	1015.4	1018.8	1025.4
10°	1011.7	1015.0	1016.9	1016.9	1020.2	1028.2	1033.9	1043.4	1041.0	1046.2	1054.7
12.5°	1055.7	1059.0	1059.0	1057.1	1059.5	1064.7	1066.5	1077.0	1072.7	1081.2	1089.7
15°	1109.6	1116.2	1111.0	1107.7	1108.7	1113.9	1113.4	1121.4	1117.2	1124.3	1131.8
17.5°	1169.2	1177.7	1169.2	1168.8	1166.9	1172.5	1173.0	1180.1	1172.5	1177.7	1183.0
20°	1239.7	1251.6	1244.5	1246.8	1242.6	1244.9	1247.3	1257.7	1245.9	1249.7	1248.3
22.5°	1339.1	1353.3	1345.7	1354.7	1351.9	1350.0	1349.5	1368.0	1349.5	1350.9	1337.2
25°	1483.9	1500.9	1487.7	1500.0	1500.0	1506.1	1513.2	1536.9	1506.1	1497.1	1461.7
27.5°	1697.8	1714.8	1688.8	1696.4	1694.0	1709.1	1701.6	1760.2	1727.1	1712.4	1641.0
30°	1955.2	1985.5	1936.3	1934.4	1932.0	1956.1	1967.0	2005.8	1972.2	1957.5	1871.4
32.5°	2233.4	2265.1	2206.4	2189.4	2180.4	2195.1	2186.1	2217.3	2194.1	2171.4	2065.0
35°	2527.7	2559.0	2503.1	2470.0	2434.0	2403.3	2371.1	2379.2	2357.4	2322.8	2212.6
37.5°	2806.0	2863.2	2804.1	2768.6	2702.3	2642.2	2552.3	2515.0	2494.6	2462.9	2351.7
40°	3089.4	3122.0	3077.1	3046.8	2974.9	2880.7	2736.9	2657.9	2630.4	2599.7	2505.5
42.5°	3298.1	3329.3	3305.2	3284.3	3228.0	3118.7	2932.8	2833.9	2794.1	2759.6	2679.6
45°	3463.7	3486.9	3471.7	3479.3	3455.2	3349.2	3135.8	3022.7	2981.5	2939.4	2876.5
47.5°	3530.4	3555.0	3579.1	3624.1	3665.3	3587.2	3353.9	3227.1	3183.6	3140.5	3078.5
50°	3522.8	3547.9	3617.9	3713.5	3841.3	3815.3	3583.9	3444.8	3404.5	3355.3	3298.1
52.5°	3462.3	3490.7	3580.6	3739.5	3943.0	3986.1	3818.1	3669.5	3631.7	3573.0	3515.7
55°	3303.3	3320.3	3455.2	3680.4	3967.1	4105.3	4047.6	3908.9	3871.1	3789.2	3726.8
57.5°	3008.5	3033.1	3229.5	3520.9	3906.6	4186.2	4249.2	4160.7	4124.2	4006.4	3941.1
60°	2623.8	2663.1	2887.8	3253.1	3752.3	4185.8	4432.3	4408.2	4377.9	4220.3	4152.2
62.5°	2188.5	2233.9	2450.1	2874.6	3482.6	4067.0	4546.8	4615.4	4599.8	4417.6	4330.5
65°	1680.7	1712.0	1927.3	2384.8	3062.9	3811.9	4560.0	4756.9	4759.7	4567.6	4423.8
67.5°	1119.1	1209.0	1395.9	1789.6	2500.8	3395.1	4443.6	4780.1	4807.5	4619.2	4376.9
70°	546.1	664.3	847.5	1163.1	1789.6	2755.8	4139.4	4589.9	4650.9	4468.7	4097.7
72.5°	226.7	265.0	364.8	574.0	1027.3	1859.6	3528.0	4074.1	4187.2	3959.6	3445.2
75°	152.8	165.6	208.7	294.3	468.0	917.0	2544.3	3037.8	3220.0	2990.5	2444.5
77.5°	117.8	125.9	151.9	205.8	278.2	346.8	1361.8	1830.7	1924.9	1782.0	1271.9
80°	92.7	98.9	113.6	150.0	197.3	185.5	464.2	829.5	883.9	741.5	408.8
82.5°	80.4	82.8	81.4	101.7	131.1	108.4	152.4	306.1	337.9	245.1	133.4
85°	58.2	64.8	67.7	62.9	69.6	54.9	62.5	108.4	119.2	106.5	75.2
87.5°	23.7	35.0	43.1	40.7	25.6	15.6	19.4	31.7	36.4	39.7	24.6
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°	998.9	998.9	998.9	998.9	998.9	998.9	998.9	998.9	998.9	998.9	998.9
2.5°	999.8	1003.1	1005.5	1008.3	1010.2	1013.1	1018.8	1022.1	1022.5	1024.9	1024.4
5°	1008.8	1013.6	1018.8	1026.3	1034.8	1041.9	1052.8	1060.4	1063.2	1065.6	1065.1
7.5°	1028.2	1034.8	1044.3	1057.6	1069.9	1079.3	1092.6	1101.6	1110.6	1113.9	1114.3
10°	1057.1	1066.5	1080.3	1098.3	1111.5	1123.8	1137.5	1145.1	1154.1	1157.9	1159.8
12.5°	1093.0	1103.0	1121.0	1146.0	1158.3	1166.9	1171.6	1169.7	1171.6	1174.9	1175.9
15°	1134.2	1145.1	1165.4	1192.4	1200.9	1193.4	1183.0	1173.5	1172.1	1173.0	1176.3
17.5°	1183.0	1191.0	1214.7	1237.4	1231.2	1200.0	1177.3	1162.1	1154.6	1152.2	1155.5
20°	1251.1	1251.1	1270.5	1284.7	1243.5	1190.5	1155.0	1130.4	1114.8	1108.2	1106.8
22.5°	1333.9	1326.3	1338.6	1328.7	1241.2	1164.0	1114.8	1072.2	1048.6	1039.1	1037.7
25°	1438.9	1430.0	1426.6	1365.1	1224.1	1121.9	1041.9	990.4	969.5	964.3	965.3
27.5°	1597.5	1574.7	1531.7	1385.0	1192.9	1055.7	956.8	909.0	897.2	897.6	899.0
30°	1808.5	1763.1	1657.6	1388.3	1141.8	962.0	869.7	835.6	830.0	832.3	840.4
32.5°	2003.9	1960.9	1786.3	1373.2	1063.2	870.2	791.6	768.9	760.4	763.2	767.0
35°	2157.2	2145.4	1905.5	1351.9	966.7	784.1	721.6	702.2	685.6	681.9	684.7
37.5°	2302.0	2297.3	1994.9	1322.1	871.1	723.0	665.3	639.7	615.6	602.4	602.8
40°	2461.0	2456.3	2053.6	1276.2	786.4	670.0	614.7	581.1	551.3	527.1	529.5
42.5°	2639.9	2612.0	2081.5	1210.4	714.5	625.1	573.5	528.1	488.8	466.6	468.0
45°	2835.3	2772.4	2081.0	1126.6	653.9	583.9	529.5	465.1	428.7	407.9	406.9
47.5°	3042.6	2925.7	2055.5	1033.9	595.3	538.5	461.4	412.1	388.0	375.2	372.4
50°	3256.4	3069.0	2012.0	927.4	535.2	486.9	418.8	385.2	366.7	354.9	350.6
52.5°	3457.5	3199.2	1959.4	806.8	474.1	436.7	399.8	373.8	354.4	341.2	335.5
55°	3644.4	3311.3	1885.2	683.3	424.4	403.1	390.8	369.1	346.8	331.2	325.1
57.5°	3810.5	3384.2	1756.9	567.3	389.0	380.0	381.4	361.0	335.5	322.2	313.7
60°	3948.7	3437.7	1567.2	459.9	360.1	357.3	366.7	345.9	316.1	300.9	294.3
62.5°	4031.5	3436.7	1334.4	376.7	335.5	336.4	347.3	327.0	296.7	282.5	278.2
65°	4024.4	3352.5	1078.9	322.2	311.8	312.8	327.0	306.1	280.6	272.1	271.6
67.5°	3882.0	3147.1	827.6	286.7	285.8	290.1	306.6	292.0	270.7	269.7	271.1
70°	3496.3	2720.8	596.2	258.4	258.8	265.0	286.7	283.0	265.5	267.3	266.9
72.5°	2803.6	2074.4	400.3	228.5	229.0	239.0	267.8	275.9	260.2	285.3	289.1
75°	1867.2	1293.7	257.4	196.8	197.3	210.1	251.3	262.1	246.1	284.4	286.7
77.5°	897.2	581.5	186.4	165.6	165.6	177.4	217.2	234.7	209.6	221.0	202.5
80°	309.9	218.6	146.7	133.4	130.6	138.6	183.1	203.5	180.8	166.6	156.1
82.5°	122.1	113.6	117.8	103.6	94.2	99.4	142.4	168.0	133.0	120.2	119.7
85°	70.0	73.8	83.3	68.6	54.4	61.0	104.6	120.7	100.3	88.5	90.4
87.5°	18.9	26.0	38.3	35.5	24.6	26.0	49.7	66.7	57.7	44.5	45.9
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)