

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: P882247

Luminaire Tested: **NAV-SB2A-740-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882247
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2A-740-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9766 lumens
Efficiency: N/A
Efficacy: 170.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

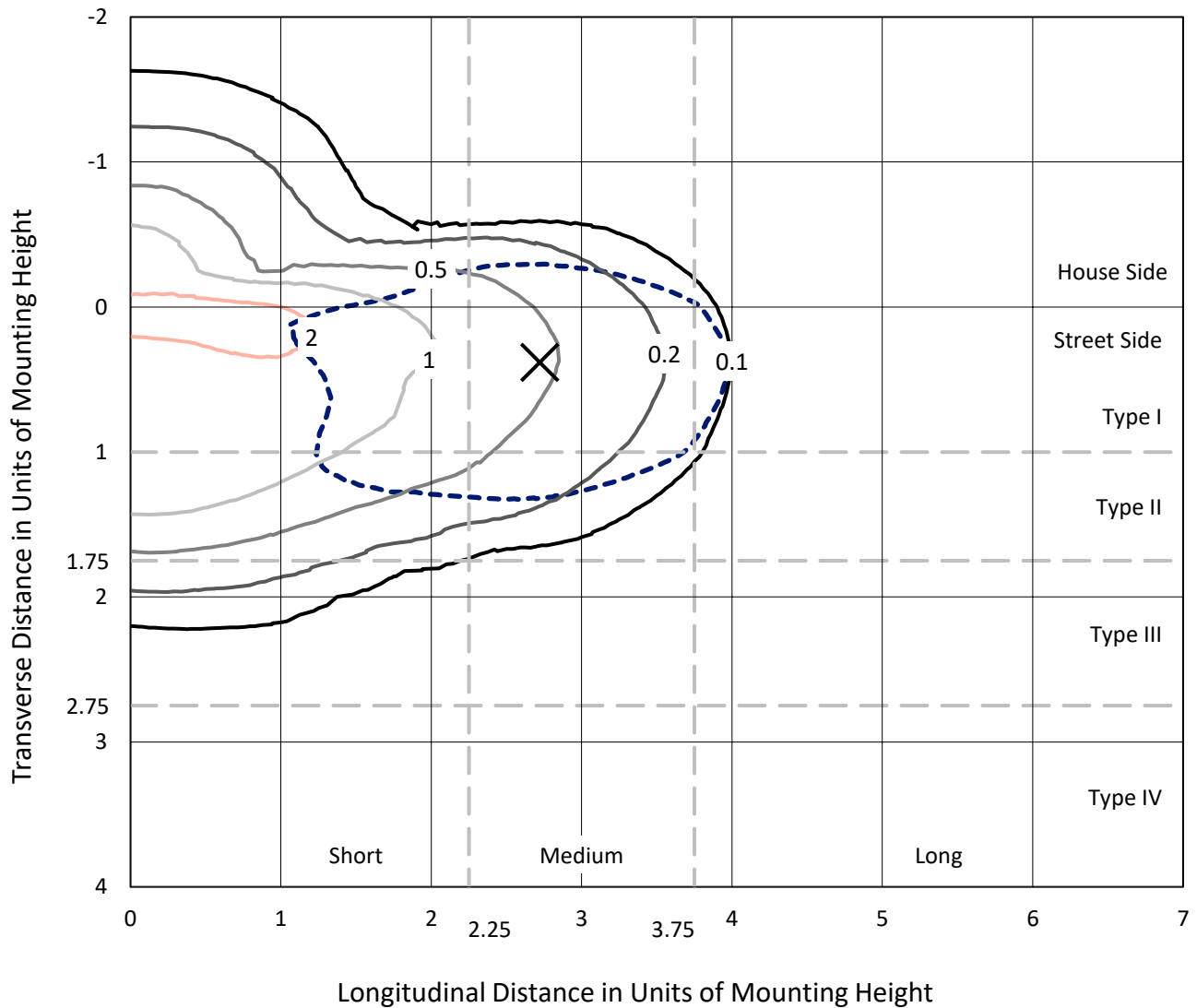
Input Watts (W): 57.3
Input Voltage (V): 120.0
Input Current (Ain): 0.484
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.038
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

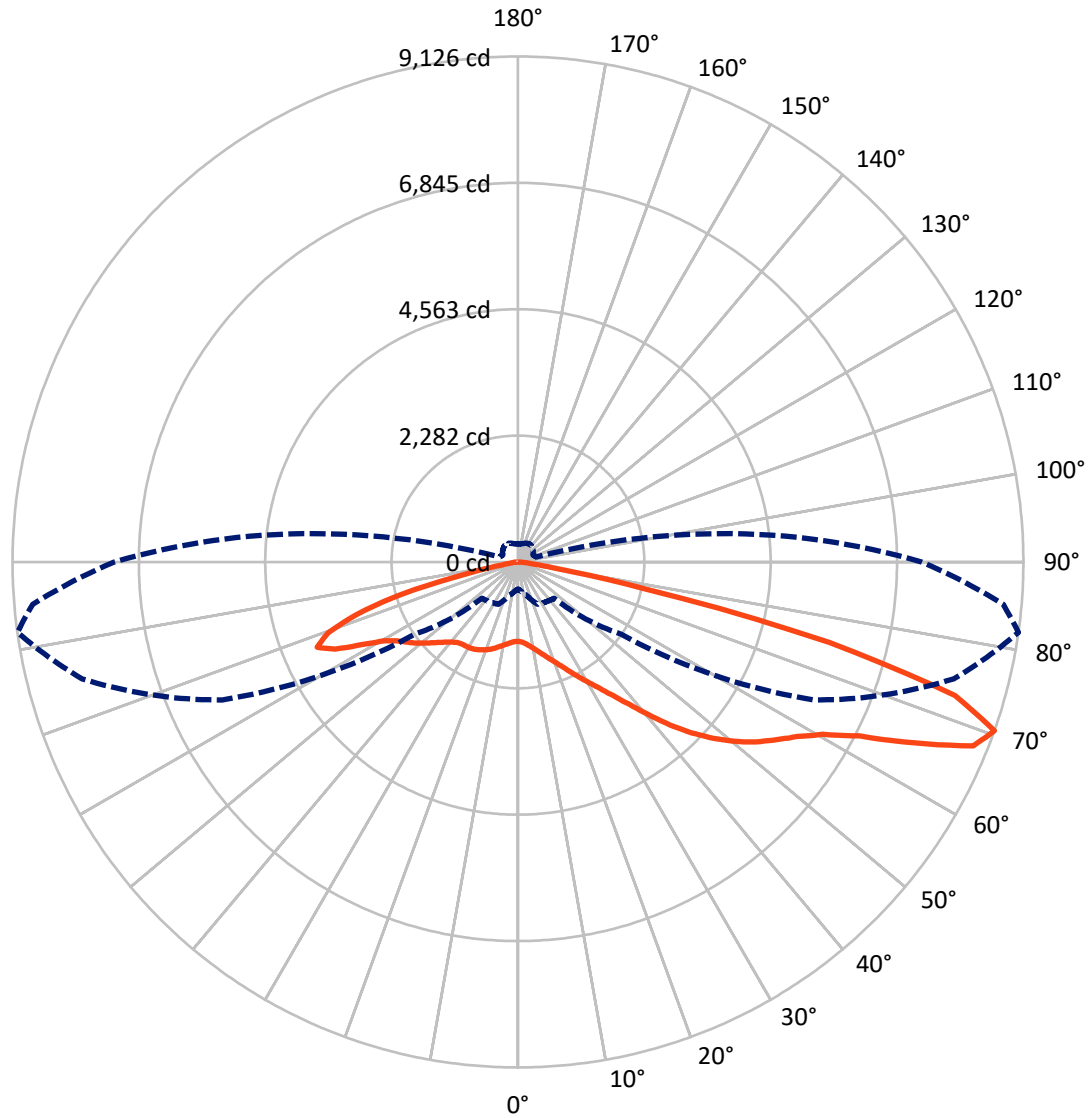
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2407.6	0.0	2407.6
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	7358.4	0.0	7358.4
	% Fixture	75.3	0.0	75.3
Total	Lumens	9766.0	0.0	9766.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.2	1.4
10°-20°	388.4	4.0
20°-30°	649.8	6.7
30°-40°	1015.1	10.4
40°-50°	1616.7	16.6
50°-60°	2249.8	23.0
60°-70°	2353.4	24.1
70°-80°	1230.0	12.6
80°-90°	127.7	1.3
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°	9766.0	100.0
0°-180°	9766.0	100.0

Coefficient of Utilization

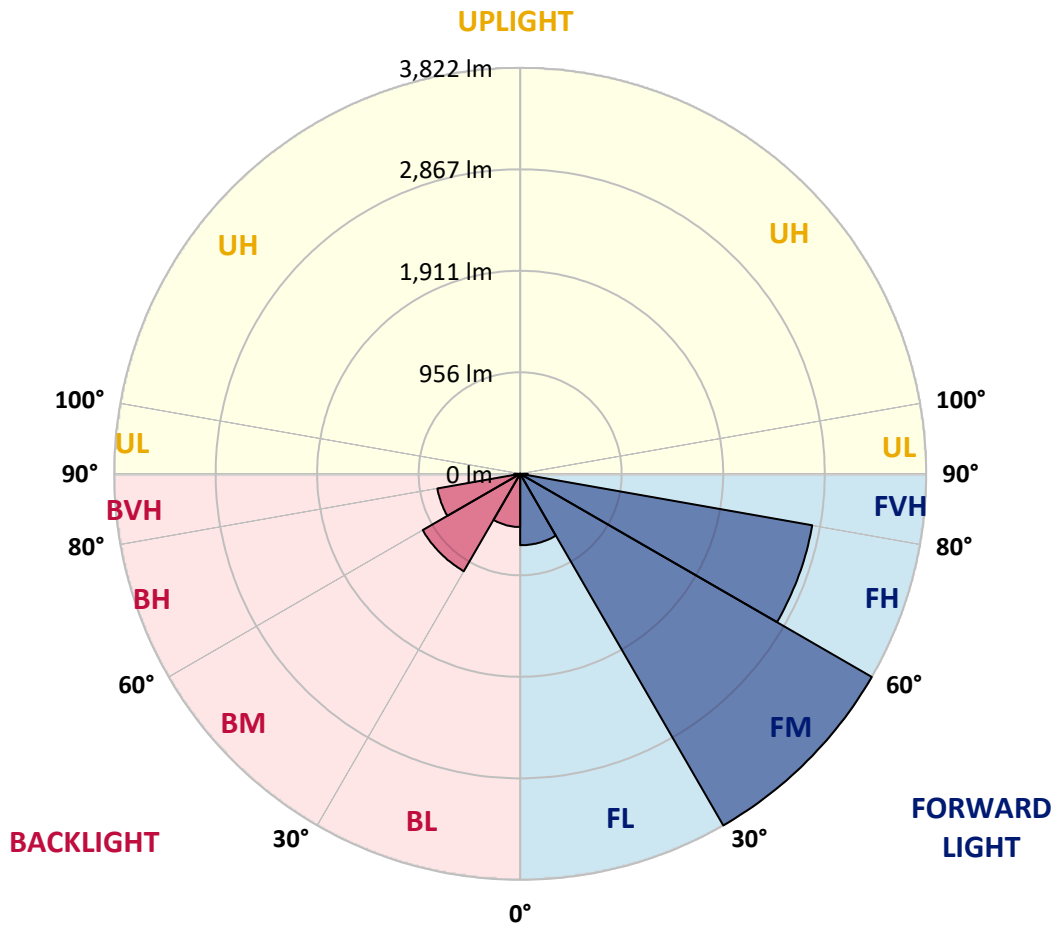


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	672.5	6.9			
FM (30°-60°)	3822.3	39.1			
FH (60°-80°)	2792.1	28.6			G2/5000
FVH (80°-90°)	71.5	0.7			G1/100
BL (0°-30°)	500.9	5.1	B2/1000		
BM (30°-60°)	1059.2	10.8	B2/2500		
BH (60°-80°)	791.2	8.1	B2/1000		G2/1000
BVH (80°-90°)	56.2	0.6			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 II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	1431.8	1431.8	1431.8	1431.8	1431.8	1431.8	1431.8	1431.8	1431.8	1431.8	1431.8
2.5°	1466.0	1474.3	1471.7	1469.1	1469.1	1465.5	1465.0	1459.8	1455.7	1448.9	1447.4
5°	1484.7	1493.5	1492.4	1494.5	1501.3	1502.8	1504.4	1501.3	1493.0	1484.7	1481.0
7.5°	1468.1	1477.9	1481.0	1493.5	1514.2	1532.9	1546.9	1552.6	1544.8	1532.9	1527.2
10°	1412.1	1423.0	1433.9	1463.4	1500.2	1544.3	1581.6	1603.9	1602.3	1590.9	1581.1
12.5°	1298.6	1310.0	1333.4	1390.9	1458.2	1536.0	1605.4	1652.1	1668.1	1659.8	1642.7
15°	1208.0	1217.8	1235.4	1294.5	1382.1	1500.2	1614.2	1704.9	1745.9	1741.2	1720.5
17.5°	1205.4	1209.5	1220.4	1248.4	1315.7	1444.3	1604.9	1756.7	1835.0	1834.5	1808.6
20°	1251.0	1252.5	1258.7	1264.4	1302.8	1401.8	1581.1	1799.7	1935.0	1935.0	1907.0
22.5°	1314.2	1313.1	1319.4	1314.2	1332.8	1398.1	1566.0	1837.6	2046.4	2054.7	2019.5
25°	1409.0	1403.8	1402.3	1390.4	1394.0	1431.8	1582.6	1880.6	2178.6	2195.7	2151.6
27.5°	1535.5	1527.2	1521.5	1494.0	1484.7	1501.3	1633.4	1932.4	2325.7	2355.3	2299.3
30°	1700.3	1685.2	1676.9	1629.3	1595.6	1598.2	1710.1	2001.3	2479.6	2527.3	2456.3
32.5°	1925.2	1901.8	1879.6	1801.3	1739.6	1719.4	1809.1	2096.7	2646.5	2722.7	2631.5
35°	2177.0	2158.3	2134.5	2013.8	1918.9	1872.3	1942.8	2229.9	2841.9	2962.6	2843.9
37.5°	2419.5	2403.5	2414.9	2252.1	2129.8	2062.0	2117.9	2408.6	3082.8	3261.1	3110.3
40°	2670.3	2657.9	2659.5	2504.0	2361.5	2285.3	2330.4	2633.0	3359.0	3616.1	3430.6
42.5°	2942.9	2933.6	2902.5	2764.7	2604.5	2533.5	2575.0	2892.1	3655.5	4020.3	3781.9
45°	3248.1	3242.4	3213.4	3055.4	2871.9	2792.1	2848.1	3178.2	3953.4	4400.7	4134.8
47.5°	3511.9	3516.6	3513.0	3379.8	3189.6	3072.5	3139.3	3476.7	4230.7	4758.2	4473.2
50°	3638.9	3663.2	3699.0	3657.5	3539.4	3420.2	3433.1	3764.8	4495.0	5093.5	4797.6
52.5°	3572.5	3618.7	3716.1	3782.4	3828.0	3803.2	3768.4	4050.9	4743.7	5396.1	5104.4
55°	3325.4	3390.1	3551.8	3711.9	3944.6	4125.5	4171.1	4368.0	4986.2	5662.5	5394.6
57.5°	2875.0	2980.2	3125.3	3449.2	3841.0	4281.5	4640.6	4808.0	5243.3	5947.0	5698.3
60°	2102.9	2243.9	2424.2	2906.1	3478.2	4198.0	5040.1	5483.7	5608.6	6315.4	6093.6
62.5°	1345.8	1432.9	1598.7	2052.6	2710.2	3770.5	5162.4	6328.4	6227.9	6919.7	6686.5
65°	921.4	977.3	1129.2	1384.1	1752.1	2806.6	4834.9	6961.7	7211.4	7877.3	7700.1
67.5°	669.5	712.0	841.6	1064.9	1141.6	1660.9	3751.8	6932.6	8167.5	8864.0	8588.3
70°	488.2	518.2	627.0	841.6	878.4	924.0	2272.9	5893.1	8146.8	9126.2	8796.1
72.5°	361.7	382.4	455.5	652.9	711.0	623.9	1125.0	4283.0	7000.5	8254.6	7989.8
75°	261.7	277.2	331.1	499.6	569.0	475.2	561.2	2503.0	4883.1	5806.6	5853.2
77.5°	200.0	211.9	247.2	365.9	455.5	356.5	348.2	1151.5	2315.4	2326.8	2457.4
80°	160.6	168.4	187.6	257.6	349.3	266.9	227.0	464.8	731.7	619.3	649.8
82.5°	118.2	131.1	158.6	180.9	249.8	184.0	138.4	234.7	278.3	239.4	241.5
85°	67.4	76.2	95.9	129.6	159.6	112.5	79.3	104.2	129.6	106.2	94.8
87.5°	23.8	31.1	33.7	50.8	69.4	46.6	30.6	30.1	42.5	31.6	26.4
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°	1431.8	1431.8	1431.8	1431.8	1431.8	1431.8	1431.8	1431.8	1431.8	1431.8	1431.8
2.5°	1442.2	1439.6	1429.2	1415.2	1400.7	1386.7	1382.1	1372.2	1365.5	1361.9	1366.0
5°	1471.2	1462.9	1438.6	1407.5	1374.8	1339.6	1314.7	1291.9	1275.3	1259.8	1266.0
7.5°	1512.7	1498.1	1456.2	1401.8	1343.7	1285.2	1241.6	1208.5	1186.2	1171.7	1174.8
10°	1560.9	1538.6	1474.3	1393.0	1303.3	1219.4	1168.0	1139.5	1125.6	1117.8	1119.9
12.5°	1616.3	1584.7	1493.0	1372.7	1241.6	1145.8	1110.5	1102.2	1102.8	1103.3	1104.3
15°	1684.7	1640.7	1508.0	1328.7	1161.3	1089.3	1083.1	1096.5	1110.5	1117.3	1116.7
17.5°	1761.9	1699.7	1510.6	1256.1	1082.5	1053.0	1072.7	1101.7	1123.0	1132.3	1134.4
20°	1844.8	1759.8	1491.9	1153.5	1017.8	1023.5	1058.7	1096.0	1119.3	1131.3	1134.4
22.5°	1939.7	1824.1	1447.4	1045.8	964.9	991.3	1032.8	1069.1	1093.4	1105.3	1108.5
25°	2048.0	1896.1	1377.4	955.1	919.3	955.1	996.5	1026.6	1046.3	1057.2	1060.3
27.5°	2168.2	1971.3	1284.1	883.0	879.4	917.8	952.0	975.3	985.6	993.9	997.0
30°	2288.9	2039.7	1171.2	828.6	844.7	881.0	905.3	915.7	918.8	920.3	924.0
32.5°	2419.5	2098.8	1052.5	783.5	811.5	845.2	859.7	864.4	849.9	840.0	843.1
35°	2577.6	2162.0	936.4	747.8	778.9	807.9	812.6	808.4	791.3	771.1	772.1
37.5°	2772.9	2240.7	843.6	722.4	748.3	767.5	761.8	760.7	762.3	738.5	740.0
40°	3012.4	2343.4	775.8	702.7	723.4	727.6	711.5	720.3	728.1	691.8	692.8
42.5°	3278.2	2467.2	732.8	689.2	702.7	692.8	668.0	677.8	676.8	629.1	628.6
45°	3549.2	2601.9	717.7	679.4	683.5	663.8	636.4	639.0	617.2	574.2	575.7
47.5°	3818.7	2746.5	727.1	671.1	659.7	637.4	616.2	604.8	572.6	540.5	540.5
50°	4083.0	2898.4	761.3	654.5	627.0	614.1	598.5	578.3	544.1	516.7	514.6
52.5°	4328.1	3051.2	799.6	627.0	586.1	593.9	584.0	560.7	527.0	499.0	499.6
55°	4560.3	3204.1	814.6	589.2	547.7	576.3	570.6	527.5	487.1	464.3	462.2
57.5°	4813.1	3388.1	798.0	541.0	516.7	556.0	534.3	486.6	463.3	446.2	444.6
60°	5163.5	3676.7	762.3	481.4	487.1	526.0	488.7	469.0	443.6	424.4	423.4
62.5°	5745.4	4215.1	704.8	422.3	452.4	481.4	466.9	447.2	421.3	402.7	402.7
65°	6605.6	4963.4	596.5	376.2	413.5	437.9	443.6	423.9	396.9	377.3	378.3
67.5°	7331.1	5432.9	451.4	337.9	373.6	402.7	418.7	399.5	371.0	351.9	352.4
70°	7291.2	5091.9	344.6	300.0	338.4	367.9	388.7	373.6	343.1	324.9	326.5
72.5°	6476.1	4259.7	278.8	261.7	302.6	331.7	356.5	345.1	314.0	296.4	296.4
75°	4757.7	3023.8	222.8	222.8	258.1	293.8	321.3	314.0	285.5	273.1	269.5
77.5°	2005.5	1268.6	174.6	185.0	214.5	252.4	286.6	289.2	264.3	279.8	253.9
80°	533.2	349.8	133.2	145.6	168.4	208.3	249.3	248.2	221.3	206.8	192.3
82.5°	203.1	137.8	94.8	102.6	121.8	159.6	197.4	203.7	176.7	152.9	152.9
85°	78.2	59.1	58.6	61.7	71.0	105.7	149.2	154.4	133.2	113.0	116.6
87.5°	20.2	17.6	21.8	20.7	32.6	56.5	85.5	88.6	81.4	47.2	67.4
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)