

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: P882121

Luminaire Tested: **NAV-SB1D-830-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882121
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-830-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD
THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8808 lumens
Efficiency: N/A
Efficacy: 110.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G2

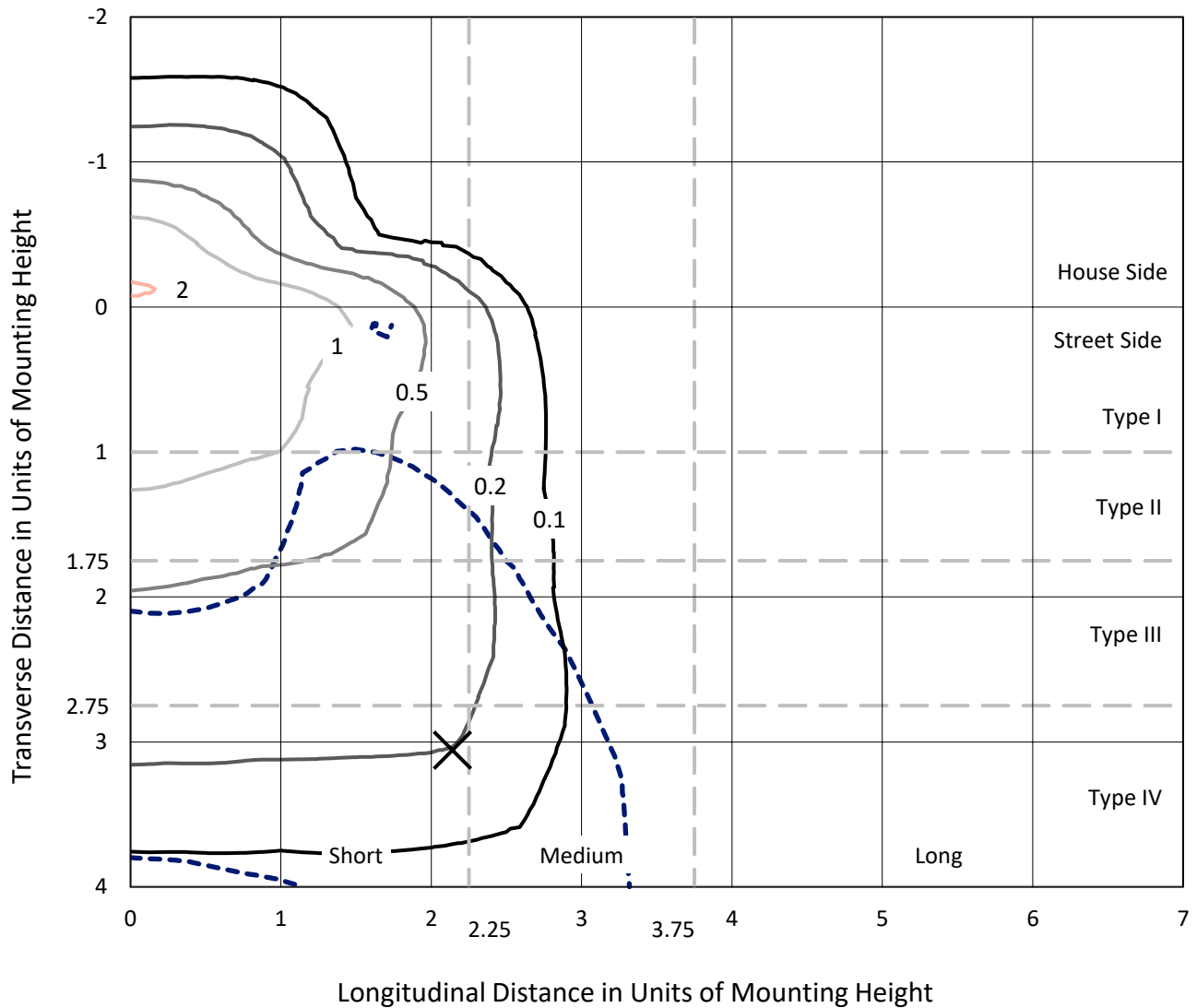
Input Watts (W): 79.6
Input Voltage (V): 120.0
Input Current (Ain): 0.638
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 6.673
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

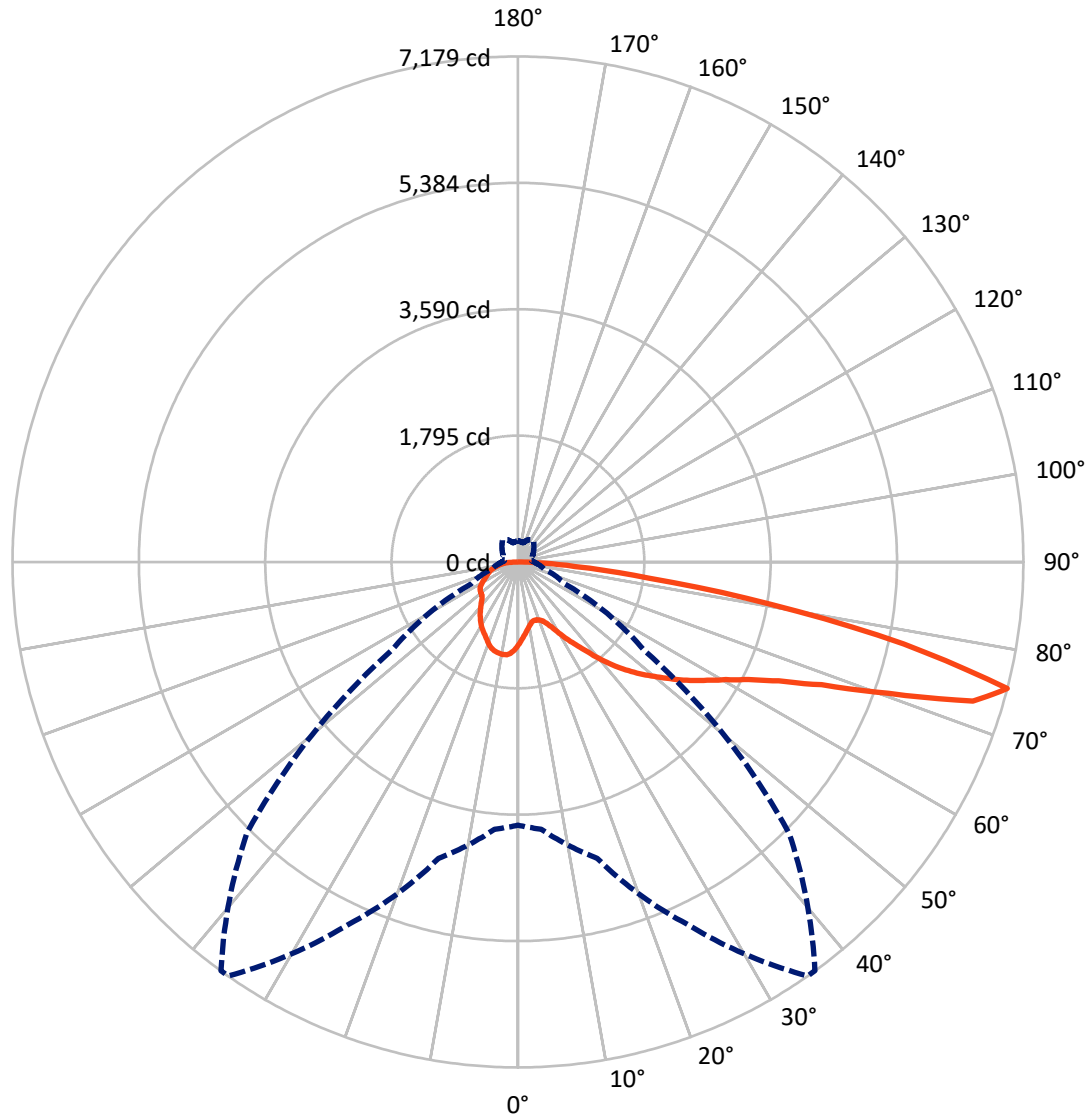
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2096.1	0.0	2096.1
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	6711.9	0.0	6711.9
	% Fixture	76.2	0.0	76.2
Total	Lumens	8808.0	0.0	8808.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.1	1.3
10°-20°	320.5	3.6
20°-30°	538.3	6.1
30°-40°	836.6	9.5
40°-50°	1241.7	14.1
50°-60°	1714.2	19.5
60°-70°	2079.7	23.6
70°-80°	1718.7	19.5
80°-90°	247.2	2.8
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°	8808.0	100.0
0°-180°	8808.0	100.0

Coefficient of Utilization



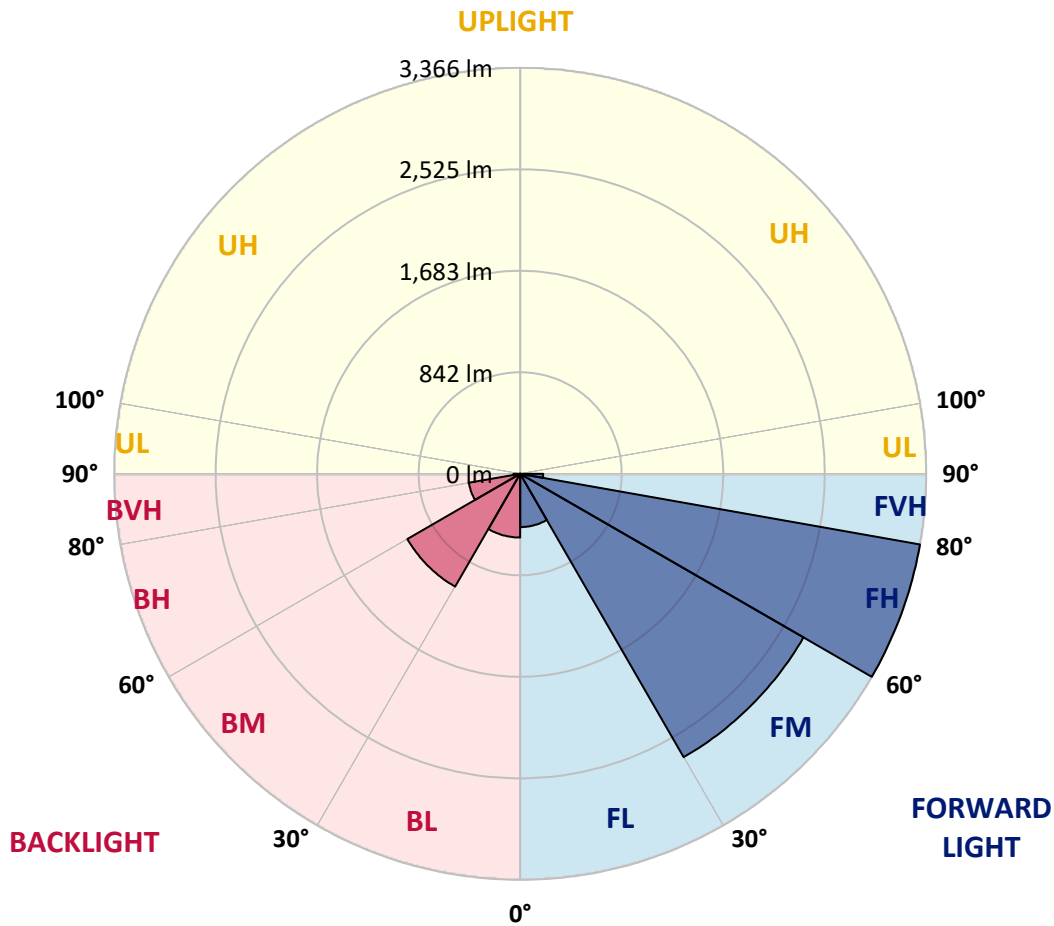
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	441.7	5.0			
FM (30°-60°)	2712.4	30.8			
FH (60°-80°)	3366.3	38.2			G2/5000
FVH (80°-90°)	191.5	2.2			G2/225
BL (0°-30°)	528.2	6.0	B2/1000		
BM (30°-60°)	1080.0	12.3	B2/2500		
BH (60°-80°)	432.1	4.9	B1/500		G1/500
BVH (80°-90°)	55.7	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 IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	1173.7	1173.7	1173.7	1173.7	1173.7	1173.7	1173.7	1173.7	1173.7	1173.7	1173.7
2.5°	1082.3	1089.0	1091.8	1090.4	1097.5	1096.6	1106.6	1119.0	1136.1	1152.8	1177.1
5°	999.0	1006.1	1012.3	1018.0	1031.8	1036.1	1051.8	1075.6	1107.1	1139.0	1179.0
7.5°	921.4	927.6	937.1	947.6	970.9	975.2	1001.4	1038.5	1082.3	1129.0	1184.2
10°	858.0	864.2	874.2	886.1	915.2	920.4	953.7	1003.3	1060.4	1119.4	1189.9
12.5°	830.9	832.8	838.5	850.4	875.7	879.0	915.6	972.3	1039.0	1112.3	1198.5
15°	829.5	833.3	833.7	839.9	860.9	862.3	896.1	952.3	1025.6	1110.9	1211.3
17.5°	843.7	846.6	842.3	846.1	863.7	866.1	892.8	942.8	1021.4	1117.1	1233.2
20°	881.8	884.2	871.4	866.1	879.0	880.9	907.1	949.0	1025.6	1129.9	1263.2
22.5°	962.8	964.2	932.8	911.4	912.3	913.3	936.1	974.2	1042.3	1153.3	1301.3
25°	1089.0	1088.0	1038.0	996.6	972.8	967.5	982.8	1015.2	1070.4	1184.2	1350.4
27.5°	1236.6	1229.4	1179.4	1117.5	1065.6	1058.0	1054.7	1068.5	1110.4	1225.2	1410.4
30°	1403.2	1396.6	1342.8	1261.8	1189.9	1177.5	1146.1	1139.0	1169.9	1280.9	1493.7
32.5°	1586.1	1581.8	1517.5	1419.4	1323.2	1309.0	1256.1	1237.1	1261.3	1365.1	1609.9
35°	1739.4	1735.6	1682.3	1581.3	1463.7	1446.1	1392.3	1370.9	1383.2	1473.2	1761.8
37.5°	1878.0	1876.1	1830.3	1750.8	1629.4	1608.0	1547.5	1540.4	1538.0	1615.6	1946.1
40°	2006.5	2001.8	1954.1	1912.2	1822.3	1802.7	1749.4	1743.2	1725.1	1790.8	2154.6
42.5°	2148.9	2136.5	2067.5	2047.9	2023.7	2007.5	1975.6	1976.5	1936.5	1988.4	2375.5
45°	2265.1	2257.9	2187.0	2175.6	2201.7	2195.1	2222.7	2229.8	2152.2	2195.6	2605.1
47.5°	2389.8	2383.2	2323.2	2315.1	2386.0	2387.9	2485.5	2487.9	2362.7	2410.8	2835.0
50°	2543.6	2534.1	2474.6	2484.6	2564.1	2571.2	2749.8	2733.6	2556.5	2629.3	3063.1
52.5°	2645.0	2650.8	2637.9	2654.1	2762.7	2769.3	3009.8	2968.4	2748.4	2845.0	3286.9
55°	2719.8	2731.2	2771.2	2808.4	2972.2	2978.8	3255.0	3191.7	2907.4	3045.0	3497.4
57.5°	2816.0	2799.8	2874.6	2946.9	3171.2	3188.8	3493.6	3406.9	3048.4	3217.4	3641.6
60°	2954.1	2942.6	3000.7	3107.9	3394.0	3422.1	3745.9	3600.7	3151.7	3354.0	3669.7
62.5°	3234.1	3205.5	3214.5	3309.3	3675.0	3712.1	4030.7	3769.7	3203.1	3407.4	3519.3
65°	3652.6	3603.6	3557.8	3623.6	4070.7	4107.3	4352.1	3902.6	3184.1	3304.0	3119.8
67.5°	4179.7	4131.1	4074.9	4136.8	4653.5	4682.5	4748.7	3977.3	3034.1	2906.0	2413.6
70°	4614.4	4596.3	4663.5	4918.2	5584.4	5585.3	5257.2	3915.4	2623.1	2060.3	1396.6
72.5°	4556.8	4545.9	4899.6	5687.2	6757.6	6732.4	5738.6	3446.9	1767.0	929.5	523.3
75°	3738.3	3809.3	4357.3	5673.4	7179.0	7175.7	5443.9	2191.3	730.9	385.2	270.5
77.5°	2004.6	2117.0	2828.8	4188.7	5604.4	5688.6	3827.3	766.6	313.8	246.6	187.1
80°	653.8	751.9	1127.5	2132.7	3641.6	3625.9	1640.4	300.9	214.7	174.7	129.5
82.5°	277.6	289.0	503.8	1007.1	1868.9	1839.9	522.3	172.8	150.9	119.5	80.0
85°	108.6	121.4	222.4	465.7	809.5	791.8	188.6	85.7	96.7	78.1	47.6
87.5°	35.7	43.3	79.5	159.5	251.9	242.8	46.2	29.5	41.9	35.7	17.1
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°	1173.7	1173.7	1173.7	1173.7	1173.7	1173.7	1173.7	1173.7	1173.7	1173.7	1173.7
2.5°	1183.7	1191.3	1200.4	1213.7	1225.2	1234.7	1244.7	1250.9	1253.2	1260.4	1259.9
5°	1192.3	1209.0	1231.3	1253.2	1274.7	1287.5	1299.0	1304.7	1309.9	1313.7	1314.7
7.5°	1206.6	1228.0	1263.2	1291.8	1309.9	1320.4	1328.0	1326.1	1328.0	1329.0	1330.4
10°	1219.0	1249.0	1290.9	1318.0	1331.8	1332.3	1330.4	1323.7	1320.4	1320.9	1321.8
12.5°	1233.7	1267.1	1312.3	1335.1	1339.0	1328.5	1320.4	1309.0	1304.7	1302.8	1301.8
15°	1253.7	1291.8	1335.6	1344.2	1334.7	1321.3	1307.5	1289.0	1279.4	1271.8	1274.2
17.5°	1278.0	1319.9	1353.7	1347.5	1327.0	1305.1	1282.8	1254.7	1235.1	1227.1	1227.5
20°	1311.8	1349.4	1367.5	1340.4	1309.4	1276.1	1238.0	1203.7	1185.6	1177.5	1176.6
22.5°	1352.8	1388.9	1380.9	1328.0	1284.2	1230.9	1183.2	1158.0	1149.0	1143.3	1144.2
25°	1401.8	1432.8	1390.4	1309.9	1242.8	1170.9	1134.2	1126.1	1121.8	1117.5	1117.5
27.5°	1465.6	1482.3	1397.5	1283.2	1178.0	1107.1	1093.7	1095.2	1093.7	1086.6	1088.0
30°	1549.9	1546.6	1404.2	1239.9	1103.7	1049.4	1050.4	1056.6	1057.5	1052.8	1055.2
32.5°	1660.8	1627.0	1407.5	1183.7	1032.8	999.0	999.9	1006.6	1011.4	1003.3	1007.1
35°	1795.1	1720.8	1402.3	1113.3	978.0	950.9	943.7	945.6	947.1	939.5	944.7
37.5°	1951.8	1826.1	1378.9	1035.2	932.8	903.7	888.5	875.7	868.0	860.9	865.7
40°	2123.7	1940.8	1336.1	959.0	882.3	853.7	830.9	806.6	780.9	771.4	775.7
42.5°	2303.6	2058.9	1284.2	886.1	824.2	800.9	776.6	741.4	702.8	683.3	685.7
45°	2490.3	2179.8	1233.2	814.2	764.7	754.7	726.6	684.2	642.3	617.6	615.7
47.5°	2673.1	2294.1	1158.5	741.9	709.0	719.9	698.0	659.0	612.3	573.3	569.0
50°	2847.9	2401.3	1036.1	668.5	663.8	709.5	688.5	632.3	579.0	529.0	524.7
52.5°	3021.2	2487.9	879.5	601.9	639.5	706.6	676.1	614.2	549.0	496.6	490.9
55°	3168.3	2532.7	728.5	544.7	604.2	682.3	661.4	592.8	506.6	450.9	446.2
57.5°	3252.1	2496.5	602.8	488.5	555.7	642.3	636.1	547.1	456.2	413.3	407.6
60°	3216.0	2349.8	500.0	439.5	509.5	599.0	592.3	501.9	417.6	377.1	371.4
62.5°	3016.5	2070.3	418.5	396.6	467.6	554.7	548.5	467.1	388.1	349.0	342.8
65°	2614.6	1684.2	355.2	360.9	425.2	501.4	510.4	438.1	364.7	326.6	320.5
67.5°	1994.1	1219.9	305.7	330.0	383.8	449.0	475.2	417.1	345.2	309.0	303.3
70°	1136.6	692.8	263.8	300.0	347.1	400.4	448.1	400.4	324.3	294.3	290.5
72.5°	430.9	318.1	228.1	270.0	311.9	359.5	418.1	374.3	300.0	277.6	273.8
75°	230.0	193.8	191.9	234.7	271.4	319.5	380.4	348.5	281.9	293.3	302.8
77.5°	156.7	137.1	160.5	200.9	227.1	275.2	340.5	309.5	244.3	243.3	224.3
80°	108.6	97.1	130.5	161.9	175.7	231.4	297.1	265.7	199.0	185.7	177.6
82.5°	65.2	63.3	97.6	120.9	124.3	178.6	246.2	222.8	162.8	141.9	142.8
85°	35.7	37.6	62.4	70.9	72.4	124.8	192.8	172.4	125.2	105.2	106.2
87.5°	10.0	12.9	22.9	28.1	34.8	64.8	114.8	102.4	62.9	43.8	43.8
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)