

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: P882461

Luminaire Tested: **NAV-SB2B-830-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882461
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-SB2B-830-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9925 lumens
Efficiency: N/A
Efficacy: 134.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G2

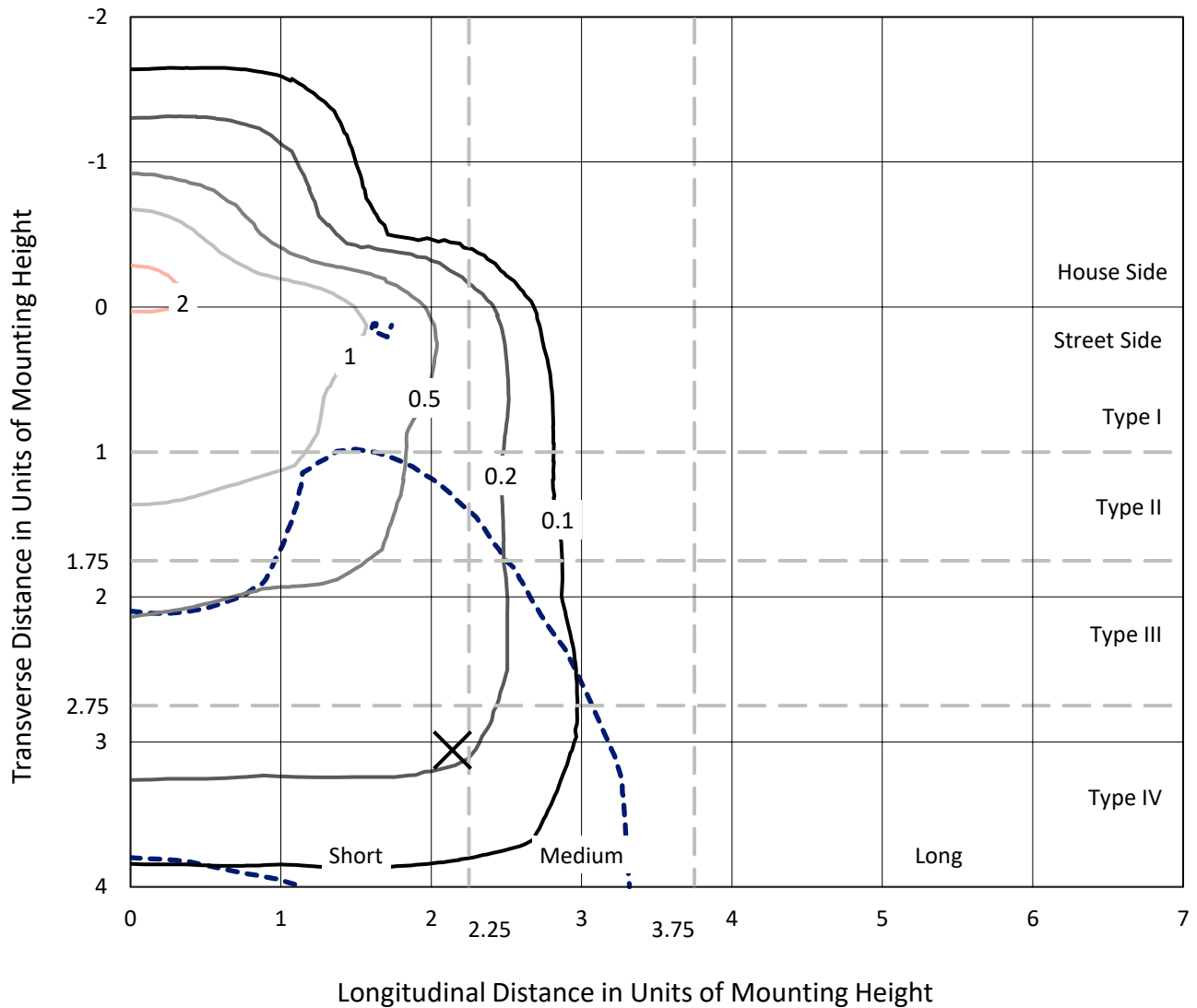
Input Watts (W): 73.9
Input Voltage (V): 120.0
Input Current (Ain): 0.627
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

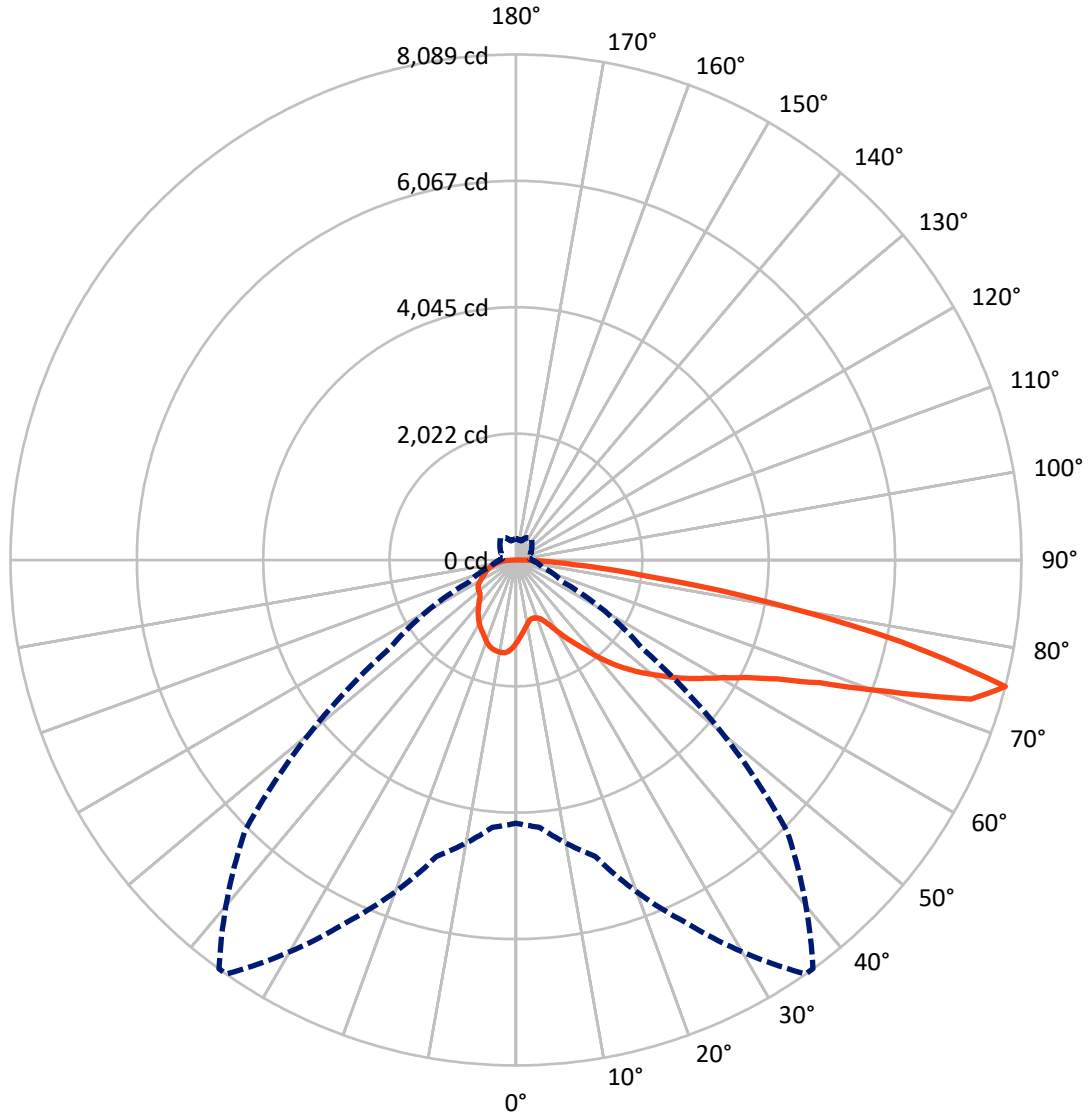
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 fc
 Type 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	2361.9	0.0	2361.9
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	7563.1	0.0	7563.1
	% Fixture	76.2	0.0	76.2
Total	Lumens	9925.0	0.0	9925.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.2	1.3
10°-20°	361.2	3.6
20°-30°	606.5	6.1
30°-40°	942.6	9.5
40°-50°	1399.1	14.1
50°-60°	1931.6	19.5
60°-70°	2343.5	23.6
70°-80°	1936.7	19.5
80°-90°	278.6	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°	9925.0	100.0
0°-180°	9925.0	100.0

Coefficient of Utilization



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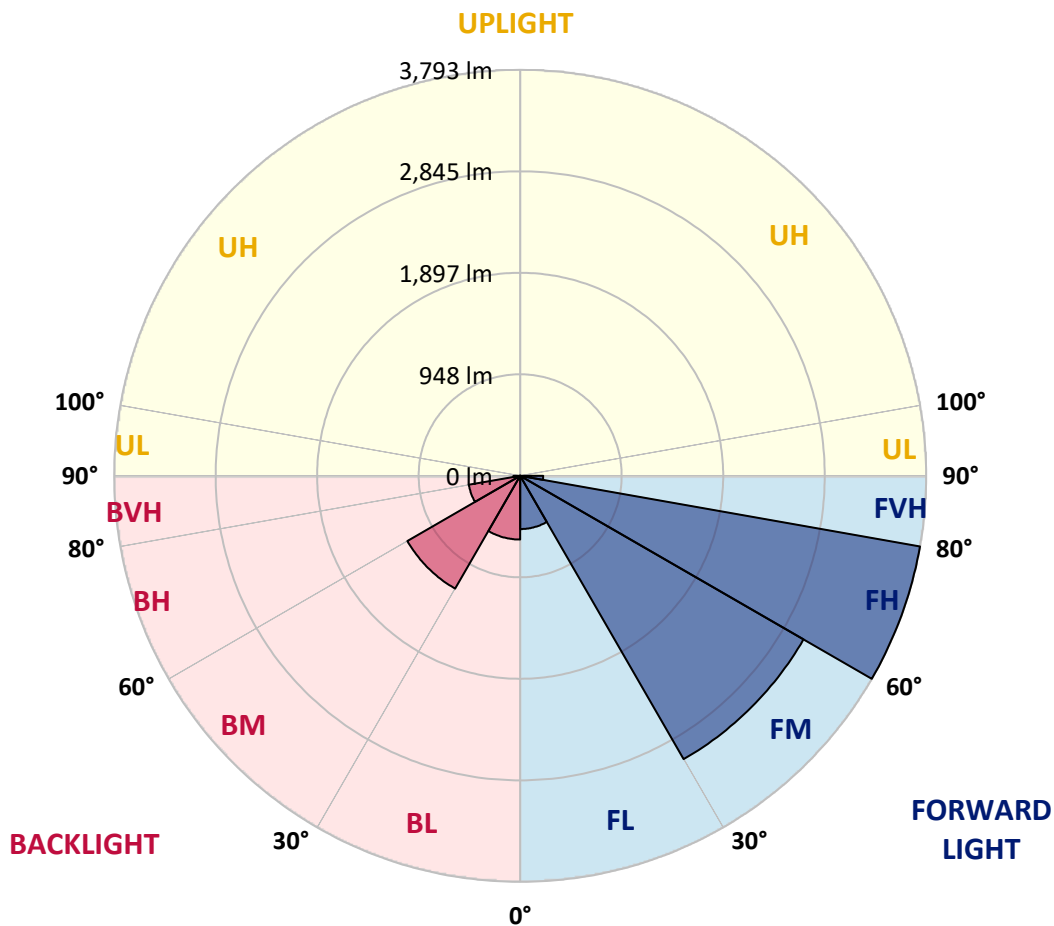
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	497.7	5.0			
FM (30°-60°)	3056.4	30.8			
FH (60°-80°)	3793.2	38.2			G2/5000
FVH (80°-90°)	215.8	2.2			G2/225
BL (0°-30°)	595.2	6.0	B2/1000		
BM (30°-60°)	1217.0	12.3	B2/2500		
BH (60°-80°)	486.9	4.9	B1/500		G1/500
BVH (80°-90°)	62.7	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°	1322.6	1322.6	1322.6	1322.6	1322.6	1322.6	1322.6	1322.6	1322.6	1322.6	1322.6
2.5°	1219.6	1227.1	1230.3	1228.7	1236.7	1235.7	1246.9	1260.9	1280.2	1299.0	1326.3
5°	1125.7	1133.7	1140.7	1147.1	1162.7	1167.5	1185.2	1212.0	1247.5	1283.4	1328.5
7.5°	1038.2	1045.2	1055.9	1067.7	1094.0	1098.8	1128.3	1170.2	1219.6	1272.1	1334.4
10°	966.8	973.8	985.1	998.5	1031.2	1037.1	1074.7	1130.5	1194.9	1261.4	1340.8
12.5°	936.3	938.4	944.8	958.3	986.7	990.5	1031.8	1095.6	1170.7	1253.4	1350.5
15°	934.7	938.9	939.5	946.5	970.1	971.7	1009.8	1073.1	1155.7	1251.7	1365.0
17.5°	950.8	954.0	949.1	953.4	973.3	976.0	1006.0	1062.4	1150.9	1258.7	1389.6
20°	993.7	996.4	981.9	976.0	990.5	992.6	1022.1	1069.3	1155.7	1273.2	1423.4
22.5°	1084.9	1086.5	1051.1	1026.9	1028.0	1029.1	1054.8	1097.8	1174.5	1299.5	1466.4
25°	1227.1	1226.0	1169.7	1123.0	1096.2	1090.3	1107.4	1143.9	1206.1	1334.4	1521.6
27.5°	1393.4	1385.3	1329.0	1259.3	1200.8	1192.2	1188.4	1204.0	1251.2	1380.5	1589.2
30°	1581.2	1573.7	1513.0	1421.8	1340.8	1326.9	1291.5	1283.4	1318.3	1443.3	1683.1
32.5°	1787.2	1782.4	1710.0	1599.4	1491.0	1475.0	1415.4	1393.9	1421.3	1538.3	1814.0
35°	1960.0	1955.7	1895.6	1781.9	1649.3	1629.5	1568.8	1544.7	1558.7	1660.1	1985.2
37.5°	2116.1	2114.0	2062.5	1972.9	1836.0	1811.9	1743.8	1735.7	1733.0	1820.5	2192.8
40°	2261.0	2255.6	2202.0	2154.7	2053.3	2031.3	1971.3	1964.3	1943.9	2017.9	2427.8
42.5°	2421.4	2407.5	2329.7	2307.7	2280.3	2262.1	2226.1	2227.2	2182.1	2240.6	2676.8
45°	2552.3	2544.3	2464.3	2451.5	2481.0	2473.5	2504.6	2512.6	2425.2	2474.0	2935.4
47.5°	2692.9	2685.4	2617.8	2608.7	2688.6	2690.8	2800.7	2803.4	2662.3	2716.5	3194.6
50°	2866.2	2855.5	2788.4	2799.7	2889.3	2897.3	3098.5	3080.3	2880.7	2962.8	3451.6
52.5°	2980.5	2986.9	2972.4	2990.7	3113.0	3120.5	3391.5	3344.8	3096.9	3205.8	3703.7
55°	3064.7	3077.6	3122.7	3164.5	3349.1	3356.6	3667.8	3596.4	3276.1	3431.2	3940.9
57.5°	3173.1	3154.9	3239.1	3320.7	3573.4	3593.2	3936.6	3839.0	3434.9	3625.4	4103.5
60°	3328.7	3315.8	3381.3	3502.0	3824.5	3856.1	4221.0	4057.3	3551.4	3779.4	4135.1
62.5°	3644.2	3612.0	3622.2	3729.0	4141.0	4182.9	4541.8	4247.8	3609.3	3839.5	3965.6
65°	4115.8	4060.5	4009.0	4083.1	4586.9	4628.2	4904.0	4397.5	3587.8	3723.1	3515.4
67.5°	4709.8	4655.0	4591.7	4661.5	5243.6	5276.3	5350.9	4481.7	3418.8	3274.5	2719.7
70°	5199.6	5179.2	5254.9	5541.9	6292.6	6293.6	5923.9	4412.0	2955.8	2321.6	1573.7
72.5°	5134.7	5122.4	5521.0	6408.4	7614.6	7586.2	6466.4	3884.0	1991.1	1047.3	589.7
75°	4212.4	4292.3	4909.9	6392.9	8089.4	8085.7	6134.3	2469.2	823.6	434.1	304.8
77.5°	2258.8	2385.5	3187.6	4720.0	6315.1	6410.1	4312.7	863.8	353.6	277.9	210.9
80°	736.7	847.2	1270.5	2403.2	4103.5	4085.8	1848.4	339.1	242.0	196.9	145.9
82.5°	312.8	325.7	567.7	1134.8	2105.9	2073.2	588.6	194.8	170.1	134.7	90.1
85°	122.3	136.8	250.6	524.7	912.1	892.3	212.5	96.6	108.9	88.0	53.7
87.5°	40.2	48.8	89.6	179.7	283.8	273.6	52.0	33.3	47.2	40.2	19.3
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°	1322.6	1322.6	1322.6	1322.6	1322.6	1322.6	1322.6	1322.6	1322.6	1322.6	1322.6
2.5°	1333.8	1342.4	1352.6	1367.6	1380.5	1391.3	1402.5	1409.5	1412.2	1420.2	1419.7
5°	1343.5	1362.3	1387.5	1412.2	1436.3	1450.8	1463.7	1470.1	1476.0	1480.3	1481.4
7.5°	1359.6	1383.7	1423.4	1455.6	1476.0	1487.8	1496.4	1494.3	1496.4	1497.5	1499.1
10°	1373.5	1407.3	1454.6	1485.1	1500.7	1501.2	1499.1	1491.6	1487.8	1488.4	1489.4
12.5°	1390.2	1427.7	1478.7	1504.5	1508.8	1496.9	1487.8	1475.0	1470.1	1468.0	1466.9
15°	1412.7	1455.6	1505.0	1514.7	1503.9	1488.9	1473.3	1452.4	1441.7	1433.1	1435.8
17.5°	1440.1	1487.3	1525.4	1518.4	1495.3	1470.7	1445.4	1413.8	1391.8	1382.7	1383.2
20°	1478.2	1520.6	1540.9	1510.4	1475.5	1437.9	1395.0	1356.4	1336.0	1326.9	1325.8
22.5°	1524.3	1565.1	1556.0	1496.4	1447.1	1387.0	1333.3	1304.9	1294.7	1288.2	1289.3
25°	1579.6	1614.5	1566.7	1476.0	1400.4	1319.4	1278.0	1268.9	1264.1	1259.3	1259.3
27.5°	1651.5	1670.3	1574.7	1446.0	1327.4	1247.5	1232.4	1234.0	1232.4	1224.4	1226.0
30°	1746.4	1742.7	1582.3	1397.2	1243.7	1182.5	1183.6	1190.6	1191.7	1186.3	1189.0
32.5°	1871.5	1833.4	1586.0	1333.8	1163.8	1125.7	1126.7	1134.2	1139.6	1130.5	1134.8
35°	2022.8	1939.1	1580.1	1254.4	1102.1	1071.5	1063.4	1065.6	1067.2	1058.6	1064.5
37.5°	2199.3	2057.6	1553.8	1166.4	1051.1	1018.4	1001.2	986.7	978.1	970.1	975.4
40°	2393.0	2186.9	1505.5	1080.6	994.2	962.0	936.3	908.9	879.9	869.2	874.0
42.5°	2595.8	2320.0	1447.1	998.5	928.8	902.5	875.1	835.4	791.9	769.9	772.6
45°	2806.1	2456.3	1389.6	917.5	861.7	850.4	818.8	771.0	723.8	695.9	693.7
47.5°	3012.1	2585.1	1305.4	835.9	798.9	811.2	786.6	742.6	690.0	646.0	641.2
50°	3209.1	2705.8	1167.5	753.3	747.9	799.4	775.8	712.5	652.4	596.1	591.3
52.5°	3404.4	2803.4	991.0	678.2	720.6	796.2	761.9	692.1	618.6	559.6	553.2
55°	3570.1	2853.9	820.9	613.8	680.9	768.9	745.3	668.0	570.9	508.1	502.7
57.5°	3664.6	2813.1	679.3	550.5	626.1	723.8	716.8	616.5	514.0	465.7	459.3
60°	3623.8	2647.8	563.4	495.2	574.1	675.0	667.5	565.5	470.5	424.9	418.5
62.5°	3399.0	2332.9	471.6	446.9	526.9	625.1	618.1	526.3	437.3	393.3	386.3
65°	2946.1	1897.7	400.3	406.7	479.1	565.0	575.2	493.6	411.0	368.1	361.1
67.5°	2247.0	1374.6	344.5	371.8	432.5	506.0	535.5	470.0	389.0	348.2	341.8
70°	1280.7	780.7	297.2	338.0	391.1	451.2	504.9	451.2	365.4	331.6	327.3
72.5°	485.6	358.4	257.0	304.2	351.4	405.1	471.1	421.7	338.0	312.8	308.5
75°	259.1	218.4	216.2	264.5	305.8	360.0	428.7	392.7	317.6	330.5	341.2
77.5°	176.5	154.5	180.8	226.4	255.9	310.1	383.6	348.8	275.2	274.2	252.7
80°	122.3	109.5	147.0	182.4	198.0	260.8	334.8	299.4	224.3	209.3	200.1
82.5°	73.5	71.4	110.0	136.3	140.0	201.2	277.4	251.1	183.5	159.9	161.0
85°	40.2	42.4	70.3	79.9	81.6	140.6	217.3	194.2	141.1	118.6	119.6
87.5°	11.3	14.5	25.8	31.7	39.2	73.0	129.3	115.4	70.8	49.4	49.4
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)