

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: P882471

Luminaire Tested: **NAV-SB2B-835-U-T4FT**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882471  
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-835-U-T4FT  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 80 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

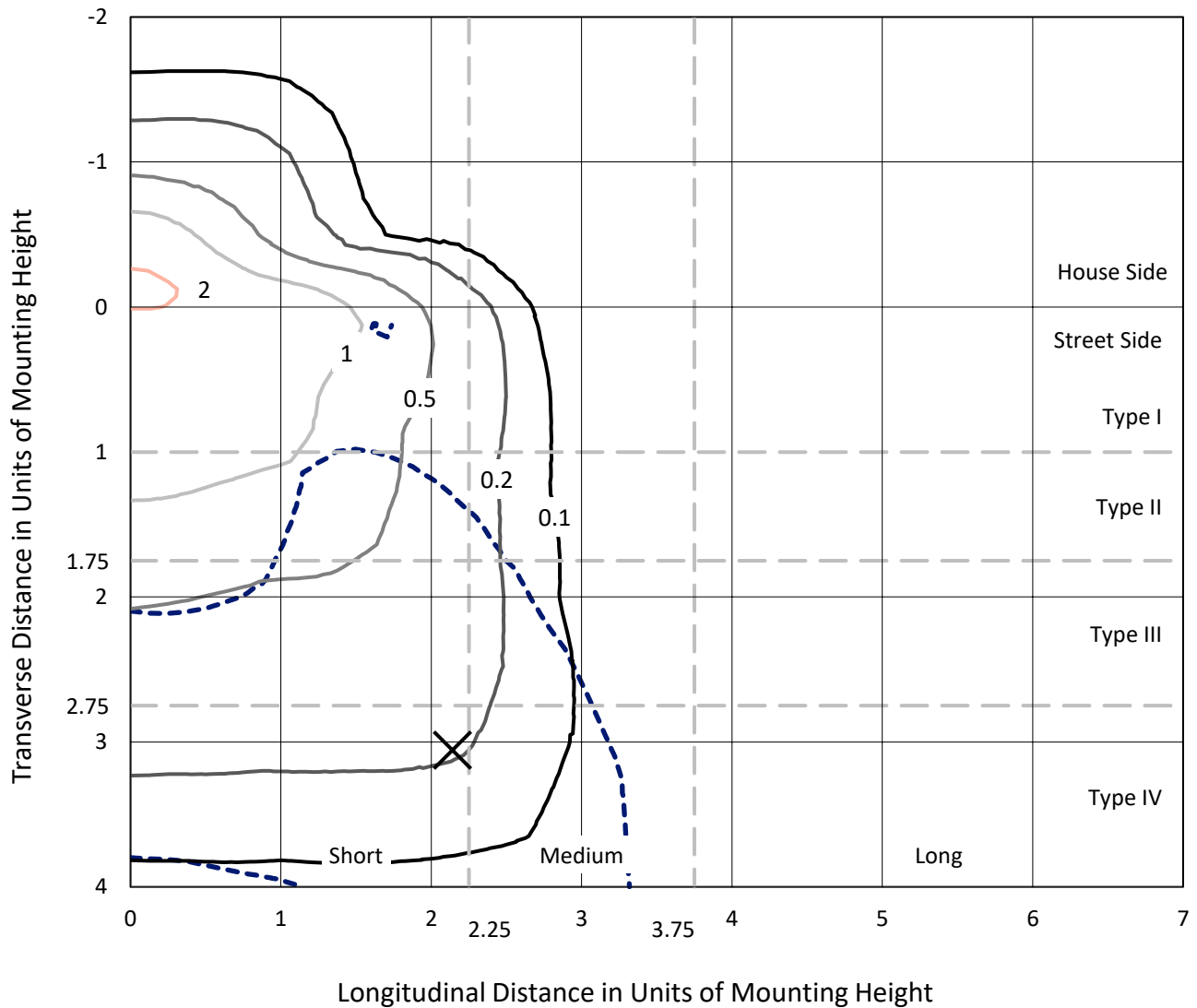
Lumens per Lamp: N/A  
Luminaire Lumens: 9571 lumens  
Efficiency: N/A  
Efficacy: 129.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 73.9  
Input Voltage (V): 120.0  
Input Current (Ain): 0.627  
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

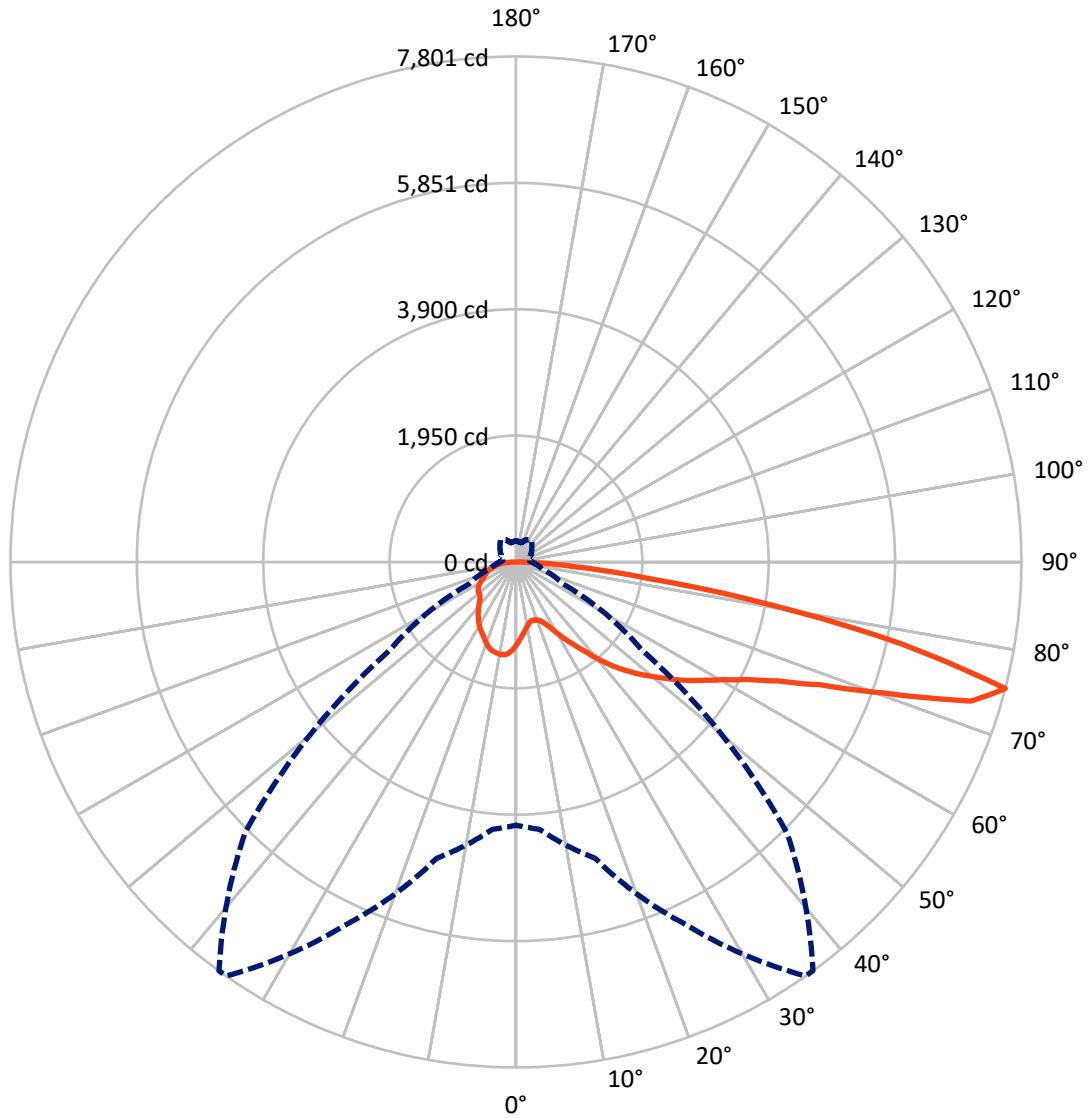
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 fc  
 Type IV - Short - N/A

REPORT NUMBER: P882471  
CATALOG NUMBER: NAV-SB2B-835-U-T4FT

### 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
<b>House Side</b>	Lumens	2277.7	0.0	2277.7
	% Fixture	23.8	0.0	23.8
<b>Street Side</b>	Lumens	7293.3	0.0	7293.3
	% Fixture	76.2	0.0	76.2
<b>Total</b>	Lumens	9571.0	0.0	9571.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.8	1.3
10°-20°	348.3	3.6
20°-30°	584.9	6.1
30°-40°	909.0	9.5
40°-50°	1349.2	14.1
50°-60°	1862.7	19.5
60°-70°	2259.9	23.6
70°-80°	1867.6	19.5
80°-90°	268.6	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°	9571.0	100.0
0°-180°	9571.0	100.0

**Coefficient of Utilization**



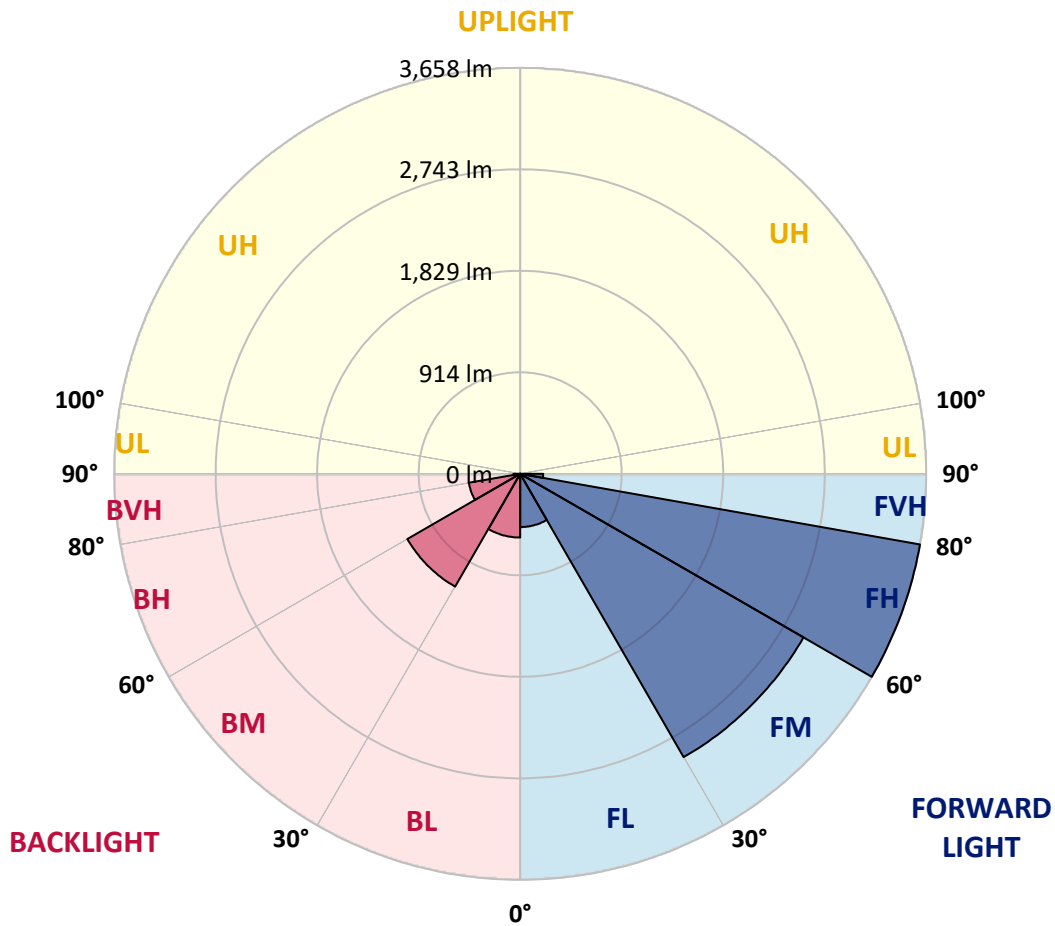
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 CATALOG NUMBER: NAV-SB2B-835-U-T4FT

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	480.0	5.0			
FM (30°-60°)	2947.3	30.8			
FH (60°-80°)	3657.9	38.2			G2/5000
FVH (80°-90°)	208.1	2.2			G2/225
BL (0°-30°)	574.0	6.0	B2/1000		
BM (30°-60°)	1173.6	12.3	B2/2500		
BH (60°-80°)	469.6	4.9	B1/500		G1/500
BVH (80°-90°)	60.5	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



REPORT NUMBER: P882471

CATALOG NUMBER: NAV-SB2B-835-U-T4FT

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	1275.4	1275.4	1275.4	1275.4	1275.4	1275.4	1275.4	1275.4	1275.4	1275.4	1275.4
2.5°	1176.1	1183.3	1186.4	1184.9	1192.6	1191.6	1202.4	1215.9	1234.5	1252.6	1279.0
5°	1085.5	1093.3	1100.0	1106.2	1121.2	1125.9	1142.9	1168.8	1203.0	1237.6	1281.1
7.5°	1001.2	1007.9	1018.3	1029.6	1055.0	1059.6	1088.1	1128.5	1176.1	1226.8	1286.8
10°	932.4	939.1	950.0	962.9	994.5	1000.1	1036.4	1090.2	1152.3	1216.4	1293.0
12.5°	902.9	904.9	911.1	924.1	951.5	955.1	995.0	1056.5	1129.0	1208.7	1302.3
15°	901.3	905.5	906.0	912.7	935.5	937.0	973.8	1034.8	1114.5	1207.1	1316.3
17.5°	916.8	919.9	915.3	919.4	938.6	941.2	970.1	1024.5	1109.8	1213.8	1340.1
20°	958.2	960.8	946.8	941.2	955.1	957.2	985.7	1031.2	1114.5	1227.8	1372.7
22.5°	1046.2	1047.7	1013.6	990.3	991.3	992.4	1017.2	1058.6	1132.6	1253.2	1414.1
25°	1183.3	1182.3	1127.9	1082.9	1057.1	1051.4	1067.9	1103.1	1163.1	1286.8	1467.4
27.5°	1343.7	1335.9	1281.6	1214.3	1157.9	1149.7	1146.0	1161.1	1206.6	1331.3	1532.6
30°	1524.8	1517.5	1459.1	1371.1	1293.0	1279.5	1245.4	1237.6	1271.3	1391.8	1623.1
32.5°	1723.5	1718.8	1649.0	1542.4	1437.9	1422.3	1364.9	1344.2	1370.6	1483.4	1749.3
35°	1890.1	1885.9	1828.0	1718.3	1590.5	1571.4	1512.9	1489.6	1503.1	1600.8	1914.4
37.5°	2040.6	2038.6	1988.9	1902.5	1770.6	1747.3	1681.6	1673.8	1671.2	1755.6	2114.6
40°	2180.3	2175.2	2123.4	2077.9	1980.1	1958.9	1900.9	1894.2	1874.6	1946.0	2341.3
42.5°	2335.0	2321.6	2246.6	2225.4	2199.0	2181.4	2146.7	2147.7	2104.3	2160.7	2581.3
45°	2461.3	2453.5	2376.4	2364.0	2392.5	2385.2	2415.2	2423.0	2338.7	2385.7	2830.7
47.5°	2596.8	2589.6	2524.4	2515.6	2592.7	2594.8	2700.8	2703.4	2567.4	2619.6	3080.6
50°	2764.0	2753.6	2688.9	2699.8	2786.2	2794.0	2988.0	2970.4	2777.9	2857.1	3328.5
52.5°	2874.2	2880.4	2866.4	2884.0	3002.0	3009.2	3270.5	3225.5	2986.5	3091.5	3571.6
55°	2955.4	2967.8	3011.3	3051.6	3229.6	3236.9	3537.0	3468.2	3159.3	3308.8	3800.3
57.5°	3059.9	3042.3	3123.6	3202.2	3445.9	3465.1	3796.2	3702.0	3312.4	3496.1	3957.1
60°	3210.0	3197.6	3260.7	3377.1	3688.1	3718.6	4070.4	3912.6	3424.7	3644.6	3987.6
62.5°	3514.2	3483.2	3493.0	3596.0	3993.3	4033.7	4379.8	4096.3	3480.6	3702.5	3824.1
65°	3969.0	3915.7	3866.0	3937.4	4423.3	4463.1	4729.1	4240.6	3459.9	3590.3	3390.0
67.5°	4541.8	4489.0	4427.9	4495.2	5056.6	5088.1	5160.1	4321.9	3296.9	3157.7	2622.7
70°	5014.2	4994.5	5067.5	5344.3	6068.1	6069.1	5712.7	4254.6	2850.4	2238.8	1517.5
72.5°	4951.6	4939.7	5324.1	6179.9	7343.0	7315.6	6235.8	3745.5	1920.1	1010.0	568.6
75°	4062.1	4139.2	4734.8	6164.9	7800.9	7797.3	5915.5	2381.1	794.2	418.6	293.9
77.5°	2178.3	2300.4	3073.9	4551.6	6089.8	6181.4	4158.9	833.0	341.0	268.0	203.3
80°	710.4	817.0	1225.2	2317.5	3957.1	3940.0	1782.5	327.0	233.3	189.9	140.7
82.5°	301.6	314.1	547.4	1094.3	2030.8	1999.2	567.6	187.8	164.0	129.9	86.9
85°	118.0	131.9	241.6	506.0	879.6	860.4	204.9	93.1	105.0	84.9	51.7
87.5°	38.8	47.1	86.4	173.3	273.7	263.9	50.2	32.1	45.5	38.8	18.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P882471

CATALOG NUMBER: NAV-SB2B-835-U-T4FT

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1275.4	1275.4	1275.4	1275.4	1275.4	1275.4	1275.4	1275.4	1275.4	1275.4	1275.4
2.5°	1286.3	1294.5	1304.4	1318.9	1331.3	1341.6	1352.5	1359.2	1361.8	1369.6	1369.1
5°	1295.6	1313.7	1338.0	1361.8	1385.1	1399.1	1411.5	1417.7	1423.4	1427.5	1428.6
7.5°	1311.1	1334.4	1372.7	1403.7	1423.4	1434.8	1443.0	1441.0	1443.0	1444.1	1445.6
10°	1324.6	1357.2	1402.7	1432.2	1447.2	1447.7	1445.6	1438.4	1434.8	1435.3	1436.3
12.5°	1340.6	1376.8	1426.0	1450.8	1454.9	1443.6	1434.8	1422.3	1417.7	1415.6	1414.6
15°	1362.3	1403.7	1451.3	1460.6	1450.3	1435.8	1420.8	1400.6	1390.3	1382.0	1384.6
17.5°	1388.7	1434.2	1471.0	1464.3	1442.0	1418.2	1393.9	1363.4	1342.1	1333.3	1333.9
20°	1425.4	1466.3	1486.0	1456.5	1422.9	1386.6	1345.3	1308.0	1288.3	1279.5	1278.5
22.5°	1469.9	1509.3	1500.5	1443.0	1395.4	1337.5	1285.7	1258.3	1248.5	1242.3	1243.3
25°	1523.2	1556.9	1510.8	1423.4	1350.4	1272.3	1232.5	1223.7	1219.0	1214.3	1214.3
27.5°	1592.6	1610.7	1518.6	1394.4	1280.1	1203.0	1188.5	1190.0	1188.5	1180.7	1182.3
30°	1684.1	1680.5	1525.8	1347.3	1199.3	1140.4	1141.4	1148.1	1149.2	1144.0	1146.6
32.5°	1804.7	1768.0	1529.4	1286.3	1122.2	1085.5	1086.5	1093.8	1099.0	1090.2	1094.3
35°	1950.6	1869.9	1523.8	1209.7	1062.7	1033.3	1025.5	1027.6	1029.1	1020.8	1026.5
37.5°	2120.8	1984.2	1498.4	1124.8	1013.6	982.0	965.5	951.5	943.2	935.5	940.6
40°	2307.6	2108.9	1451.8	1042.1	958.7	927.7	902.9	876.5	848.5	838.2	842.9
42.5°	2503.2	2237.3	1395.4	962.9	895.6	870.3	843.9	805.6	763.7	742.5	745.1
45°	2706.0	2368.7	1340.1	884.8	831.0	820.1	789.6	743.5	698.0	671.1	669.0
47.5°	2904.7	2492.9	1258.8	806.1	770.4	782.3	758.5	716.1	665.4	623.0	618.3
50°	3094.6	2609.3	1125.9	726.4	721.3	770.9	748.2	687.1	629.2	574.8	570.2
52.5°	3282.9	2703.4	955.6	654.0	694.9	767.8	734.7	667.5	596.6	539.7	533.4
55°	3442.8	2752.1	791.6	591.9	656.6	741.4	718.7	644.2	550.5	490.0	484.8
57.5°	3533.9	2712.7	655.0	530.9	603.8	698.0	691.3	594.5	495.7	449.1	442.9
60°	3494.5	2553.4	543.3	477.6	553.6	650.9	643.7	545.3	453.8	409.8	403.6
62.5°	3277.8	2249.7	454.8	431.0	508.1	602.8	596.0	507.6	421.7	379.3	372.5
65°	2841.1	1830.1	386.0	392.2	462.0	544.8	554.7	476.0	396.3	354.9	348.2
67.5°	2166.9	1325.6	332.2	358.6	417.0	487.9	516.4	453.2	375.1	335.8	329.6
70°	1235.0	752.8	286.6	326.0	377.2	435.1	486.9	435.1	352.4	319.8	315.6
72.5°	468.3	345.6	247.8	293.4	338.9	390.6	454.3	406.7	326.0	301.6	297.5
75°	249.9	210.6	208.5	255.1	294.9	347.2	413.4	378.7	306.3	318.7	329.1
77.5°	170.2	149.0	174.4	218.3	246.8	299.1	369.9	336.3	265.4	264.4	243.7
80°	118.0	105.6	141.8	175.9	190.9	251.5	322.9	288.7	216.3	201.8	193.0
82.5°	70.9	68.8	106.1	131.4	135.0	194.0	267.5	242.1	177.0	154.2	155.2
85°	38.8	40.9	67.8	77.1	78.6	135.6	209.5	187.3	136.1	114.3	115.4
87.5°	10.9	14.0	24.8	30.5	37.8	70.4	124.7	111.2	68.3	47.6	47.6
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)