

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: P882957

Luminaire Tested: **NAV-SB3A-827-U-T2**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882957  
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-SB3A-827-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

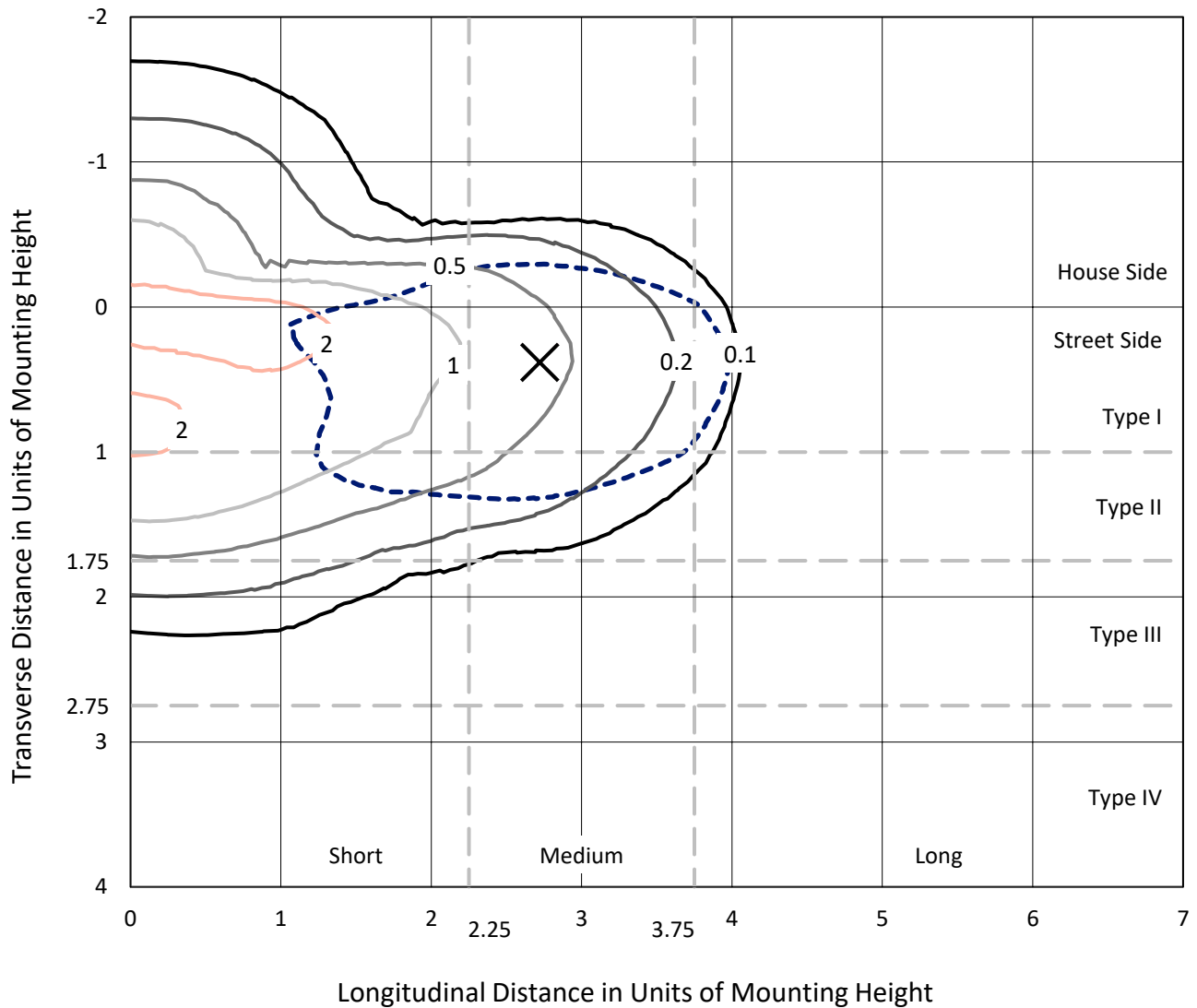
Lumens per Lamp: N/A  
Luminaire Lumens: 10832 lumens  
Efficiency: N/A  
Efficacy: 127.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 84.7  
Input Voltage (V): 120.0  
Input Current (Ain): 0.717  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 11.969  
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

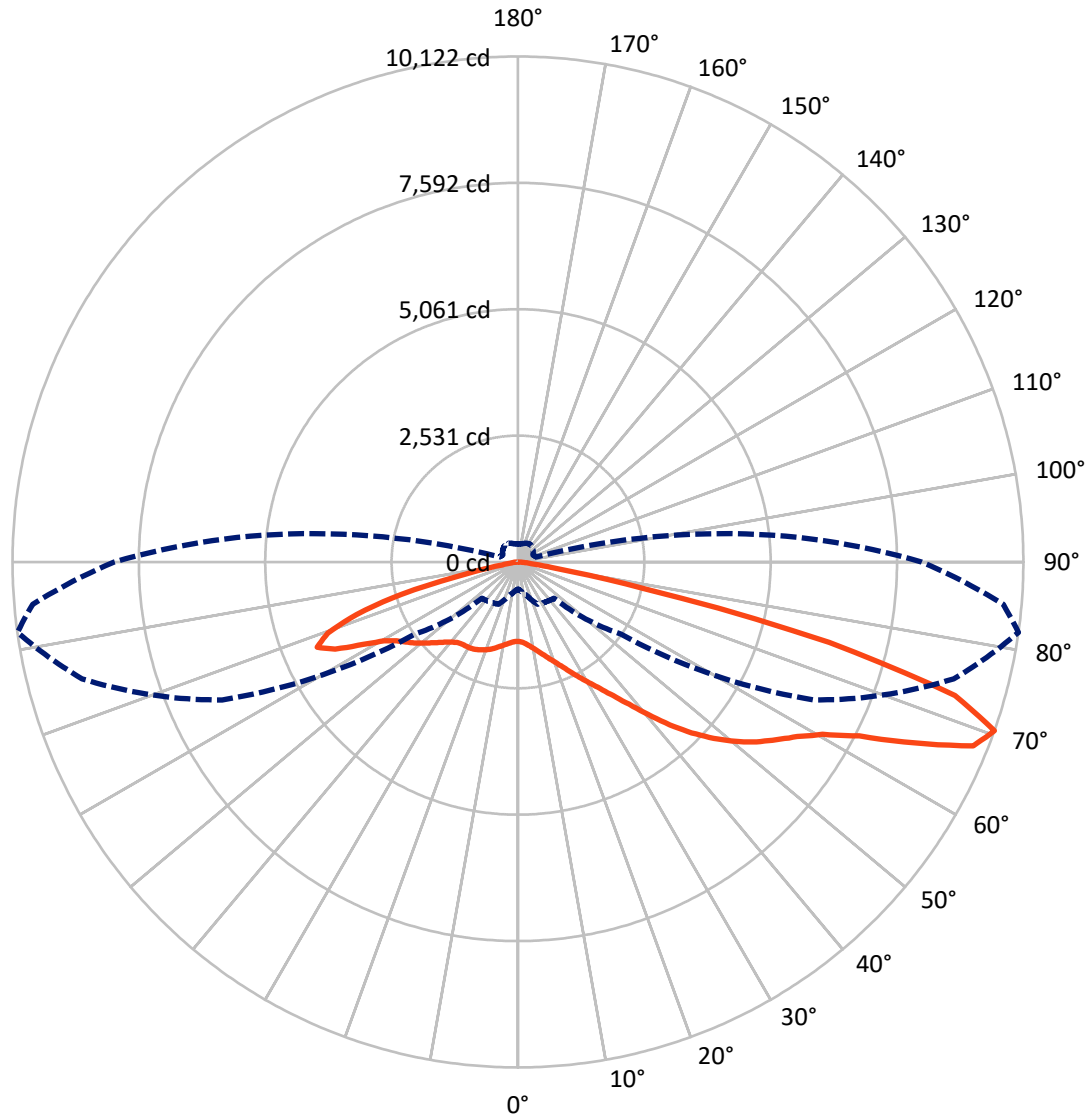
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 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
<b>House Side</b>	Lumens	2670.4	0.0	2670.4
	% Fixture	24.7	0.0	24.7
<b>Street Side</b>	Lumens	8161.6	0.0	8161.6
	% Fixture	75.3	0.0	75.3
<b>Total</b>	Lumens	10832.0	0.0	10832.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	149.9	1.4
10°-20°	430.8	4.0
20°-30°	720.7	6.7
30°-40°	1125.9	10.4
40°-50°	1793.1	16.6
50°-60°	2495.4	23.0
60°-70°	2610.3	24.1
70°-80°	1364.3	12.6
80°-90°	141.7	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°	10832.0	100.0
0°-180°	10832.0	100.0

**Coefficient of Utilization**

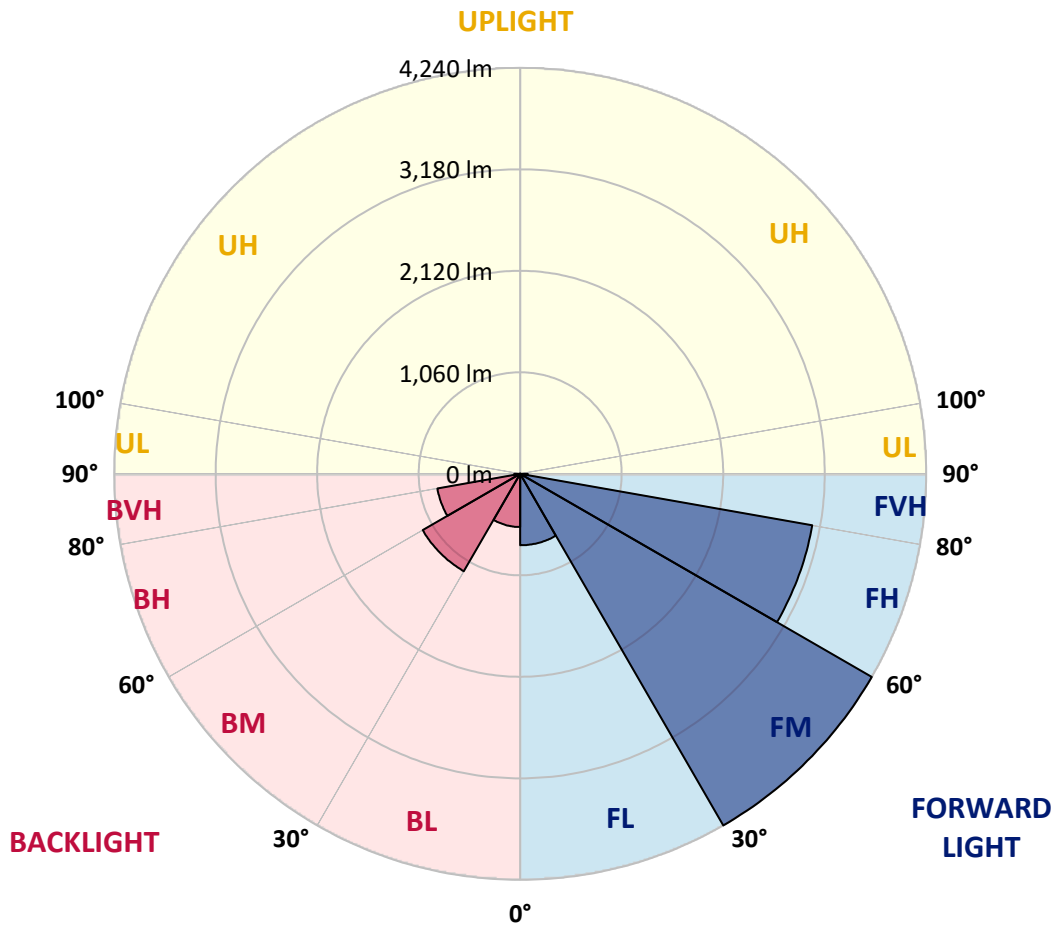


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	745.9	6.9			
FM (30°-60°)	4239.5	39.1			
FH (60°-80°)	3096.9	28.6			G2/5000
FVH (80°-90°)	79.3	0.7			G1/100
BL (0°-30°)	555.5	5.1	B2/1000		
BM (30°-60°)	1174.9	10.8	B2/2500		
BH (60°-80°)	877.6	8.1	B2/1000		G2/1000
BVH (80°-90°)	62.4	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°	1588.1	1588.1	1588.1	1588.1	1588.1	1588.1	1588.1	1588.1	1588.1	1588.1	1588.1
2.5°	1626.0	1635.2	1632.4	1629.5	1629.5	1625.5	1624.9	1619.1	1614.5	1607.1	1605.3
5°	1646.7	1656.5	1655.4	1657.7	1665.1	1666.9	1668.6	1665.1	1655.9	1646.7	1642.7
7.5°	1628.3	1639.3	1642.7	1656.5	1679.5	1700.2	1715.7	1722.0	1713.4	1700.2	1693.9
10°	1566.3	1578.3	1590.4	1623.2	1664.0	1712.8	1754.2	1778.9	1777.2	1764.6	1753.6
12.5°	1440.4	1453.0	1478.9	1542.7	1617.4	1703.6	1780.7	1832.4	1850.2	1841.0	1822.0
15°	1339.8	1350.7	1370.3	1435.8	1532.9	1664.0	1790.4	1891.0	1936.4	1931.2	1908.3
17.5°	1336.9	1341.5	1353.6	1384.6	1459.4	1601.9	1780.1	1948.5	2035.3	2034.7	2006.0
20°	1387.5	1389.2	1396.1	1402.5	1445.0	1554.8	1753.6	1996.2	2146.2	2146.2	2115.2
22.5°	1457.6	1456.5	1463.4	1457.6	1478.3	1550.7	1737.0	2038.2	2269.8	2279.0	2239.9
25°	1562.8	1557.1	1555.3	1542.1	1546.1	1588.1	1755.4	2085.9	2416.4	2435.3	2386.5
27.5°	1703.1	1693.9	1687.5	1657.1	1646.7	1665.1	1811.7	2143.3	2579.6	2612.4	2550.3
30°	1885.8	1869.2	1860.0	1807.1	1769.7	1772.6	1896.8	2219.8	2750.3	2803.2	2724.4
32.5°	2135.3	2109.4	2084.7	1997.9	1929.5	1907.1	2006.5	2325.5	2935.4	3019.9	2918.7
35°	2414.6	2393.9	2367.5	2233.6	2128.4	2076.7	2154.8	2473.3	3152.1	3286.0	3154.4
37.5°	2683.6	2665.8	2678.5	2498.0	2362.3	2287.0	2349.1	2671.6	3419.3	3617.1	3449.8
40°	2961.8	2948.0	2949.8	2777.3	2619.3	2534.8	2584.8	2920.4	3725.7	4010.8	3805.0
42.5°	3264.2	3253.8	3219.3	3066.4	2888.8	2810.1	2856.1	3207.8	4054.5	4459.1	4194.7
45°	3602.7	3596.4	3564.2	3388.9	3185.4	3096.9	3159.0	3525.1	4385.0	4881.0	4586.1
47.5°	3895.3	3900.4	3896.4	3748.7	3537.7	3407.8	3482.0	3856.2	4692.5	5277.6	4961.5
50°	4036.1	4063.1	4102.8	4056.8	3925.7	3793.5	3807.9	4175.7	4985.6	5649.5	5321.3
52.5°	3962.5	4013.7	4121.7	4195.3	4245.9	4218.3	4179.8	4493.0	5261.5	5985.1	5661.5
55°	3688.3	3760.2	3939.5	4117.1	4375.2	4575.8	4626.4	4844.8	5530.5	6280.6	5983.4
57.5°	3188.9	3305.5	3466.5	3825.7	4260.2	4748.8	5147.1	5332.8	5815.6	6596.1	6320.2
60°	2332.4	2488.8	2688.8	3223.3	3857.9	4656.3	5590.3	6082.3	6220.8	7004.8	6758.8
62.5°	1492.7	1589.3	1773.2	2276.7	3006.1	4182.1	5725.9	7019.2	6907.7	7675.0	7416.3
65°	1022.0	1084.0	1252.4	1535.2	1943.3	3113.0	5362.7	7721.5	7998.6	8737.2	8540.6
67.5°	742.6	789.7	933.4	1181.2	1266.2	1842.2	4161.4	7689.4	9059.0	9831.5	9525.8
70°	541.4	574.8	695.5	933.4	974.2	1024.8	2521.0	6536.4	9036.1	10122.4	9756.3
72.5°	401.2	424.2	505.2	724.2	788.6	692.0	1247.8	4750.5	7764.7	9155.6	8861.9
75°	290.3	307.5	367.3	554.1	631.1	527.1	622.5	2776.2	5416.1	6440.4	6492.1
77.5°	221.9	235.1	274.2	405.8	505.2	395.4	386.2	1277.2	2568.1	2580.7	2725.6
80°	178.2	186.8	208.1	285.7	387.4	296.0	251.8	515.6	811.6	686.9	720.8
82.5°	131.0	145.4	175.9	200.6	277.0	204.0	153.5	260.4	308.7	265.5	267.8
85°	74.7	84.5	106.3	143.7	177.0	124.7	87.9	115.5	143.7	117.8	105.2
87.5°	26.4	34.5	37.4	56.3	77.0	51.7	33.9	33.3	47.1	35.1	29.3
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°	1588.1	1588.1	1588.1	1588.1	1588.1	1588.1	1588.1	1588.1	1588.1	1588.1	1588.1
2.5°	1599.6	1596.7	1585.2	1569.7	1553.6	1538.1	1532.9	1522.0	1514.5	1510.5	1515.1
5°	1631.8	1622.6	1595.6	1561.1	1524.9	1485.8	1458.2	1432.9	1414.5	1397.3	1404.2
7.5°	1677.8	1661.7	1615.1	1554.8	1490.4	1425.4	1377.2	1340.4	1315.7	1299.6	1303.0
10°	1731.2	1706.5	1635.2	1545.0	1445.6	1352.4	1295.5	1263.9	1248.4	1239.8	1242.1
12.5°	1792.7	1757.7	1655.9	1522.6	1377.2	1270.8	1231.7	1222.5	1223.1	1223.7	1224.8
15°	1868.6	1819.7	1672.6	1473.7	1288.1	1208.2	1201.3	1216.2	1231.7	1239.2	1238.6
17.5°	1954.2	1885.3	1675.5	1393.3	1200.7	1167.9	1189.8	1222.0	1245.5	1255.9	1258.2
20°	2046.2	1951.9	1654.8	1279.5	1128.9	1135.2	1174.3	1215.7	1241.5	1254.7	1258.2
22.5°	2151.4	2023.2	1605.3	1159.9	1070.2	1099.5	1145.5	1185.8	1212.8	1226.0	1229.4
25°	2271.5	2103.1	1527.8	1059.3	1019.7	1059.3	1105.3	1138.6	1160.5	1172.5	1176.0
27.5°	2404.9	2186.4	1424.3	979.4	975.4	1017.9	1055.9	1081.7	1093.2	1102.4	1105.9
30°	2538.8	2262.3	1299.0	919.1	936.9	977.1	1004.1	1015.6	1019.1	1020.8	1024.8
32.5°	2683.6	2327.8	1167.4	869.1	900.1	937.5	953.6	958.7	942.6	931.7	935.2
35°	2858.9	2398.0	1038.6	829.4	863.9	896.1	901.2	896.7	877.7	855.3	856.4
37.5°	3075.6	2485.3	935.7	801.2	830.0	851.2	844.9	843.8	845.5	819.1	820.8
40°	3341.2	2599.1	860.4	779.4	802.4	807.0	789.2	798.9	807.6	767.3	768.5
42.5°	3636.0	2736.5	812.7	764.5	779.4	768.5	740.9	751.8	750.7	697.8	697.2
45°	3936.6	2886.0	796.1	753.5	758.1	736.3	705.8	708.7	684.6	636.9	638.6
47.5°	4235.5	3046.3	806.4	744.3	731.7	707.0	683.4	670.8	635.1	599.5	599.5
50°	4528.7	3214.7	844.3	725.9	695.5	681.1	663.9	641.5	603.5	573.1	570.8
52.5°	4800.5	3384.3	886.9	695.5	650.1	658.7	647.8	621.9	584.5	553.5	554.1
55°	5058.0	3553.8	903.5	653.5	607.5	639.2	632.8	585.1	540.3	515.0	512.7
57.5°	5338.5	3757.9	885.2	600.1	573.1	616.7	592.6	539.7	513.8	494.9	493.2
60°	5727.1	4078.0	845.5	534.0	540.3	583.4	542.0	520.2	492.0	470.7	469.6
62.5°	6372.5	4675.2	781.7	468.4	501.8	534.0	517.9	496.0	467.3	446.6	446.6
65°	7326.7	5505.2	661.6	417.3	458.7	485.7	492.0	470.2	440.3	418.4	419.6
67.5°	8131.4	6026.0	500.6	374.8	414.4	446.6	464.4	443.2	411.5	390.3	390.8
70°	8087.1	5647.8	382.2	332.8	375.3	408.1	431.1	414.4	380.5	360.4	362.1
72.5°	7183.0	4724.7	309.2	290.3	335.7	367.9	395.4	382.8	348.3	328.8	328.8
75°	5277.0	3353.8	247.2	247.2	286.2	325.9	356.4	348.3	316.7	302.9	298.9
77.5°	2224.4	1407.1	193.7	205.2	238.0	279.9	317.9	320.7	293.1	310.4	281.6
80°	591.4	388.0	147.7	161.5	186.8	231.1	276.5	275.3	245.4	229.3	213.2
82.5°	225.3	152.9	105.2	113.8	135.1	177.0	219.0	225.9	196.0	169.6	169.6
85°	86.8	65.5	64.9	68.4	78.7	117.3	165.5	171.3	147.7	125.3	129.3
87.5°	22.4	19.5	24.1	23.0	36.2	62.7	94.8	98.3	90.2	52.3	74.7
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)