

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: P960818

Luminaire Tested: **NAV-SB1D-727-U-T2R**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P960818  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1D-727-U-T2R  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9857.4 lumens  
Efficiency: N/A  
Efficacy: 123.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G2

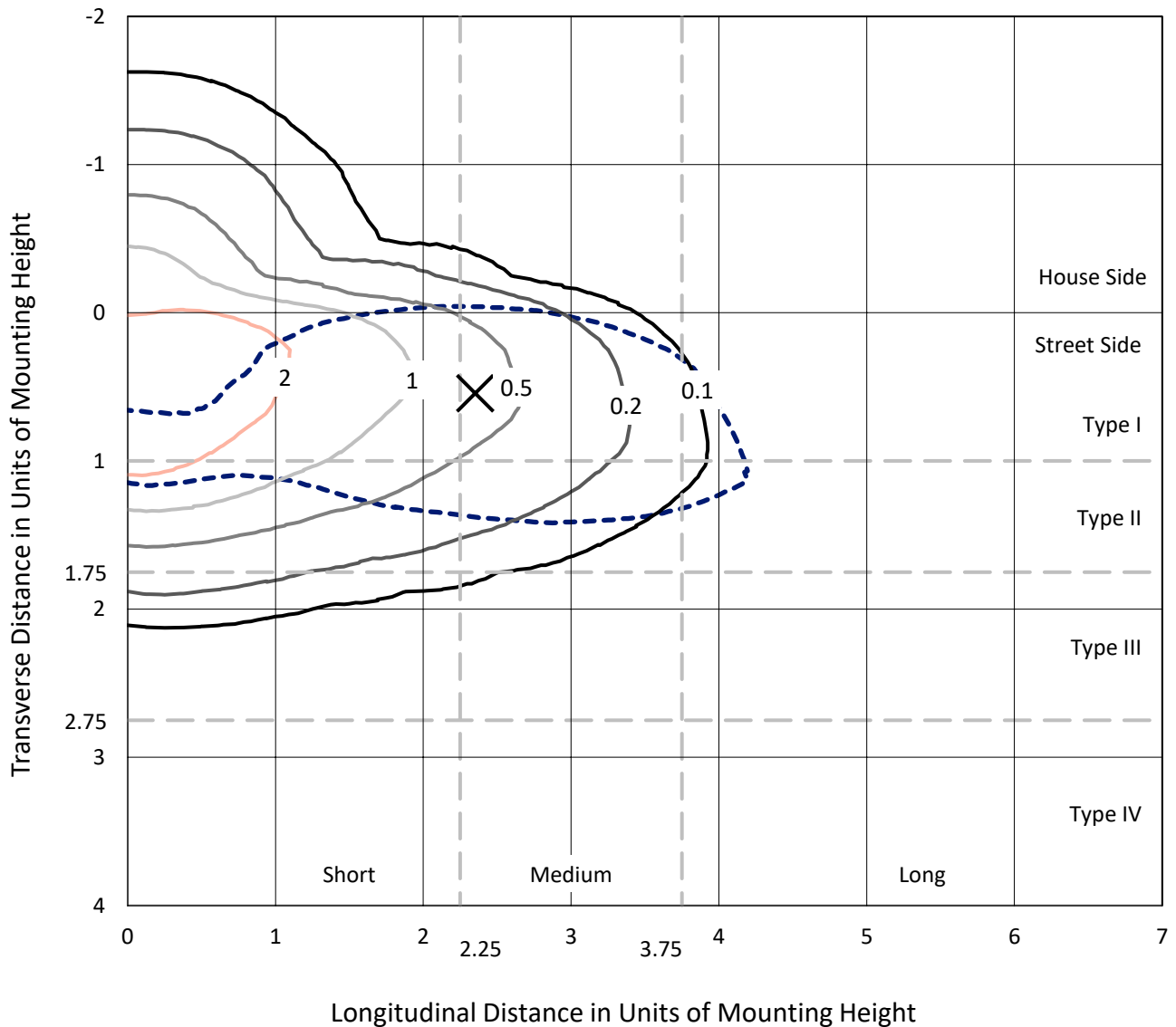
Input Watts (W): 79.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

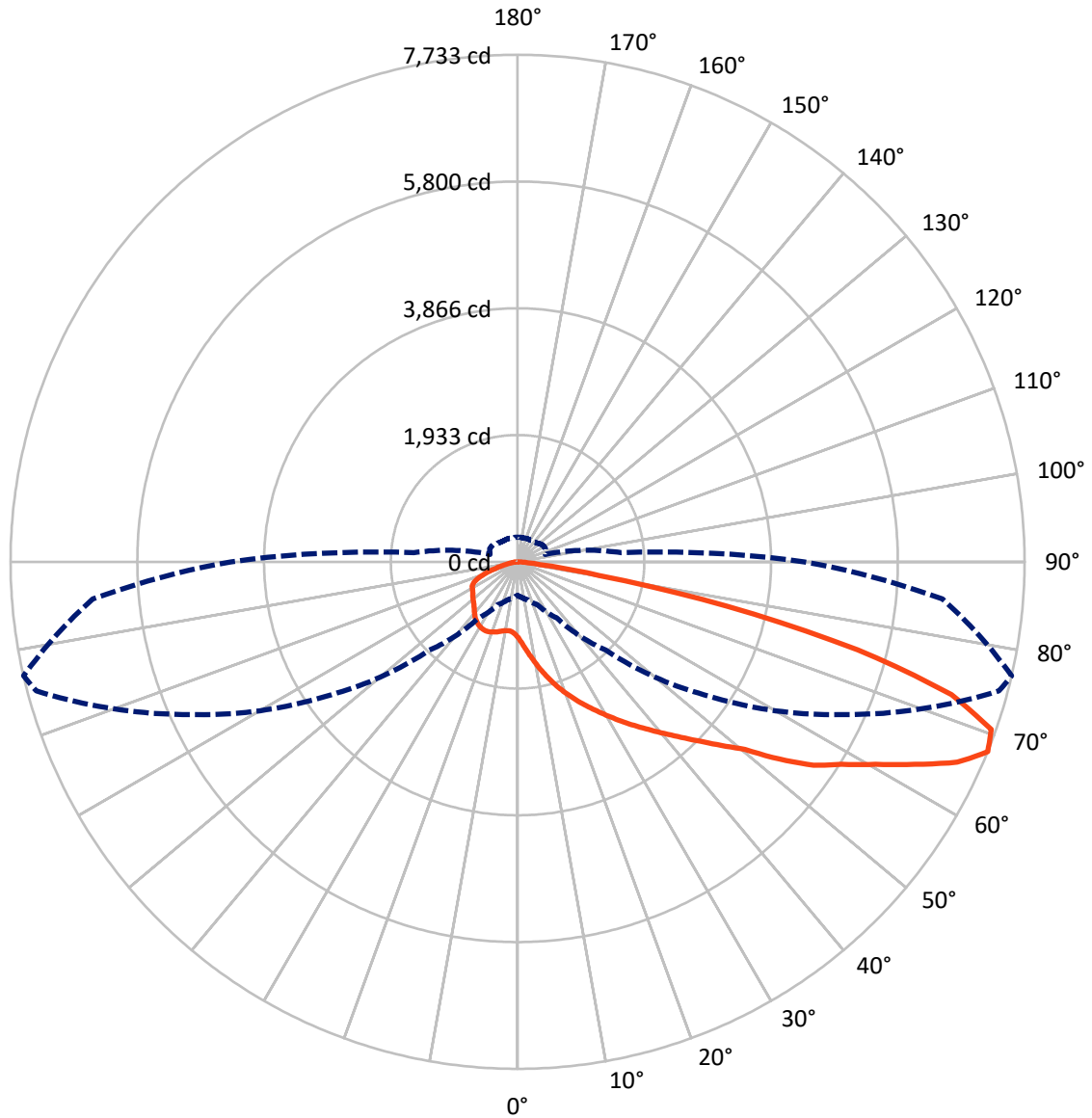
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.6 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1864.6	0.0	1864.6
	% Fixture	18.9	0.0	18.9
<b>Street Side</b>	Lumens	7992.8	0.0	7992.8
	% Fixture	81.1	0.0	81.1
<b>Total</b>	Lumens	9857.4	0.0	9857.4
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.0	1.3
10°-20°	445.4	4.5
20°-30°	840.9	8.5
30°-40°	1354.7	13.7
40°-50°	1853.0	18.8
50°-60°	2090.2	21.2
60°-70°	1950.9	19.8
70°-80°	1069.4	10.8
80°-90°	129.0	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°	9857.4	100.0
0°-180°	9857.4	100.0

**Coefficient of Utilization**

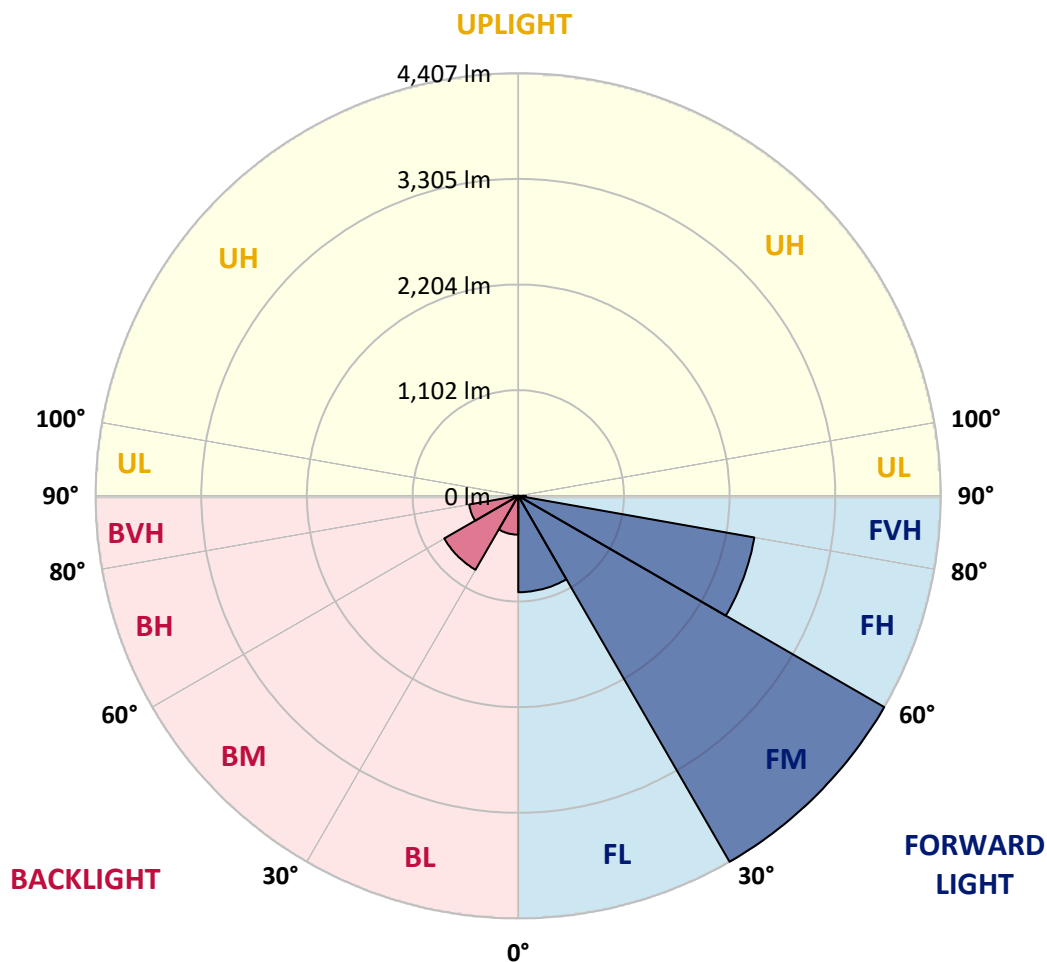


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1004.8	10.2			
FM (30°-60°)	4407.1	44.7			
FH (60°-80°)	2500.1	25.4			G2/5000
FVH (80°-90°)	80.7	0.8			G1/100
BL (0°-30°)	405.4	4.1	B1/500		
BM (30°-60°)	890.7	9.0	B1/1000		
BH (60°-80°)	520.2	5.3	B2/1000		G2/1000
BVH (80°-90°)	48.3	0.5			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°	77°	85°
0°	1156.6	1156.6	1156.6	1156.6	1156.6	1156.6	1156.6	1156.6	1156.6	1156.6	1156.6
2.5°	1448.1	1458.4	1445.6	1445.6	1402.8	1380.5	1337.7	1305.1	1246.6	1236.5	1197.8
5°	1711.7	1724.5	1706.6	1699.0	1648.6	1602.3	1530.5	1459.8	1355.6	1344.8	1253.8
7.5°	1915.7	1932.0	1916.2	1908.1	1863.3	1811.5	1727.5	1628.8	1481.7	1460.8	1329.1
10°	2082.2	2084.7	2079.6	2082.7	2047.5	2004.8	1918.8	1803.8	1620.1	1591.6	1420.1
12.5°	2176.3	2188.0	2198.2	2216.5	2210.4	2184.0	2106.6	1969.2	1766.7	1730.0	1519.4
15°	2220.6	2241.0	2263.8	2306.0	2340.2	2346.7	2287.7	2146.8	1915.7	1871.4	1619.6
17.5°	2236.3	2255.6	2291.8	2352.9	2426.2	2475.5	2449.0	2319.3	2063.3	2012.5	1725.0
20°	2316.2	2321.8	2343.7	2401.7	2481.1	2563.0	2582.9	2485.1	2209.4	2151.9	1833.8
22.5°	2487.2	2476.0	2482.1	2508.6	2565.6	2644.9	2690.2	2631.7	2359.4	2293.3	1943.7
25°	2769.5	2737.1	2704.5	2673.9	2702.9	2747.7	2799.1	2778.3	2516.7	2432.7	2054.7
27.5°	3126.2	3086.6	3014.8	2914.6	2879.5	2895.3	2918.2	2914.1	2662.2	2577.3	2169.2
30°	3477.4	3431.1	3345.6	3200.6	3108.0	3066.3	3049.0	3037.3	2820.5	2729.9	2284.6
32.5°	3757.8	3721.2	3637.1	3474.9	3340.5	3269.2	3211.7	3170.0	2985.8	2895.3	2406.8
35°	4003.0	3968.9	3872.8	3695.6	3549.7	3473.8	3398.5	3309.4	3157.8	3066.3	2538.1
37.5°	4226.9	4192.8	4061.0	3876.9	3729.8	3677.4	3610.2	3459.1	3330.3	3243.8	2677.0
40°	4368.3	4360.8	4237.6	4029.0	3876.3	3850.3	3828.0	3632.6	3521.7	3441.2	2829.6
42.5°	4404.5	4421.2	4323.6	4152.1	4006.5	3985.7	4038.1	3829.0	3736.3	3659.6	3002.6
45°	4317.5	4365.8	4301.7	4185.2	4099.2	4088.0	4224.3	4043.7	3974.0	3903.8	3211.2
47.5°	4097.1	4179.0	4152.6	4136.3	4124.1	4172.5	4388.2	4271.7	4243.2	4182.1	3449.4
50°	3652.4	3807.6	3853.9	3956.7	4074.8	4238.1	4537.3	4520.5	4557.7	4496.1	3739.4
52.5°	2883.5	3097.2	3365.9	3623.4	3923.1	4216.2	4701.2	4877.7	5034.4	5000.9	4200.4
55°	2380.4	2476.5	2683.0	3155.3	3629.0	4124.1	4774.9	5166.2	5507.6	5477.6	4550.0
57.5°	1993.6	2079.6	2206.8	2601.1	3184.3	3915.0	4820.7	5342.3	5831.7	5828.7	4895.0
60°	1578.9	1670.0	1800.2	2079.6	2664.8	3553.7	4810.5	5542.8	6245.4	6270.8	5315.8
62.5°	1110.8	1211.0	1355.6	1616.0	2134.0	3085.6	4603.0	5687.7	6732.4	6801.6	5822.1
65°	730.2	796.3	905.2	1130.2	1590.1	2483.6	4206.5	5706.6	7253.4	7370.5	6297.3
67.5°	511.9	537.3	601.5	723.5	1048.2	1904.6	3575.1	5511.7	7601.0	7732.8	6503.4
70°	399.4	412.2	444.7	493.5	658.5	1280.7	2739.5	5004.9	7526.7	7664.0	6288.2
72.5°	345.0	357.2	369.4	375.6	441.7	790.7	1855.8	4184.7	6827.0	6920.2	5467.5
75°	312.9	316.0	326.2	324.1	336.8	512.9	1071.1	3049.0	5386.5	5354.5	4036.0
77.5°	263.1	267.1	283.9	281.4	299.2	350.5	556.2	1967.7	3492.2	3274.4	2246.5
80°	222.8	224.9	243.2	240.2	260.0	253.9	283.9	1003.0	1481.2	1254.8	647.7
82.5°	77.4	95.6	185.7	191.4	198.4	153.6	163.8	409.1	452.3	346.6	135.8
85°	37.6	40.2	94.6	134.4	133.9	77.4	79.8	146.1	142.5	111.9	45.3
87.5°	6.1	7.6	11.2	52.4	41.7	20.4	27.5	28.5	29.5	25.4	10.1
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°	1156.6	1156.6	1156.6	1156.6	1156.6	1156.6	1156.6	1156.6	1156.6	1156.6	1156.6
2.5°	1169.3	1143.9	1090.4	1041.1	1002.4	965.2	944.4	926.6	916.5	914.4	914.4
5°	1200.9	1148.4	1051.2	969.3	915.9	876.2	855.4	842.1	835.5	831.5	831.0
7.5°	1246.1	1169.3	1030.9	937.8	881.8	853.3	842.7	840.6	840.1	840.6	842.1
10°	1308.7	1203.4	1028.9	930.2	883.3	867.6	867.0	867.6	869.6	870.1	870.6
12.5°	1376.4	1238.5	1037.0	936.7	902.7	894.0	892.5	892.0	893.5	894.5	895.0
15°	1450.2	1284.8	1050.7	951.0	924.0	914.9	913.4	910.3	909.8	909.3	908.8
17.5°	1526.0	1330.7	1066.0	966.3	937.8	925.1	919.4	912.4	906.7	905.2	906.7
20°	1602.8	1375.9	1076.7	974.0	938.8	921.0	909.8	897.6	888.0	882.3	884.4
22.5°	1684.8	1423.2	1083.3	971.9	929.7	905.2	884.9	870.6	855.9	846.2	846.8
25°	1764.6	1464.4	1082.8	961.1	911.8	880.8	854.8	836.5	816.2	806.0	806.0
27.5°	1841.5	1501.5	1070.1	942.4	886.4	851.8	820.7	798.9	779.0	769.4	768.9
30°	1920.8	1532.6	1050.2	914.9	856.4	818.3	784.1	765.3	747.4	738.3	737.8
32.5°	1999.7	1561.1	1022.2	880.8	821.7	785.2	751.5	734.2	723.5	723.5	724.1
35°	2083.2	1581.0	985.1	841.1	785.2	750.0	723.5	713.4	712.4	706.2	704.7
37.5°	2171.2	1593.7	939.8	800.4	749.0	716.0	707.8	695.6	685.4	672.2	670.1
40°	2263.8	1606.4	885.4	758.2	710.8	692.5	689.0	672.7	643.7	611.1	606.5
42.5°	2376.3	1615.1	828.9	716.0	670.7	664.5	669.6	641.6	595.3	570.9	571.4
45°	2506.5	1629.3	776.9	674.2	629.5	629.5	650.8	614.2	576.0	560.8	563.2
47.5°	2675.5	1662.3	728.7	628.4	591.2	601.5	609.1	581.1	559.8	540.9	540.4
50°	2919.7	1741.8	678.8	582.1	562.2	582.6	571.9	555.7	530.7	515.5	513.9
52.5°	3223.0	1788.5	634.5	540.4	537.3	557.7	542.4	527.2	508.3	488.0	483.9
55°	3429.5	1797.2	597.4	509.8	520.5	518.5	512.9	499.2	489.0	462.1	462.5
57.5°	3660.6	1814.5	566.8	491.5	509.8	487.5	485.4	473.8	460.5	442.2	436.0
60°	3936.8	1841.5	540.4	484.4	500.7	467.1	456.9	452.3	439.1	430.0	432.6
62.5°	4238.1	1865.9	513.4	485.4	490.1	447.3	432.0	430.5	422.3	419.3	419.3
65°	4443.7	1799.3	479.8	484.4	473.2	426.9	407.5	407.0	400.5	399.4	398.9
67.5°	4371.9	1588.0	434.5	470.2	455.9	406.5	385.2	383.1	374.5	375.0	375.0
70°	4012.7	1286.9	372.0	435.0	434.5	388.3	361.8	355.2	343.5	345.5	347.6
72.5°	3338.9	953.6	288.0	376.6	400.5	371.5	334.8	324.1	309.3	311.4	310.9
75°	2411.4	648.2	209.6	286.5	348.6	351.6	308.3	290.1	272.2	275.3	276.3
77.5°	1233.9	367.4	154.2	197.4	273.8	319.6	284.4	260.0	255.9	284.4	280.3
80°	402.5	184.2	106.8	138.4	179.6	261.6	249.3	221.3	220.4	226.9	194.9
82.5°	120.1	77.9	68.7	91.1	99.2	200.5	215.2	167.4	144.0	151.6	156.7
85°	41.2	37.6	39.2	45.3	47.4	117.6	150.6	110.9	104.9	115.5	114.0
87.5°	9.6	13.2	11.2	10.1	10.1	28.5	58.5	46.3	64.1	42.7	41.2
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)