

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: P882417

Luminaire Tested: **NAV-SB2B-740-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882417
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-SB2B-740-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12260 lumens
Efficiency: N/A
Efficacy: 165.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

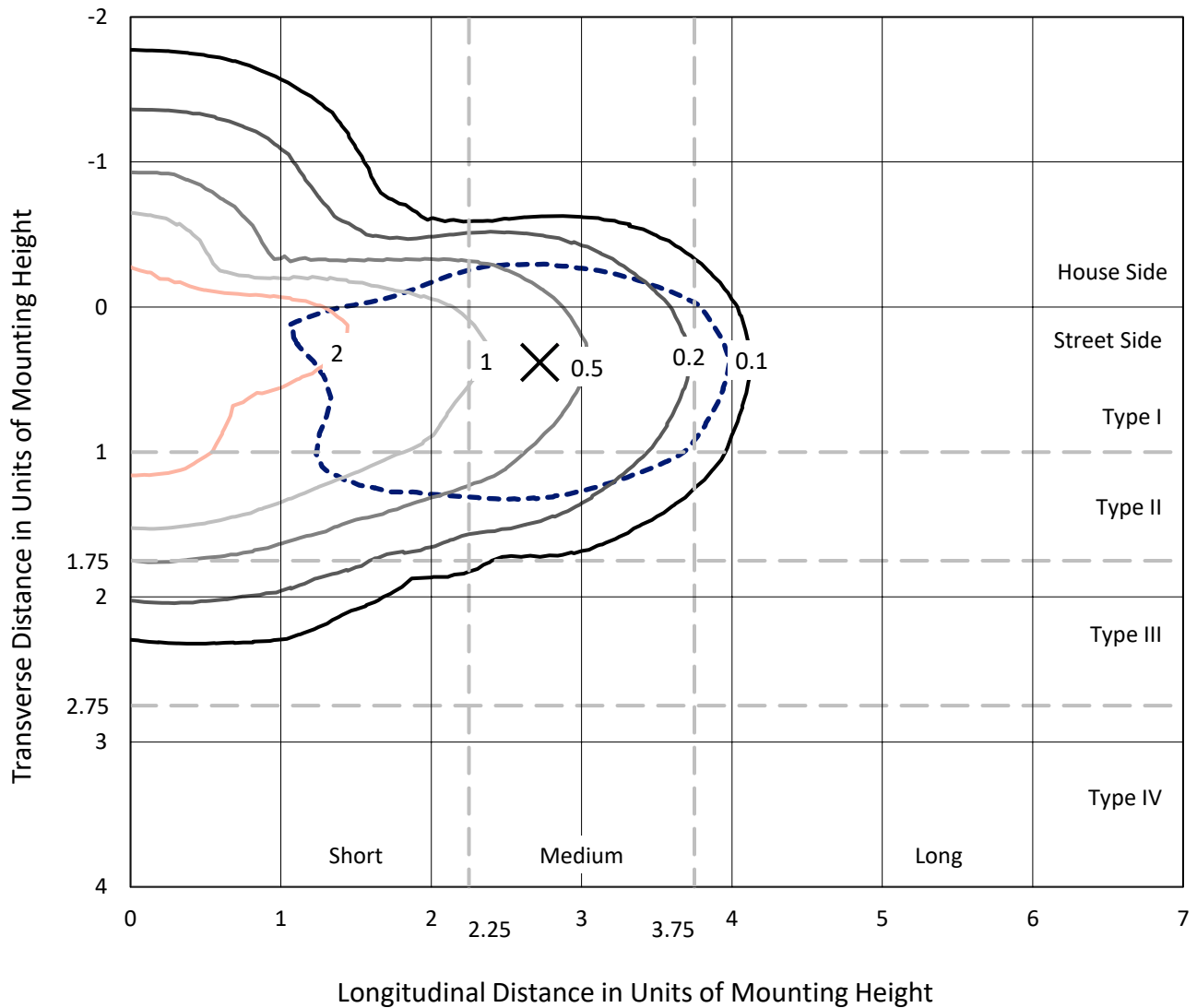
Input Watts (W): 73.9
Input Voltage (V): 120.0
Input Current (Ain): 0.627
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

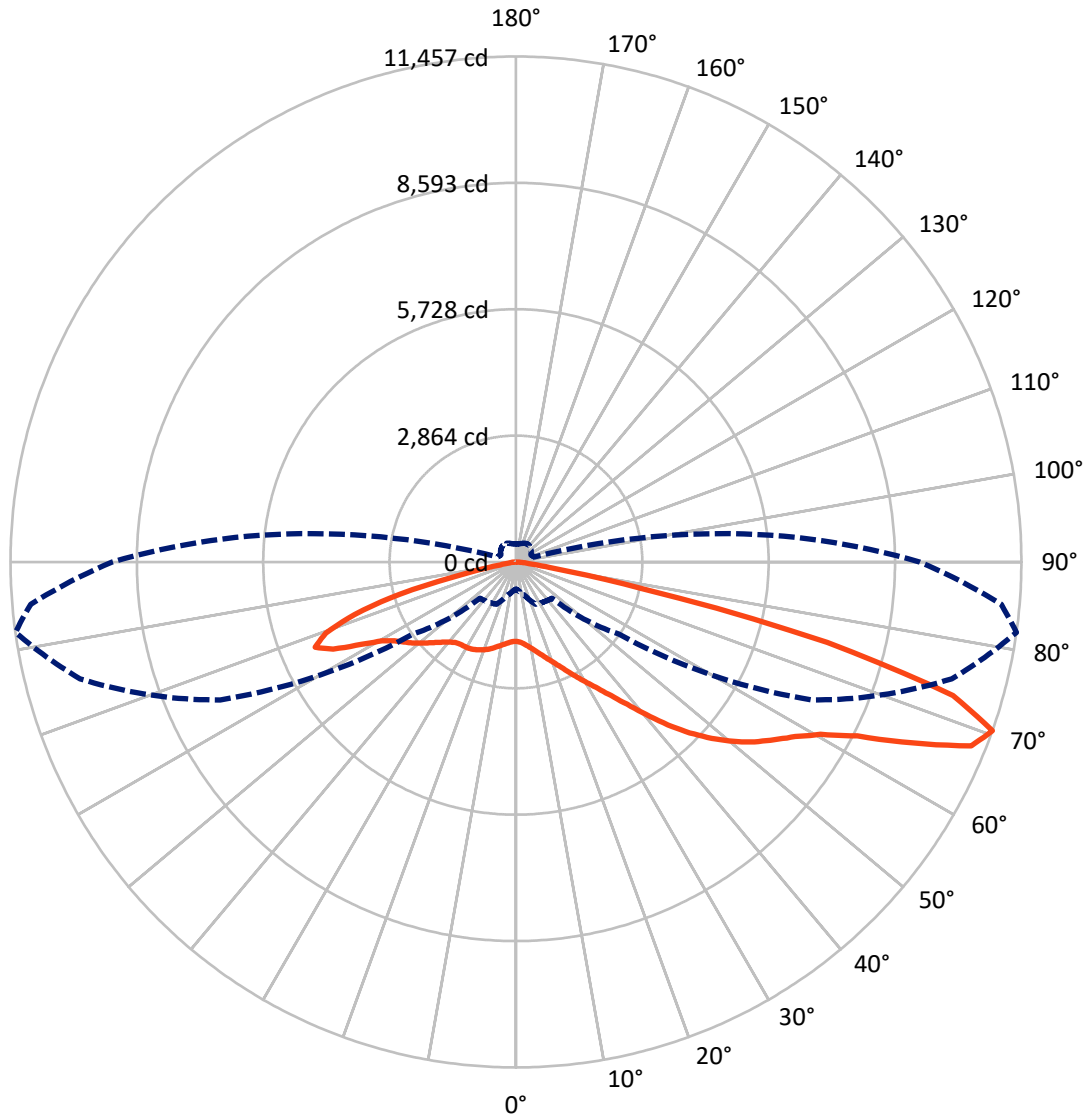
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.3 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
House Side	Lumens	3022.4	0.0	3022.4
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	9237.6	0.0	9237.6
	% Fixture	75.3	0.0	75.3
Total	Lumens	12260.0	0.0	12260.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.7	1.4
10°-20°	487.6	4.0
20°-30°	815.7	6.7
30°-40°	1274.3	10.4
40°-50°	2029.5	16.6
50°-60°	2824.3	23.0
60°-70°	2954.4	24.1
70°-80°	1544.1	12.6
80°-90°	160.3	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°	12260.0	100.0
0°-180°	12260.0	100.0

Coefficient of Utilization

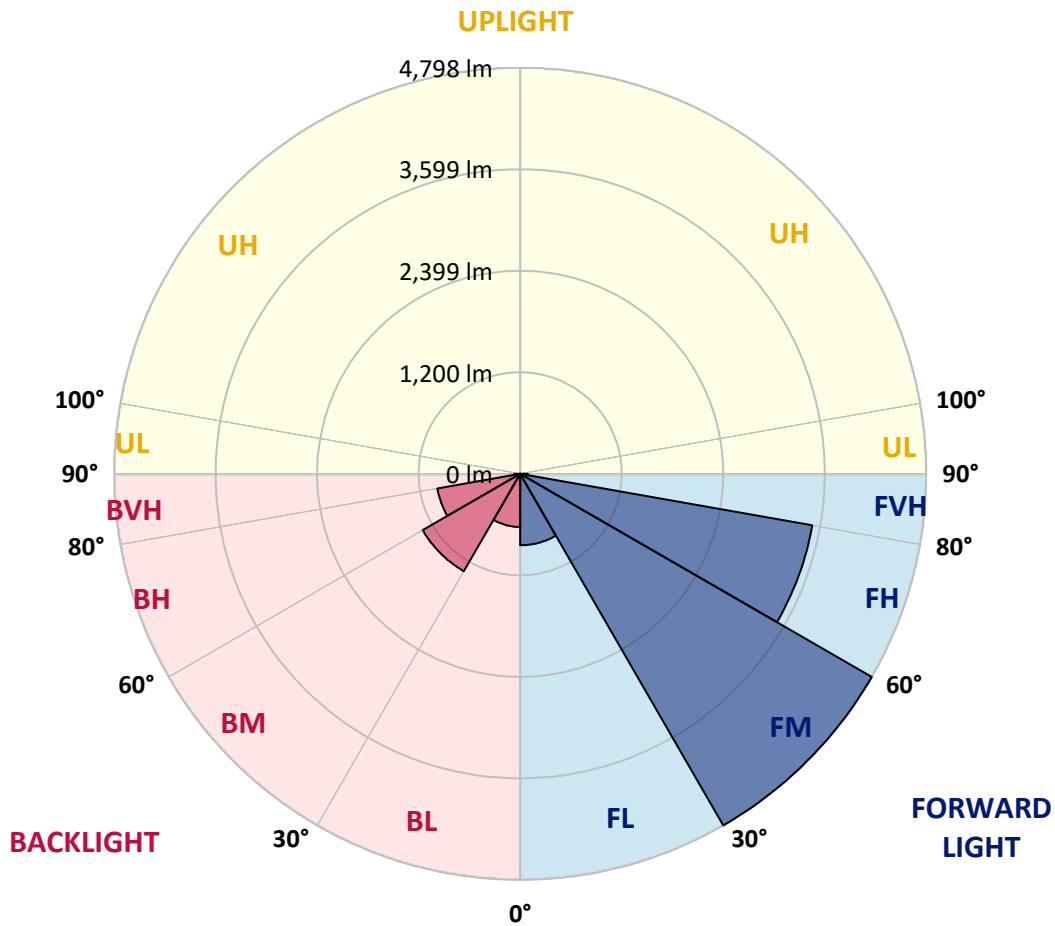


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	844.2	6.9			
FM (30°-60°)	4798.4	39.1			
FH (60°-80°)	3505.2	28.6			G2/5000
FVH (80°-90°)	89.8	0.7			G1/100
BL (0°-30°)	628.8	5.1	B2/1000		
BM (30°-60°)	1329.7	10.8	B2/2500		
BH (60°-80°)	993.3	8.1	B2/1000		G2/1000
BVH (80°-90°)	70.6	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°	1797.5	1797.5	1797.5	1797.5	1797.5	1797.5	1797.5	1797.5	1797.5	1797.5	1797.5
2.5°	1840.4	1850.8	1847.6	1844.3	1844.3	1839.8	1839.1	1832.6	1827.4	1818.9	1817.0
5°	1863.8	1874.9	1873.6	1876.2	1884.6	1886.6	1888.5	1884.6	1874.2	1863.8	1859.3
7.5°	1843.0	1855.4	1859.3	1874.9	1900.9	1924.3	1941.9	1949.0	1939.3	1924.3	1917.2
10°	1772.7	1786.4	1800.1	1837.2	1883.3	1938.6	1985.5	2013.5	2011.5	1997.2	1984.8
12.5°	1630.3	1644.6	1673.9	1746.1	1830.6	1928.2	2015.4	2074.0	2094.1	2083.7	2062.2
15°	1516.4	1528.8	1550.9	1625.1	1735.0	1883.3	2026.5	2140.3	2191.7	2185.8	2159.8
17.5°	1513.2	1518.4	1532.0	1567.2	1651.7	1813.1	2014.8	2205.4	2303.6	2302.9	2270.4
20°	1570.4	1572.4	1580.2	1587.3	1635.5	1759.7	1984.8	2259.4	2429.2	2429.2	2394.0
22.5°	1649.8	1648.5	1656.3	1649.8	1673.2	1755.2	1966.0	2306.8	2569.0	2579.4	2535.2
25°	1768.8	1762.3	1760.4	1745.4	1750.0	1797.5	1986.8	2360.8	2734.9	2756.4	2701.1
27.5°	1927.6	1917.2	1910.0	1875.5	1863.8	1884.6	2050.5	2425.9	2919.7	2956.7	2886.5
30°	2134.5	2115.6	2105.2	2045.3	2003.0	2006.3	2146.8	2512.4	3112.9	3172.7	3083.6
32.5°	2416.8	2387.5	2359.5	2261.3	2183.9	2158.5	2271.1	2632.1	3322.4	3418.0	3303.5
35°	2733.0	2709.5	2679.6	2528.0	2409.0	2350.4	2438.9	2799.3	3567.6	3719.2	3570.2
37.5°	3037.4	3017.3	3031.6	2827.3	2673.8	2588.5	2658.8	3023.8	3870.1	4093.9	3904.6
40°	3352.3	3336.7	3338.6	3143.5	2964.6	2868.9	2925.5	3305.4	4216.9	4539.5	4306.6
42.5°	3694.5	3682.8	3643.7	3470.7	3269.7	3180.5	3232.6	3630.7	4589.0	5047.0	4747.7
45°	4077.6	4070.5	4034.1	3835.6	3605.3	3505.2	3575.4	3989.8	4963.0	5524.5	5190.7
47.5°	4408.8	4414.6	4410.1	4242.9	4004.1	3857.1	3941.0	4364.5	5311.1	5973.3	5615.5
50°	4568.2	4598.7	4643.6	4591.6	4443.3	4293.6	4309.9	4726.2	5642.9	6394.3	6022.8
52.5°	4484.9	4542.8	4665.1	4748.4	4805.6	4774.4	4730.8	5085.3	5955.1	6774.2	6407.9
55°	4174.6	4255.9	4458.9	4659.9	4952.0	5179.0	5236.3	5483.5	6259.6	7108.6	6772.2
57.5°	3609.3	3741.3	3923.5	4330.1	4821.9	5374.8	5825.7	6035.8	6582.3	7465.7	7153.4
60°	2639.9	2816.9	3043.3	3648.3	4366.5	5270.1	6327.2	6884.1	7040.9	7928.3	7649.8
62.5°	1689.5	1798.8	2006.9	2576.8	3402.4	4733.4	6480.8	7944.5	7818.3	8686.8	8394.0
65°	1156.7	1226.9	1417.5	1737.6	2199.5	3523.4	6069.6	8739.5	9053.1	9889.0	9666.5
67.5°	840.5	893.9	1056.5	1336.9	1433.2	2085.0	4710.0	8703.1	10253.3	11127.7	10781.6
70°	612.8	650.5	787.2	1056.5	1102.7	1159.9	2853.3	7398.1	10227.3	11456.8	11042.4
72.5°	454.1	480.1	571.8	819.7	892.6	783.3	1412.3	5376.8	8788.3	10362.6	10030.2
75°	328.5	348.0	415.7	627.1	714.3	596.6	704.5	3142.2	6130.1	7289.4	7348.0
77.5°	251.1	266.1	310.3	459.3	571.8	447.6	437.2	1445.5	2906.7	2921.0	3084.9
80°	201.7	211.4	235.5	323.3	438.5	335.0	284.9	583.5	918.6	777.4	815.8
82.5°	148.3	164.6	199.1	227.0	313.6	230.9	173.7	294.7	349.3	300.6	303.2
85°	84.6	95.6	120.4	162.6	200.4	141.2	99.5	130.8	162.6	133.4	119.1
87.5°	29.9	39.0	42.3	63.8	87.2	58.5	38.4	37.7	53.3	39.7	33.2
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°	1797.5	1797.5	1797.5	1797.5	1797.5	1797.5	1797.5	1797.5	1797.5	1797.5	1797.5
2.5°	1810.5	1807.2	1794.2	1776.7	1758.4	1740.9	1735.0	1722.7	1714.2	1709.6	1714.8
5°	1846.9	1836.5	1805.9	1766.9	1725.9	1681.7	1650.4	1621.8	1601.0	1581.5	1589.3
7.5°	1899.0	1880.7	1828.0	1759.7	1686.9	1613.4	1558.7	1517.1	1489.1	1470.9	1474.8
10°	1959.5	1931.5	1850.8	1748.7	1636.1	1530.7	1466.3	1430.6	1413.0	1403.2	1405.8
12.5°	2029.1	1989.4	1874.2	1723.3	1558.7	1438.4	1394.1	1383.7	1384.4	1385.0	1386.3
15°	2114.9	2059.6	1893.1	1668.0	1457.9	1367.5	1359.6	1376.6	1394.1	1402.6	1401.9
17.5°	2211.9	2133.8	1896.4	1576.9	1359.0	1321.9	1346.6	1383.1	1409.7	1421.5	1424.1
20°	2316.0	2209.3	1872.9	1448.1	1277.7	1284.8	1329.1	1375.9	1405.2	1420.2	1424.1
22.5°	2435.0	2289.9	1817.0	1312.8	1211.3	1244.5	1296.5	1342.1	1372.7	1387.6	1391.5
25°	2571.0	2380.4	1729.2	1199.0	1154.1	1199.0	1251.0	1288.7	1313.5	1327.1	1331.0
27.5°	2721.9	2474.7	1612.1	1108.5	1104.0	1152.1	1195.1	1224.3	1237.3	1247.8	1251.7
30°	2873.5	2560.6	1470.2	1040.2	1060.4	1105.9	1136.5	1149.5	1153.4	1155.4	1159.9
32.5°	3037.4	2634.7	1321.3	983.6	1018.8	1061.0	1079.3	1085.1	1066.9	1054.5	1058.4
35°	3235.8	2714.1	1175.5	938.7	977.8	1014.2	1020.1	1014.9	993.4	968.0	969.3
37.5°	3481.1	2813.0	1059.1	906.9	939.4	963.5	956.3	955.0	957.0	927.0	929.0
40°	3781.6	2941.8	973.9	882.1	908.2	913.4	893.2	904.3	914.0	868.5	869.8
42.5°	4115.4	3097.3	919.9	865.2	882.1	869.8	838.6	850.9	849.6	789.8	789.1
45°	4455.6	3266.4	901.0	852.9	858.1	833.4	798.9	802.1	774.8	720.8	722.8
47.5°	4793.9	3447.9	912.7	842.5	828.1	800.2	773.5	759.2	718.9	678.5	678.5
50°	5125.7	3638.5	955.7	821.6	787.2	770.9	751.4	726.0	683.1	648.6	646.0
52.5°	5433.4	3830.4	1003.8	787.2	735.8	745.5	733.2	703.9	661.6	626.5	627.1
55°	5724.8	4022.3	1022.7	739.7	687.6	723.4	716.3	662.3	611.5	582.9	580.3
57.5°	6042.3	4253.3	1001.8	679.2	648.6	698.0	670.7	610.9	581.6	560.1	558.2
60°	6482.1	4615.7	957.0	604.4	611.5	660.3	613.5	588.7	556.9	532.8	531.5
62.5°	7212.6	5291.6	884.7	530.2	567.9	604.4	586.1	561.4	528.9	505.5	505.5
65°	8292.6	6231.0	748.8	472.3	519.1	549.7	556.9	532.1	498.3	473.6	474.9
67.5°	9203.3	6820.4	566.6	424.2	469.0	505.5	525.6	501.6	465.8	441.7	442.4
70°	9153.2	6392.3	432.6	376.7	424.8	461.9	487.9	469.0	430.7	407.9	409.8
72.5°	8129.9	5347.5	350.0	328.5	379.9	416.4	447.6	433.3	394.2	372.1	372.1
75°	5972.7	3796.0	279.7	279.7	324.0	368.9	403.3	394.2	358.5	342.8	338.3
77.5°	2517.6	1592.5	219.2	232.2	269.3	316.8	359.8	363.0	331.8	351.3	318.8
80°	669.4	439.1	167.2	182.8	211.4	261.5	312.9	311.6	277.8	259.6	241.4
82.5°	255.0	173.0	119.1	128.8	152.9	200.4	247.9	255.7	221.8	191.9	191.9
85°	98.2	74.2	73.5	77.4	89.1	132.7	187.4	193.9	167.2	141.8	146.4
87.5°	25.4	22.1	27.3	26.0	41.0	70.9	107.3	111.2	102.1	59.2	84.6
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)