

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: P882721

Luminaire Tested: **NAV-SB2D-722-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882721
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-SB2D-722-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 2200K, 900mA 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: 16335 lumens
Efficiency: N/A
Efficacy: 110.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

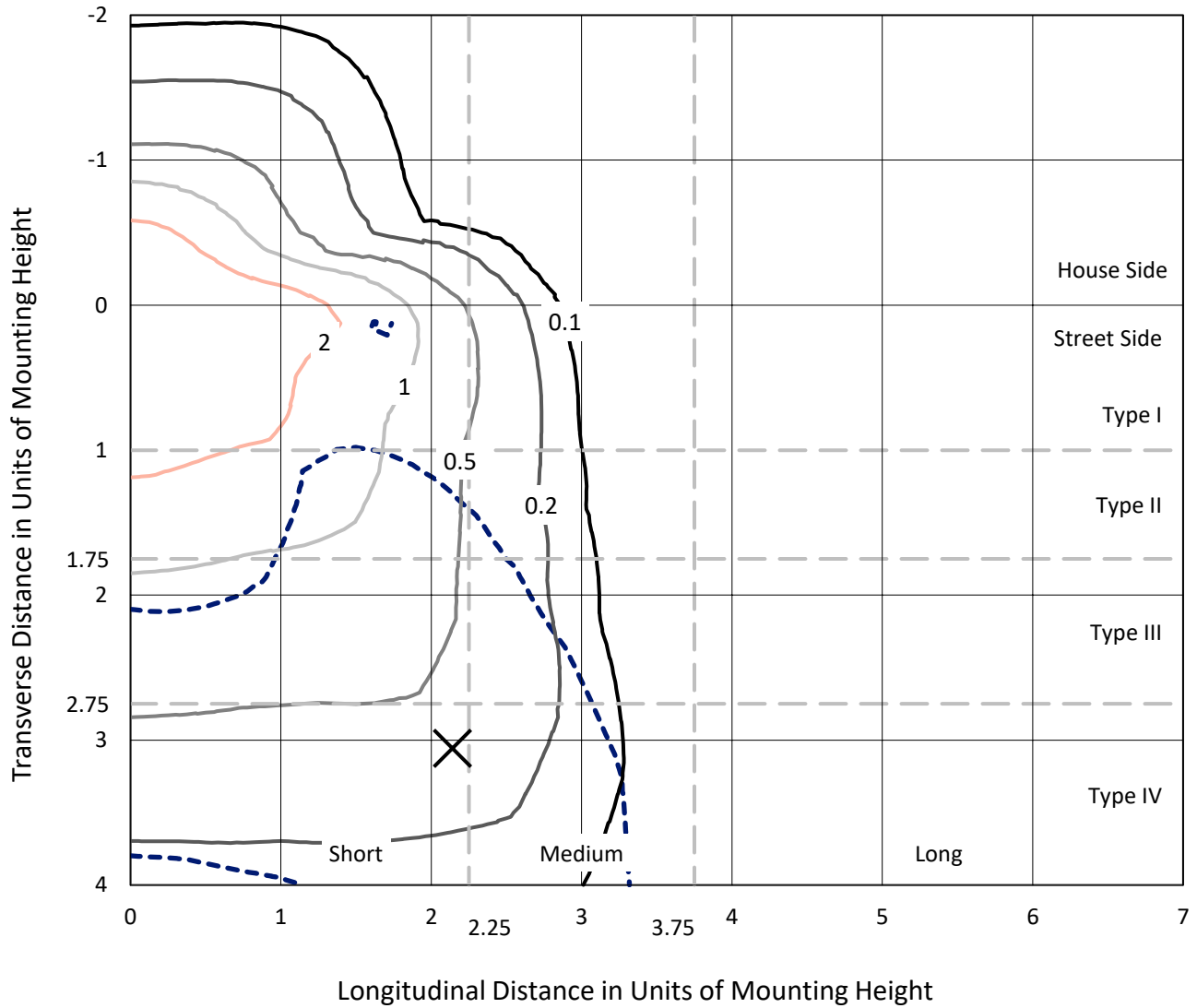
Input Watts (W): 147.6
Input Voltage (V): 120.0
Input Current (Ain): 1.234
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

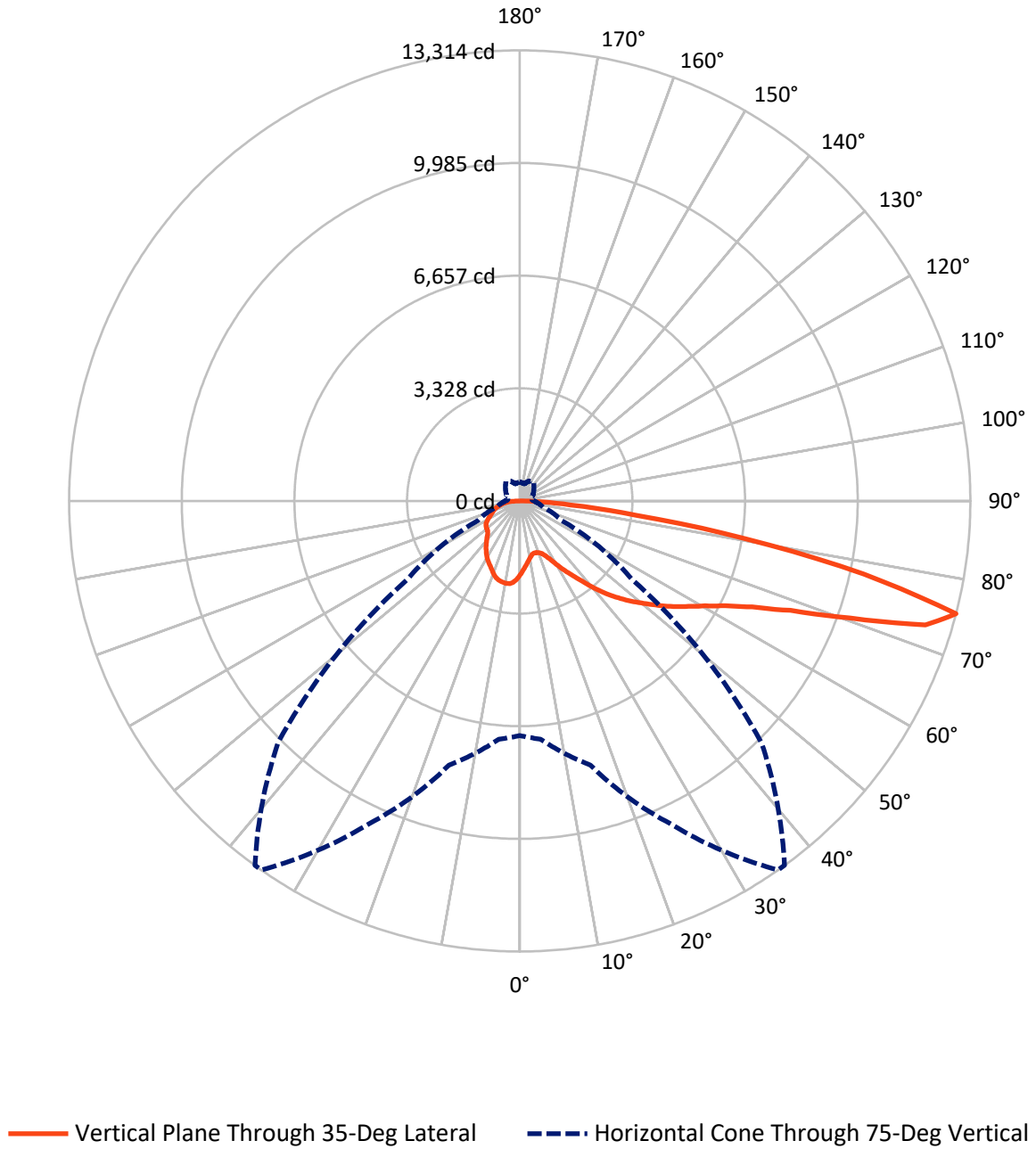
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3887.3	0.0	3887.3
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	12447.7	0.0	12447.7
	% Fixture	76.2	0.0	76.2
Total	Lumens	16335.0	0.0	16335.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	206.1	1.3
10°-20°	594.5	3.6
20°-30°	998.3	6.1
30°-40°	1551.4	9.5
40°-50°	2302.8	14.1
50°-60°	3179.1	19.5
60°-70°	3857.0	23.6
70°-80°	3187.5	19.5
80°-90°	458.5	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°	16335.0	100.0
0°-180°	16335.0	100.0

Coefficient of Utilization



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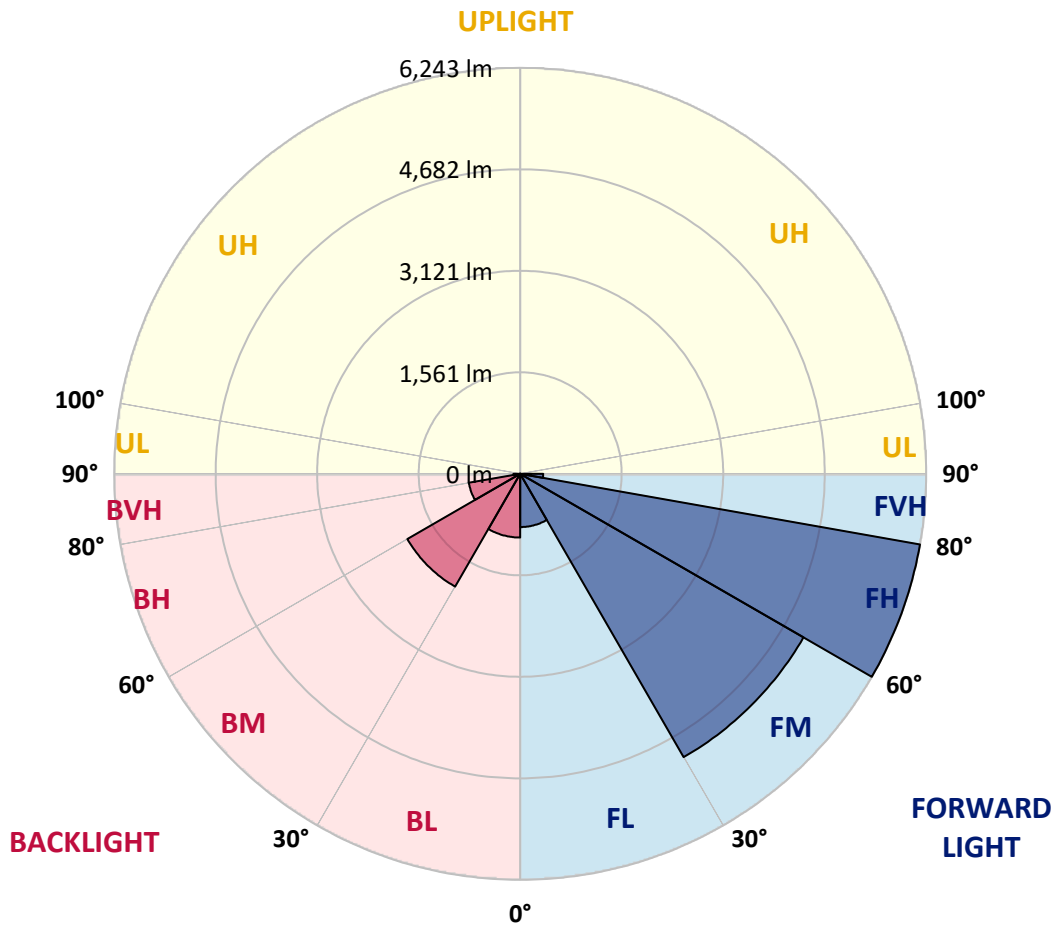
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	819.2	5.0			
FM (30°-60°)	5030.3	30.8			
FH (60°-80°)	6243.0	38.2			G3/7500
FVH (80°-90°)	355.2	2.2			G3/500
BL (0°-30°)	979.7	6.0	B2/1000		
BM (30°-60°)	2003.0	12.3	B2/2500		
BH (60°-80°)	801.4	4.9	B2/1000		G2/1000
BVH (80°-90°)	103.2	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	2176.7	2176.7	2176.7	2176.7	2176.7	2176.7	2176.7	2176.7	2176.7	2176.7	2176.7
2.5°	2007.2	2019.6	2024.9	2022.2	2035.5	2033.7	2052.2	2075.2	2107.0	2137.9	2182.9
5°	1852.7	1865.9	1877.4	1888.0	1913.6	1921.5	1950.7	1994.8	2053.1	2112.3	2186.5
7.5°	1708.7	1720.2	1737.9	1757.3	1800.6	1808.5	1857.1	1926.0	2007.2	2093.7	2196.2
10°	1591.3	1602.8	1621.3	1643.4	1697.2	1707.0	1768.8	1860.6	1966.6	2076.1	2206.8
12.5°	1540.9	1544.5	1555.1	1577.1	1624.0	1630.1	1698.1	1803.2	1926.8	2062.8	2222.7
15°	1538.3	1545.4	1546.2	1557.7	1596.6	1599.2	1661.9	1766.1	1902.1	2060.2	2246.5
17.5°	1564.8	1570.1	1562.1	1569.2	1601.9	1606.3	1655.7	1748.5	1894.2	2071.7	2287.1
20°	1635.4	1639.8	1616.0	1606.3	1630.1	1633.7	1682.2	1759.9	1902.1	2095.5	2342.8
22.5°	1785.6	1788.2	1729.9	1690.2	1691.9	1693.7	1736.1	1806.7	1933.0	2138.8	2413.4
25°	2019.6	2017.8	1925.1	1848.2	1804.1	1794.4	1822.6	1882.7	1985.1	2196.2	2504.4
27.5°	2293.3	2280.1	2187.3	2072.5	1976.3	1962.2	1956.0	1981.6	2059.3	2272.1	2615.6
30°	2602.4	2590.0	2490.2	2340.1	2206.8	2183.8	2125.5	2112.3	2169.7	2375.4	2770.2
32.5°	2941.5	2933.5	2814.3	2632.4	2454.0	2427.5	2329.5	2294.2	2339.2	2531.7	2985.6
35°	3225.8	3218.8	3119.9	2932.7	2714.5	2681.9	2582.1	2542.3	2565.3	2732.2	3267.3
37.5°	3482.8	3479.3	3394.5	3247.0	3021.8	2982.1	2870.0	2856.7	2852.3	2996.2	3609.1
40°	3721.2	3712.4	3624.1	3546.4	3379.5	3343.3	3244.4	3232.9	3199.3	3321.2	3995.9
42.5°	3985.3	3962.3	3834.3	3798.1	3753.0	3723.0	3663.8	3665.6	3591.4	3687.7	4405.6
45°	4200.7	4187.5	4055.9	4034.7	4083.3	4070.9	4122.1	4135.4	3991.4	4071.8	4831.2
47.5°	4432.1	4419.7	4308.5	4293.5	4425.0	4428.6	4609.6	4614.0	4381.8	4470.9	5257.8
50°	4717.3	4699.7	4589.3	4607.8	4755.3	4768.5	5099.7	5069.7	4741.2	4876.3	5680.7
52.5°	4905.4	4916.0	4892.2	4922.2	5123.5	5135.9	5581.8	5505.0	5097.0	5276.3	6095.8
55°	5044.1	5065.2	5139.4	5208.3	5512.1	5524.4	6036.6	5919.2	5392.0	5647.2	6486.1
57.5°	5222.4	5192.4	5331.0	5465.3	5881.2	5913.9	6479.0	6318.3	5653.4	5966.9	6753.7
60°	5478.5	5457.3	5565.1	5763.7	6294.5	6346.6	6947.1	6677.7	5845.0	6220.3	6805.8
62.5°	5997.8	5944.8	5961.6	6137.3	6815.5	6884.4	7475.1	6991.2	5940.4	6319.2	6526.7
65°	6774.0	6683.0	6598.2	6720.1	7549.3	7617.3	8071.2	7237.6	5905.0	6127.6	5785.8
67.5°	7751.5	7661.5	7557.2	7672.0	8630.2	8684.0	8806.8	7376.2	5626.9	5389.3	4476.2
70°	8557.8	8524.2	8648.7	9121.2	10356.6	10358.3	9749.9	7261.4	4864.8	3821.0	2590.0
72.5°	8450.9	8430.6	9086.7	10547.3	12532.4	12485.6	10642.7	6392.5	3277.0	1723.7	970.5
75°	6932.9	7064.5	8080.9	10521.7	13313.9	13307.8	10096.1	4063.9	1355.5	714.4	501.6
77.5°	3717.7	3926.1	5246.3	7768.3	10393.6	10549.9	7098.1	1421.7	581.9	457.4	347.0
80°	1212.4	1394.4	2091.1	3955.2	6753.7	6724.5	3042.2	558.1	398.3	324.1	240.2
82.5°	514.8	536.0	934.3	1867.7	3466.0	3412.2	968.7	320.6	279.9	221.6	148.4
85°	201.3	225.2	412.4	863.6	1501.2	1468.5	349.7	159.0	179.3	144.8	88.3
87.5°	66.2	80.4	147.5	295.8	467.1	450.4	85.7	54.7	77.7	66.2	31.8
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°	2176.7	2176.7	2176.7	2176.7	2176.7	2176.7	2176.7	2176.7	2176.7	2176.7	2176.7
2.5°	2195.3	2209.4	2226.2	2250.9	2272.1	2289.8	2308.3	2319.8	2324.2	2337.5	2336.6
5°	2211.2	2242.1	2283.6	2324.2	2364.0	2387.8	2409.0	2419.6	2429.3	2436.4	2438.1
7.5°	2237.7	2277.4	2342.8	2395.7	2429.3	2448.7	2462.9	2459.3	2462.9	2464.6	2467.3
10°	2260.6	2316.3	2394.0	2444.3	2469.9	2470.8	2467.3	2454.9	2448.7	2449.6	2451.4
12.5°	2288.0	2349.8	2433.7	2476.1	2483.2	2463.7	2448.7	2427.5	2419.6	2416.1	2414.3
15°	2325.1	2395.7	2477.0	2492.9	2475.2	2450.5	2424.9	2390.5	2372.8	2358.7	2363.1
17.5°	2370.1	2447.8	2510.5	2499.1	2461.1	2420.5	2379.0	2326.9	2290.7	2275.7	2276.5
20°	2432.8	2502.6	2536.2	2485.8	2428.4	2366.6	2296.0	2232.4	2198.8	2183.8	2182.0
22.5°	2508.8	2575.9	2560.9	2462.9	2381.6	2282.7	2194.4	2147.6	2130.8	2120.2	2122.0
25°	2599.7	2657.1	2578.5	2429.3	2304.8	2171.5	2103.5	2088.4	2080.5	2072.5	2072.5
27.5°	2718.1	2749.0	2591.8	2379.9	2184.7	2053.1	2028.4	2031.0	2028.4	2015.1	2017.8
30°	2874.4	2868.2	2604.2	2299.5	2046.9	1946.3	1948.0	1959.5	1961.3	1952.5	1956.9
32.5°	3080.1	3017.4	2610.3	2195.3	1915.4	1852.7	1854.4	1866.8	1875.6	1860.6	1867.7
35°	3329.1	3191.4	2600.6	2064.6	1813.8	1763.5	1750.2	1753.8	1756.4	1742.3	1752.0
37.5°	3619.7	3386.5	2557.3	1919.8	1729.9	1676.1	1647.8	1624.0	1609.8	1596.6	1605.4
40°	3938.5	3599.4	2477.9	1778.5	1636.3	1583.3	1540.9	1495.9	1448.2	1430.6	1438.5
42.5°	4272.3	3818.4	2381.6	1643.4	1528.6	1485.3	1440.3	1374.9	1303.4	1267.2	1271.6
45°	4618.4	4042.7	2287.1	1510.0	1418.2	1399.7	1347.6	1269.0	1191.3	1145.3	1141.8
47.5°	4957.5	4254.6	2148.5	1375.8	1314.9	1335.2	1294.6	1222.2	1135.6	1063.2	1055.3
50°	5281.6	4453.3	1921.5	1239.8	1231.0	1315.8	1276.9	1172.7	1073.8	981.1	973.1
52.5°	5603.0	4614.0	1631.0	1116.2	1186.0	1310.5	1253.9	1139.2	1018.2	921.0	910.4
55°	5875.9	4697.0	1351.1	1010.2	1120.6	1265.4	1226.6	1099.4	939.6	836.3	827.4
57.5°	6031.3	4629.9	1118.0	906.0	1030.5	1191.3	1179.8	1014.6	846.0	766.5	755.9
60°	5964.2	4357.9	927.2	815.1	944.9	1110.9	1098.5	930.7	774.4	699.4	688.8
62.5°	5594.2	3839.6	776.2	735.6	867.2	1028.8	1017.3	866.3	719.7	647.3	635.8
65°	4848.9	3123.4	658.8	669.4	788.6	929.9	946.6	812.4	676.4	605.8	594.3
67.5°	3698.3	2262.4	566.9	612.0	711.7	832.7	881.3	773.6	640.2	573.1	562.5
70°	2107.9	1284.9	489.2	556.3	643.8	742.7	831.0	742.7	601.4	545.7	538.7
72.5°	799.2	589.9	423.0	500.7	578.4	666.7	775.3	694.1	556.3	514.8	507.8
75°	426.5	359.4	355.9	435.3	503.3	592.5	705.6	646.4	522.8	544.0	561.6
77.5°	290.5	254.3	297.6	372.7	421.2	510.4	631.4	574.0	453.0	451.2	415.9
80°	201.3	180.1	242.0	300.2	325.9	429.2	551.0	492.7	369.1	344.4	329.4
82.5°	121.0	117.4	181.0	224.3	230.5	331.1	456.5	413.3	302.0	263.2	264.9
85°	66.2	69.8	115.7	131.6	134.2	231.4	357.6	319.7	232.2	195.2	196.9
87.5°	18.5	23.8	42.4	52.1	64.5	120.1	212.8	189.9	116.6	81.2	81.2
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)