

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: P882740

Luminaire Tested: **NAV-SB2D-730-U-T4FT-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882740  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2D-730-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

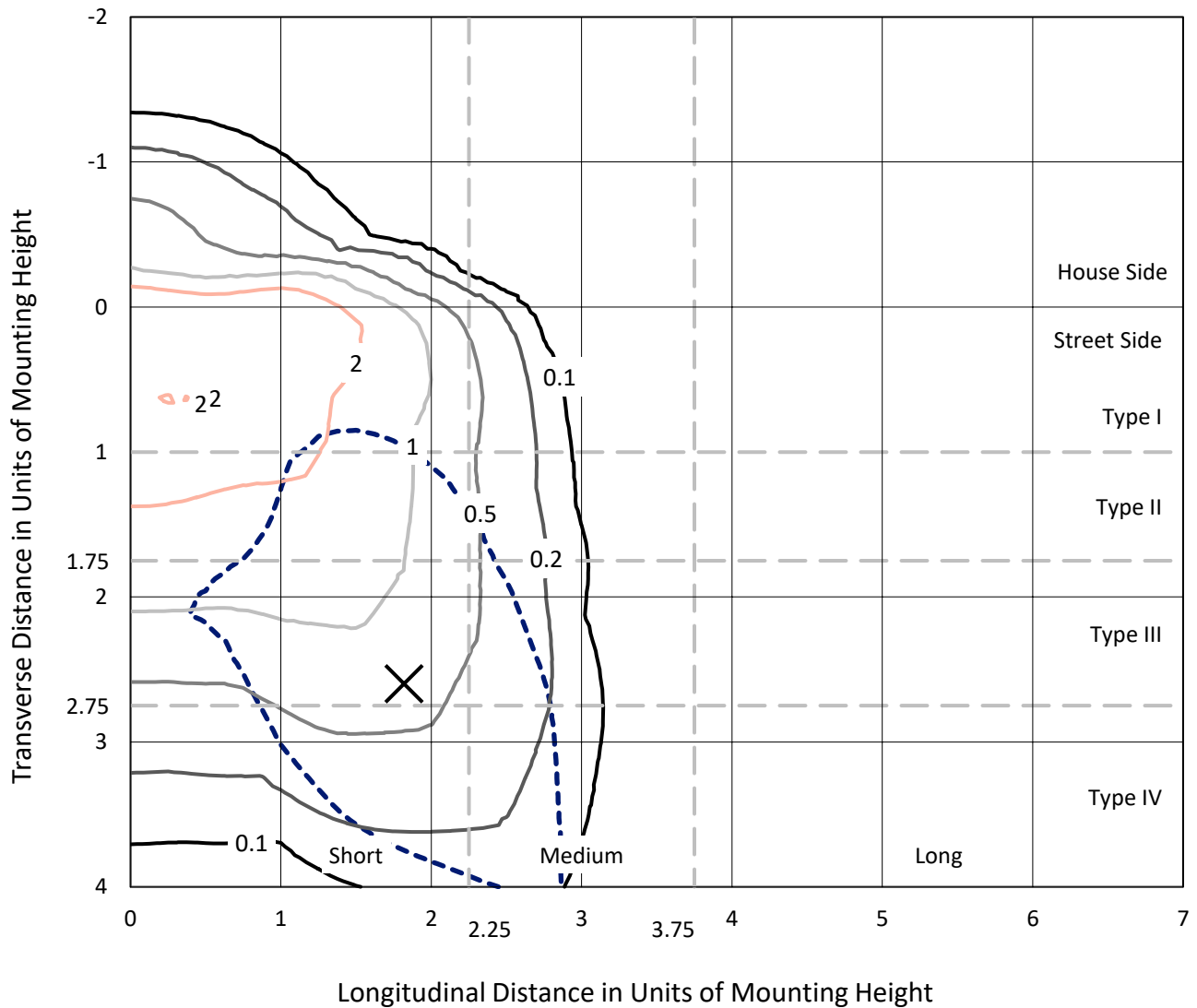
Lumens per Lamp: N/A  
Luminaire Lumens: 15457 lumens  
Efficiency: N/A  
Efficacy: 104.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 147.6  
Input Voltage (V): 120.0  
Input Current (Ain): 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

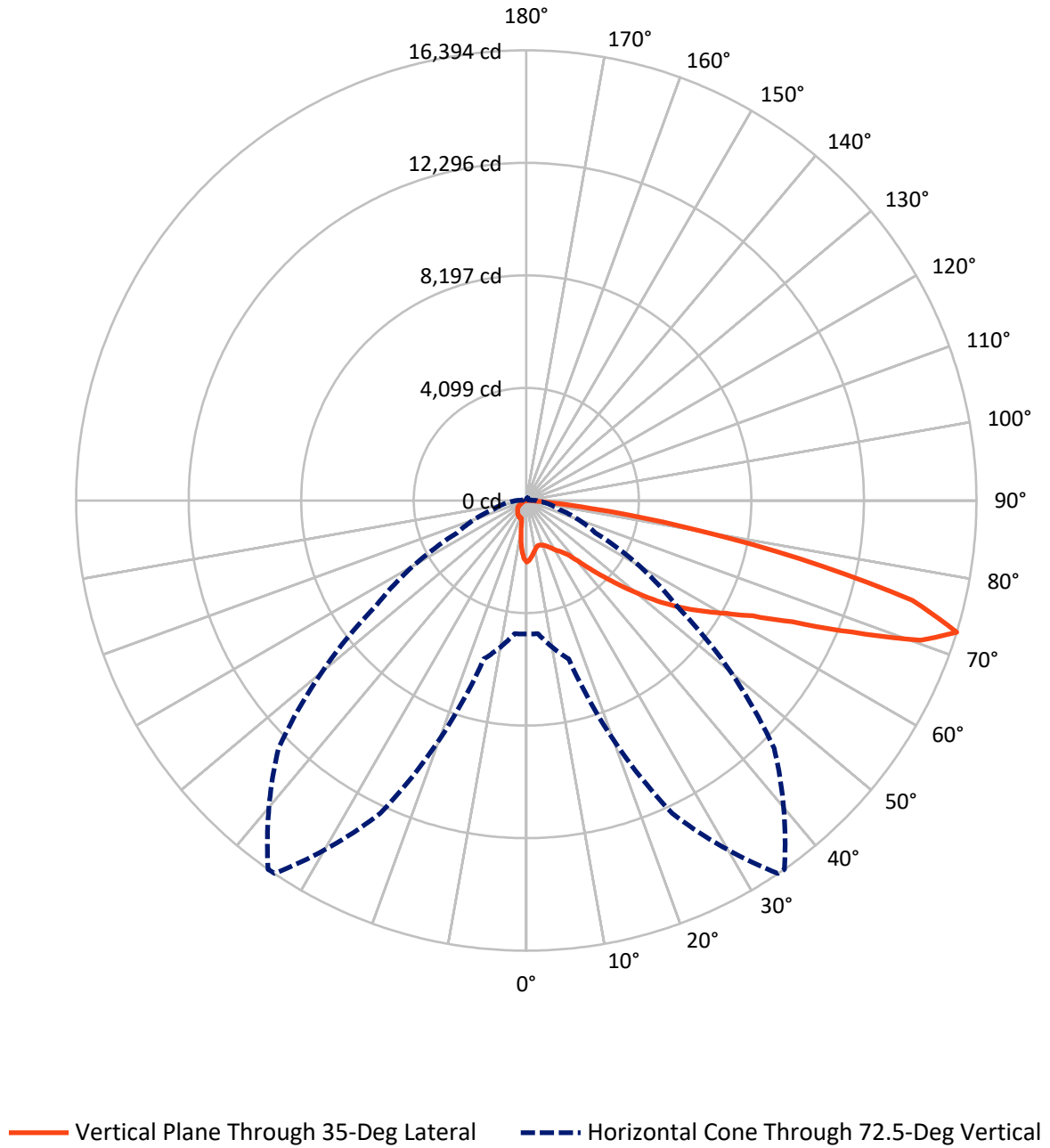
× Max cd  
 - - - 1/2 Max cd



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

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1739.6	0.0	1739.6
	% Fixture	11.3	0.0	11.3
<b>Street Side</b>	Lumens	13717.4	0.0	13717.4
	% Fixture	88.7	0.0	88.7
<b>Total</b>	Lumens	15457.0	0.0	15457.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	184.1	1.2
10°-20°	430.7	2.8
20°-30°	699.6	4.5
30°-40°	1167.2	7.6
40°-50°	2208.5	14.3
50°-60°	3509.2	22.7
60°-70°	4341.2	28.1
70°-80°	2698.5	17.5
80°-90°	218.1	1.4
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°	15457.0	100.0
0°-180°	15457.0	100.0

**Coefficient of Utilization**



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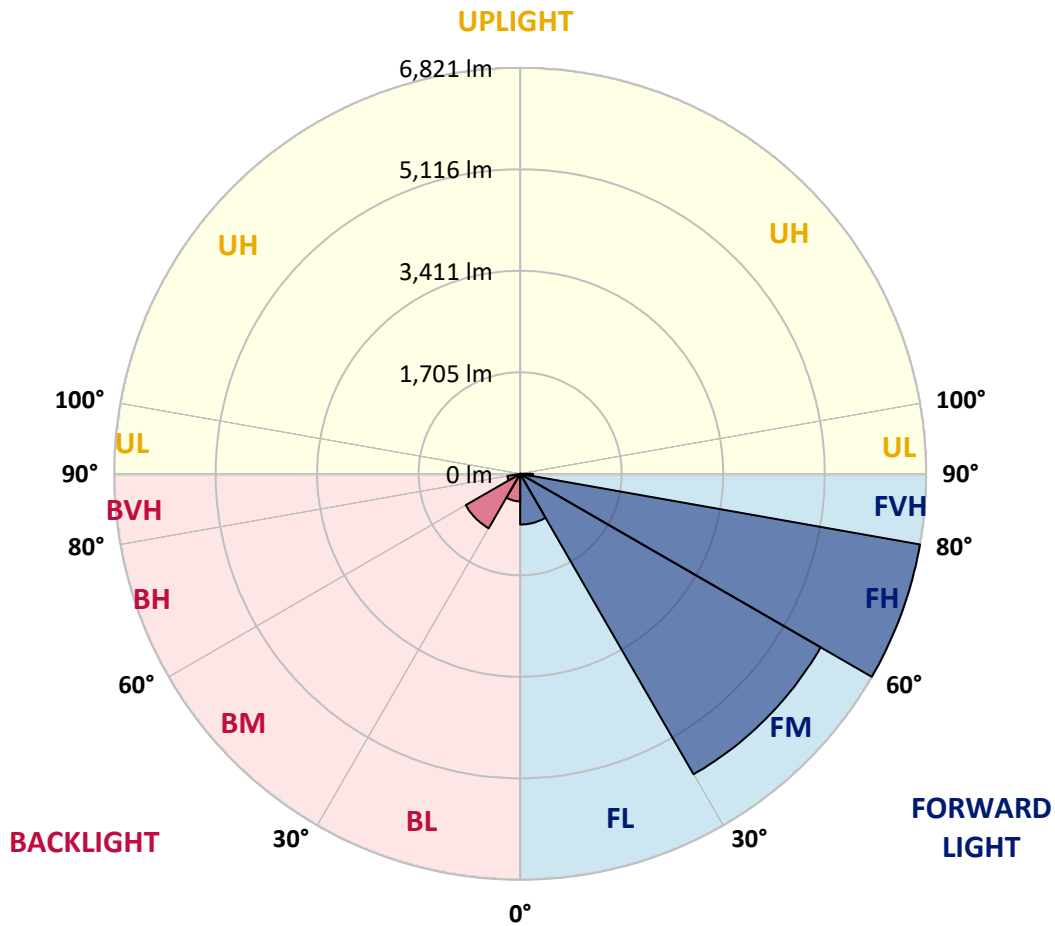
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	852.1	5.5			
FM (30°-60°)	5828.8	37.7			
FH (60°-80°)	6821.4	44.1			G3/7500
FVH (80°-90°)	215.1	1.4			G2/225
BL (0°-30°)	462.2	3.0	B1/500		
BM (30°-60°)	1056.1	6.8	B2/2500		
BH (60°-80°)	218.3	1.4	B1/500		G1/500
BVH (80°-90°)	3.0	0.0			G0/10
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°	34°	35°	45°	55°	65°	75°	85°
0°	2240.2	2240.2	2240.2	2240.2	2240.2	2240.2	2240.2	2240.2	2240.2	2240.2	2240.2
2.5°	2140.6	2158.7	2162.1	2167.8	2167.8	2174.5	2185.9	2201.7	2227.8	2241.4	2250.4
5°	1972.9	1986.5	2003.5	2017.1	2043.2	2046.6	2090.7	2133.8	2193.8	2239.1	2270.8
7.5°	1804.2	1820.1	1842.7	1875.5	1909.5	1919.7	1986.5	2059.0	2154.2	2239.1	2292.3
10°	1685.3	1686.4	1706.8	1739.6	1794.0	1806.5	1888.0	1991.1	2110.0	2225.5	2312.7
12.5°	1618.5	1626.4	1635.4	1660.4	1712.5	1720.4	1807.6	1928.8	2065.8	2217.6	2336.5
15°	1618.5	1624.1	1629.8	1642.2	1684.1	1690.9	1768.0	1889.1	2043.2	2221.0	2375.0
17.5°	1635.4	1644.5	1640.0	1654.7	1698.9	1703.4	1771.4	1877.8	2042.0	2242.5	2433.9
20°	1676.2	1683.0	1673.9	1683.0	1727.2	1736.2	1806.5	1899.3	2061.3	2279.9	2507.5
22.5°	1740.8	1744.2	1722.6	1729.4	1774.7	1786.1	1867.6	1960.5	2107.7	2339.9	2606.1
25°	1822.3	1829.1	1796.3	1804.2	1847.2	1860.8	1954.8	2052.2	2181.3	2422.6	2731.8
27.5°	1916.3	1919.7	1891.4	1890.3	1945.8	1965.0	2060.2	2165.5	2279.9	2526.8	2890.3
30°	2023.9	2034.1	2006.9	2002.4	2072.6	2088.5	2182.5	2304.8	2424.8	2683.1	3115.7
32.5°	2108.9	2116.8	2100.9	2112.3	2183.6	2196.1	2330.8	2501.9	2652.5	2905.1	3422.6
35°	2231.2	2235.7	2199.5	2219.9	2301.4	2333.1	2533.6	2778.2	2939.0	3183.7	3823.6
37.5°	2674.0	2674.0	2520.0	2419.2	2497.3	2525.6	2811.1	3125.9	3292.4	3557.4	4328.7
40°	3286.7	3276.5	3051.2	2845.0	2834.8	2890.3	3206.3	3564.2	3748.8	4005.9	4897.3
42.5°	3940.2	3924.4	3617.5	3413.6	3379.6	3398.9	3662.8	4104.5	4292.5	4553.0	5508.9
45°	4520.1	4515.6	4234.7	3960.6	3899.5	3960.6	4232.4	4736.4	4871.2	5145.3	6119.3
47.5°	5006.0	5006.0	4801.0	4622.0	4590.3	4626.6	5003.7	5437.5	5425.0	5776.1	6713.9
50°	5565.5	5561.0	5366.2	5289.1	5322.0	5372.9	5891.7	6175.9	5998.1	6395.7	7245.1
52.5°	5957.4	5984.5	5917.7	5905.3	6072.9	6161.2	6793.2	6898.5	6511.2	6983.5	7642.6
55°	6267.7	6299.4	6376.4	6463.6	6786.4	6901.9	7666.4	7583.7	6940.4	7493.1	7871.4
57.5°	6707.1	6661.8	6780.7	6952.9	7475.0	7614.3	8512.4	8230.4	7285.9	7906.5	7896.3
60°	7240.6	7247.4	7267.7	7485.2	8162.5	8341.4	9346.0	8842.0	7507.9	8160.2	7620.0
62.5°	7881.6	7891.8	7933.7	8267.8	9085.5	9254.3	10234.0	9342.6	7609.8	8088.9	6906.5
65°	7837.4	7880.5	8348.2	9491.0	10488.8	10655.3	11270.3	9693.7	7455.8	7436.5	5623.2
67.5°	7139.8	7210.0	7992.6	10952.0	12604.5	12790.2	12522.9	9762.8	6790.9	5782.9	3668.4
70°	6224.6	6249.6	7190.7	12265.8	15054.2	15242.2	13644.2	9002.9	5153.2	3225.6	1643.4
72.5°	4861.0	4866.7	5970.9	12570.5	16383.9	16394.1	12764.1	6683.3	2771.4	1239.0	570.8
75°	3472.5	3438.5	3999.1	10194.3	14414.3	14529.8	9569.1	3135.0	1059.0	585.5	284.3
77.5°	1862.0	1899.3	2262.9	6045.7	9957.6	10154.7	5221.2	903.8	539.1	398.7	188.0
80°	575.3	607.1	927.6	2768.0	5640.2	5759.2	1935.6	402.1	376.0	284.3	123.5
82.5°	181.2	188.0	432.6	1163.2	2341.0	2395.4	560.6	227.6	257.1	188.0	72.5
85°	52.1	53.2	192.5	433.8	578.7	590.1	157.4	88.3	147.2	116.7	37.4
87.5°	5.7	18.1	72.5	72.5	51.0	49.8	17.0	19.3	41.9	14.7	6.8
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°	2240.2	2240.2	2240.2	2240.2	2240.2	2240.2	2240.2	2240.2	2240.2	2240.2	2240.2
2.5°	2244.8	2245.9	2231.2	2206.3	2179.1	2156.4	2128.1	2105.5	2089.6	2085.1	2093.0
5°	2260.6	2252.7	2210.8	2134.9	2044.3	1966.2	1878.9	1809.9	1764.6	1745.3	1752.1
7.5°	2284.4	2261.8	2170.0	2020.5	1847.2	1693.2	1536.9	1415.7	1338.7	1300.2	1305.9
10°	2304.8	2259.5	2102.1	1855.2	1590.1	1356.8	1146.2	1000.1	918.5	880.0	881.1
12.5°	2324.0	2258.4	2013.7	1659.2	1300.2	1014.8	818.9	746.4	723.7	715.8	713.5
15°	2360.3	2261.8	1902.7	1435.0	1011.4	766.8	695.4	694.3	698.8	696.5	695.4
17.5°	2410.1	2265.2	1777.0	1197.1	780.3	676.1	672.8	682.9	689.7	686.3	685.2
20°	2474.7	2278.7	1643.4	961.6	670.5	653.5	661.4	670.5	676.1	670.5	669.4
22.5°	2565.3	2302.5	1497.3	772.4	635.4	639.9	646.7	656.9	662.6	654.6	653.5
25°	2676.3	2339.9	1353.4	671.6	618.4	624.0	634.2	645.6	652.4	644.4	643.3
27.5°	2820.1	2399.9	1220.9	649.0	601.4	604.8	619.5	636.5	645.6	635.4	635.4
30°	3028.5	2498.5	1106.5	659.2	591.2	583.3	603.7	627.4	637.6	628.6	627.4
32.5°	3304.9	2637.8	1036.3	675.0	586.7	558.4	577.6	608.2	625.2	619.5	619.5
35°	3667.3	2849.6	1009.1	693.1	583.3	532.3	545.9	578.7	608.2	613.9	613.9
37.5°	4106.7	3144.0	1017.1	701.1	573.1	510.8	517.6	545.9	584.4	602.5	607.1
40°	4606.2	3487.2	1062.4	693.1	561.8	492.7	493.8	515.3	549.3	576.5	585.5
42.5°	5121.5	3888.1	1146.2	663.7	551.6	476.8	473.4	488.1	510.8	530.0	538.0
45°	5611.9	4300.4	1228.8	622.9	539.1	461.0	453.0	458.7	463.2	471.2	475.7
47.5°	6040.0	4590.3	1205.1	585.5	522.1	442.8	429.2	427.0	413.4	412.3	411.1
50°	6335.6	4653.8	1070.3	548.2	497.2	422.5	400.9	387.3	363.6	352.2	353.4
52.5°	6429.6	4403.5	874.3	510.8	456.4	395.3	364.7	343.2	313.7	303.5	302.4
55°	6305.1	3913.1	698.8	465.5	399.8	359.0	325.0	296.7	273.0	260.5	260.5
57.5°	6000.4	3289.0	552.7	412.3	339.8	318.3	284.3	256.0	235.6	223.1	220.9
60°	5495.3	2611.7	437.2	348.8	289.9	274.1	239.0	220.9	202.7	188.0	184.6
62.5°	4728.5	1864.2	343.2	276.3	242.4	224.3	203.9	190.3	168.8	148.4	145.0
65°	3689.9	1140.5	265.0	202.7	194.8	185.7	173.3	160.8	134.8	114.4	111.0
67.5°	2327.4	540.2	189.1	152.9	154.0	149.5	143.8	133.6	114.4	96.3	94.0
70°	1025.0	261.6	124.6	116.7	114.4	114.4	118.9	115.5	97.4	80.4	77.0
72.5°	348.8	140.4	92.9	88.3	82.7	81.5	99.7	96.3	78.1	62.3	58.9
75°	182.3	94.0	68.0	63.4	49.8	60.0	79.3	74.8	55.5	40.8	37.4
77.5°	118.9	66.8	46.4	40.8	28.3	39.6	58.9	52.1	32.8	20.4	18.1
80°	74.8	44.2	27.2	19.3	13.6	21.5	31.7	22.7	12.5	4.5	3.4
82.5°	39.6	22.7	10.2	6.8	5.7	6.8	7.9	5.7	2.3	0.0	0.0
85°	15.9	7.9	3.4	2.3	1.1	0.0	2.3	1.1	0.0	0.0	0.0
87.5°	5.7	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)