

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: P882750

Luminaire Tested: **NAV-SB2D-735-U-T4FT-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882750  
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-735-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

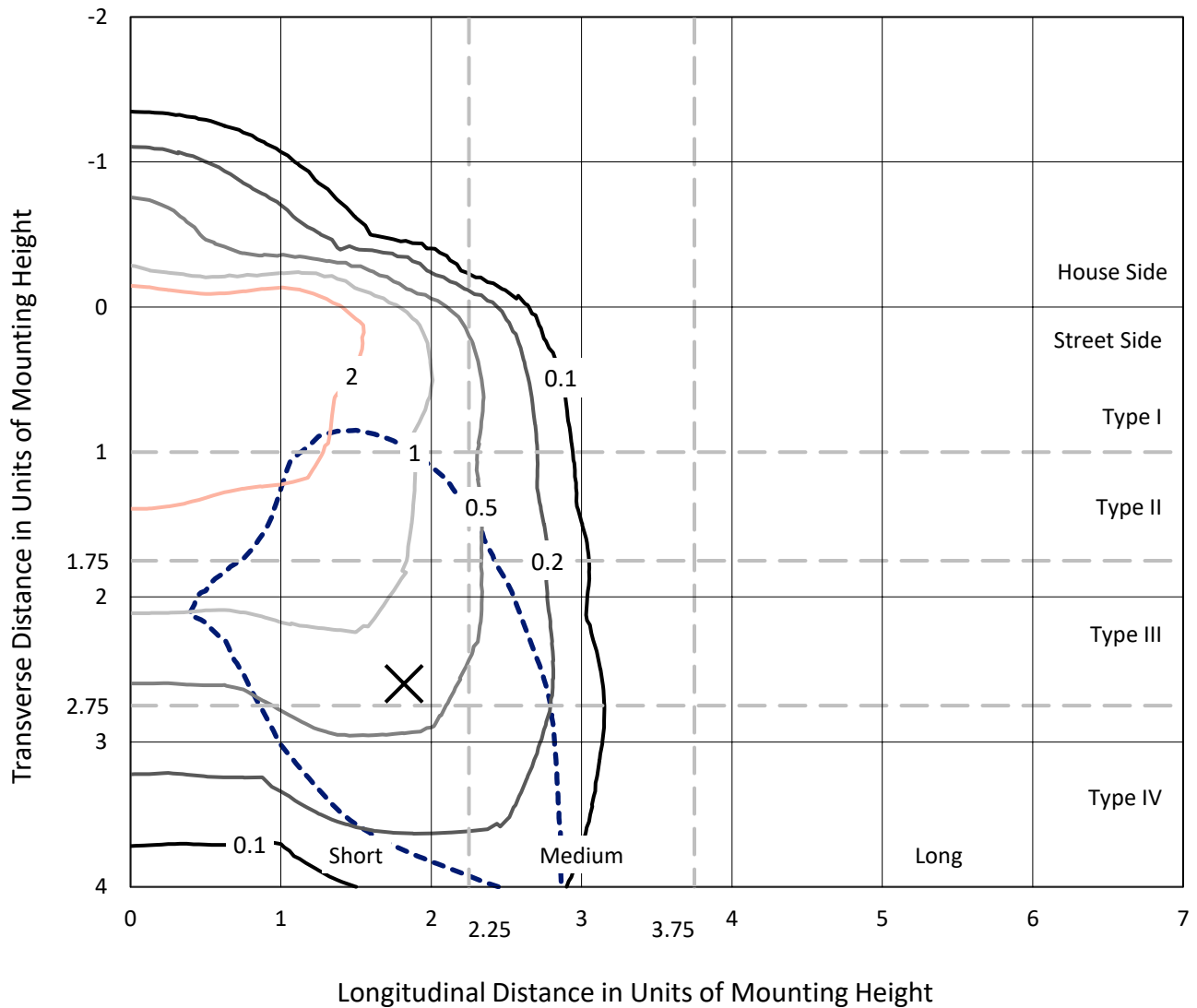
Lumens per Lamp: N/A  
Luminaire Lumens: 15703 lumens  
Efficiency: N/A  
Efficacy: 106.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 147.6  
Input Voltage (V): 120.0  
Input Current (Ain): 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

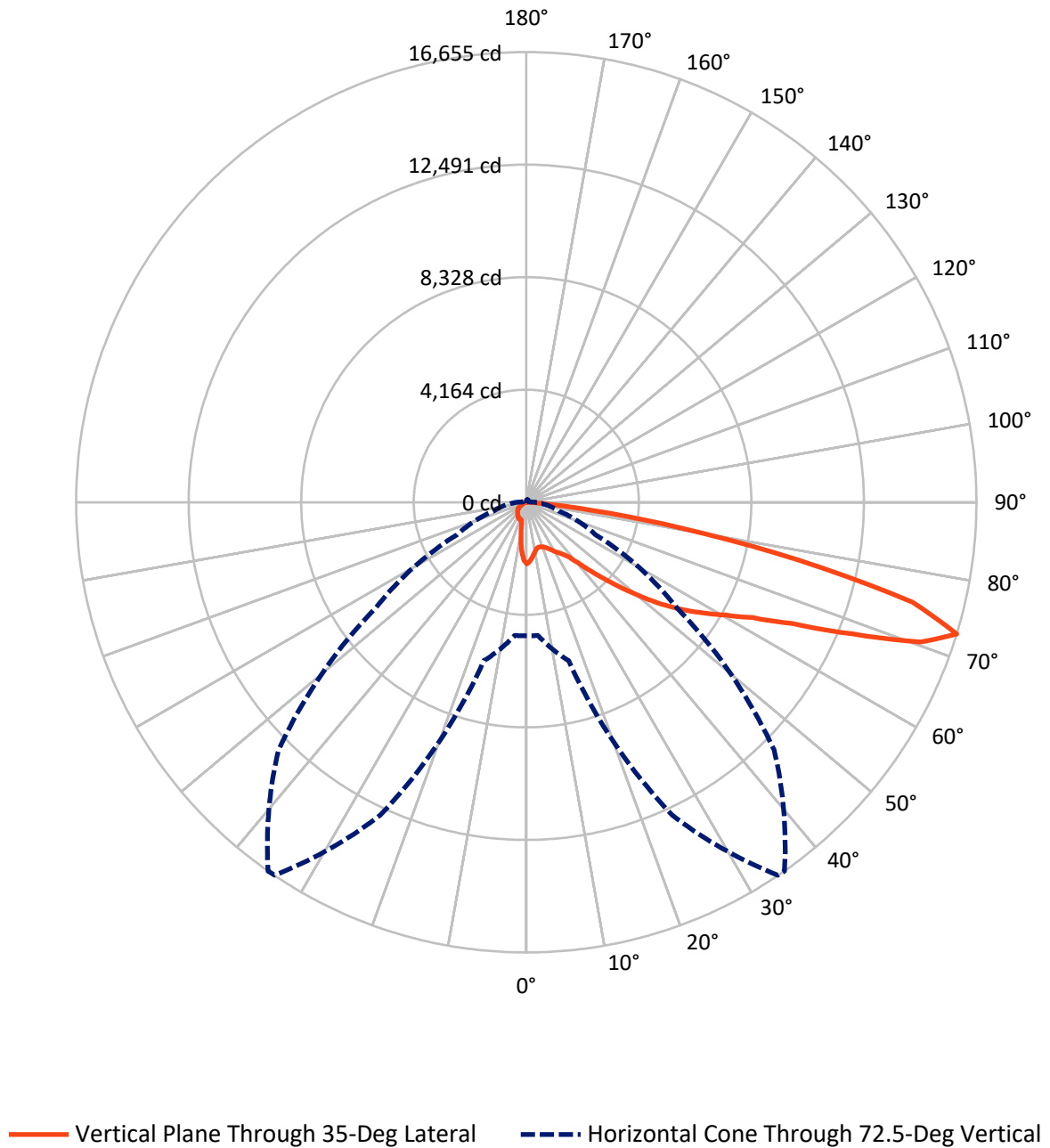
✕ Max cd  
 - - - 1/2 Max cd



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	1767.3	0.0	1767.3
	% Fixture	11.3	0.0	11.3
<b>Street Side</b>	Lumens	13935.7	0.0	13935.7
	% Fixture	88.7	0.0	88.7
<b>Total</b>	Lumens	15703.0	0.0	15703.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	187.0	1.2
10°-20°	437.5	2.8
20°-30°	710.7	4.5
30°-40°	1185.8	7.6
40°-50°	2243.6	14.3
50°-60°	3565.1	22.7
60°-70°	4410.3	28.1
70°-80°	2741.4	17.5
80°-90°	221.6	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°	15703.0	100.0
0°-180°	15703.0	100.0

**Coefficient of Utilization**



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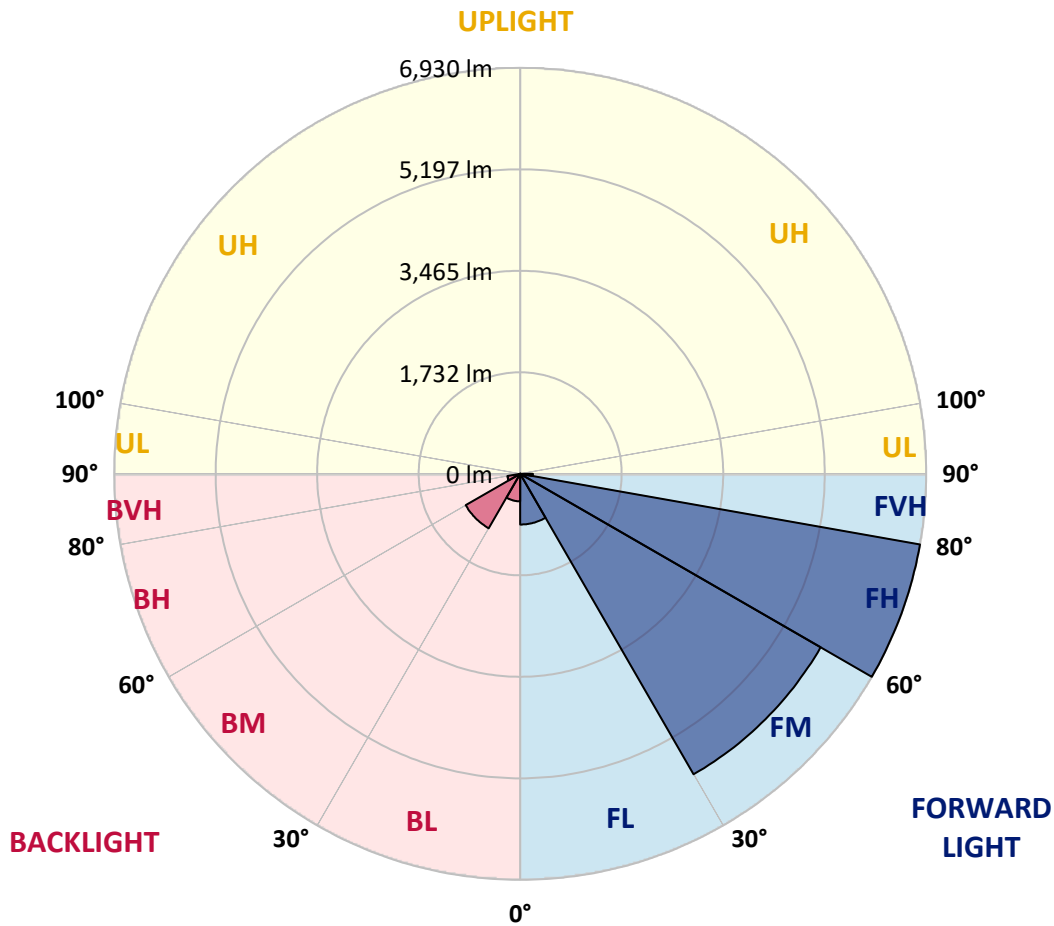
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	865.6	5.5			
FM (30°-60°)	5921.6	37.7			
FH (60°-80°)	6929.9	44.1			G3/7500
FVH (80°-90°)	218.5	1.4			G2/225
BL (0°-30°)	469.6	3.0	B1/500		
BM (30°-60°)	1072.9	6.8	B2/2500		
BH (60°-80°)	221.8	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°	2275.9	2275.9	2275.9	2275.9	2275.9	2275.9	2275.9	2275.9	2275.9	2275.9	2275.9
2.5°	2174.6	2193.0	2196.5	2202.3	2202.3	2209.2	2220.7	2236.8	2263.2	2277.0	2286.2
5°	2004.3	2018.2	2035.4	2049.2	2075.7	2079.1	2124.0	2167.7	2228.7	2274.7	2307.0
7.5°	1832.9	1849.0	1872.0	1905.4	1939.9	1950.3	2018.2	2091.8	2188.4	2274.7	2328.8
10°	1712.1	1713.2	1734.0	1767.3	1822.6	1835.2	1918.1	2022.8	2143.6	2260.9	2349.5
12.5°	1644.2	1652.3	1661.5	1686.8	1739.7	1747.8	1836.4	1959.5	2098.7	2252.9	2373.7
15°	1644.2	1650.0	1655.7	1668.4	1710.9	1717.8	1796.1	1919.2	2075.7	2256.3	2412.8
17.5°	1661.5	1670.7	1666.1	1681.0	1725.9	1730.5	1799.5	1907.7	2074.5	2278.2	2472.6
20°	1702.9	1709.8	1700.6	1709.8	1754.7	1763.9	1835.2	1929.6	2094.1	2316.2	2547.4
22.5°	1768.5	1771.9	1750.1	1757.0	1803.0	1814.5	1897.3	1991.7	2141.3	2377.1	2647.5
25°	1851.3	1858.2	1824.9	1832.9	1876.6	1890.4	1985.9	2084.9	2216.1	2461.1	2775.3
27.5°	1946.8	1950.3	1921.5	1920.4	1976.7	1996.3	2092.9	2200.0	2316.2	2567.0	2936.3
30°	2056.1	2066.5	2038.9	2034.3	2105.6	2121.7	2217.2	2341.5	2463.4	2725.8	3165.3
32.5°	2142.4	2150.5	2134.4	2145.9	2218.4	2231.0	2367.9	2541.7	2694.7	2951.3	3477.1
35°	2266.7	2271.3	2234.5	2255.2	2338.0	2370.2	2573.9	2822.4	2985.8	3234.3	3884.4
37.5°	2716.6	2716.6	2560.1	2457.7	2537.1	2565.8	2855.8	3175.7	3344.8	3614.0	4397.6
40°	3339.0	3328.7	3099.7	2890.3	2880.0	2936.3	3257.4	3620.9	3808.5	4069.7	4975.2
42.5°	4002.9	3986.8	3675.0	3467.9	3433.4	3453.0	3721.0	4169.8	4360.8	4625.4	5596.5
45°	4592.1	4587.5	4302.1	4023.7	3961.5	4023.7	4299.8	4811.8	4948.7	5227.2	6216.7
47.5°	5085.7	5085.7	4877.4	4695.6	4663.4	4700.2	5083.4	5524.0	5511.4	5868.1	6820.8
50°	5654.1	5649.5	5451.6	5373.3	5406.7	5458.5	5985.4	6274.2	6093.6	6497.5	7360.4
52.5°	6052.2	6079.8	6011.9	5999.2	6169.5	6259.3	6901.3	7008.3	6614.8	7094.6	7764.3
55°	6367.4	6399.6	6477.9	6566.5	6894.4	7011.8	7788.4	7704.4	7050.9	7612.4	7996.7
57.5°	6813.9	6767.8	6888.7	7063.5	7594.0	7735.5	8647.9	8361.4	7401.8	8032.4	8022.0
60°	7355.8	7362.7	7383.4	7604.3	8292.4	8474.2	9494.8	8982.8	7627.3	8290.1	7741.3
62.5°	8007.0	8017.4	8060.0	8399.4	9230.1	9401.6	10396.8	9491.3	7730.9	8217.6	7016.4
65°	7962.2	8005.9	8481.1	9642.0	10655.7	10824.9	11449.6	9848.0	7574.4	7554.9	5712.7
67.5°	7253.4	7324.7	8119.8	11126.3	12805.1	12993.8	12722.2	9918.2	6899.0	5875.0	3726.8
70°	6323.7	6349.0	7305.2	12461.0	15293.8	15484.8	13861.3	9146.1	5235.2	3276.9	1669.5
72.5°	4938.4	4944.1	6066.0	12770.5	16644.6	16655.0	12967.3	6789.7	2815.5	1258.8	579.9
75°	3527.7	3493.2	4062.8	10356.6	14643.7	14761.1	9721.4	3184.9	1075.8	594.9	288.8
77.5°	1891.6	1929.6	2298.9	6141.9	10116.1	10316.3	5304.3	918.2	547.7	405.0	191.0
80°	584.5	616.7	942.3	2812.1	5730.0	5850.8	1966.4	408.5	382.0	288.8	125.4
82.5°	184.1	191.0	439.5	1181.7	2378.3	2433.5	569.5	231.3	261.2	191.0	73.6
85°	52.9	54.1	195.6	440.7	588.0	599.5	159.9	89.7	149.6	118.5	38.0
87.5°	5.8	18.4	73.6	73.6	51.8	50.6	17.3	19.6	42.6	15.0	6.9
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°	2275.9	2275.9	2275.9	2275.9	2275.9	2275.9	2275.9	2275.9	2275.9	2275.9	2275.9
2.5°	2280.5	2281.6	2266.7	2241.4	2213.8	2190.7	2162.0	2139.0	2122.9	2118.3	2126.3
5°	2296.6	2288.5	2246.0	2168.9	2076.8	1997.4	1908.8	1838.7	1792.6	1773.1	1780.0
7.5°	2320.8	2297.8	2204.6	2052.7	1876.6	1720.2	1561.4	1438.3	1360.0	1320.9	1326.6
10°	2341.5	2295.5	2135.5	1884.7	1615.4	1378.4	1164.4	1016.0	933.1	894.0	895.2
12.5°	2361.0	2294.3	2045.8	1685.6	1320.9	1030.9	831.9	758.2	735.2	727.2	724.9
15°	2397.9	2297.8	1933.0	1457.8	1027.5	779.0	706.5	705.3	709.9	707.6	706.5
17.5°	2448.5	2301.2	1805.3	1216.2	792.8	686.9	683.5	693.8	700.7	697.3	696.1
20°	2514.1	2315.0	1669.5	976.9	681.2	663.9	672.0	681.2	686.9	681.2	680.0
22.5°	2606.1	2339.2	1521.1	784.7	645.5	650.1	657.0	667.3	673.1	665.0	663.9
25°	2718.9	2377.1	1375.0	682.3	628.2	634.0	644.3	655.8	662.7	654.7	653.5
27.5°	2865.0	2438.1	1240.3	659.3	611.0	614.4	629.4	646.6	655.8	645.5	645.5
30°	3076.7	2538.2	1124.1	669.7	600.6	592.6	613.3	637.4	647.8	638.6	637.4
32.5°	3357.5	2679.8	1052.8	685.8	596.0	567.2	586.8	617.9	635.1	629.4	629.4
35°	3725.6	2894.9	1025.2	704.2	592.6	540.8	554.6	588.0	617.9	623.6	623.6
37.5°	4172.1	3194.1	1033.2	712.2	582.2	518.9	525.8	554.6	593.7	612.1	616.7
40°	4679.5	3542.7	1079.3	704.2	570.7	500.5	501.7	523.5	558.0	585.7	594.9
42.5°	5203.0	3950.0	1164.4	674.3	560.3	484.4	481.0	495.9	518.9	538.5	546.5
45°	5701.2	4368.8	1248.4	632.8	547.7	468.3	460.2	466.0	470.6	478.7	483.3
47.5°	6136.2	4663.4	1224.2	594.9	530.4	449.9	436.1	433.8	420.0	418.8	417.7
50°	6436.5	4727.8	1087.3	556.9	505.1	429.2	407.3	393.5	369.3	357.8	359.0
52.5°	6532.0	4473.5	888.3	518.9	463.7	401.6	370.5	348.6	318.7	308.4	307.2
55°	6405.4	3975.3	709.9	472.9	406.2	364.7	330.2	301.5	277.3	264.6	264.6
57.5°	6095.9	3341.3	561.5	418.8	345.2	323.3	288.8	260.0	239.3	226.7	224.4
60°	5582.7	2653.3	444.1	354.4	294.6	278.4	242.8	224.4	206.0	191.0	187.5
62.5°	4803.8	1893.9	348.6	280.7	246.2	227.8	207.1	193.3	171.4	150.7	147.3
65°	3748.7	1158.7	269.2	206.0	197.9	188.7	176.0	163.4	136.9	116.2	112.8
67.5°	2364.5	548.8	192.2	155.3	156.5	151.9	146.1	135.8	116.2	97.8	95.5
70°	1041.3	265.8	126.6	118.5	116.2	116.2	120.8	117.4	99.0	81.7	78.2
72.5°	354.4	142.7	94.3	89.7	84.0	82.8	101.3	97.8	79.4	63.3	59.8
75°	185.2	95.5	69.0	64.4	50.6	61.0	80.5	75.9	56.4	41.4	38.0
77.5°	120.8	67.9	47.2	41.4	28.8	40.3	59.8	52.9	33.4	20.7	18.4
80°	75.9	44.9	27.6	19.6	13.8	21.9	32.2	23.0	12.7	4.6	3.5
82.5°	40.3	23.0	10.4	6.9	5.8	6.9	8.1	5.8	2.3	0.0	0.0
85°	16.1	8.1	3.5	2.3	1.2	0.0	2.3	1.2	0.0	0.0	0.0
87.5°	5.8	1.2	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)