

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: P965624

Luminaire Tested: **NAV-SB4A-735-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965624
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-735-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14083.5 lumens
Efficiency: N/A
Efficacy: 123.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

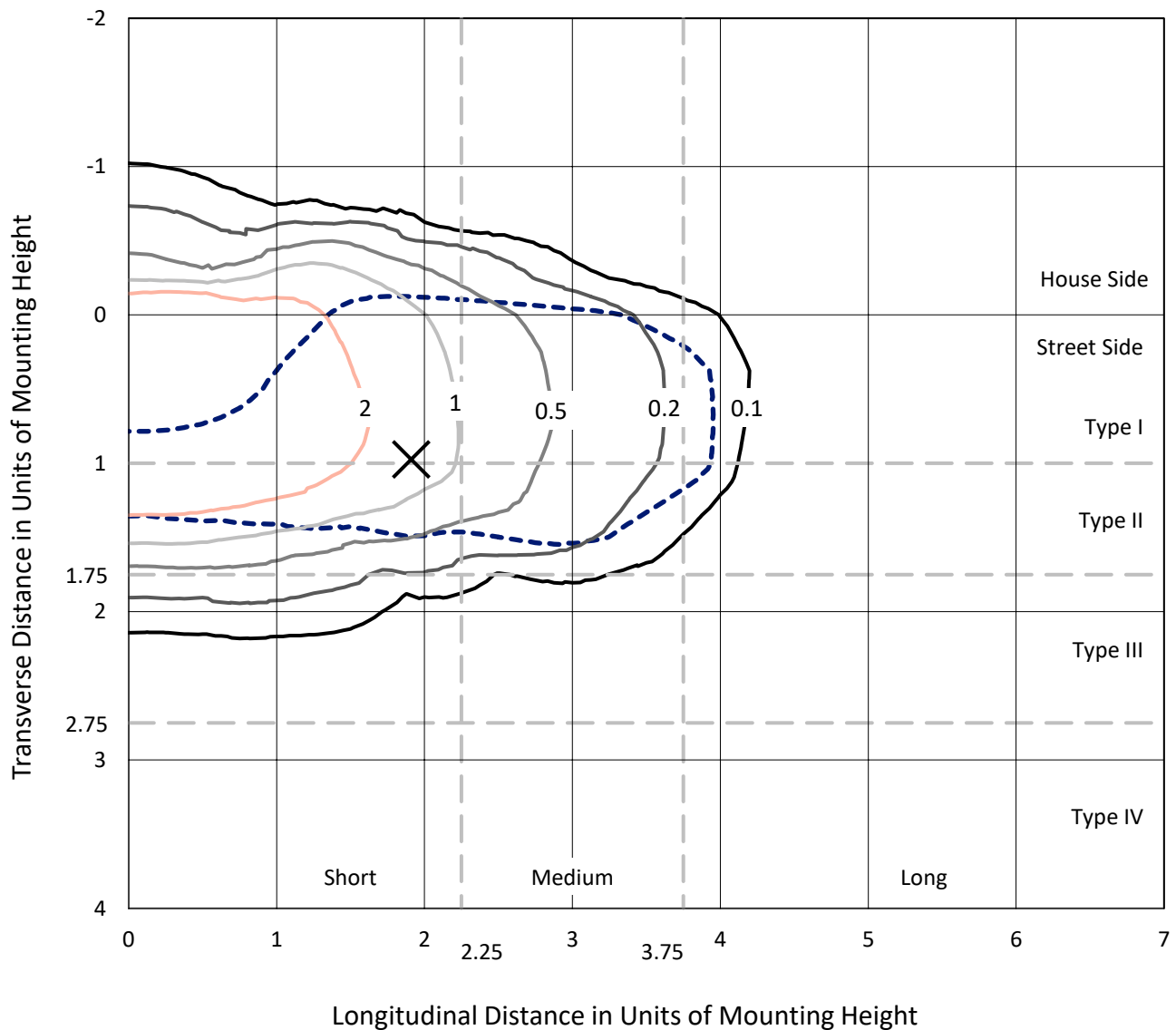
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

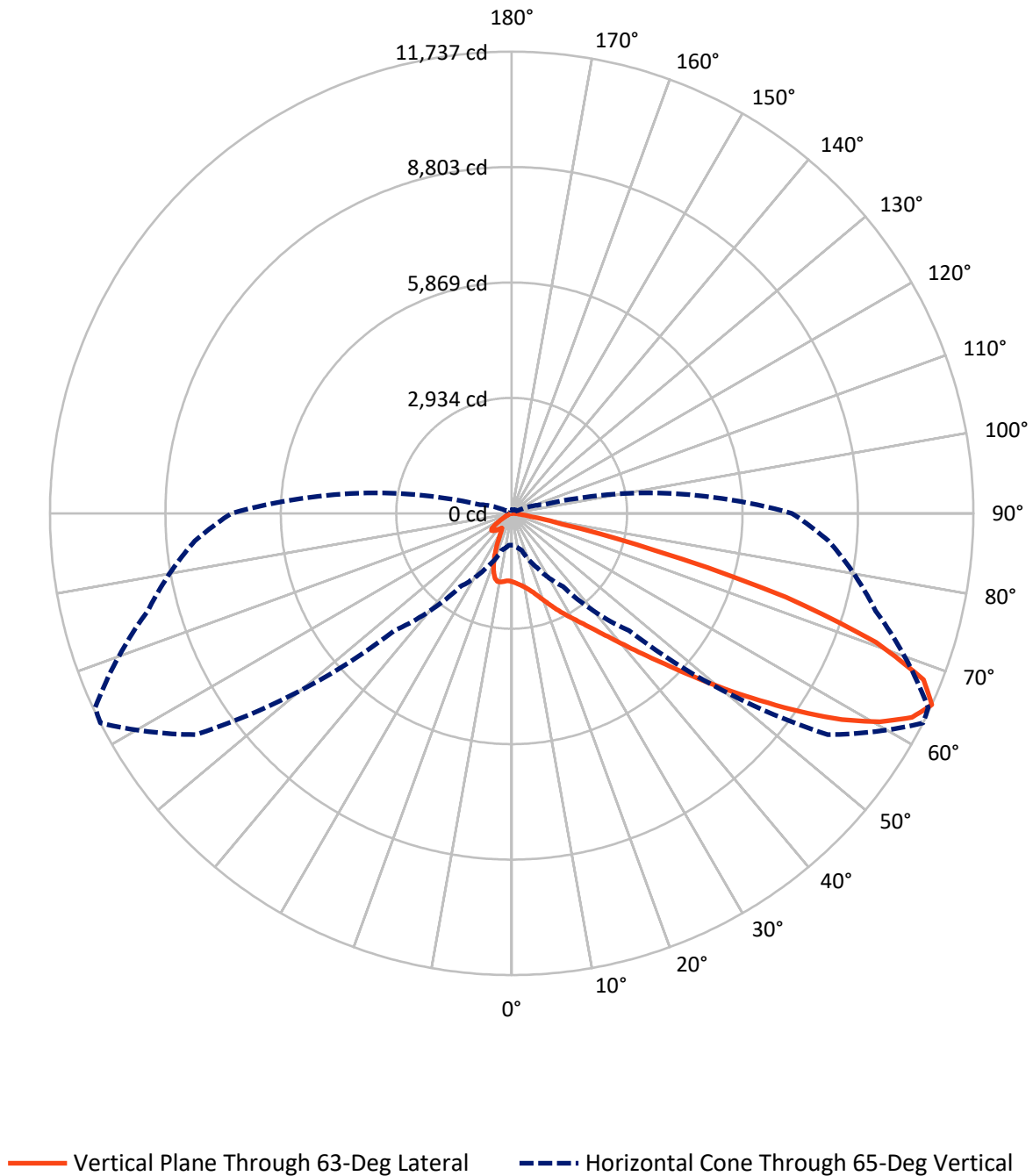
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2070.2	0.0	2070.2
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	12013.3	0.0	12013.3
	% Fixture	85.3	0.0	85.3
Total	Lumens	14083.5	0.0	14083.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.8	1.2
10°-20°	454.4	3.2
20°-30°	791.2	5.6
30°-40°	1426.1	10.1
40°-50°	2828.4	20.1
50°-60°	3852.7	27.4
60°-70°	3075.2	21.8
70°-80°	1391.6	9.9
80°-90°	100.0	0.7
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°	14083.5	100.0
0°-180°	14083.5	100.0

Coefficient of Utilization



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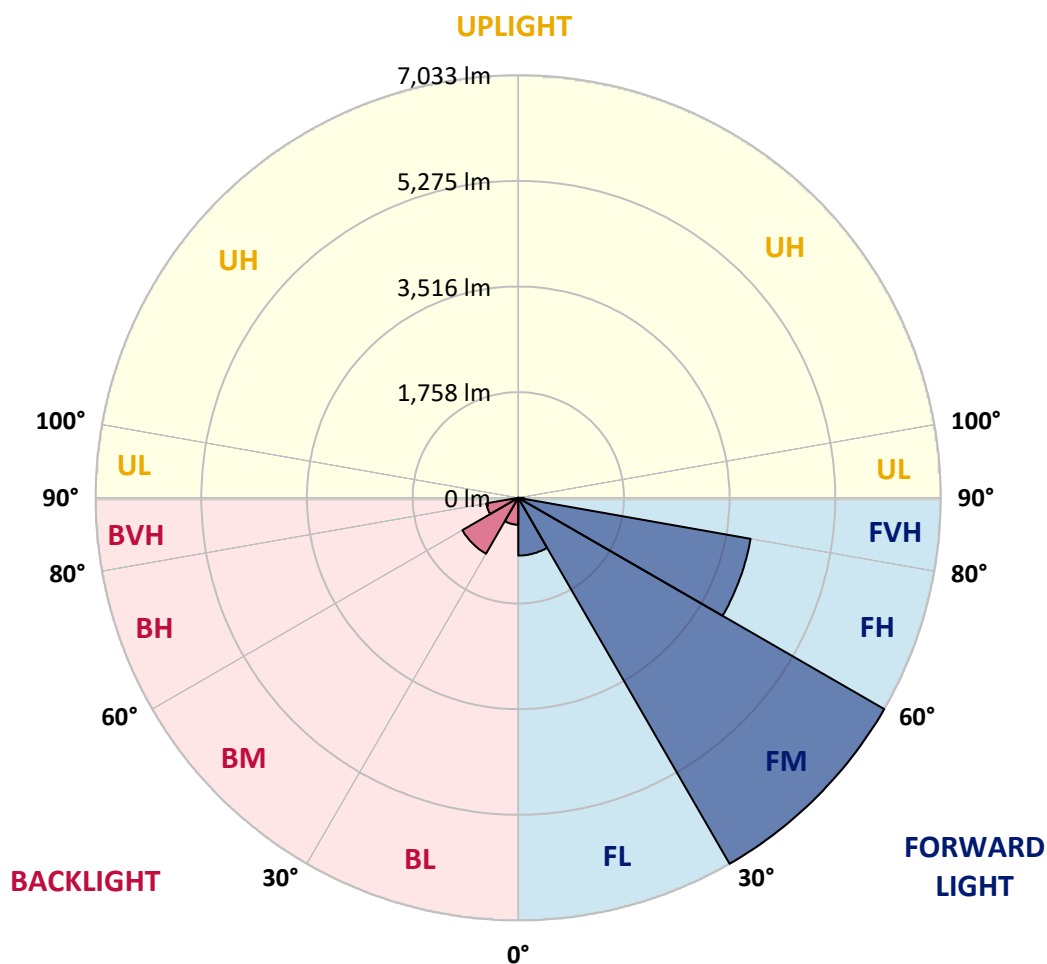
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	961.4	6.8			
FM	(30°-60°)	7032.9	49.9			
FH	(60°-80°)	3926.4	27.9			G2/5000
FVH	(80°-90°)	92.6	0.7			G1/100
BL	(0°-30°)	448.0	3.2	B1/500		
BM	(30°-60°)	1074.3	7.6	B2/2500		
BH	(60°-80°)	540.4	3.8	B2/1000		G2/1000
BVH	(80°-90°)	7.4	0.1			G0/10
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 Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	1738.2	1738.2	1738.2	1738.2	1738.2	1738.2	1738.2	1738.2	1738.2	1738.2	1738.2
2.5°	1778.9	1774.0	1780.8	1777.9	1775.9	1772.1	1770.2	1768.2	1764.3	1761.5	1749.8
5°	1783.7	1780.8	1787.6	1793.4	1799.2	1805.0	1807.9	1811.8	1807.9	1800.2	1788.5
7.5°	1743.0	1741.1	1755.6	1773.0	1799.2	1821.5	1845.7	1859.2	1860.3	1857.3	1844.8
10°	1740.1	1735.2	1749.8	1771.1	1805.0	1844.8	1887.3	1916.4	1920.3	1932.9	1919.3
12.5°	1785.7	1780.8	1801.1	1824.4	1859.2	1901.0	1953.2	1993.9	1999.8	2017.2	2007.6
15°	1862.2	1855.5	1878.6	1908.7	1953.2	2000.7	2055.9	2092.7	2097.7	2119.0	2101.5
17.5°	1951.3	1944.5	1971.7	2003.7	2052.0	2117.0	2181.0	2221.7	2227.4	2241.1	2209.1
20°	2065.7	2057.0	2078.3	2107.3	2158.6	2236.1	2312.7	2370.8	2369.9	2369.9	2317.5
22.5°	2198.4	2184.8	2203.2	2226.5	2274.9	2368.9	2470.7	2539.4	2539.4	2512.3	2426.1
25°	2340.8	2327.3	2347.6	2368.9	2411.5	2518.1	2637.3	2722.5	2726.4	2680.0	2542.3
27.5°	2519.0	2501.6	2517.2	2542.3	2567.5	2676.1	2817.5	2916.3	2918.3	2846.5	2652.8
30°	2862.1	2812.7	2764.2	2737.1	2748.7	2856.3	3007.5	3116.9	3126.6	3027.7	2772.9
32.5°	3489.9	3480.2	3309.7	3086.9	2970.6	3050.0	3219.6	3351.3	3357.2	3230.3	2928.9
35°	4465.5	4453.9	4179.7	3755.4	3376.6	3309.7	3477.3	3633.3	3629.4	3486.0	3131.4
37.5°	5630.1	5619.5	5258.1	4690.3	4077.0	3702.1	3809.6	3973.4	3997.6	3809.6	3393.1
40°	6625.2	6585.5	6356.8	5809.4	5007.1	4353.2	4282.4	4391.0	4416.1	4193.3	3725.4
42.5°	7379.0	7345.0	7228.8	6886.8	6133.0	5316.3	4839.5	4881.3	4909.3	4641.9	4107.1
45°	7769.4	7761.7	7808.2	7776.3	7280.2	6498.3	5636.0	5462.5	5473.2	5138.9	4540.1
47.5°	7824.6	7820.7	8033.0	8333.4	8266.5	7831.4	6658.1	6187.3	6149.5	5699.9	5011.0
50°	7499.1	7491.4	7898.3	8461.3	8925.3	8951.4	7818.9	7004.0	6920.7	6280.3	5502.3
52.5°	6459.5	6457.6	7126.1	8063.1	9156.8	9931.9	8966.0	7901.2	7761.7	6894.6	6021.6
55°	4970.3	5006.2	5772.6	6880.0	8734.4	10403.9	9995.9	8897.2	8683.1	7512.7	6500.2
57.5°	3520.9	3573.3	4330.9	5317.2	7424.5	10124.7	10692.6	9895.1	9664.6	8128.9	6985.6
60°	1891.2	1937.8	2696.4	3873.6	5523.6	9084.2	11059.7	10761.4	10543.4	8714.1	7423.6
62.5°	1126.8	1142.3	1456.2	2500.7	3736.0	6940.1	10903.7	11421.2	11241.9	9205.3	7804.4
65°	809.0	811.9	969.9	1526.9	2268.1	4216.5	9809.9	11737.0	11681.8	9575.4	8086.2
67.5°	681.1	679.2	745.1	1014.4	1545.4	2112.1	7518.5	11290.4	11524.8	9809.9	8246.1
70°	584.2	587.1	664.6	743.1	1161.7	1195.6	3738.0	9830.3	10330.2	9871.9	8236.5
72.5°	435.0	444.7	516.4	677.2	876.8	822.6	1290.6	7288.9	8192.8	9301.3	7809.2
75°	307.1	312.0	363.4	569.7	653.9	598.8	658.9	3768.0	4926.8	7130.9	6391.7
77.5°	236.4	245.1	275.2	398.2	644.3	420.5	403.0	1304.1	2003.7	4307.7	4382.3
80°	127.9	143.4	198.6	287.7	452.4	297.5	199.6	519.4	679.2	2014.3	1689.7
82.5°	65.9	73.6	138.6	207.4	257.7	259.6	98.8	216.1	280.0	622.0	231.5
85°	26.1	32.0	93.0	114.3	132.7	127.9	44.6	87.2	100.8	172.5	70.7
87.5°	5.8	9.7	33.9	26.1	25.2	27.2	10.7	20.4	19.4	20.4	12.6
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°	1738.2	1738.2	1738.2	1738.2	1738.2	1738.2	1738.2	1738.2	1738.2	1738.2	1738.2
2.5°	1748.9	1745.0	1734.3	1722.7	1709.1	1701.4	1696.5	1695.6	1688.8	1683.9	1688.8
5°	1777.9	1774.0	1753.7	1729.5	1703.2	1682.9	1663.6	1646.2	1620.9	1616.1	1614.2
7.5°	1836.0	1825.3	1792.4	1759.5	1710.1	1651.0	1579.3	1496.9	1423.3	1401.0	1390.3
10°	1907.7	1893.2	1851.6	1793.4	1683.9	1523.0	1349.6	1188.8	1060.9	1025.1	1011.5
12.5°	1989.1	1976.5	1921.3	1813.7	1574.4	1282.8	1017.3	817.7	693.7	662.7	653.9
15°	2086.0	2067.6	1991.1	1782.8	1378.7	974.7	698.5	580.4	535.8	530.0	524.2
17.5°	2188.7	2158.6	2053.1	1671.4	1115.2	692.8	539.7	505.7	486.4	480.5	477.6
20°	2282.7	2243.9	2089.9	1502.8	833.2	539.7	483.5	461.1	443.7	437.0	433.1
22.5°	2376.7	2321.4	2089.9	1273.2	624.9	478.7	443.7	423.4	403.0	394.3	389.5
25°	2474.6	2400.9	2053.1	1017.3	502.9	438.9	406.0	383.7	366.2	355.6	351.7
27.5°	2569.5	2467.7	1968.7	775.1	447.6	404.1	371.0	349.7	333.3	325.5	325.5
30°	2659.6	2533.6	1850.5	588.1	411.7	370.1	339.1	320.7	304.2	296.4	297.5
32.5°	2781.6	2616.9	1724.6	482.5	380.8	338.1	310.1	292.6	278.1	272.2	272.2
35°	2951.2	2740.0	1616.1	473.8	354.6	312.0	283.9	267.4	252.9	248.0	248.0
37.5°	3191.4	2938.6	1558.9	531.9	333.3	288.7	262.6	245.1	231.5	227.7	226.7
40°	3488.0	3207.9	1590.0	590.1	318.8	268.3	243.2	225.7	214.1	209.3	208.3
42.5°	3839.6	3540.2	1761.5	634.6	309.0	250.9	224.8	205.4	197.6	195.7	195.7
45°	4243.7	3905.6	2024.0	682.1	293.6	234.5	206.3	191.9	186.0	185.0	184.1
47.5°	4702.9	4306.6	2328.2	741.2	278.1	218.9	191.9	182.1	177.3	175.4	175.4
50°	5158.3	4710.7	2641.1	774.2	265.5	204.4	180.2	172.5	168.6	167.6	167.6
52.5°	5635.0	5126.3	2894.1	743.1	254.8	192.8	170.6	164.7	160.8	159.9	159.9
55°	6089.4	5462.5	2937.6	630.8	233.5	181.2	159.9	156.9	152.1	152.1	151.2
57.5°	6480.9	5631.1	2629.5	463.1	212.2	163.7	149.2	146.3	142.5	141.4	140.5
60°	6840.3	5582.7	2029.8	312.0	188.9	146.3	135.6	133.7	129.9	124.9	124.0
62.5°	7042.8	5369.6	1388.4	203.5	165.6	127.9	120.1	119.2	110.5	100.8	98.8
65°	7119.3	4931.6	866.2	148.2	138.6	109.5	103.6	101.8	89.2	78.5	77.5
67.5°	7052.5	4210.7	437.0	117.3	109.5	91.1	85.3	85.3	76.6	66.8	65.9
70°	6785.1	3156.6	184.1	94.0	84.3	69.8	69.8	73.6	64.9	54.2	53.3
72.5°	6204.7	2123.8	97.9	71.6	62.9	49.4	57.2	60.1	51.4	40.7	40.7
75°	4932.6	1295.4	67.9	53.3	39.8	34.8	43.6	45.5	34.8	27.2	26.1
77.5°	3373.7	744.2	45.5	33.9	25.2	20.4	30.0	28.1	18.4	12.6	13.5
80°	1481.4	310.1	26.1	15.5	9.7	7.8	10.7	7.8	5.8	3.9	3.9
82.5°	173.4	72.7	9.7	5.8	3.9	1.9	0.9	0.0	0.0	0.0	0.0
85°	35.9	8.7	4.8	1.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.8	1.9	0.9	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)