

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: P965749

Luminaire Tested: **NAV-SB4A-827-U-T2U**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965749
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-16)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-827-U-T2U
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16238.1 lumens
Efficiency: N/A
Efficacy: 142.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

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



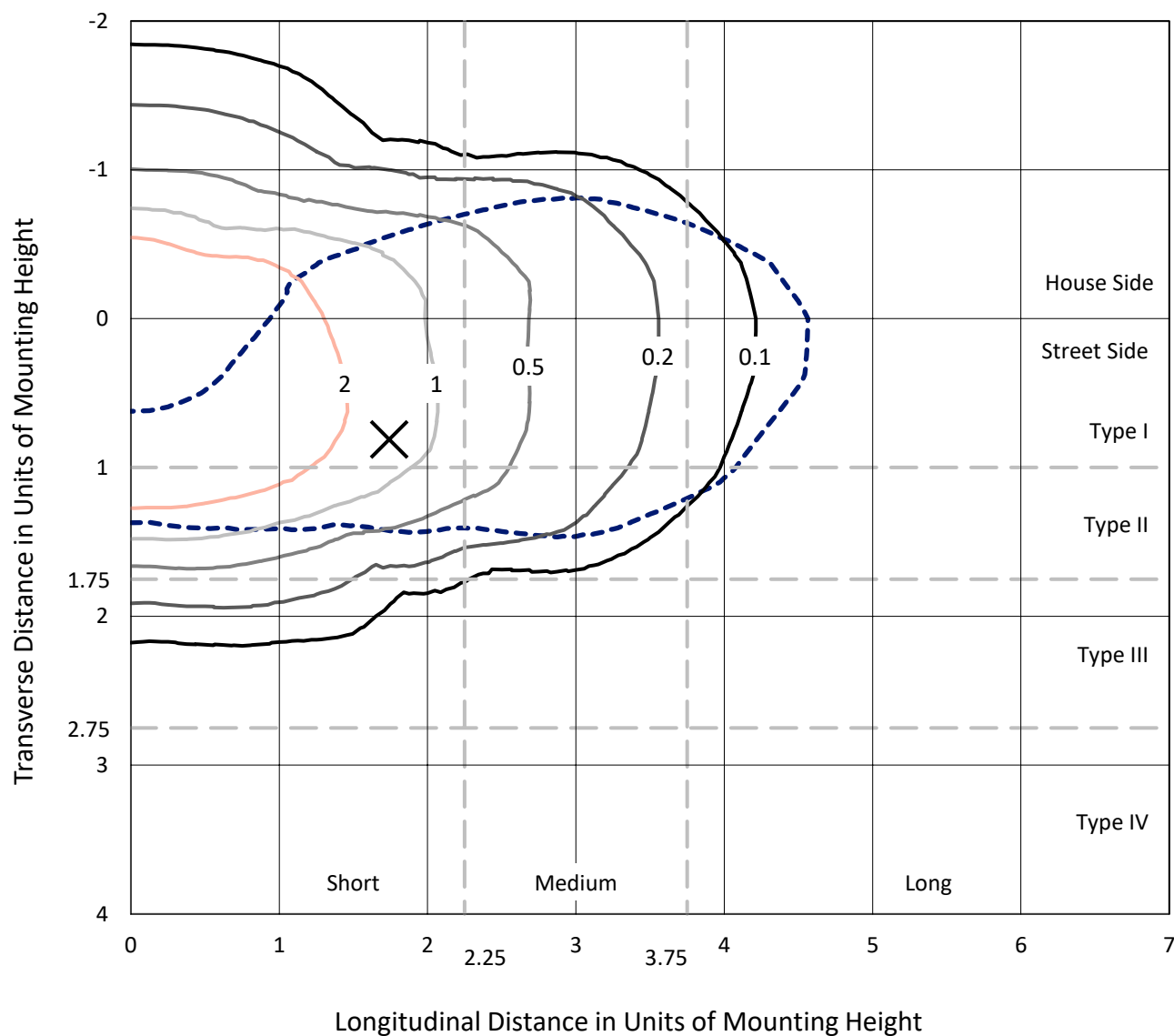
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

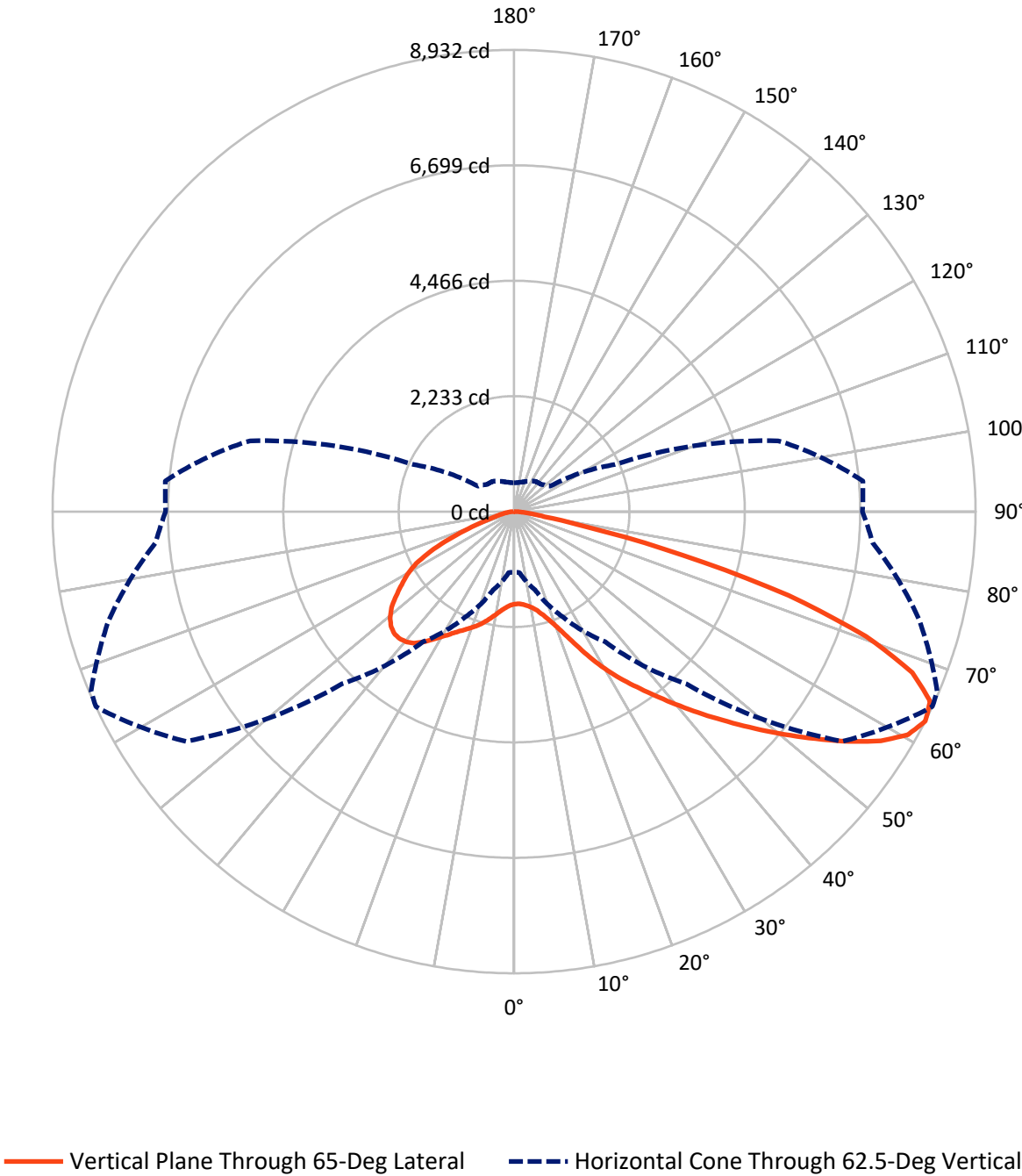


Based on 25 foot mounting height. Maximum calculated value = 4.5 fc

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	5124.0	0.0	5124.0
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	11114.0	0.0	11114.0
	% Fixture	68.4	0.0	68.4
Total	Lumens	16238.1	0.0	16238.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	178.4	1.1
10°-20°	605.0	3.7
20°-30°	1226.6	7.6
30°-40°	2122.7	13.1
40°-50°	3212.2	19.8
50°-60°	3766.1	23.2
60°-70°	3157.4	19.4
70°-80°	1743.2	10.7
80°-90°	226.4	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°	16238.1	100.0
0°-180°	16238.1	100.0

Coefficient of Utilization



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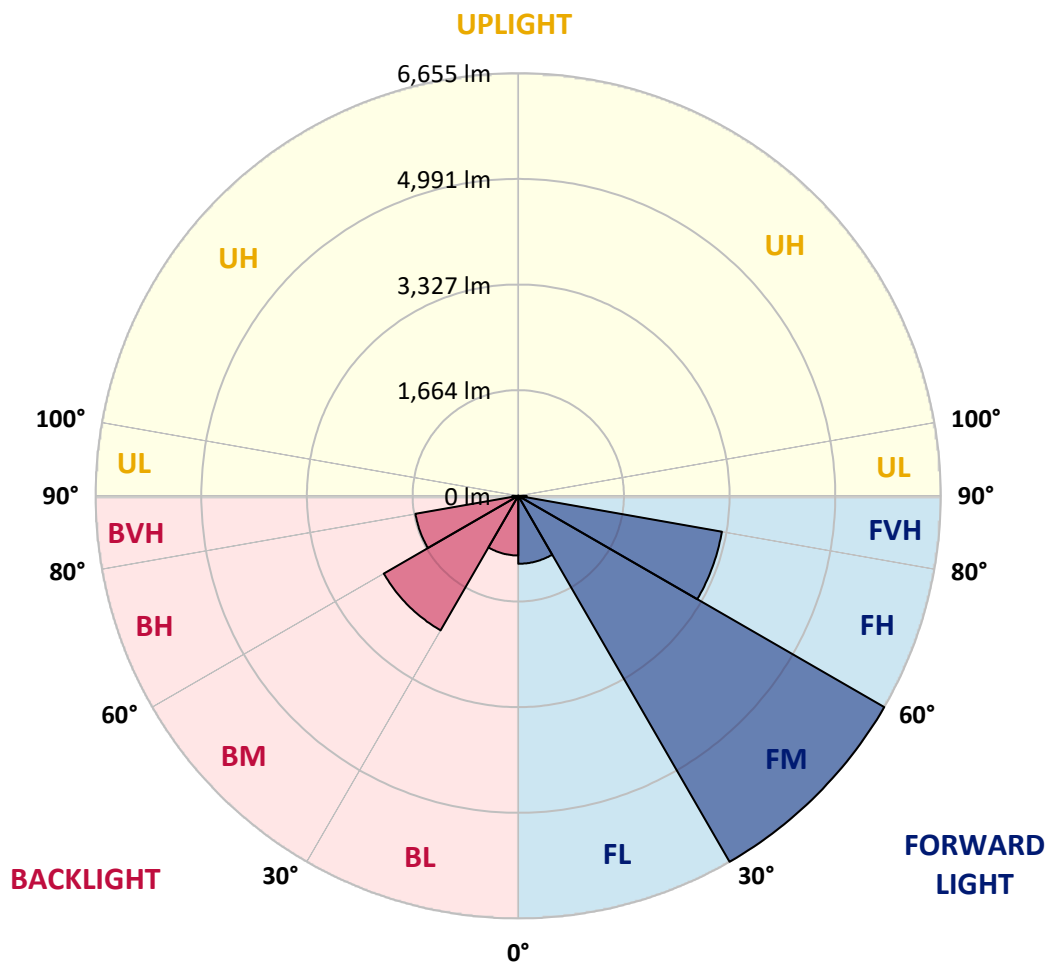
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1070.3	6.6			
FM	(30°-60°)	6654.9	41.0			
FH	(60°-80°)	3256.9	20.1			G2/5000
FVH	(80°-90°)	132.0	0.8			G2/225
BL	(0°-30°)	939.7	5.8	B2/1000		
BM	(30°-60°)	2446.1	15.1	B2/2500		
BH	(60°-80°)	1643.7	10.1	B3/2500		G3/2500
BVH	(80°-90°)	94.5	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	1789.3	1789.3	1789.3	1789.3	1789.3	1789.3	1789.3	1789.3	1789.3	1789.3	1789.3
2.5°	1777.6	1772.5	1776.7	1776.7	1778.4	1777.6	1783.5	1785.1	1787.7	1792.7	1792.7
5°	1759.9	1759.0	1766.6	1773.4	1780.1	1786.0	1793.5	1804.5	1806.3	1812.1	1819.7
7.5°	1754.0	1749.0	1760.7	1769.2	1785.1	1799.5	1819.7	1838.2	1845.8	1848.4	1862.6
10°	1799.5	1791.1	1802.0	1807.1	1820.5	1834.9	1858.4	1887.9	1896.4	1906.5	1922.5
12.5°	1877.0	1867.8	1883.7	1891.3	1903.9	1916.5	1932.5	1961.2	1965.4	1984.0	1999.2
15°	1983.2	1972.2	1982.2	1991.6	2012.6	2024.4	2040.4	2068.2	2068.2	2082.5	2093.5
17.5°	2127.2	2112.8	2120.4	2123.8	2137.3	2155.0	2181.9	2206.4	2219.0	2214.0	2198.8
20°	2342.0	2324.3	2324.3	2307.5	2302.5	2316.7	2352.2	2385.8	2399.3	2373.2	2336.1
22.5°	2664.7	2639.4	2625.0	2567.8	2545.1	2546.7	2582.1	2623.4	2634.4	2588.0	2504.6
25°	3074.9	3035.3	3016.0	2931.7	2880.4	2835.7	2863.4	2916.5	2931.7	2874.4	2739.6
27.5°	3485.2	3487.8	3469.2	3368.2	3283.1	3201.3	3187.0	3242.6	3258.6	3193.7	3026.9
30°	4060.6	4000.8	3965.4	3844.1	3722.8	3608.2	3549.3	3572.0	3576.2	3498.7	3304.9
32.5°	4556.8	4541.7	4465.8	4359.6	4203.8	4024.4	3925.9	3889.6	3882.8	3772.5	3542.5
35°	5122.1	5113.6	5033.7	4907.3	4738.8	4489.4	4311.7	4208.0	4199.6	4044.6	3777.5
37.5°	5696.6	5696.6	5618.3	5480.2	5305.7	4994.0	4723.6	4559.3	4532.3	4330.2	4016.8
40°	6154.9	6127.1	6141.5	6083.4	5883.7	5552.6	5181.1	4942.7	4906.5	4663.8	4271.2
42.5°	6415.3	6405.9	6491.9	6556.8	6475.0	6210.6	5684.9	5358.0	5307.4	5031.1	4564.4
45°	6473.4	6463.2	6616.6	6854.2	6968.8	6860.0	6232.4	5795.2	5733.7	5415.3	4878.6
47.5°	6339.4	6319.2	6544.1	6919.1	7286.3	7477.6	6825.5	6269.5	6180.2	5789.3	5201.3
50°	5936.7	5917.3	6257.7	6755.6	7393.3	7897.1	7469.2	6772.5	6636.0	6190.3	5527.3
52.5°	5061.4	5070.7	5604.0	6288.1	7252.7	8158.3	8023.5	7302.3	7138.1	6600.6	5833.1
55°	3942.7	3962.9	4618.3	5371.4	6689.9	8118.7	8401.7	7848.2	7684.8	6986.4	6149.1
57.5°	2823.1	2912.3	3526.5	4272.1	5609.0	7491.1	8484.3	8367.2	8208.8	7407.7	6458.2
60°	1829.8	1845.8	2477.6	3229.2	4271.2	6375.7	8316.6	8760.7	8636.8	7837.4	6716.8
62.5°	1172.7	1183.7	1568.7	2258.6	3074.1	4716.8	7752.2	8931.6	8893.7	8121.2	6965.4
65°	861.8	853.4	1053.9	1492.8	2070.7	2909.0	6656.1	8849.1	8924.1	8299.0	7170.9
67.5°	719.4	707.7	806.3	1033.7	1525.7	1652.0	4924.9	8312.4	8587.0	8278.7	7321.7
70°	655.4	645.3	705.1	767.5	1190.3	1106.2	2482.7	7226.6	7649.5	8048.8	7297.3
72.5°	555.1	537.5	619.2	681.5	925.9	848.4	1026.1	5550.9	6066.5	7311.6	6953.6
75°	430.5	418.7	488.6	599.8	695.9	662.2	648.7	3370.6	3933.4	5654.5	6083.4
77.5°	341.2	325.2	389.2	467.6	626.0	499.6	472.6	1451.5	2009.2	3609.8	4551.7
80°	257.0	242.6	295.7	369.8	481.0	376.6	305.9	592.2	757.4	1828.9	2288.9
82.5°	182.9	170.1	206.4	271.3	323.5	337.8	187.9	331.9	373.2	705.1	511.4
85°	117.1	109.5	138.2	170.1	205.5	217.4	114.6	173.5	190.3	290.7	213.1
87.5°	64.1	52.3	74.1	79.2	95.2	86.8	54.7	63.1	68.3	105.3	90.1
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°	1789.3	1789.3	1789.3	1789.3	1789.3	1789.3	1789.3	1789.3	1789.3	1789.3	1789.3
2.5°	1796.1	1798.7	1807.1	1809.5	1815.5	1823.1	1828.1	1833.2	1833.2	1838.2	1838.2
5°	1820.5	1826.4	1844.1	1853.4	1868.6	1883.7	1893.0	1903.9	1910.7	1914.1	1915.7
7.5°	1867.8	1877.0	1902.3	1918.3	1944.3	1965.4	1979.8	1995.0	1998.3	2007.6	2004.2
10°	1931.7	1942.7	1971.4	2001.6	2032.8	2058.9	2072.4	2083.4	2087.6	2089.3	2085.1
12.5°	2005.0	2021.0	2058.1	2095.2	2128.0	2150.8	2154.1	2151.6	2139.8	2129.7	2129.7
15°	2095.2	2109.4	2150.8	2191.2	2223.2	2227.4	2206.4	2192.9	2178.5	2176.1	2176.1
17.5°	2203.0	2210.6	2248.5	2288.1	2290.7	2276.3	2245.2	2232.4	2219.0	2209.7	2210.6
20°	2328.5	2326.0	2353.0	2369.8	2352.2	2308.3	2261.1	2240.0	2226.6	2215.6	2216.5
22.5°	2478.4	2459.1	2455.7	2451.5	2404.3	2312.5	2248.5	2221.6	2200.5	2185.3	2190.3
25°	2696.7	2622.6	2571.1	2542.5	2436.3	2289.7	2208.1	2148.2	2108.6	2082.5	2092.6
27.5°	2969.6	2845.0	2715.2	2645.3	2436.3	2243.4	2110.4	2013.4	1948.6	1921.7	1935.1
30°	3230.0	3099.4	2908.1	2769.1	2430.5	2167.7	1952.8	1818.0	1742.2	1715.2	1731.2
32.5°	3452.4	3310.0	3112.8	2904.7	2416.1	2044.7	1757.4	1608.2	1534.9	1503.0	1518.9
35°	3658.7	3507.1	3318.4	3053.9	2378.2	1864.4	1542.5	1428.7	1347.1	1295.7	1312.5
37.5°	3870.2	3689.9	3513.0	3188.7	2310.0	1653.7	1377.4	1280.5	1184.5	1115.4	1134.0
40°	4100.2	3884.5	3721.1	3268.7	2197.9	1453.2	1249.4	1160.9	1058.9	985.6	1000.0
42.5°	4369.0	4117.9	3952.8	3310.0	2044.7	1310.9	1165.9	1079.2	983.2	923.3	935.1
45°	4649.5	4374.8	4164.3	3309.1	1873.6	1244.2	1139.0	1053.1	946.9	884.6	894.7
47.5°	4943.5	4643.6	4347.0	3255.2	1725.4	1253.6	1123.8	996.6	879.6	818.9	827.3
50°	5238.4	4937.6	4523.9	3154.1	1662.1	1233.4	1067.3	917.5	779.3	724.5	727.9
52.5°	5530.7	5250.2	4676.5	3010.1	1598.1	1158.4	995.0	814.7	738.0	700.1	700.1
55°	5824.7	5559.3	4842.4	2800.3	1438.1	1070.7	873.6	775.9	705.1	670.6	667.2
57.5°	6119.6	5916.5	5000.0	2590.5	1236.8	962.9	807.1	728.7	672.3	642.8	637.8
60°	6426.2	6325.1	5162.5	2397.6	1037.9	824.7	758.2	690.8	633.6	600.6	598.2
62.5°	6742.1	6774.9	5289.7	2149.1	855.1	740.6	714.4	645.3	589.7	558.5	557.7
65°	7060.6	7208.8	5373.2	1804.5	693.3	660.5	667.2	595.6	539.2	512.2	511.4
67.5°	7300.7	7521.3	5349.6	1365.6	568.7	584.7	608.2	543.4	490.3	469.2	470.1
70°	7327.6	7484.3	5117.0	935.1	476.0	510.6	542.5	492.0	437.3	422.1	422.9
72.5°	6968.8	6978.8	4469.2	610.8	402.7	448.2	473.4	439.7	386.7	371.6	370.6
75°	6027.7	5771.7	3281.3	402.7	337.0	385.0	408.6	385.0	333.6	337.0	325.2
77.5°	4566.9	4087.6	1992.4	286.4	281.4	323.5	355.5	338.7	294.9	331.1	291.5
80°	2353.0	2211.4	888.8	214.0	222.4	258.6	292.3	270.4	233.4	222.4	203.1
82.5°	539.2	626.8	350.4	153.3	160.9	186.1	223.2	203.1	167.7	141.6	139.8
85°	188.7	206.4	155.0	96.0	94.4	116.2	151.6	135.6	113.8	91.0	96.0
87.5°	59.9	78.3	58.1	38.7	40.5	52.3	69.9	64.1	53.1	34.5	36.2
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)