

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: P965632

Luminaire Tested: **NAV-SB4A-735-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965632
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-735-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18213.2 lumens
Efficiency: N/A
Efficacy: 159.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - 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



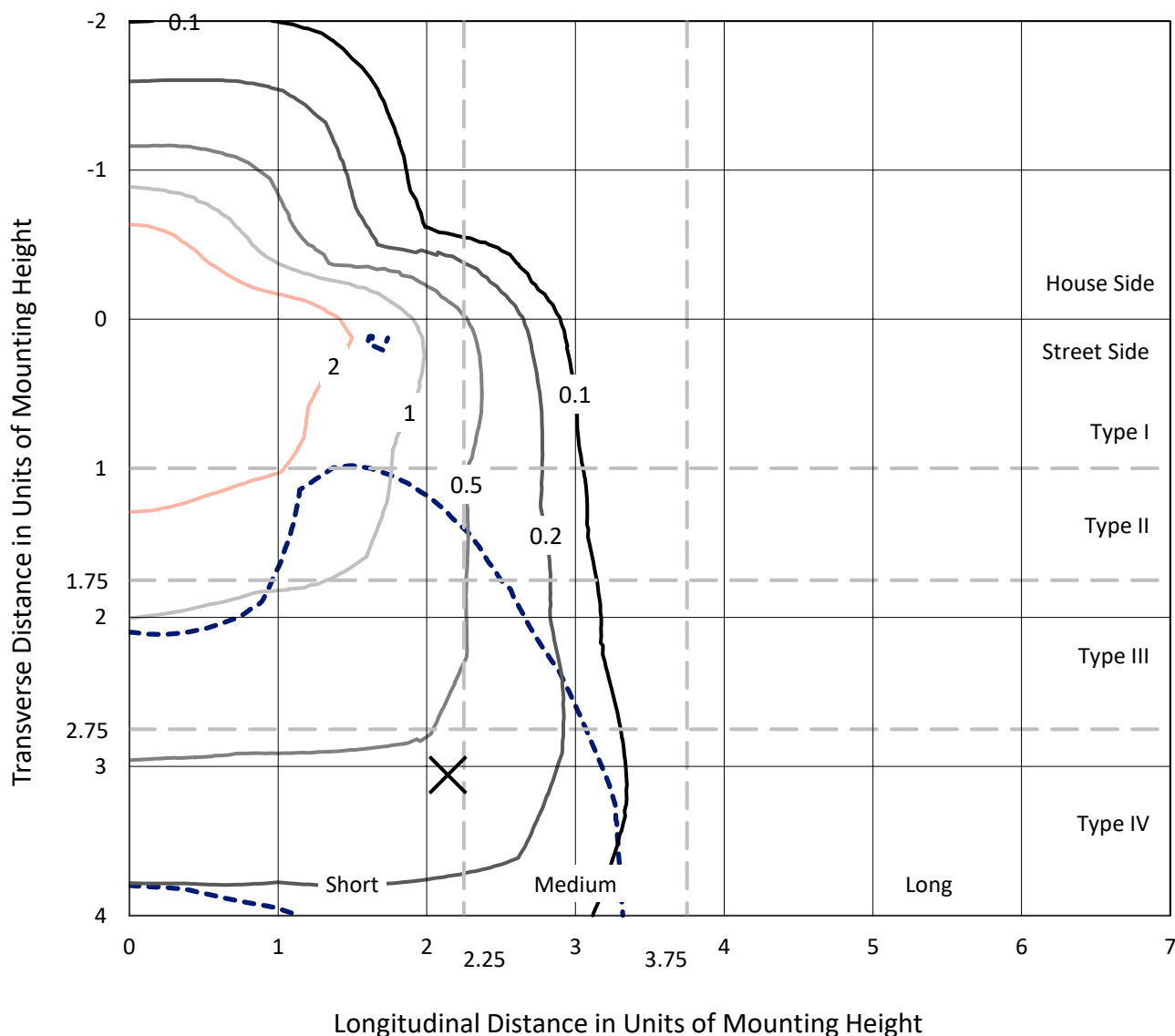
REPORT NUMBER: P965632

CATALOG NUMBER: NAV-SB4A-735-U-T4FT

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

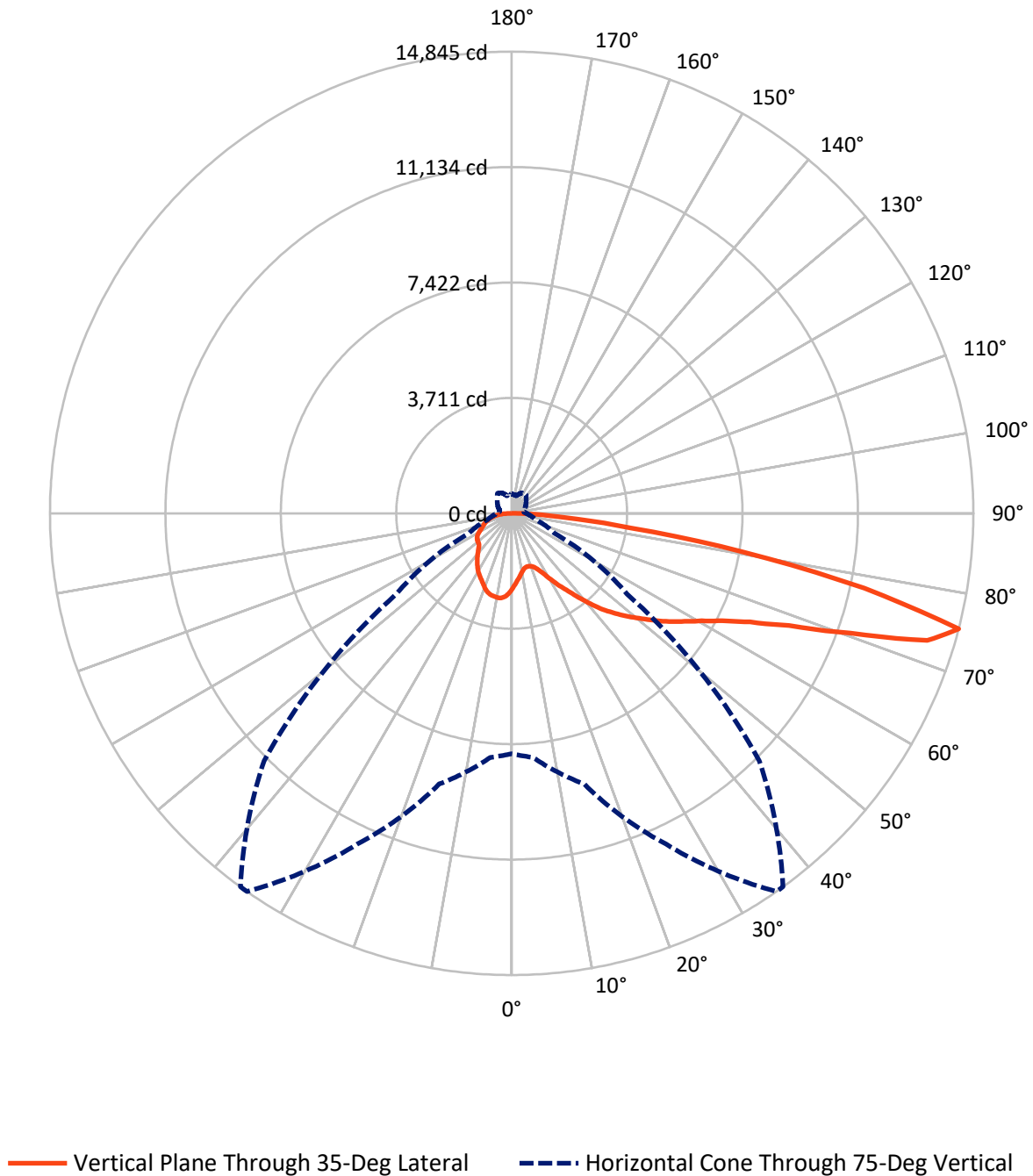


Based on 25 foot mounting height. Maximum calculated value = 4.3 fc

Type IV - Short - N/A

REPORT NUMBER: P965632
CATALOG NUMBER: NAV-SB4A-735-U-T4FT

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4334.3	0.0	4334.3
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	13878.9	0.0	13878.9
	% Fixture	76.2	0.0	76.2
Total	Lumens	18213.2	0.0	18213.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	229.8	1.3
10°-20°	662.8	3.6
20°-30°	1113.1	6.1
30°-40°	1729.8	9.5
40°-50°	2567.5	14.1
50°-60°	3544.6	19.5
60°-70°	4300.4	23.6
70°-80°	3554.0	19.5
80°-90°	511.2	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°	18213.2	100.0
0°-180°	18213.2	100.0

Coefficient of Utilization



REPORT NUMBER: P965632

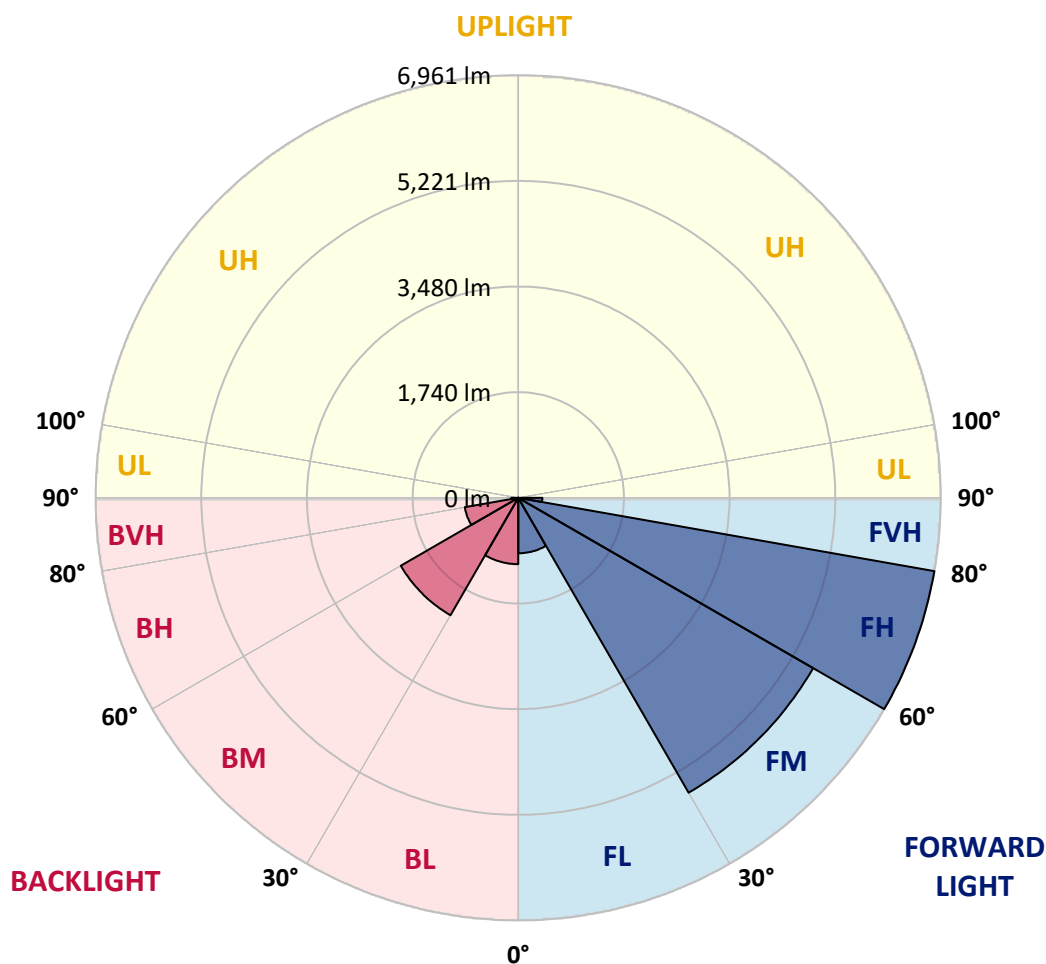
CATALOG NUMBER: NAV-SB4A-735-U-T4FT

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	913.4	5.0			
FM	(30°-60°)	5608.7	30.8			
FH	(60°-80°)	6960.8	38.2			G3/7500
FVH	(80°-90°)	396.1	2.2			G3/500
BL	(0°-30°)	1092.3	6.0	B3/2500		
BM	(30°-60°)	2233.3	12.3	B2/2500		
BH	(60°-80°)	893.6	4.9	B2/1000		G2/1000
BVH	(80°-90°)	115.1	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type IV Short



REPORT NUMBER: P965632

CATALOG NUMBER: NAV-SB4A-735-U-T4FT

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	2427.0	2427.0	2427.0	2427.0	2427.0	2427.0	2427.0	2427.0	2427.0	2427.0	2427.0
2.5°	2238.0	2251.8	2257.7	2254.7	2269.5	2267.5	2288.2	2313.8	2349.3	2383.7	2434.0
5°	2065.7	2080.4	2093.3	2105.0	2133.6	2142.5	2174.9	2224.2	2289.2	2355.1	2437.9
7.5°	1905.2	1918.0	1937.7	1959.4	2007.6	2016.5	2070.6	2147.4	2238.0	2334.4	2448.7
10°	1774.3	1787.1	1807.7	1832.3	1892.4	1903.2	1972.1	2074.6	2192.7	2314.8	2460.5
12.5°	1718.1	1722.1	1733.9	1758.5	1810.7	1817.5	1893.4	2010.5	2148.4	2300.0	2478.2
15°	1715.1	1723.0	1724.0	1736.9	1780.1	1783.1	1853.0	1969.2	2120.8	2297.0	2504.8
17.5°	1744.8	1750.6	1741.8	1749.7	1786.1	1791.0	1846.1	1949.5	2112.0	2309.8	2550.1
20°	1823.5	1828.4	1801.8	1791.0	1817.5	1821.5	1875.6	1962.3	2120.8	2336.5	2612.1
22.5°	1990.9	1993.8	1928.8	1884.6	1886.5	1888.5	1935.7	2014.5	2155.3	2384.7	2690.9
25°	2251.8	2249.8	2146.5	2060.8	2011.6	2000.7	2032.2	2099.2	2213.4	2448.7	2792.3
27.5°	2557.0	2542.2	2438.9	2310.9	2203.5	2187.8	2180.9	2209.5	2296.1	2533.4	2916.3
30°	2901.6	2887.8	2776.5	2609.1	2460.5	2434.9	2369.9	2355.1	2419.2	2648.6	3088.7
32.5°	3279.7	3270.9	3137.9	2935.1	2736.2	2706.6	2597.4	2558.0	2608.2	2822.8	3328.9
35°	3596.7	3588.8	3478.5	3269.9	3026.6	2990.2	2878.9	2834.6	2860.3	3046.3	3643.1
37.5°	3883.2	3879.3	3784.8	3620.4	3369.3	3325.0	3199.9	3185.2	3180.3	3340.8	4024.0
40°	4149.1	4139.3	4040.8	3954.1	3768.1	3727.7	3617.4	3604.6	3567.2	3703.1	4455.3
42.5°	4443.5	4417.9	4275.2	4234.8	4184.6	4151.0	4085.1	4087.1	4004.4	4111.7	4912.2
45°	4683.7	4669.0	4522.3	4498.6	4552.7	4539.0	4596.1	4610.9	4450.3	4540.0	5386.8
47.5°	4941.7	4927.9	4803.9	4787.2	4933.8	4937.7	5139.6	5144.6	4885.6	4985.0	5862.3
50°	5259.7	5240.0	5117.0	5137.6	5302.0	5316.9	5686.1	5652.6	5286.3	5436.9	6333.9
52.5°	5469.4	5481.3	5454.6	5488.2	5712.6	5726.5	6223.7	6138.0	5683.1	5883.0	6796.7
55°	5624.1	5647.6	5730.4	5807.1	6145.9	6159.6	6730.8	6599.8	6011.9	6296.5	7231.9
57.5°	5822.9	5789.4	5944.0	6093.7	6557.4	6593.8	7224.0	7044.8	6303.4	6653.0	7530.2
60°	6108.5	6084.8	6204.9	6426.4	7018.2	7076.3	7745.8	7445.5	6517.1	6935.6	7588.3
62.5°	6687.4	6628.4	6647.0	6843.0	7599.1	7675.9	8334.6	7795.0	6623.3	7045.7	7277.2
65°	7552.8	7451.4	7356.9	7492.7	8417.3	8493.2	8999.2	8069.7	6584.0	6832.1	6451.0
67.5°	8642.8	8542.3	8426.2	8554.2	9622.5	9682.6	9819.4	8224.4	6273.8	6009.0	4990.9
70°	9541.7	9504.3	9643.2	10169.9	11547.3	11549.3	10870.9	8096.4	5424.2	4260.3	2887.8
72.5°	9422.6	9400.0	10131.5	11760.0	13973.4	13921.2	11866.4	7127.5	3653.8	1922.0	1082.1
75°	7730.0	7876.8	9010.1	11731.5	14844.8	14837.9	11257.0	4531.1	1511.4	796.5	559.2
77.5°	4145.2	4377.6	5849.5	8661.6	11588.8	11763.0	7914.2	1585.2	648.8	510.0	386.9
80°	1351.9	1554.7	2331.6	4410.1	7530.2	7497.7	3391.9	622.3	444.0	361.3	267.8
82.5°	574.0	597.7	1041.7	2082.4	3864.6	3804.5	1080.1	357.4	312.1	247.1	165.4
85°	224.5	251.0	459.8	963.0	1673.8	1637.4	389.9	177.2	199.9	161.4	98.5
87.5°	73.8	89.6	164.4	329.8	520.8	502.1	95.5	61.1	86.6	73.8	35.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P965632

CATALOG NUMBER: NAV-SB4A-735-U-T4FT

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2427.0	2427.0	2427.0	2427.0	2427.0	2427.0	2427.0	2427.0	2427.0	2427.0	2427.0
2.5°	2447.7	2463.5	2482.1	2509.7	2533.4	2553.1	2573.8	2586.6	2591.5	2606.3	2605.2
5°	2465.4	2499.9	2546.2	2591.5	2635.8	2662.3	2686.0	2697.8	2708.7	2716.6	2718.5
7.5°	2495.0	2539.2	2612.1	2671.3	2708.7	2730.3	2746.1	2742.1	2746.1	2748.0	2751.0
10°	2520.6	2582.6	2669.2	2725.4	2754.0	2754.9	2751.0	2737.2	2730.3	2731.3	2733.3
12.5°	2551.1	2620.0	2713.6	2760.8	2768.7	2747.0	2730.3	2706.6	2697.8	2693.9	2691.9
15°	2592.4	2671.3	2761.8	2779.5	2759.8	2732.2	2703.7	2665.3	2645.6	2629.8	2634.8
17.5°	2642.7	2729.3	2799.2	2786.5	2744.0	2698.8	2652.5	2594.4	2554.1	2537.3	2538.3
20°	2712.6	2790.4	2827.8	2771.6	2707.6	2638.8	2559.9	2489.1	2451.7	2434.9	2432.9
22.5°	2797.2	2872.0	2855.3	2746.1	2655.5	2545.2	2446.8	2394.5	2375.8	2364.1	2366.0
25°	2898.7	2962.7	2875.0	2708.7	2569.8	2421.2	2345.3	2328.6	2319.7	2310.9	2310.9
27.5°	3030.6	3065.1	2889.8	2653.5	2435.9	2289.2	2261.7	2264.5	2261.7	2246.9	2249.8
30°	3204.9	3198.0	2903.6	2563.9	2282.3	2170.0	2172.0	2184.8	2186.8	2177.0	2181.9
32.5°	3434.3	3364.4	2910.5	2447.7	2135.6	2065.7	2067.6	2081.5	2091.3	2074.6	2082.4
35°	3711.9	3558.4	2899.6	2301.9	2022.3	1966.3	1951.5	1955.4	1958.4	1942.6	1953.4
37.5°	4035.8	3775.9	2851.4	2140.5	1928.8	1868.8	1837.2	1810.7	1794.9	1780.1	1790.0
40°	4391.3	4013.2	2762.8	1983.0	1824.5	1765.4	1718.1	1667.9	1614.8	1595.0	1603.9
42.5°	4763.5	4257.4	2655.5	1832.3	1704.4	1656.1	1605.9	1533.0	1453.2	1412.9	1417.8
45°	5149.5	4507.5	2550.1	1683.7	1581.3	1560.6	1502.5	1414.9	1328.2	1277.0	1273.0
47.5°	5527.5	4743.8	2395.5	1534.0	1466.1	1488.7	1443.4	1362.6	1266.2	1185.4	1176.6
50°	5888.9	4965.3	2142.5	1382.4	1372.6	1467.1	1423.7	1307.6	1197.3	1093.9	1085.1
52.5°	6247.3	5144.6	1818.6	1244.6	1322.4	1461.1	1398.1	1270.2	1135.3	1026.9	1015.2
55°	6551.5	5237.0	1506.4	1126.4	1249.5	1410.9	1367.7	1225.8	1047.7	932.4	922.6
57.5°	6724.8	5162.2	1246.5	1010.2	1149.0	1328.2	1315.4	1131.3	943.2	854.6	842.9
60°	6650.0	4859.0	1033.8	908.8	1053.5	1238.6	1224.9	1037.8	863.5	779.8	768.0
62.5°	6237.4	4281.0	865.5	820.2	966.9	1147.1	1134.3	965.9	802.5	721.7	708.9
65°	5406.5	3482.5	734.5	746.3	879.2	1036.8	1055.4	905.8	754.2	675.5	662.7
67.5°	4123.5	2522.5	632.1	682.3	793.6	928.4	982.7	862.5	713.8	639.0	627.2
70°	2350.2	1432.5	545.5	620.3	717.8	828.1	926.5	828.1	670.6	608.4	600.6
72.5°	891.0	657.7	471.6	558.3	644.9	743.3	864.5	773.9	620.3	574.0	566.1
75°	475.6	400.8	396.8	485.4	561.2	660.7	786.7	720.7	582.9	606.5	626.2
77.5°	323.9	283.5	331.8	415.5	469.7	569.1	704.0	640.0	505.1	503.2	463.7
80°	224.5	200.9	269.8	334.8	363.4	478.5	614.4	549.4	411.5	384.0	367.3
82.5°	134.9	131.0	201.8	250.1	257.0	369.2	509.0	460.8	336.7	293.5	295.4
85°	73.8	77.8	128.9	146.7	149.6	258.0	398.7	356.4	258.9	217.6	219.6
87.5°	20.7	26.5	47.3	58.1	71.9	133.9	237.3	211.7	130.0	90.6	90.6
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)