

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: P965661

Luminaire Tested: **NAV-SB4A-740-U-T3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965661
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-740-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19508.7 lumens
Efficiency: N/A
Efficacy: 171.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

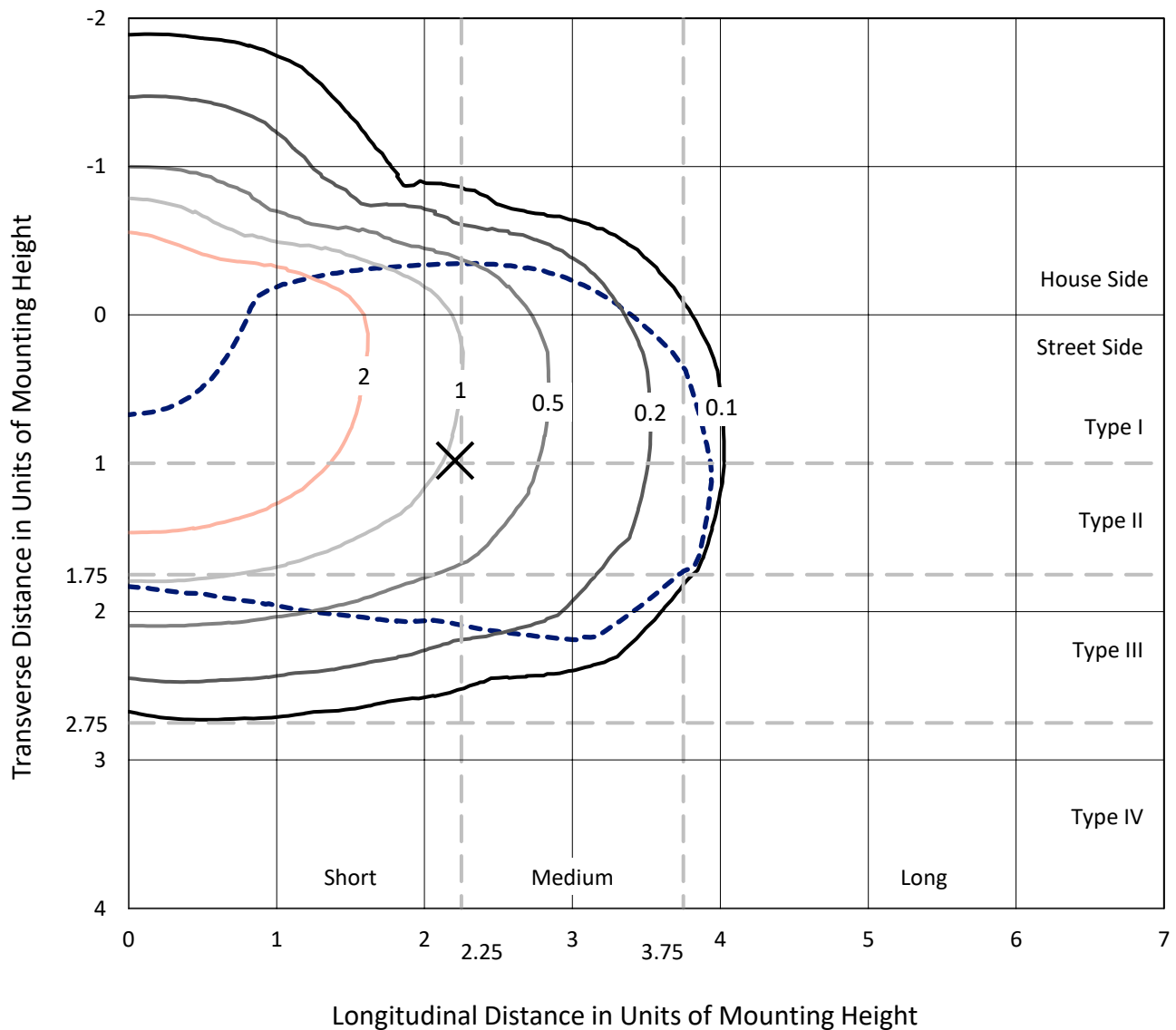
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

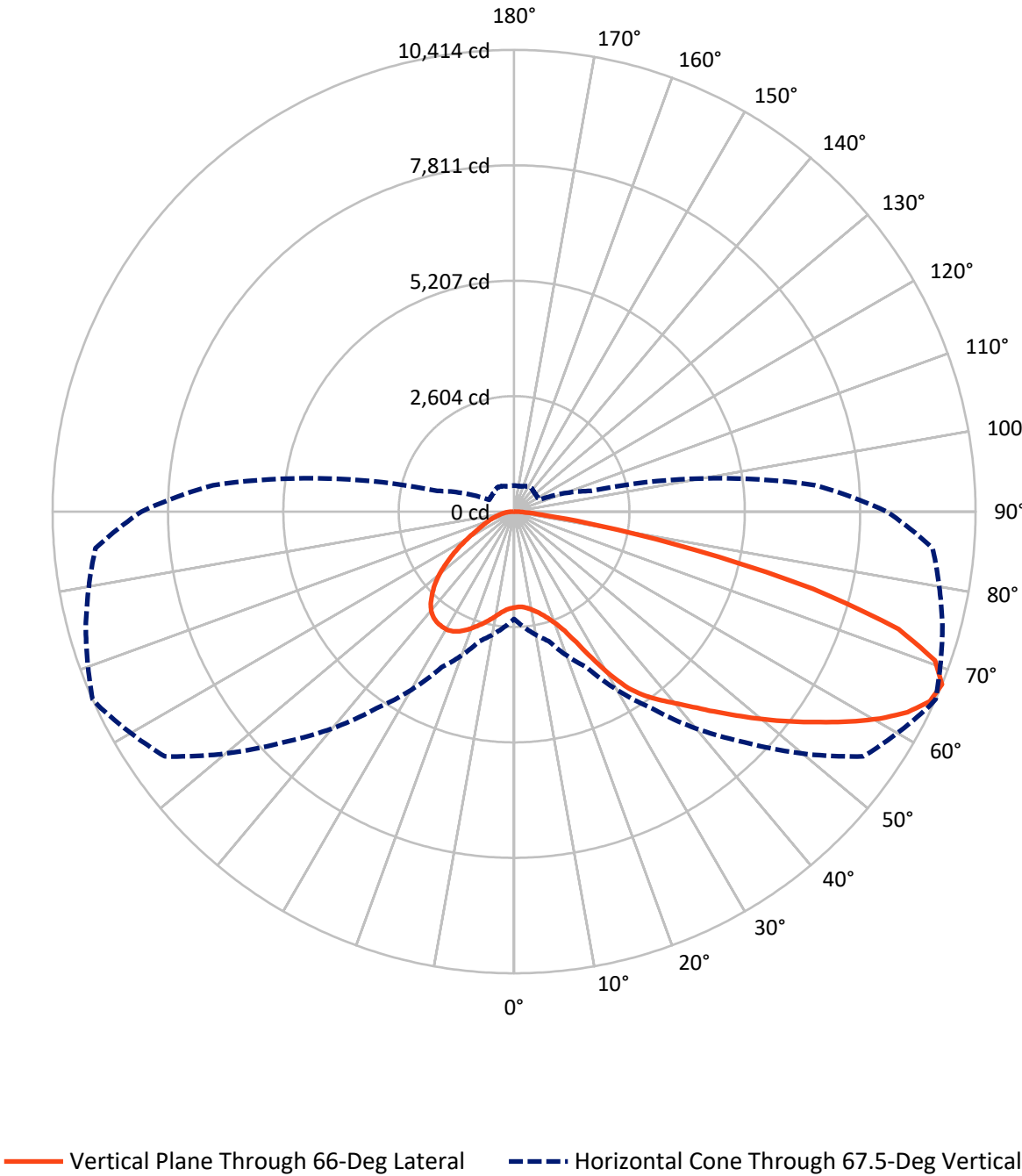
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
Type III - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4850.8	0.0	4850.8
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	14657.9	0.0	14657.9
	% Fixture	75.1	0.0	75.1
Total	Lumens	19508.7	0.0	19508.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.5	1.1
10°-20°	708.8	3.6
20°-30°	1366.1	7.0
30°-40°	2395.3	12.3
40°-50°	3561.1	18.3
50°-60°	4514.0	23.1
60°-70°	4416.8	22.6
70°-80°	2106.9	10.8
80°-90°	225.2	1.2
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°	19508.7	100.0
0°-180°	19508.7	100.0

Coefficient of Utilization



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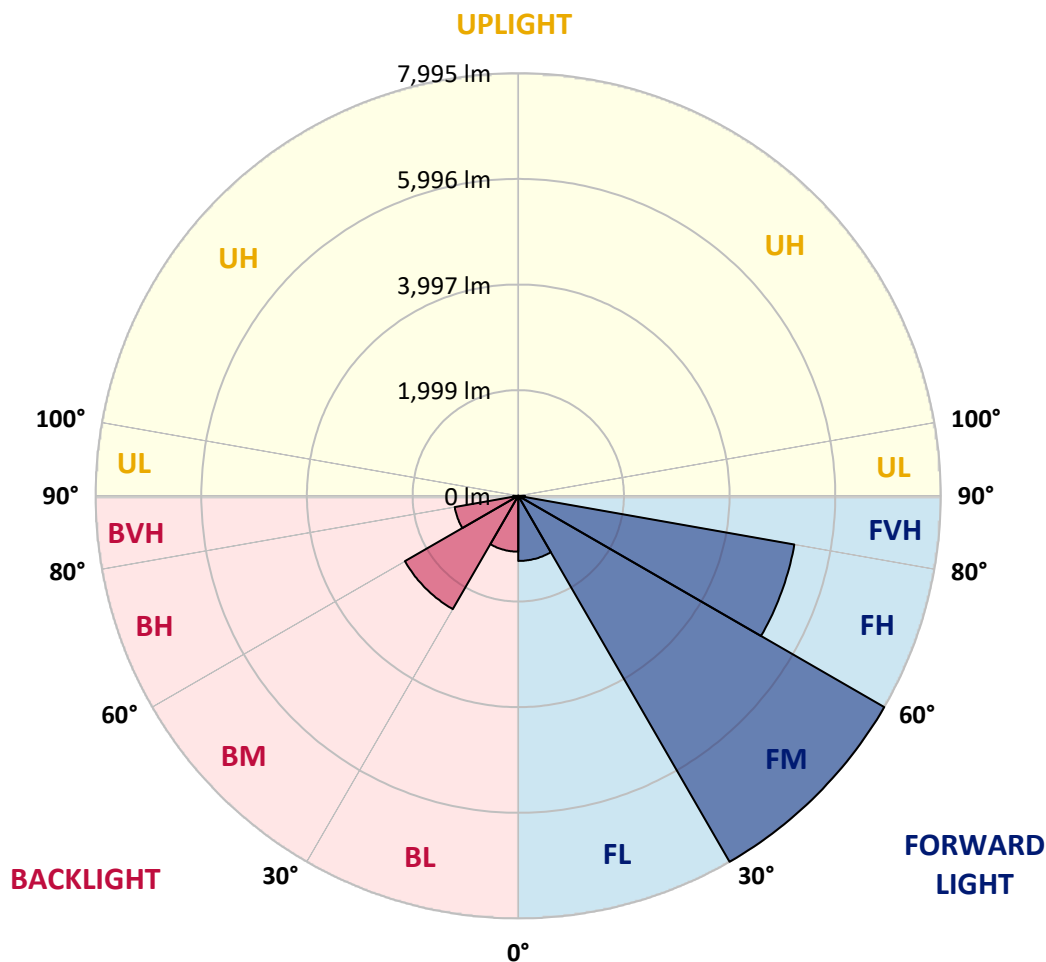
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1232.8	6.3			
FM	(30°-60°)	7994.5	41.0			
FH	(60°-80°)	5303.0	27.2			G3/7500
FVH	(80°-90°)	127.7	0.7			G2/225
BL	(0°-30°)	1056.7	5.4	B3/2500		
BM	(30°-60°)	2475.9	12.7	B2/2500		
BH	(60°-80°)	1220.7	6.3	B3/2500		G3/2500
BVH	(80°-90°)	97.5	0.5			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 III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	2163.8	2163.8	2163.8	2163.8	2163.8	2163.8	2163.8	2163.8	2163.8	2163.8	2163.8
2.5°	2141.2	2153.5	2150.4	2145.3	2144.3	2146.4	2149.4	2152.5	2151.5	2156.6	2164.8
5°	2135.1	2147.4	2146.4	2146.4	2150.4	2158.6	2163.8	2168.9	2163.8	2169.9	2181.2
7.5°	2139.2	2148.4	2152.5	2156.6	2166.8	2182.2	2194.5	2205.8	2199.6	2206.8	2221.2
10°	2191.4	2198.6	2202.7	2202.7	2209.9	2227.3	2239.6	2260.1	2255.0	2266.3	2284.7
12.5°	2286.8	2294.0	2294.0	2289.8	2295.0	2306.2	2310.4	2332.9	2323.7	2342.1	2360.6
15°	2403.6	2418.0	2406.7	2399.5	2401.6	2412.8	2411.8	2429.2	2420.0	2435.4	2451.8
17.5°	2532.8	2551.2	2532.8	2531.8	2527.6	2540.0	2541.0	2556.4	2540.0	2551.2	2562.5
20°	2685.5	2711.1	2695.7	2700.9	2691.6	2696.8	2701.9	2724.4	2698.8	2707.0	2704.0
22.5°	2900.7	2931.5	2915.1	2934.6	2928.4	2924.3	2923.3	2963.3	2923.3	2926.4	2896.6
25°	3214.4	3251.3	3222.6	3249.2	3249.2	3262.6	3278.0	3329.2	3262.6	3243.1	3166.2
27.5°	3677.7	3714.6	3658.2	3674.6	3669.5	3702.3	3685.9	3813.0	3741.2	3709.5	3554.7
30°	4235.3	4300.9	4194.3	4190.2	4185.1	4237.3	4260.9	4345.0	4272.2	4240.4	4053.9
32.5°	4838.0	4906.7	4779.6	4742.7	4723.2	4755.0	4735.5	4803.2	4752.9	4703.7	4473.1
35°	5475.5	5543.2	5422.2	5350.5	5272.6	5206.0	5136.3	5153.7	5106.5	5031.7	4792.9
37.5°	6078.2	6202.3	6074.2	5997.3	5853.8	5723.6	5528.8	5447.9	5403.8	5335.1	5094.2
40°	6692.2	6763.0	6665.6	6600.0	6444.2	6240.2	5928.6	5757.4	5698.0	5631.3	5427.4
42.5°	7144.2	7211.9	7159.6	7114.5	6992.6	6755.8	6353.0	6138.7	6052.6	5977.8	5804.6
45°	7503.0	7553.2	7520.4	7536.8	7484.6	7255.0	6792.7	6547.7	6458.5	6367.3	6231.0
47.5°	7647.5	7700.8	7753.1	7850.5	7939.6	7770.5	7265.2	6990.5	6896.2	6802.9	6668.6
50°	7631.1	7685.4	7837.2	8044.2	8320.9	8264.6	7763.4	7462.0	7374.9	7268.3	7144.2
52.5°	7499.9	7561.4	7756.2	8100.6	8541.3	8634.6	8270.7	7948.9	7866.9	7739.8	7615.7
55°	7155.5	7192.4	7484.6	7972.4	8593.6	8892.9	8767.8	8467.5	8385.5	8208.2	8072.9
57.5°	6517.0	6570.2	6995.6	7627.0	8462.4	9068.2	9204.5	9012.8	8933.9	8678.7	8537.2
60°	5683.6	5768.7	6255.6	7046.9	8128.2	9067.2	9601.2	9548.9	9483.3	9142.0	8994.4
62.5°	4740.6	4839.0	5307.4	6226.9	7544.0	8809.9	9849.3	9998.0	9964.1	9569.4	9380.8
65°	3640.8	3708.4	4174.8	5166.0	6634.8	8257.4	9878.0	10304.4	10310.6	9894.4	9582.7
67.5°	2424.1	2618.9	3023.7	3876.6	5417.1	7354.4	9625.8	10354.7	10414.1	10006.2	9481.2
70°	1182.8	1439.1	1835.8	2519.4	3876.6	5969.6	8966.7	9942.6	10074.8	9680.2	8876.5
72.5°	491.0	574.0	790.3	1243.3	2225.3	4028.2	7642.4	8825.2	9070.2	8577.2	7463.0
75°	331.1	358.7	452.0	637.6	1013.7	1986.4	5511.4	6580.5	6975.1	6478.0	5295.2
77.5°	255.2	272.6	329.0	445.9	602.7	751.3	2950.0	3965.7	4169.7	3860.2	2755.2
80°	200.9	214.2	246.0	324.9	427.4	401.8	1005.5	1796.8	1914.7	1606.2	885.6
82.5°	174.2	179.4	176.3	220.4	283.9	234.7	330.0	663.2	731.8	530.9	289.0
85°	126.1	140.4	146.6	136.3	150.7	118.9	135.3	234.7	258.3	230.6	163.0
87.5°	51.2	75.8	93.3	88.1	55.4	33.8	42.0	68.7	78.9	86.1	53.3
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°	2163.8	2163.8	2163.8	2163.8	2163.8	2163.8	2163.8	2163.8	2163.8	2163.8	2163.8
2.5°	2165.8	2173.0	2178.1	2184.3	2188.4	2194.5	2206.8	2214.0	2215.0	2220.1	2219.1
5°	2185.3	2195.5	2206.8	2223.2	2241.7	2257.0	2280.6	2297.0	2303.2	2308.3	2307.3
7.5°	2227.3	2241.7	2262.2	2290.9	2317.5	2338.0	2366.7	2386.2	2405.7	2412.8	2413.9
10°	2289.8	2310.4	2340.1	2379.0	2407.7	2434.4	2464.1	2480.5	2500.0	2508.2	2512.3
12.5°	2367.8	2389.3	2428.2	2482.5	2509.2	2527.6	2537.9	2533.8	2537.9	2545.1	2547.1
15°	2456.9	2480.5	2524.6	2583.0	2601.4	2585.0	2562.5	2542.0	2538.9	2541.0	2548.1
17.5°	2562.5	2579.9	2631.2	2680.4	2667.0	2599.4	2550.2	2517.4	2501.0	2495.9	2503.0
20°	2710.1	2710.1	2752.1	2782.9	2693.7	2578.9	2502.0	2448.7	2414.9	2400.5	2397.5
22.5°	2889.5	2873.1	2899.7	2878.2	2688.6	2521.5	2414.9	2322.6	2271.4	2250.9	2247.8
25°	3117.0	3097.5	3090.4	2957.1	2651.7	2430.3	2257.0	2145.3	2100.2	2089.0	2091.0
27.5°	3460.4	3411.2	3317.9	3000.2	2584.0	2286.8	2072.5	1969.0	1943.4	1944.4	1947.5
30°	3917.6	3819.2	3590.6	3007.4	2473.3	2083.8	1884.0	1810.2	1797.8	1803.0	1820.4
32.5°	4340.9	4247.6	3869.4	2974.5	2303.2	1885.0	1714.8	1665.6	1647.2	1653.3	1661.5
35°	4673.0	4647.3	4127.7	2928.4	2094.1	1698.4	1563.1	1521.1	1485.2	1477.0	1483.2
37.5°	4986.6	4976.4	4321.4	2863.8	1887.0	1566.2	1441.1	1385.8	1333.5	1304.8	1305.8
40°	5331.0	5320.8	4448.5	2764.4	1703.6	1451.4	1331.5	1258.7	1194.1	1141.8	1147.0
42.5°	5718.5	5658.0	4509.0	2622.0	1547.7	1354.0	1242.3	1143.9	1058.8	1010.6	1013.7
45°	6141.8	6005.5	4508.0	2440.5	1416.6	1264.8	1147.0	1007.6	928.6	883.6	881.5
47.5°	6590.7	6337.6	4452.6	2239.6	1289.4	1166.4	999.4	892.8	840.5	812.8	806.7
50°	7054.0	6648.2	4358.3	2009.0	1159.3	1054.7	907.1	834.4	794.4	768.7	759.5
52.5°	7489.7	6930.0	4244.5	1747.6	1027.0	946.1	866.1	809.7	767.7	739.0	726.7
55°	7894.6	7173.0	4083.6	1480.1	919.4	873.3	846.6	799.5	751.3	717.5	704.2
57.5°	8254.3	7330.8	3805.8	1229.0	842.6	823.1	826.2	782.1	726.7	698.0	679.6
60°	8553.6	7446.6	3394.8	996.3	780.0	773.9	794.4	749.3	684.7	651.9	637.6
62.5°	8733.0	7444.6	2890.5	815.9	726.7	728.8	752.3	708.3	642.7	611.9	602.7
65°	8717.6	7262.1	2337.0	698.0	675.5	677.5	708.3	663.2	607.8	589.4	588.3
67.5°	8409.1	6817.3	1792.7	621.2	619.1	628.3	664.2	632.4	586.3	584.2	587.3
70°	7573.7	5893.7	1291.5	559.6	560.7	574.0	621.2	612.9	575.0	579.1	578.1
72.5°	6073.1	4493.6	867.2	495.1	496.1	517.6	580.2	597.6	563.8	618.1	626.3
75°	4044.6	2802.4	557.6	426.4	427.4	455.1	544.3	567.8	533.0	616.0	621.2
77.5°	1943.4	1259.7	403.8	358.7	358.7	384.4	470.5	508.4	454.1	478.7	438.7
80°	671.4	473.6	317.8	289.0	282.9	300.3	396.7	440.7	391.5	360.8	338.2
82.5°	264.4	246.0	255.2	224.5	204.0	215.2	308.5	363.9	288.0	260.3	259.3
85°	151.7	159.9	180.4	148.6	117.9	132.2	226.5	261.4	217.3	191.7	195.8
87.5°	41.0	56.4	83.0	76.9	53.3	56.4	107.6	144.5	125.0	96.4	99.4
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)