

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: P270718

Luminaire Tested: **NAV-AF-06-D-UNV-T4W-7027-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270718  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24127)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-06-D-UNV-T4W-7027-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20376.6 lumens  
Efficiency: N/A  
Efficacy: 105.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G4

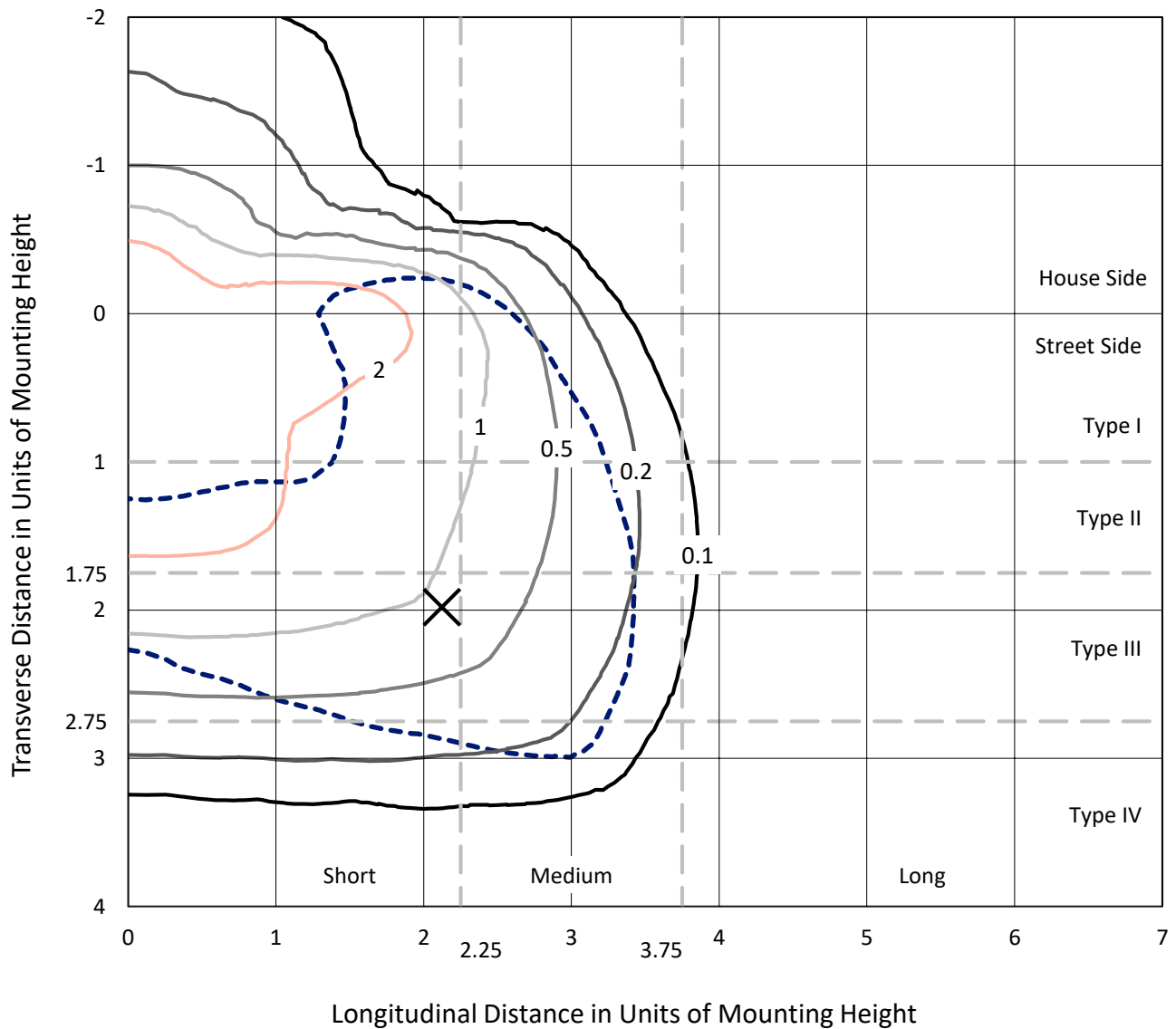
Input Watts (W): 193  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

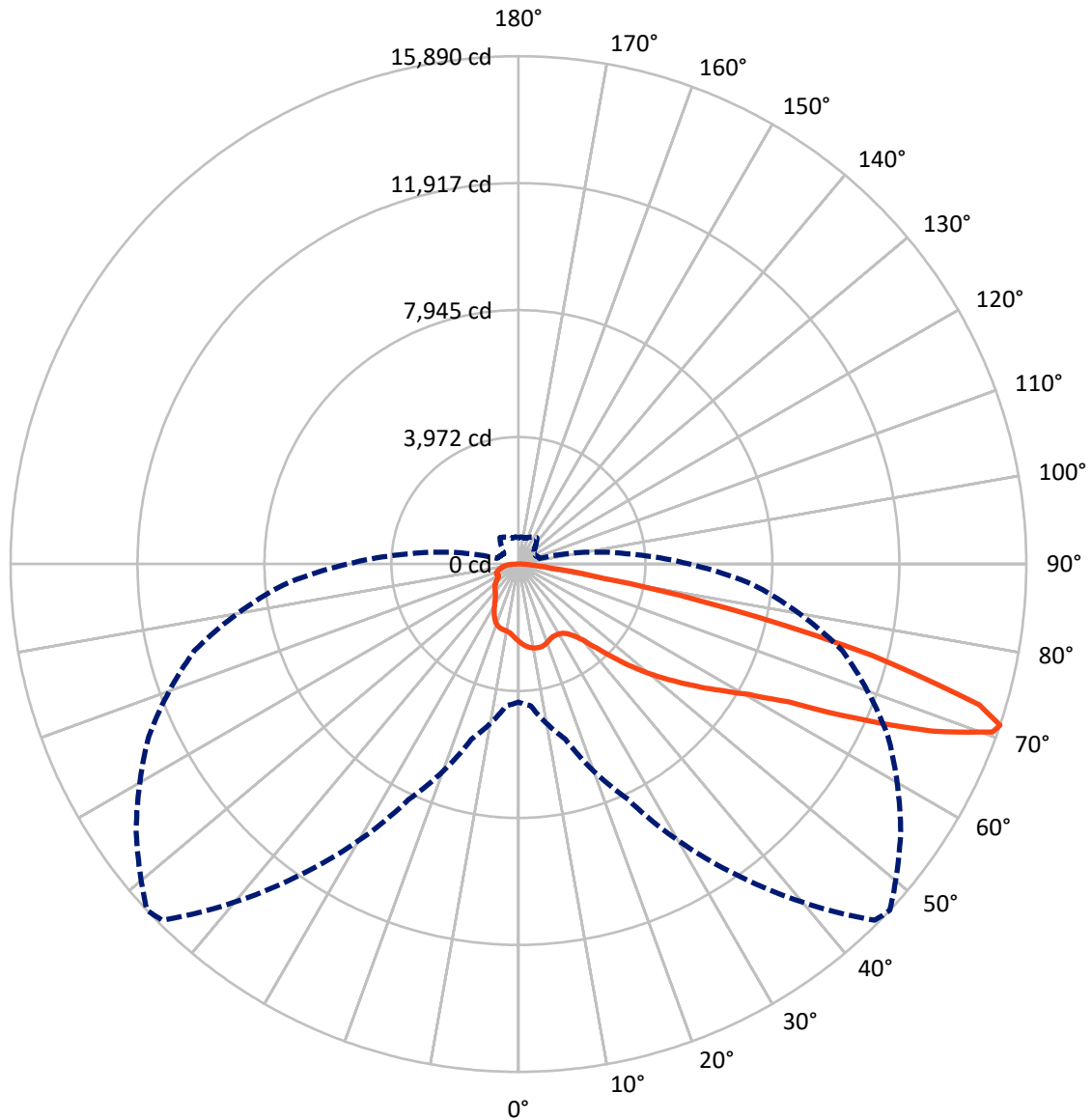
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4367.0	0.0	4367.0
	% Fixture	21.4	0.0	21.4
<b>Street Side</b>	Lumens	16009.6	0.0	16009.6
	% Fixture	78.6	0.0	78.6
<b>Total</b>	Lumens	20376.6	0.0	20376.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	231.4	1.1
10°-20°	676.9	3.3
20°-30°	1005.8	4.9
30°-40°	1444.1	7.1
40°-50°	2560.5	12.6
50°-60°	4381.4	21.5
60°-70°	6220.1	30.5
70°-80°	3406.7	16.7
80°-90°	449.7	2.2
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°	20376.6	100.0
0°-180°	20376.6	100.0



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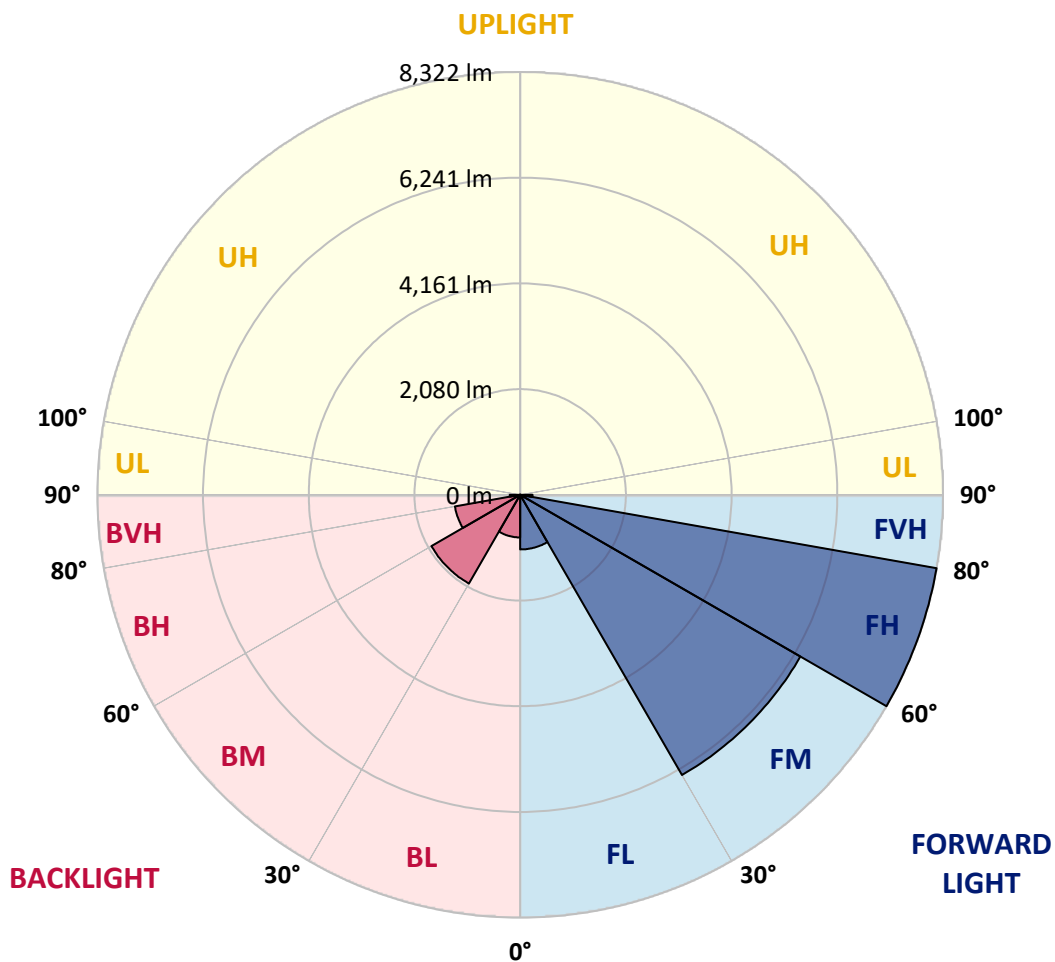
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1075.4	5.3			
FM	(30°-60°)	6368.3	31.3			
FH	(60°-80°)	8322.0	40.8			G4/12000
FVH	(80°-90°)	243.9	1.2			G3/500
BL	(0°-30°)	838.6	4.1	B2/1000		
BM	(30°-60°)	2017.8	9.9	B2/2500		
BH	(60°-80°)	1304.8	6.4	B3/2500		G3/2500
BVH	(80°-90°)	205.8	1.0			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	2423.1	2423.1	2423.1	2423.1	2423.1	2423.1	2423.1	2423.1	2423.1	2423.1	2423.1
2.5°	2570.9	2565.6	2568.3	2559.1	2536.6	2512.9	2512.9	2487.9	2461.4	2434.9	2405.9
5°	2730.8	2722.9	2716.2	2687.2	2643.6	2594.8	2586.8	2536.6	2482.6	2428.4	2375.6
7.5°	2864.2	2856.3	2836.4	2783.6	2720.2	2647.7	2638.3	2572.3	2501.1	2425.8	2351.9
10°	2959.2	2953.9	2915.7	2848.3	2774.3	2688.5	2672.6	2605.4	2520.9	2427.1	2333.3
12.5°	3012.0	3004.1	2957.8	2878.7	2791.6	2704.3	2688.5	2623.8	2527.4	2424.4	2314.8
15°	2990.9	2987.0	2943.3	2862.9	2775.8	2700.5	2687.2	2621.2	2523.5	2415.3	2297.7
17.5°	2901.2	2910.4	2876.1	2796.9	2725.5	2672.6	2658.2	2596.1	2503.7	2392.7	2271.3
20°	2777.0	2787.6	2770.5	2689.9	2648.9	2614.5	2606.6	2556.4	2470.7	2359.8	2239.6
22.5°	2645.0	2654.2	2655.5	2580.2	2567.0	2553.8	2547.2	2511.7	2441.7	2339.9	2218.5
25°	2553.8	2564.4	2567.0	2501.1	2509.0	2512.9	2511.7	2486.5	2436.4	2339.9	2221.1
27.5°	2530.0	2535.3	2532.7	2472.0	2486.5	2509.0	2510.3	2505.0	2457.5	2366.3	2258.1
30°	2611.9	2614.5	2581.5	2490.5	2505.0	2533.9	2535.3	2532.7	2502.4	2434.9	2341.3
32.5°	2965.8	2963.1	2849.7	2614.5	2564.4	2575.0	2578.9	2602.7	2605.4	2548.5	2461.4
35°	3504.6	3503.3	3371.2	2969.7	2733.5	2677.9	2683.2	2720.2	2753.2	2714.9	2664.7
37.5°	4097.4	4101.4	4021.0	3476.9	3097.9	2866.9	2861.6	2889.3	2948.6	2961.9	2968.4
40°	4755.1	4774.9	4771.0	4059.3	3608.9	3189.1	3136.3	3104.5	3219.3	3292.0	3385.7
42.5°	5506.5	5501.2	5503.8	4698.3	4192.6	3696.0	3598.3	3450.5	3583.8	3709.3	3915.3
45°	6152.2	6173.3	6189.1	5378.4	4846.3	4275.8	4176.7	3907.4	4027.6	4215.0	4529.3
47.5°	6801.8	6764.9	6793.9	6135.1	5573.9	4937.4	4809.3	4446.2	4558.4	4822.5	5300.4
50°	7558.5	7541.4	7409.3	7122.8	6453.2	5608.2	5440.4	5008.6	5172.4	5524.9	6252.6
52.5°	8237.3	8144.8	8041.8	7899.2	7318.2	6286.9	6074.2	5593.7	5894.7	6331.8	7434.5
55°	8485.5	8423.4	8547.6	8732.5	8233.2	6978.8	6741.2	6276.3	6709.4	7254.8	8824.9
57.5°	8749.6	8770.7	9050.8	9424.4	9099.6	7717.0	7459.4	7084.5	7603.4	8287.5	10379.0
60°	8881.6	8966.2	9524.8	10225.9	9923.5	8526.4	8279.5	8012.8	8595.2	9428.3	11929.4
62.5°	8904.1	9017.6	9808.7	10507.1	11057.9	9766.5	9481.3	9191.9	9833.7	10689.4	13051.8
65°	8492.0	8666.4	9783.6	10853.1	12091.7	11838.3	11657.3	11152.8	11492.2	11800.0	13243.3
67.5°	7281.2	7471.4	8815.6	10710.5	12921.1	13988.0	13953.7	13208.9	12773.2	12229.2	11823.8
70°	5344.0	5497.2	6788.8	9156.3	12559.3	15675.7	15736.4	14541.4	13131.1	11317.9	8791.9
71°	4321.9	4454.1	5671.4	8129.0	11854.2	15762.7	15889.5	14600.7	12758.6	10495.3	7360.4
72.5°	2689.9	2763.7	3766.1	6135.1	10207.4	14864.9	15078.8	13840.1	11586.0	8871.1	5202.8
75°	1015.4	1044.5	1397.0	2705.7	6092.8	11167.4	11426.3	10459.7	8139.5	5064.1	2177.5
77.5°	545.5	560.0	693.2	1125.0	2441.7	6401.9	6734.6	5966.1	3904.8	1772.0	890.0
80°	365.8	375.0	479.3	666.8	1122.4	2437.6	2714.9	2395.4	1461.8	1011.5	633.8
82.5°	236.3	241.6	326.2	438.5	724.9	857.1	978.6	1022.0	912.5	724.9	382.9
85°	155.9	159.8	215.2	279.9	449.0	422.6	433.2	566.6	621.9	478.0	195.4
87.5°	89.8	92.4	129.4	143.9	201.9	158.5	171.7	269.4	369.7	311.6	112.3
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°	2423.1	2423.1	2423.1	2423.1	2423.1	2423.1	2423.1	2423.1	2423.1	2423.1	2423.1
2.5°	2392.7	2382.1	2358.4	2343.9	2337.3	2334.7	2332.0	2337.3	2337.3	2334.7	2329.3
5°	2349.2	2329.3	2289.7	2262.0	2247.5	2243.5	2248.7	2255.5	2259.3	2259.3	2255.5
7.5°	2317.4	2288.4	2235.6	2197.3	2174.8	2168.2	2182.8	2206.5	2222.3	2230.3	2231.6
10°	2291.0	2251.4	2193.3	2153.7	2135.2	2132.5	2151.1	2181.4	2214.5	2229.1	2231.6
12.5°	2267.3	2222.3	2158.9	2122.1	2108.9	2115.4	2140.5	2168.2	2206.5	2227.6	2229.1
15°	2244.9	2198.6	2131.3	2093.1	2090.4	2101.0	2124.8	2147.0	2176.1	2202.6	2202.6
17.5°	2218.5	2168.2	2098.4	2062.6	2062.6	2071.9	2087.8	2099.6	2118.1	2143.1	2141.9
20°	2186.7	2135.2	2063.9	2026.9	2019.0	2013.8	2013.8	2016.3	2032.2	2054.8	2058.6
22.5°	2162.9	2110.2	2034.9	1989.9	1954.4	1919.9	1905.5	1900.2	1914.6	1935.8	1941.1
25°	2162.9	2110.2	2025.7	1950.4	1863.3	1797.1	1769.5	1761.5	1776.0	1795.9	1803.7
27.5°	2198.6	2145.8	2046.8	1914.6	1755.0	1649.3	1616.3	1609.8	1622.9	1638.8	1646.7
30°	2281.9	2230.3	2107.6	1873.8	1634.7	1496.1	1459.1	1452.6	1459.1	1465.8	1474.9
32.5°	2420.5	2376.8	2206.5	1836.9	1513.3	1357.5	1312.6	1302.1	1304.7	1306.0	1314.0
35°	2646.2	2626.5	2338.6	1793.2	1398.4	1244.0	1197.7	1176.6	1175.3	1181.8	1191.2
37.5°	2992.3	3004.1	2509.0	1729.9	1303.4	1163.3	1117.1	1096.0	1085.4	1098.6	1109.1
40°	3480.8	3508.6	2705.7	1644.0	1225.4	1115.9	1066.9	1047.2	1032.6	1028.6	1033.9
42.5°	4115.9	4108.0	2906.5	1534.5	1140.8	1084.2	1032.6	1011.5	987.7	957.4	950.8
45°	4868.6	4755.1	3074.1	1399.6	1044.5	1053.7	1000.9	971.8	935.0	890.0	884.7
47.5°	5757.3	5444.4	3177.1	1255.8	954.7	1014.1	965.3	920.5	866.2	837.2	833.3
50°	6828.2	6251.2	3249.8	1109.1	874.2	964.1	915.2	855.6	802.8	794.9	793.7
52.5°	8096.0	7203.2	3339.4	977.1	810.8	899.3	864.9	804.3	761.9	765.9	765.9
55°	9444.2	8188.4	3342.1	872.9	755.4	823.9	828.0	779.1	746.1	759.2	763.2
57.5°	10673.7	9049.3	3079.4	799.0	702.6	764.5	816.1	788.4	763.2	809.5	813.4
60°	11745.8	9712.3	2514.3	738.1	658.9	742.1	842.5	845.1	839.8	965.3	974.5
62.5°	12138.0	9718.9	1785.3	686.7	635.1	755.4	897.9	901.9	901.9	1018.0	1035.2
65°	11588.7	8909.4	1188.5	656.3	619.3	784.4	942.9	925.7	884.7	965.3	946.9
67.5°	9652.8	6935.3	868.9	636.4	596.8	785.7	982.4	938.9	868.9	937.6	905.9
70°	6634.2	4413.2	727.5	618.0	570.5	751.3	1003.5	935.0	845.1	874.2	831.9
71°	5340.1	3521.7	690.6	611.3	560.0	731.6	1006.2	929.7	833.3	851.8	813.4
72.5°	3517.9	2169.5	645.7	596.8	544.1	697.3	999.6	917.8	817.4	818.7	793.7
75°	1387.8	899.3	581.1	563.9	499.2	641.7	970.6	892.6	787.0	760.7	750.1
77.5°	701.1	587.6	511.0	517.7	446.3	584.9	929.7	851.8	744.8	709.1	701.1
80°	512.4	446.3	437.0	449.0	386.9	529.6	878.2	796.3	690.6	727.5	711.7
82.5°	311.6	272.0	342.1	371.1	323.5	472.8	817.4	731.6	621.9	573.1	554.7
85°	148.0	159.8	246.9	273.4	238.9	377.6	747.4	660.3	542.8	468.7	476.7
87.5°	72.7	88.5	141.4	163.8	157.2	277.2	563.9	512.4	427.9	352.6	344.7
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)