

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: P882759

Luminaire Tested: **NAV-SB2D-740-U-T3**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882759
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-740-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22375 lumens
Efficiency: N/A
Efficacy: 151.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

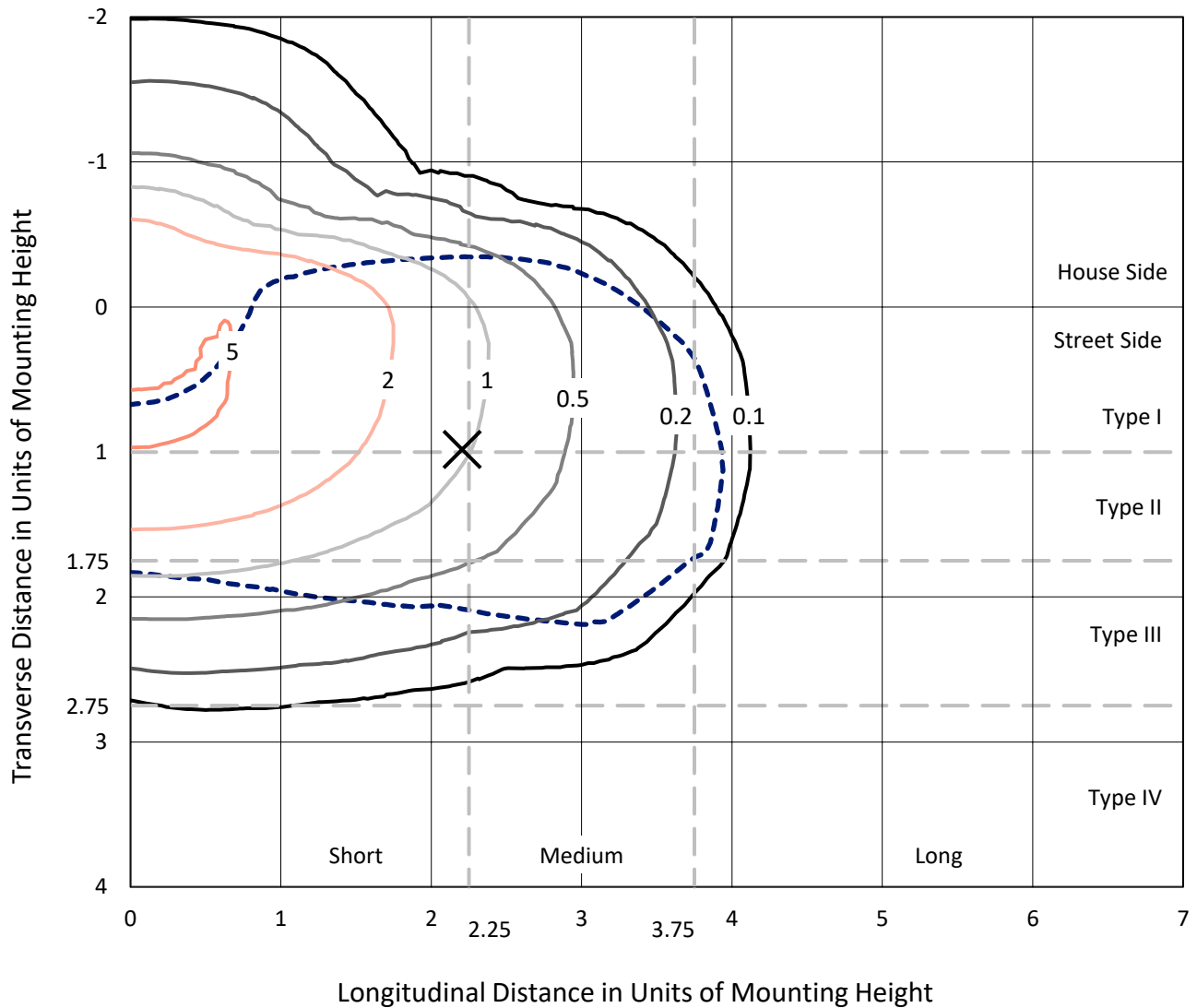
Input Watts (W): 147.6
Input Voltage (V): 120.0
Input Current (Ain): 1.234
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

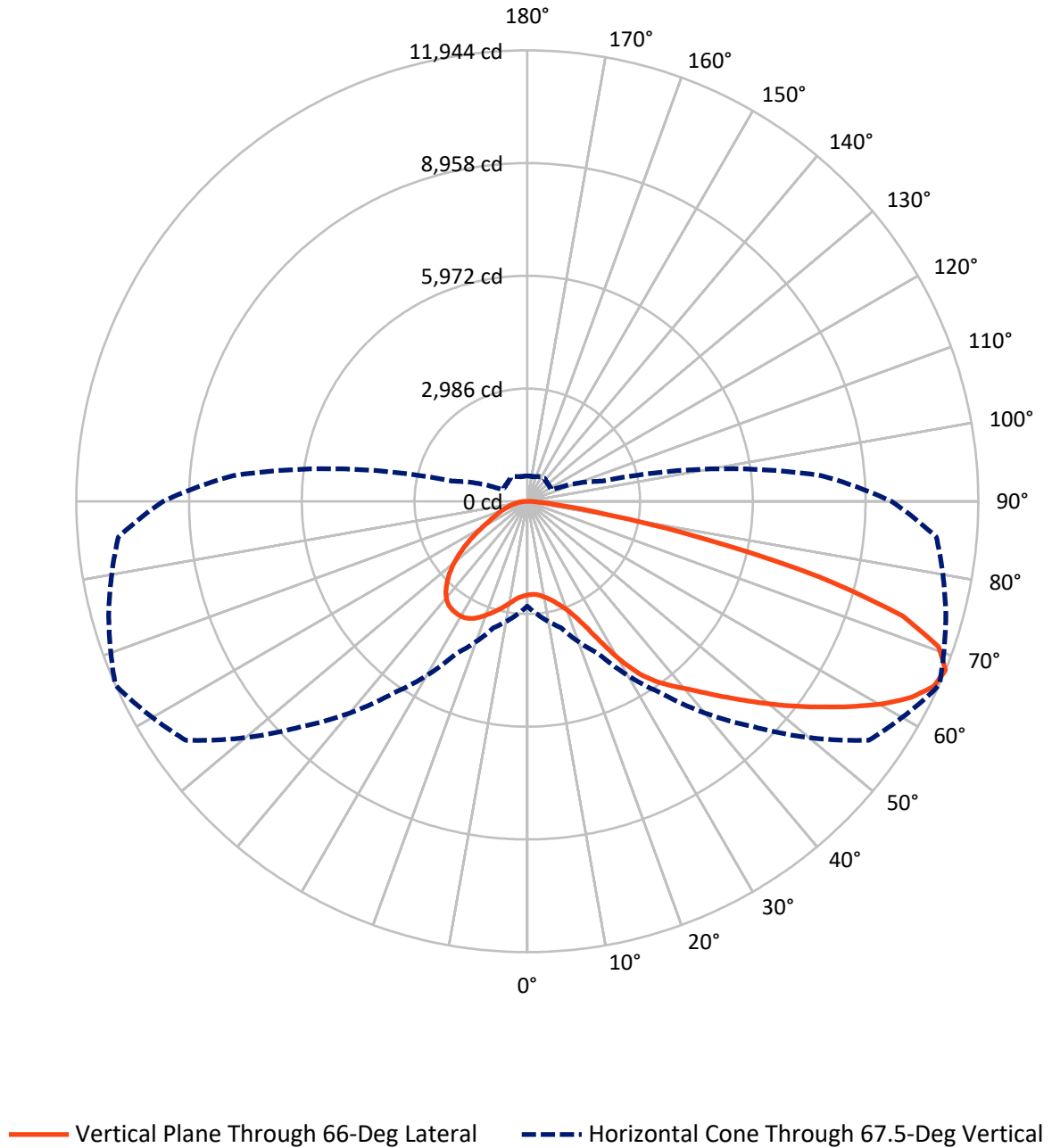
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.6 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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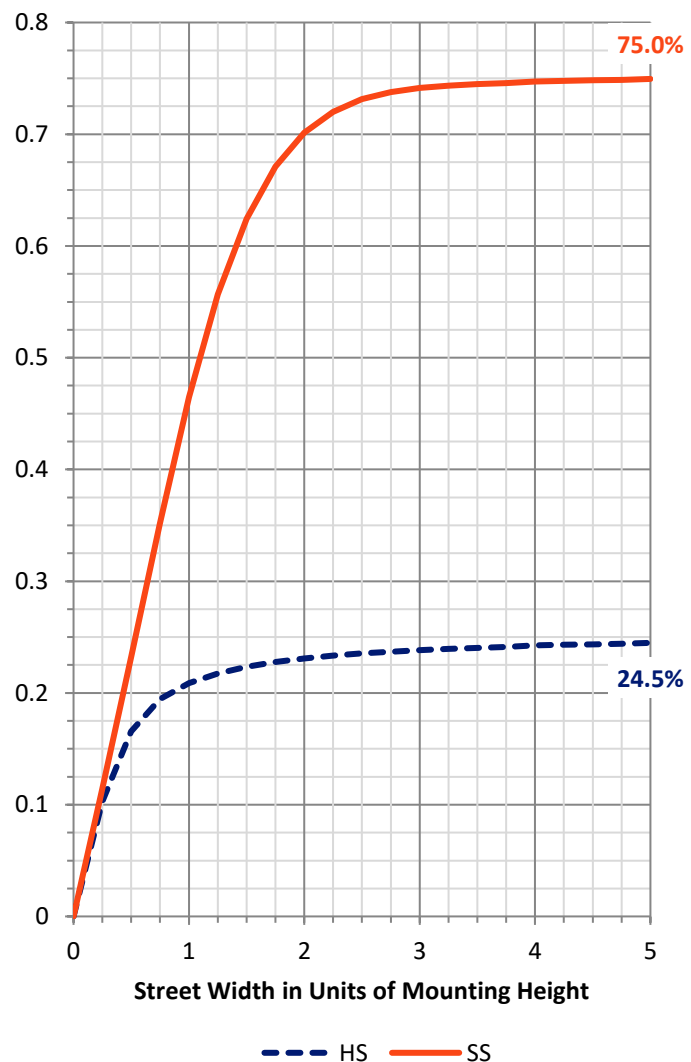
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5563.5	0.0	5563.5
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	16811.5	0.0	16811.5
	% Fixture	75.1	0.0	75.1
Total	Lumens	22375.0	0.0	22375.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	246.0	1.1
10°-20°	812.9	3.6
20°-30°	1566.8	7.0
30°-40°	2747.3	12.3
40°-50°	4084.3	18.3
50°-60°	5177.2	23.1
60°-70°	5065.8	22.6
70°-80°	2416.4	10.8
80°-90°	258.3	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°	22375.0	100.0
0°-180°	22375.0	100.0

Coefficient of Utilization



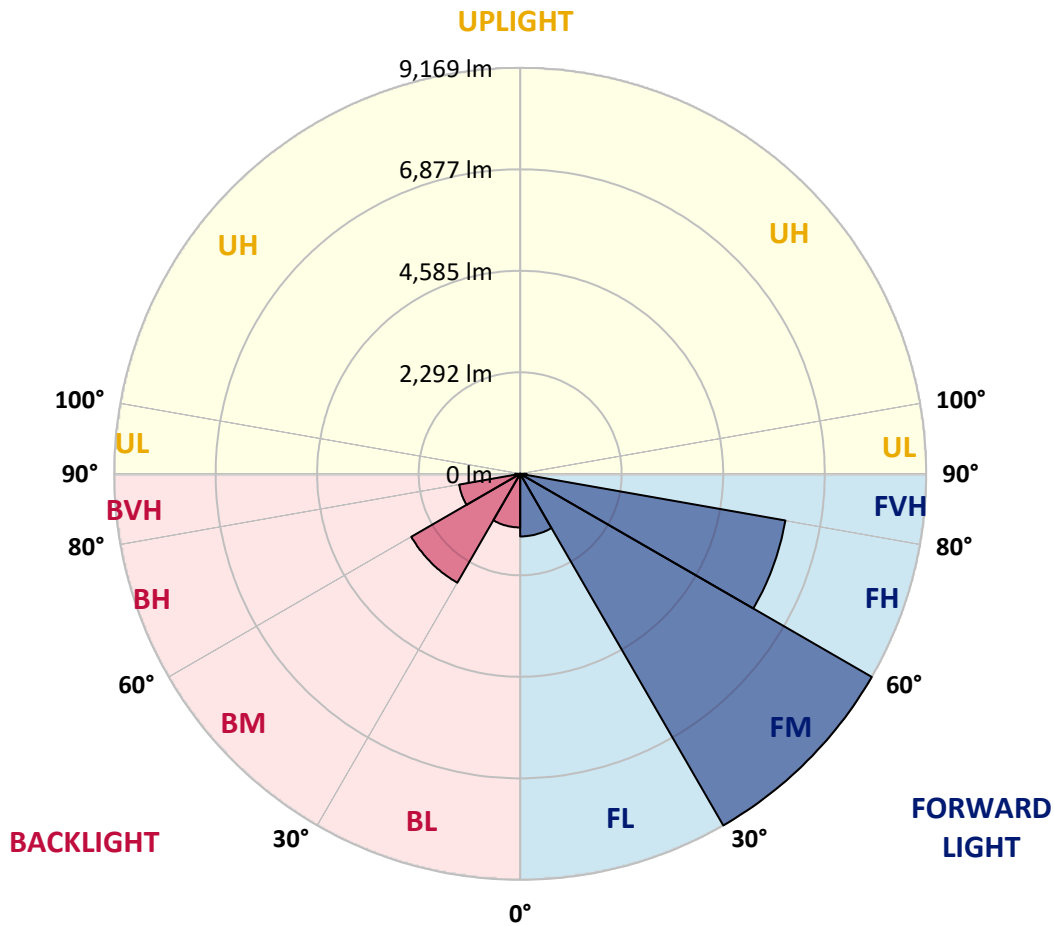
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1413.9	6.3			
FM (30°-60°)	9169.1	41.0			
FH (60°-80°)	6082.1	27.2			G3/7500
FVH (80°-90°)	146.4	0.7			G2/225
BL (0°-30°)	1211.9	5.4	B3/2500		
BM (30°-60°)	2839.7	12.7	B3/5000		
BH (60°-80°)	1400.1	6.3	B3/2500		G3/2500
BVH (80°-90°)	111.8	0.5			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 III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	2481.7	2481.7	2481.7	2481.7	2481.7	2481.7	2481.7	2481.7	2481.7	2481.7	2481.7
2.5°	2455.8	2469.9	2466.4	2460.5	2459.3	2461.7	2465.2	2468.8	2467.6	2473.5	2482.9
5°	2448.8	2462.9	2461.7	2461.7	2466.4	2475.8	2481.7	2487.6	2481.7	2488.7	2501.7
7.5°	2453.5	2464.0	2468.8	2473.5	2485.2	2502.8	2517.0	2529.9	2522.8	2531.1	2547.5
10°	2513.4	2521.7	2526.4	2526.4	2534.6	2554.6	2568.7	2592.2	2586.3	2599.2	2620.4
12.5°	2622.8	2631.0	2631.0	2626.3	2632.2	2645.1	2649.8	2675.7	2665.1	2686.2	2707.4
15°	2756.8	2773.2	2760.3	2752.1	2754.4	2767.4	2766.2	2786.2	2775.6	2793.2	2812.0
17.5°	2904.9	2926.1	2904.9	2903.7	2899.0	2913.1	2914.3	2931.9	2913.1	2926.1	2939.0
20°	3080.1	3109.5	3091.8	3097.7	3087.1	3093.0	3098.9	3124.7	3095.3	3104.7	3101.2
22.5°	3326.9	3362.2	3343.4	3365.7	3358.7	3354.0	3352.8	3398.6	3352.8	3356.3	3322.2
25°	3686.7	3729.0	3696.1	3726.6	3726.6	3741.9	3759.6	3818.3	3741.9	3719.6	3631.4
27.5°	4218.0	4260.4	4195.7	4214.5	4208.6	4246.3	4227.4	4373.2	4290.9	4254.5	4077.0
30°	4857.6	4932.8	4810.5	4805.8	4800.0	4859.9	4887.0	4983.4	4899.9	4863.4	4649.5
32.5°	5548.8	5627.6	5481.8	5439.5	5417.1	5453.6	5431.3	5508.8	5451.2	5394.8	5130.3
35°	6280.0	6357.6	6218.9	6136.6	6047.3	5970.9	5890.9	5910.9	5856.8	5771.0	5497.1
37.5°	6971.3	7113.5	6966.6	6878.4	6713.8	6564.5	6341.2	6248.3	6197.7	6119.0	5842.7
40°	7675.5	7756.6	7644.9	7569.7	7391.0	7157.0	6799.6	6603.3	6535.1	6458.7	6224.8
42.5°	8193.9	8271.5	8211.5	8159.8	8019.9	7748.4	7286.3	7040.6	6941.9	6856.1	6657.4
45°	8605.4	8663.0	8625.3	8644.2	8584.2	8320.9	7790.7	7509.7	7407.4	7302.8	7146.4
47.5°	8771.1	8832.3	8892.2	9003.9	9106.2	8912.2	8332.6	8017.6	7909.4	7802.4	7648.4
50°	8752.3	8814.6	8988.6	9226.1	9543.5	9478.8	8904.0	8558.3	8458.4	8336.2	8193.9
52.5°	8601.8	8672.4	8895.7	9290.7	9796.2	9903.2	9485.9	9116.7	9022.7	8876.9	8734.7
55°	8206.8	8249.2	8584.2	9143.8	9856.2	10199.5	10056.0	9711.6	9617.6	9414.2	9259.0
57.5°	7474.4	7535.6	8023.4	8747.6	9705.7	10400.5	10556.9	10337.0	10246.5	9953.8	9791.5
60°	6518.7	6616.3	7174.7	8082.2	9322.5	10399.3	11011.8	10951.9	10876.6	10485.1	10315.9
62.5°	5437.1	5550.0	6087.2	7141.7	8652.4	10104.2	11296.3	11466.8	11428.0	10975.4	10759.1
65°	4175.7	4253.3	4788.2	5925.0	7609.6	9470.6	11329.2	11818.3	11825.3	11348.0	10990.6
67.5°	2780.3	3003.6	3468.0	4446.1	6213.0	8434.9	11040.0	11875.9	11944.1	11476.2	10874.3
70°	1356.6	1650.5	2105.5	2889.6	4446.1	6846.7	10284.1	11403.3	11554.9	11102.3	10180.7
72.5°	563.1	658.3	906.4	1426.0	2552.2	4620.1	8765.2	10121.9	10402.8	9837.4	8559.5
75°	379.7	411.5	518.4	731.2	1162.7	2278.3	6321.2	7547.3	7999.9	7429.8	6073.1
77.5°	292.7	312.7	377.4	511.4	691.3	861.7	3383.4	4548.4	4782.3	4427.3	3160.0
80°	230.4	245.7	282.1	372.7	490.2	460.8	1153.3	2060.8	2196.0	1842.2	1015.7
82.5°	199.9	205.7	202.2	252.8	325.6	269.2	378.5	760.6	839.4	609.0	331.5
85°	144.6	161.1	168.1	156.4	172.8	136.4	155.2	269.2	296.3	264.5	186.9
87.5°	58.8	87.0	107.0	101.1	63.5	38.8	48.2	78.8	90.5	98.8	61.1
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°	2481.7	2481.7	2481.7	2481.7	2481.7	2481.7	2481.7	2481.7	2481.7	2481.7	2481.7
2.5°	2484.0	2492.3	2498.1	2505.2	2509.9	2517.0	2531.1	2539.3	2540.5	2546.3	2545.2
5°	2506.4	2518.1	2531.1	2549.9	2571.0	2588.7	2615.7	2634.5	2641.6	2647.4	2646.3
7.5°	2554.6	2571.0	2594.5	2627.5	2658.0	2681.5	2714.5	2736.8	2759.1	2767.4	2768.5
10°	2626.3	2649.8	2683.9	2728.6	2761.5	2792.0	2826.1	2844.9	2867.3	2876.7	2881.4
12.5°	2715.6	2740.3	2785.0	2847.3	2877.9	2899.0	2910.8	2906.1	2910.8	2919.0	2921.4
15°	2817.9	2844.9	2895.5	2962.5	2983.7	2964.9	2939.0	2915.5	2912.0	2914.3	2922.5
17.5°	2939.0	2959.0	3017.8	3074.2	3058.9	2981.3	2924.9	2887.3	2868.5	2862.6	2870.8
20°	3108.3	3108.3	3156.5	3191.7	3089.5	2957.8	2869.6	2808.5	2769.7	2753.2	2749.7
22.5°	3314.0	3295.2	3325.8	3301.1	3083.6	2892.0	2769.7	2663.9	2605.1	2581.6	2578.1
25°	3575.0	3552.7	3544.4	3391.6	3041.3	2787.3	2588.7	2460.5	2408.8	2395.9	2398.2
27.5°	3968.8	3912.4	3805.4	3441.0	2963.7	2622.8	2377.1	2258.3	2228.9	2230.1	2233.6
30°	4493.1	4380.3	4118.1	3449.2	2836.7	2390.0	2160.7	2076.1	2062.0	2067.9	2087.9
32.5°	4978.6	4871.7	4437.9	3411.6	2641.6	2161.9	1966.8	1910.3	1889.2	1896.2	1905.6
35°	5359.5	5330.2	4734.1	3358.7	2401.7	1948.0	1792.8	1744.6	1703.4	1694.0	1701.1
37.5°	5719.3	5707.5	4956.3	3284.6	2164.3	1796.3	1652.9	1589.4	1529.5	1496.5	1497.7
40°	6114.3	6102.5	5102.1	3170.6	1953.8	1664.6	1527.1	1443.6	1369.6	1309.6	1315.5
42.5°	6558.7	6489.3	5171.4	3007.2	1775.1	1553.0	1424.8	1312.0	1214.4	1159.1	1162.7
45°	7044.2	6887.8	5170.3	2799.1	1624.7	1450.7	1315.5	1155.6	1065.1	1013.4	1011.0
47.5°	7559.1	7268.7	5106.8	2568.7	1478.9	1337.8	1146.2	1023.9	964.0	932.2	925.2
50°	8090.5	7624.9	4998.6	2304.2	1329.6	1209.7	1040.4	956.9	911.1	881.7	871.1
52.5°	8590.1	7948.2	4868.1	2004.4	1177.9	1085.1	993.4	928.7	880.5	847.6	833.5
55°	9054.4	8226.8	4683.6	1697.6	1054.5	1001.6	971.0	917.0	861.7	822.9	807.6
57.5°	9467.1	8407.9	4365.0	1409.5	966.3	944.0	947.5	897.0	833.5	800.6	779.4
60°	9810.3	8540.7	3893.6	1142.7	894.6	887.6	911.1	859.4	785.3	747.7	731.2
62.5°	10016.1	8538.4	3315.2	935.8	833.5	835.8	862.9	812.3	737.1	701.8	691.3
65°	9998.4	8329.1	2680.4	800.6	774.7	777.1	812.3	760.6	697.1	676.0	674.8
67.5°	9644.6	7818.9	2056.1	712.4	710.1	720.6	761.8	725.3	672.4	670.1	673.6
70°	8686.5	6759.7	1481.3	641.9	643.1	658.3	712.4	703.0	659.5	664.2	663.0
72.5°	6965.4	5153.8	994.6	567.8	569.0	593.7	665.4	685.4	646.6	708.9	718.3
75°	4638.9	3214.1	639.5	489.0	490.2	522.0	624.2	651.3	611.3	706.5	712.4
77.5°	2228.9	1444.8	463.2	411.5	411.5	440.8	539.6	583.1	520.8	549.0	503.2
80°	770.0	543.1	364.4	331.5	324.5	344.4	455.0	505.5	449.1	413.8	387.9
82.5°	303.3	282.1	292.7	257.5	233.9	246.9	353.9	417.3	330.3	298.6	297.4
85°	174.0	183.4	206.9	170.5	135.2	151.7	259.8	299.8	249.2	219.8	224.5
87.5°	47.0	64.7	95.2	88.2	61.1	64.7	123.4	165.8	143.4	110.5	114.0
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)