

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: P883604

Luminaire Tested: **NAV-SB4A-740-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883604
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-740-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19428 lumens
Efficiency: N/A
Efficacy: 170.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

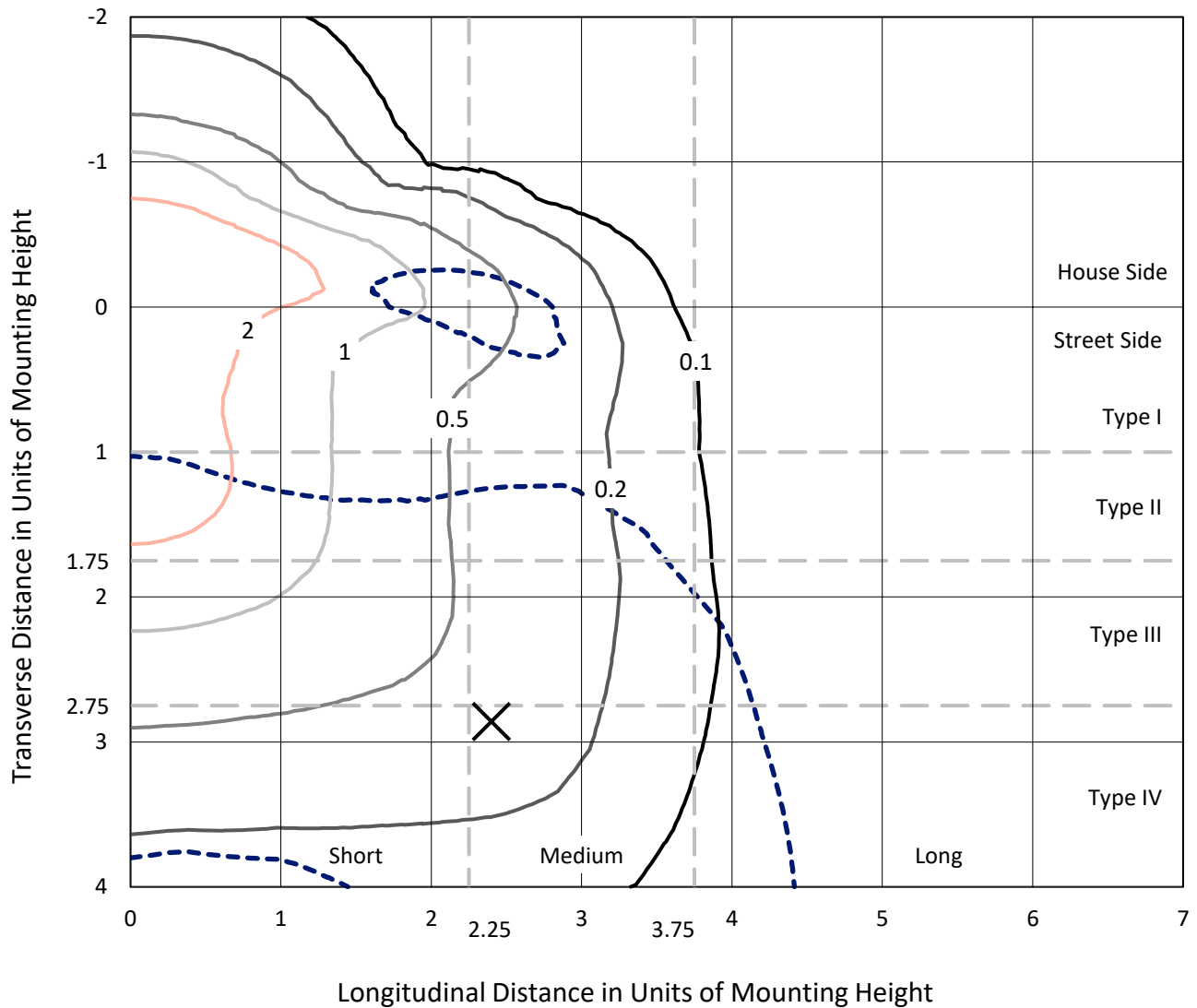
Input Watts (W): 114
Input Voltage (V): 120.0
Input Current (Ain): 0.952
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.206
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

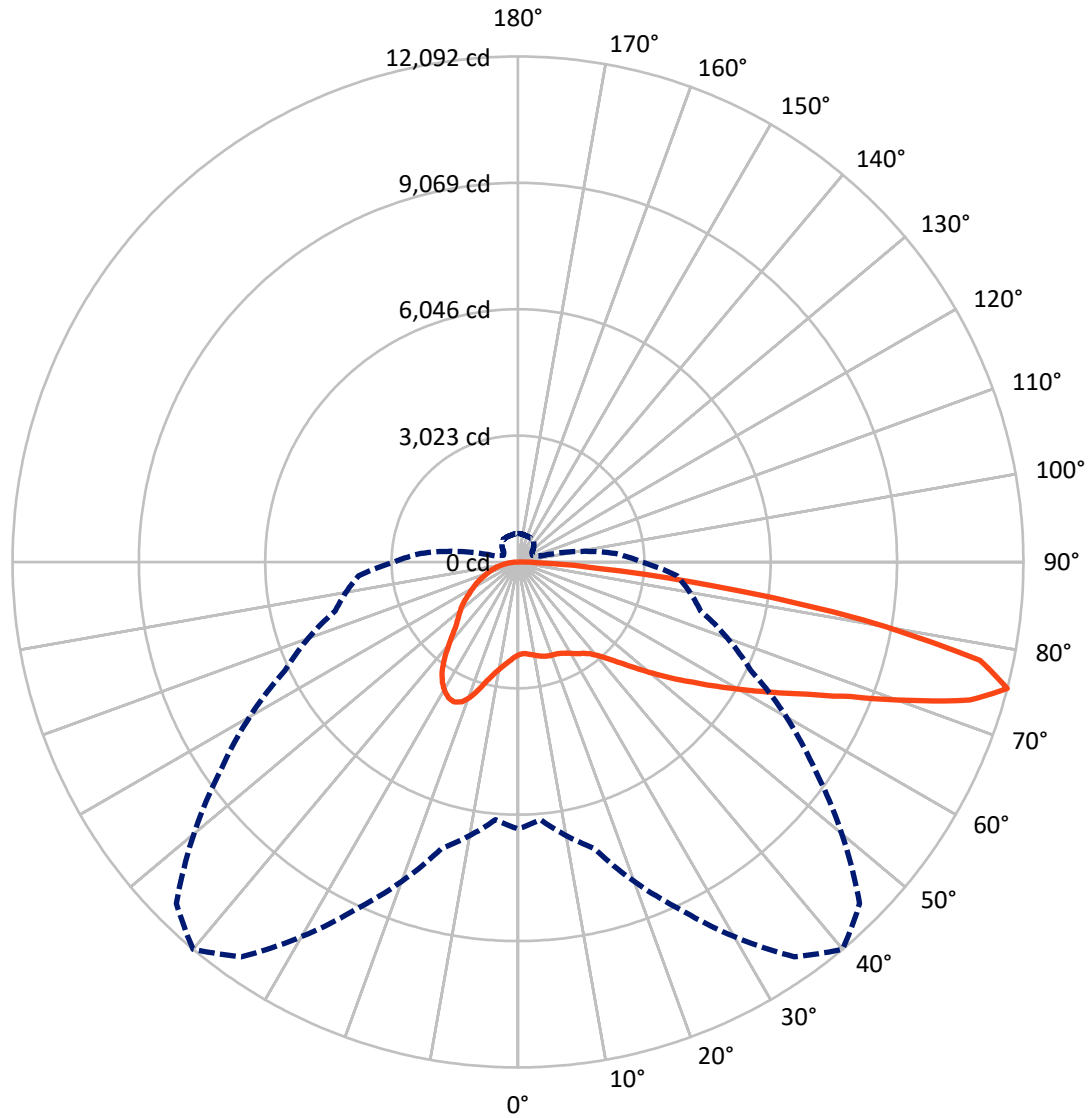
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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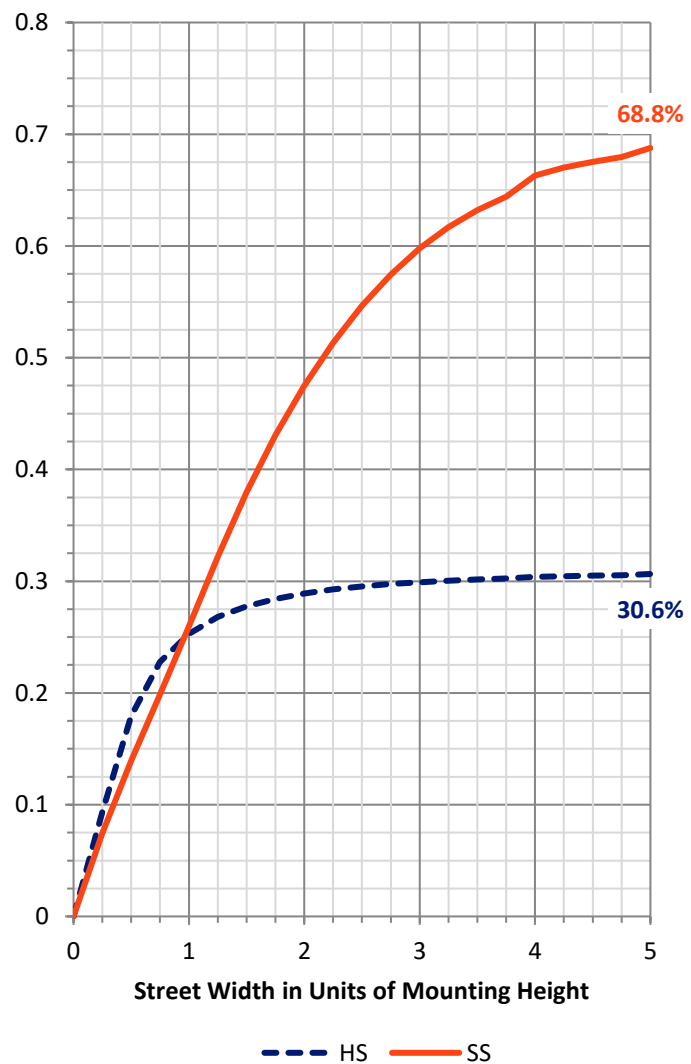
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6019.4	0.0	6019.4
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	13408.6	0.0	13408.6
	% Fixture	69.0	0.0	69.0
Total	Lumens	19428.0	0.0	19428.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.8	1.1
10°-20°	744.5	3.8
20°-30°	1359.5	7.0
30°-40°	1928.1	9.9
40°-50°	2603.5	13.4
50°-60°	3502.5	18.0
60°-70°	4445.4	22.9
70°-80°	4034.5	20.8
80°-90°	588.1	3.0
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°	19428.0	100.0
0°-180°	19428.0	100.0

Coefficient of Utilization



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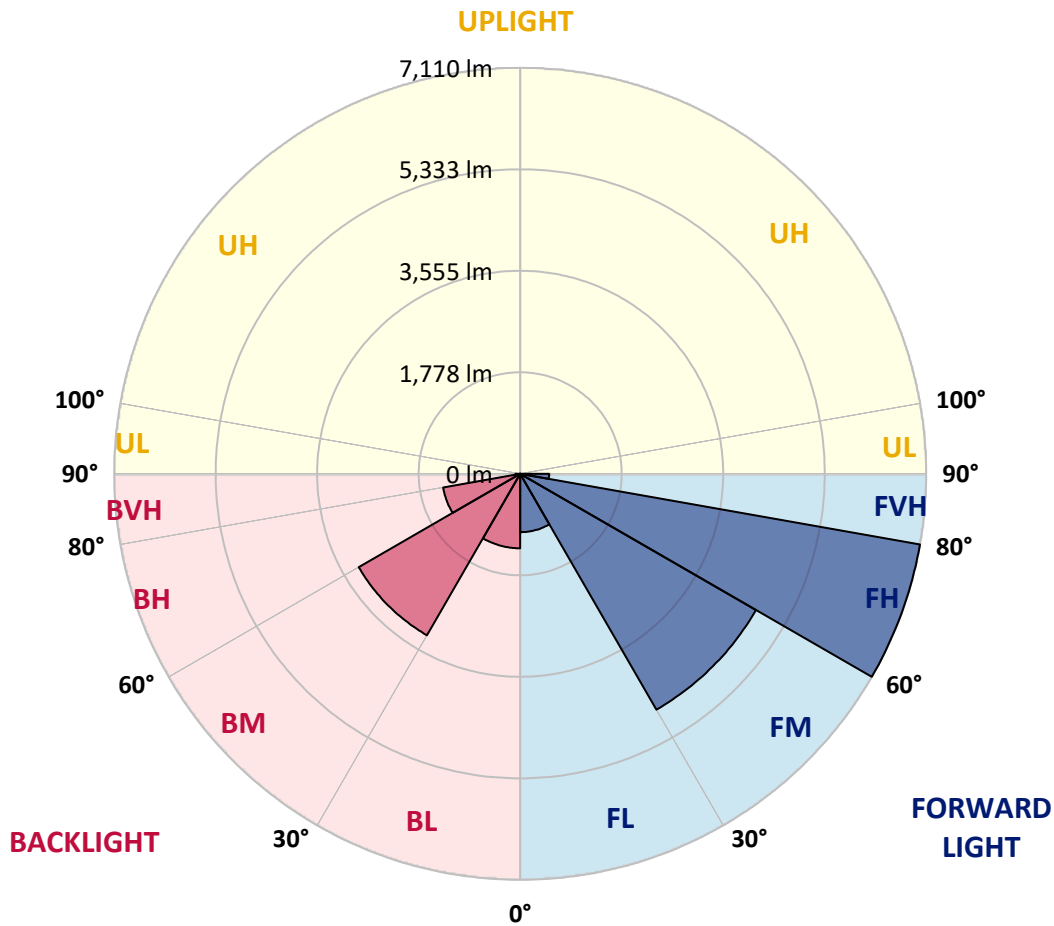
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1021.9	5.3			
FM (30°-60°)	4769.1	24.5			
FH (60°-80°)	7110.4	36.6			G3/7500
FVH (80°-90°)	507.1	2.6			G4/750
BL (0°-30°)	1303.9	6.7	B3/2500		
BM (30°-60°)	3265.0	16.8	B3/5000		
BH (60°-80°)	1369.6	7.0	B3/2500		G3/2500
BVH (80°-90°)	81.0	0.4			G1/100
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 Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	2221.6	2221.6	2221.6	2221.6	2221.6	2221.6	2221.6	2221.6	2221.6	2221.6	2221.6
2.5°	2187.6	2200.0	2196.9	2192.8	2192.8	2193.8	2192.8	2200.0	2207.2	2214.4	2225.7
5°	2210.3	2222.6	2216.5	2211.3	2207.2	2206.2	2203.1	2202.0	2206.2	2215.4	2230.9
7.5°	2254.6	2267.0	2257.7	2248.4	2240.2	2236.0	2231.9	2225.7	2222.6	2227.8	2249.4
10°	2304.1	2316.4	2305.1	2288.6	2275.2	2270.0	2265.9	2259.7	2255.6	2258.7	2282.4
12.5°	2353.5	2365.9	2350.4	2327.8	2310.2	2307.1	2302.0	2299.9	2298.9	2297.9	2321.6
15°	2399.9	2410.2	2390.6	2363.8	2345.3	2340.1	2335.0	2338.1	2343.2	2349.4	2376.2
17.5°	2435.9	2446.3	2417.4	2382.4	2364.8	2362.8	2359.7	2370.0	2384.4	2399.9	2432.9
20°	2468.9	2479.2	2442.1	2394.7	2374.1	2374.1	2375.2	2396.8	2417.4	2440.1	2485.4
22.5°	2515.3	2523.5	2478.2	2413.3	2383.4	2385.5	2393.7	2415.3	2441.1	2472.0	2534.9
25°	2584.3	2590.5	2534.9	2448.3	2414.3	2420.5	2427.7	2438.0	2462.7	2498.8	2583.3
27.5°	2695.6	2700.8	2627.6	2510.1	2458.6	2468.9	2479.2	2472.0	2483.3	2514.3	2622.5
30°	2852.2	2855.3	2762.6	2607.0	2533.8	2539.0	2541.1	2511.2	2489.5	2514.3	2650.3
32.5°	3037.7	3036.7	2926.4	2724.5	2619.4	2614.2	2596.7	2538.0	2487.5	2509.1	2675.0
35°	3325.2	3313.9	3171.7	2889.3	2716.2	2684.3	2643.1	2567.8	2497.8	2504.0	2696.6
37.5°	3801.3	3766.2	3569.4	3159.3	2860.5	2779.1	2718.3	2616.3	2520.4	2501.9	2722.4
40°	4338.1	4293.8	4077.4	3529.2	3076.9	2946.0	2848.1	2685.3	2557.5	2511.2	2760.5
42.5°	4974.9	4912.1	4679.2	3965.1	3351.0	3161.4	3014.0	2772.9	2612.2	2541.1	2812.1
45°	5757.0	5673.6	5343.8	4456.6	3696.2	3443.7	3246.9	2905.8	2695.6	2598.8	2889.3
47.5°	6547.4	6568.0	6099.1	5019.2	4110.4	3792.0	3538.5	3105.7	2817.2	2691.5	3014.0
50°	7387.2	7401.6	6850.3	5642.7	4580.3	4185.6	3866.2	3329.3	2986.2	2823.4	3200.5
52.5°	8042.5	8044.6	7532.5	6294.9	5069.7	4618.4	4219.6	3584.9	3182.0	2998.6	3448.9
55°	8452.7	8447.5	8010.6	6912.2	5632.4	5072.8	4611.2	3875.5	3421.0	3204.7	3761.1
57.5°	8750.5	8735.0	8340.3	7442.8	6232.1	5609.7	5054.3	4205.2	3703.4	3449.9	4172.2
60°	8863.8	8854.5	8563.9	7901.4	6862.7	6203.2	5565.4	4574.1	4023.8	3739.4	4700.8
62.5°	8907.1	8924.6	8783.4	8345.5	7537.6	6860.6	6127.0	5015.1	4384.5	4067.1	5258.3
65°	9059.6	9091.5	9062.7	8926.7	8300.2	7630.4	6872.0	5539.6	4778.1	4418.5	5840.5
67.5°	9361.5	9393.4	9405.8	9622.2	9231.7	8589.7	7801.4	6192.9	5238.7	4783.3	6278.4
70°	9354.3	9345.0	9563.5	10175.5	10398.1	9917.9	9054.4	6996.7	5788.0	5086.2	6334.1
72.5°	8514.5	8440.3	8956.5	10169.4	11368.8	11304.9	10584.6	8033.3	6262.0	5123.3	5496.3
75°	6387.7	6189.8	7101.8	9164.7	11530.6	12092.2	11557.4	8676.3	6149.6	4526.7	3825.0
77.5°	2731.7	2532.8	3607.6	6784.4	10319.8	11303.9	10665.0	7569.6	4909.0	2993.4	1878.5
80°	715.1	714.1	1090.2	3075.8	7018.3	8347.6	7323.3	4888.4	2804.8	1069.6	518.3
82.5°	295.7	288.5	400.8	1196.3	3429.3	4684.4	3822.9	2180.4	1012.9	289.6	172.1
85°	110.3	109.2	194.8	413.2	1209.7	1932.1	1398.3	557.5	252.5	141.2	77.3
87.5°	30.9	29.9	42.2	143.2	294.7	447.2	239.1	91.7	71.1	55.6	22.7
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°	2221.6	2221.6	2221.6	2221.6	2221.6	2221.6	2221.6	2221.6	2221.6	2221.6	2221.6
2.5°	2228.8	2234.0	2243.3	2250.5	2259.7	2270.0	2284.5	2293.7	2303.0	2309.2	2305.1
5°	2238.1	2249.4	2273.1	2296.8	2324.7	2350.4	2380.3	2401.9	2419.5	2424.6	2426.7
7.5°	2258.7	2277.3	2317.4	2357.6	2401.9	2444.2	2487.5	2524.6	2554.4	2565.8	2566.8
10°	2294.8	2319.5	2376.2	2432.9	2491.6	2556.5	2612.2	2665.7	2708.0	2725.5	2726.5
12.5°	2340.1	2371.0	2445.2	2523.5	2604.9	2694.6	2766.7	2832.7	2885.2	2908.9	2908.9
15°	2398.9	2439.0	2533.8	2638.9	2758.5	2883.2	2974.9	3048.0	3106.8	3135.6	3133.6
17.5°	2462.7	2516.3	2635.9	2794.5	2965.6	3129.4	3236.6	3290.2	3351.0	3378.8	3377.8
20°	2524.6	2590.5	2761.6	2992.4	3220.1	3394.3	3480.8	3495.2	3499.4	3502.4	3510.7
22.5°	2588.5	2677.1	2919.2	3241.7	3486.0	3606.5	3618.9	3557.1	3470.5	3430.3	3441.7
25°	2658.5	2776.0	3125.3	3516.9	3714.7	3729.1	3634.3	3483.9	3320.1	3244.8	3256.2
27.5°	2726.5	2890.4	3372.6	3779.6	3879.6	3752.8	3548.8	3335.5	3137.7	3058.3	3067.6
30°	2794.5	3021.2	3645.7	4009.4	3954.8	3694.1	3413.8	3175.8	2976.9	2893.5	2902.7
32.5°	2863.6	3173.7	3960.0	4175.3	3941.4	3569.4	3245.9	2996.5	2821.3	2733.7	2745.1
35°	2941.9	3361.3	4257.8	4266.0	3851.8	3386.0	3024.3	2782.2	2629.7	2559.6	2575.1
37.5°	3043.9	3599.3	4520.5	4288.7	3695.1	3117.1	2749.2	2528.7	2403.0	2371.0	2393.7
40°	3170.6	3885.8	4721.5	4252.6	3463.3	2790.4	2448.3	2272.1	2201.0	2208.2	2233.0
42.5°	3335.5	4206.2	4862.6	4159.9	3140.8	2453.5	2184.5	2106.2	2140.2	2169.1	2195.9
45°	3549.8	4539.1	4950.2	4002.2	2776.0	2168.0	2028.9	2047.5	2073.2	2076.3	2096.9
47.5°	3823.9	4876.0	5007.9	3764.2	2404.0	1967.1	1930.0	1934.1	1929.0	1907.3	1923.8
50°	4166.0	5203.7	5059.4	3448.9	2087.7	1841.4	1791.9	1777.5	1706.4	1636.3	1645.6
52.5°	4555.6	5504.6	5081.1	3057.3	1841.4	1736.3	1655.9	1565.2	1432.3	1410.7	1417.9
55°	4988.3	5782.8	5025.4	2576.1	1634.3	1601.3	1479.7	1370.5	1356.1	1337.5	1340.6
57.5°	5505.6	6082.7	4912.1	2039.2	1422.0	1443.6	1325.1	1337.5	1311.7	1282.9	1277.7
60°	6071.3	6392.8	4713.2	1549.8	1202.5	1246.8	1285.0	1283.9	1276.7	1253.0	1244.8
62.5°	6580.4	6596.8	4321.6	1187.1	1009.8	1094.3	1198.4	1197.4	1191.2	1177.8	1172.6
65°	6883.3	6565.9	3668.3	934.6	851.1	968.6	1080.9	1089.2	1090.2	1089.2	1089.2
67.5°	6829.7	6204.2	2771.9	744.0	720.3	840.8	964.5	975.8	984.1	986.1	988.2
70°	6223.8	5409.8	1807.4	593.5	603.8	728.5	854.2	865.6	872.8	881.0	885.1
72.5°	4851.3	3977.5	1034.6	480.2	501.8	631.7	745.0	758.4	762.5	778.0	784.2
75°	2956.3	2339.1	558.5	378.2	412.2	539.9	636.8	652.3	659.5	678.0	680.1
77.5°	1405.5	1012.9	318.4	294.7	331.8	441.0	537.9	555.4	535.8	546.1	537.9
80°	475.0	376.1	200.9	224.6	253.5	344.2	430.7	448.2	407.0	405.0	400.8
82.5°	165.9	152.5	127.8	149.4	163.8	246.3	325.6	348.3	302.9	301.9	287.5
85°	64.9	61.8	71.1	81.4	97.9	151.5	214.3	225.7	186.5	150.4	148.4
87.5°	13.4	14.4	17.5	18.5	29.9	52.6	77.3	94.8	75.2	63.9	58.7
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)