

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: P882734

Luminaire Tested: **NAV-SB2D-730-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882734
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-SB2D-730-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3000K, 900mA 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: 20237 lumens
Efficiency: N/A
Efficacy: 137.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

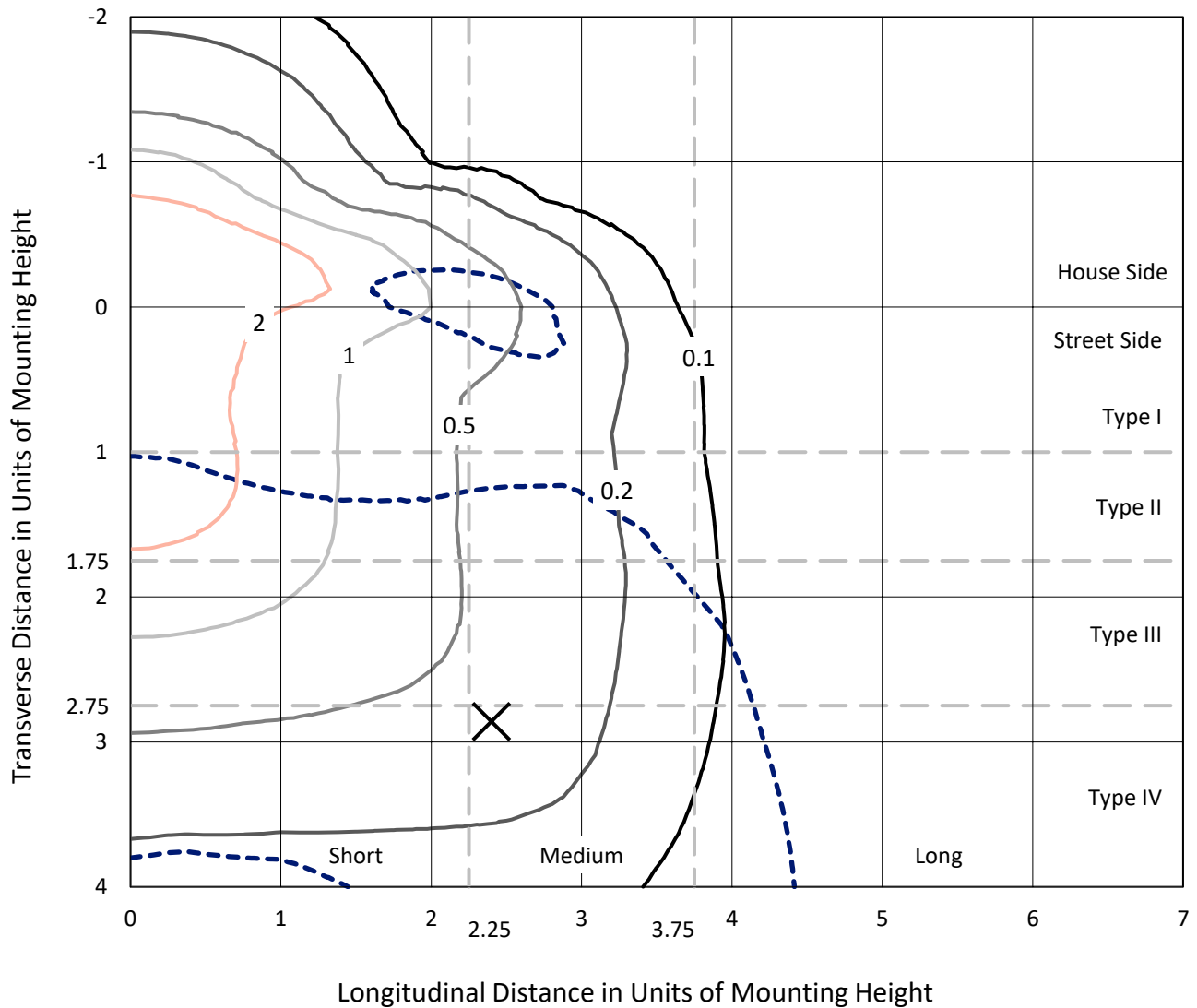
Input Watts (W): 147.6
Input Voltage (V): 120.0
Input Current (Ain): 1.234
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

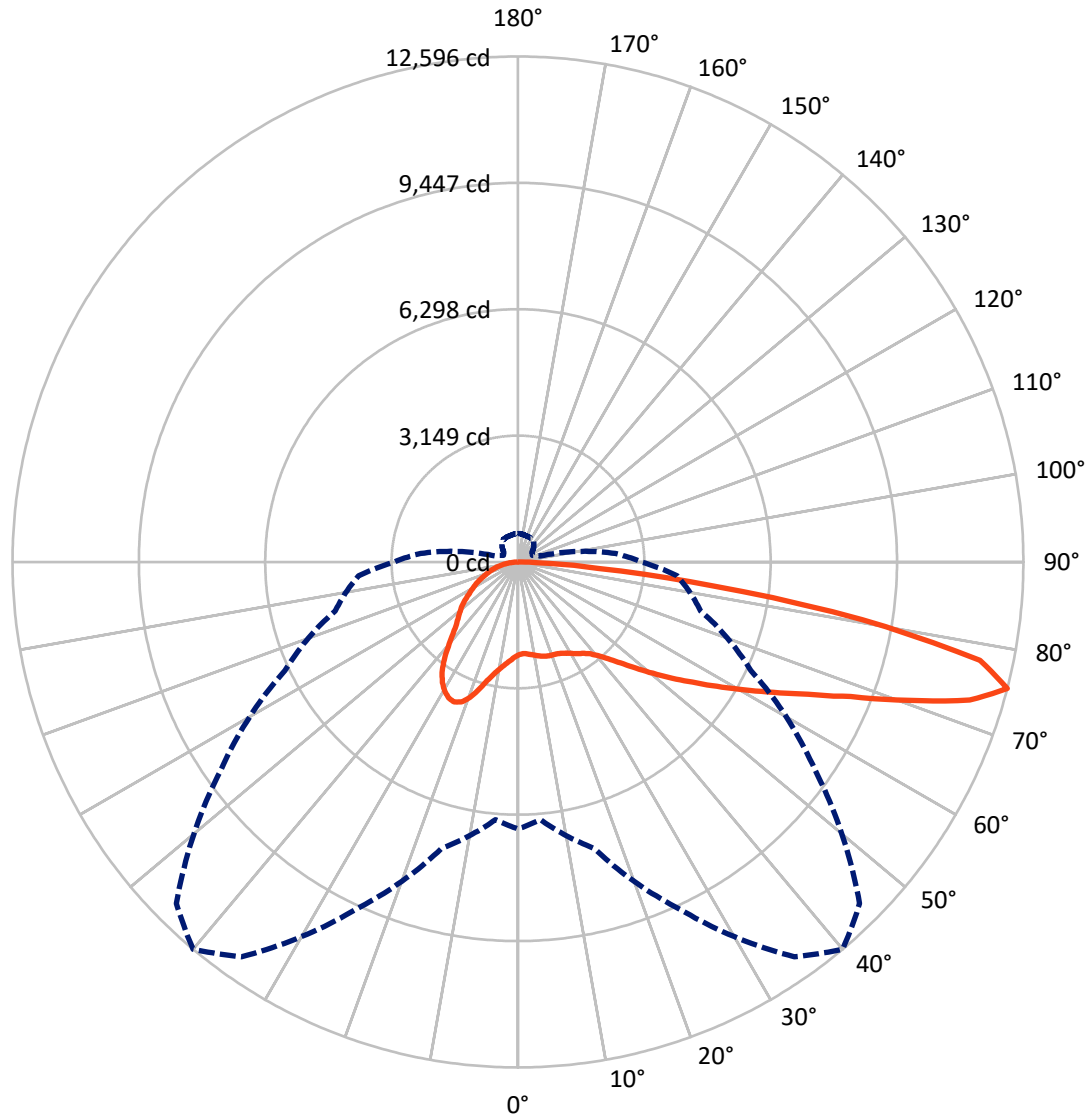
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 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	6270.1	0.0	6270.1
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	13966.9	0.0	13966.9
	% Fixture	69.0	0.0	69.0
Total	Lumens	20237.0	0.0	20237.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	231.0	1.1
10°-20°	775.6	3.8
20°-30°	1416.1	7.0
30°-40°	2008.4	9.9
40°-50°	2712.0	13.4
50°-60°	3648.3	18.0
60°-70°	4630.6	22.9
70°-80°	4202.5	20.8
80°-90°	612.6	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°	20237.0	100.0
0°-180°	20237.0	100.0

Coefficient of Utilization



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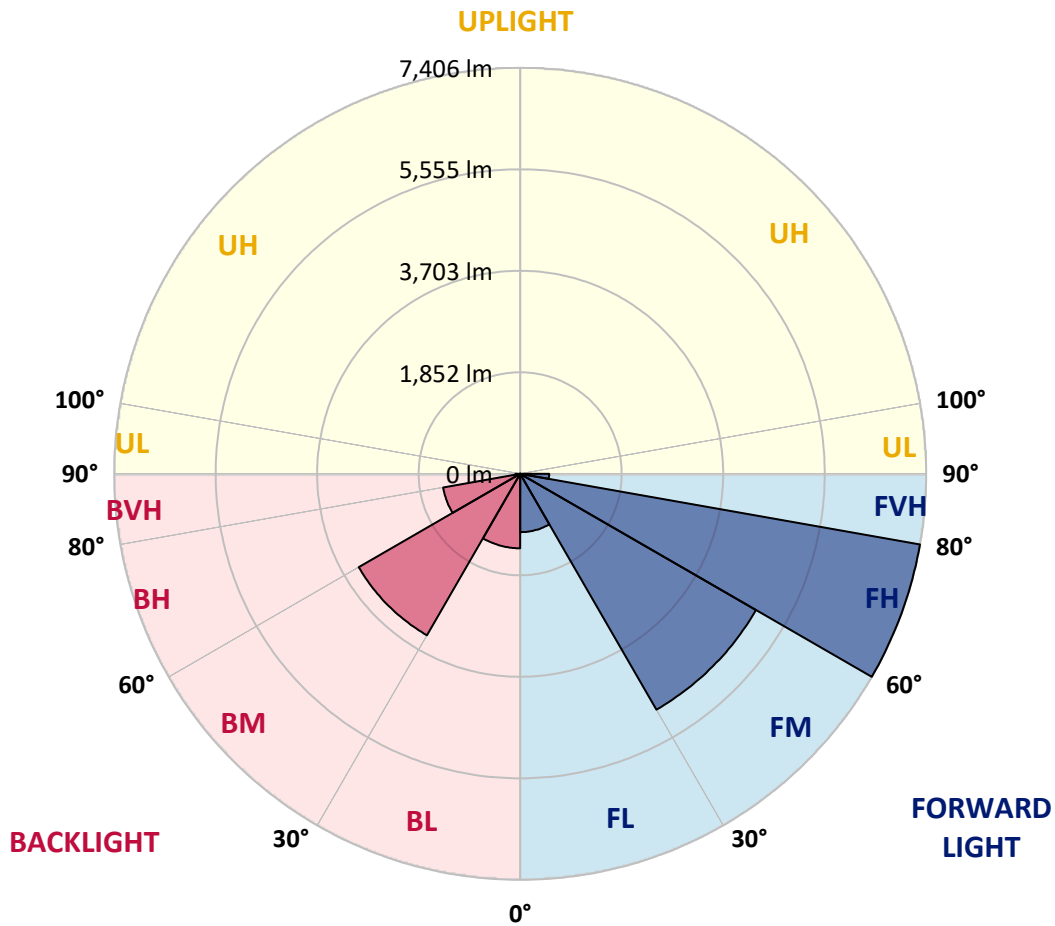
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1064.5	5.3			
FM (30°-60°)	4967.7	24.5			
FH (60°-80°)	7406.4	36.6			G3/7500
FVH (80°-90°)	528.3	2.6			G4/750
BL (0°-30°)	1358.2	6.7	B3/2500		
BM (30°-60°)	3401.0	16.8	B3/5000		
BH (60°-80°)	1426.6	7.0	B3/2500		G3/2500
BVH (80°-90°)	84.3	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°	2314.1	2314.1	2314.1	2314.1	2314.1	2314.1	2314.1	2314.1	2314.1	2314.1	2314.1
2.5°	2278.7	2291.6	2288.4	2284.1	2284.1	2285.1	2284.1	2291.6	2299.1	2306.6	2318.4
5°	2302.3	2315.2	2308.8	2303.4	2299.1	2298.0	2294.8	2293.7	2298.0	2307.7	2323.8
7.5°	2348.5	2361.4	2351.7	2342.0	2333.4	2329.2	2324.9	2318.4	2315.2	2320.6	2343.1
10°	2400.0	2412.9	2401.1	2383.9	2369.9	2364.6	2360.3	2353.8	2349.5	2352.8	2377.5
12.5°	2451.5	2464.4	2448.3	2424.7	2406.4	2403.2	2397.8	2395.7	2394.6	2393.6	2418.2
15°	2499.8	2510.5	2490.2	2462.2	2442.9	2437.6	2432.2	2435.4	2440.8	2447.2	2475.1
17.5°	2537.4	2548.1	2518.1	2481.6	2463.3	2461.2	2458.0	2468.7	2483.7	2499.8	2534.2
20°	2571.7	2582.5	2543.8	2494.4	2473.0	2473.0	2474.1	2496.6	2518.1	2541.7	2588.9
22.5°	2620.0	2628.6	2581.4	2513.8	2482.6	2484.8	2493.4	2515.9	2542.8	2575.0	2640.4
25°	2691.9	2698.4	2640.4	2550.3	2514.8	2521.3	2528.8	2539.5	2565.3	2602.9	2690.9
27.5°	2807.9	2813.2	2737.0	2614.7	2561.0	2571.7	2582.5	2575.0	2586.8	2619.0	2731.7
30°	2971.0	2974.2	2877.6	2715.6	2639.4	2644.7	2646.9	2615.7	2593.2	2619.0	2760.6
32.5°	3164.2	3163.1	3048.3	2837.9	2728.4	2723.1	2704.8	2643.6	2591.1	2613.6	2786.4
35°	3463.7	3451.9	3303.8	3009.7	2829.3	2796.1	2753.1	2674.8	2601.8	2608.2	2808.9
37.5°	3959.6	3923.1	3718.1	3290.9	2979.6	2894.8	2831.5	2725.2	2625.4	2606.1	2835.8
40°	4518.8	4472.6	4247.2	3676.2	3205.0	3068.7	2966.7	2797.1	2664.0	2615.7	2875.5
42.5°	5182.1	5116.6	4874.1	4130.2	3490.5	3293.0	3139.5	2888.4	2720.9	2646.9	2929.2
45°	5996.8	5909.8	5566.4	4642.2	3850.1	3587.1	3382.1	3026.8	2807.9	2707.0	3009.7
47.5°	6820.0	6841.5	6353.1	5228.3	4281.6	3949.9	3685.9	3235.1	2934.5	2803.6	3139.5
50°	7694.8	7709.8	7135.6	5877.6	4771.0	4359.9	4027.2	3468.0	3110.5	2941.0	3333.8
52.5°	8377.4	8379.6	7846.1	6557.1	5280.8	4810.7	4395.3	3734.2	3314.5	3123.4	3592.5
55°	8804.6	8799.3	8344.2	7200.0	5866.9	5284.1	4803.2	4036.8	3563.5	3338.1	3917.7
57.5°	9114.8	9098.7	8687.6	7752.8	6491.6	5843.3	5264.7	4380.3	3857.6	3593.6	4346.0
60°	9232.9	9223.2	8920.6	8230.4	7148.5	6461.5	5797.1	4764.6	4191.4	3895.2	4896.6
62.5°	9278.0	9296.2	9149.2	8693.0	7851.5	7146.3	6382.1	5224.0	4567.1	4236.5	5477.3
65°	9436.8	9470.1	9440.1	9298.4	8645.8	7948.1	7158.1	5770.3	4977.1	4602.5	6083.7
67.5°	9751.3	9784.6	9797.5	10022.9	9616.1	8947.4	8126.3	6450.8	5456.9	4982.5	6539.9
70°	9743.8	9734.1	9961.7	10599.3	10831.1	10330.9	9431.5	7288.0	6029.0	5298.0	6597.8
72.5°	8869.0	8791.8	9329.5	10592.8	11842.2	11775.6	11025.4	8367.8	6522.7	5336.7	5725.2
75°	6653.7	6447.6	7397.5	9546.3	12010.7	12595.7	12038.6	9037.5	6405.7	4715.2	3984.2
77.5°	2845.4	2638.3	3757.8	7066.9	10749.5	11774.6	11109.1	7884.8	5113.4	3118.1	1956.7
80°	744.9	743.8	1135.6	3203.9	7310.5	8695.2	7628.3	5091.9	2921.6	1114.1	539.9
82.5°	308.0	300.5	417.5	1246.2	3572.1	4879.4	3982.1	2271.2	1055.1	301.6	179.2
85°	114.8	113.8	202.9	430.4	1260.1	2012.5	1456.5	580.7	263.0	147.0	80.5
87.5°	32.2	31.1	44.0	149.2	307.0	465.8	249.0	95.5	74.1	58.0	23.6
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°	2314.1	2314.1	2314.1	2314.1	2314.1	2314.1	2314.1	2314.1	2314.1	2314.1	2314.1
2.5°	2321.6	2327.0	2336.7	2344.2	2353.8	2364.6	2379.6	2389.3	2398.9	2405.4	2401.1
5°	2331.3	2343.1	2367.8	2392.5	2421.5	2448.3	2479.4	2502.0	2520.2	2525.6	2527.7
7.5°	2352.8	2372.1	2413.9	2455.8	2502.0	2546.0	2591.1	2629.7	2660.8	2672.6	2673.7
10°	2390.3	2416.1	2475.1	2534.2	2595.3	2663.0	2720.9	2776.7	2820.7	2839.0	2840.1
12.5°	2437.6	2469.8	2547.0	2628.6	2713.4	2806.8	2881.9	2950.6	3005.4	3030.0	3030.0
15°	2498.7	2540.6	2639.4	2748.8	2873.3	3003.2	3098.7	3174.9	3236.1	3266.2	3264.0
17.5°	2565.3	2621.1	2745.6	2910.9	3089.1	3259.7	3371.4	3427.2	3490.5	3519.5	3518.4
20°	2629.7	2698.4	2876.6	3117.0	3354.2	3535.6	3625.8	3640.8	3645.1	3648.3	3656.9
22.5°	2696.2	2788.5	3040.8	3376.7	3631.1	3756.7	3769.6	3705.2	3615.0	3573.2	3585.0
25°	2769.2	2891.6	3255.4	3663.3	3869.4	3884.4	3785.7	3629.0	3458.3	3380.0	3391.8
27.5°	2840.1	3010.7	3513.1	3937.0	4041.1	3909.1	3696.6	3474.4	3268.3	3185.7	3195.3
30°	2910.9	3147.0	3797.5	4176.4	4119.5	3847.9	3556.0	3308.0	3100.9	3013.9	3023.6
32.5°	2982.8	3305.9	4124.9	4349.2	4105.5	3718.1	3381.0	3121.3	2938.8	2847.6	2859.4
35°	3064.4	3501.2	4435.1	4443.6	4012.2	3527.0	3150.3	2898.0	2739.2	2666.2	2682.3
37.5°	3170.7	3749.2	4708.8	4467.3	3849.0	3246.9	2863.7	2634.0	2503.0	2469.8	2493.4
40°	3302.7	4047.6	4918.1	4429.7	3607.5	2906.6	2550.3	2366.7	2292.7	2300.2	2325.9
42.5°	3474.4	4381.4	5065.1	4333.1	3271.6	2555.6	2275.5	2193.9	2229.3	2259.4	2287.3
45°	3697.7	4728.1	5156.3	4168.9	2891.6	2258.3	2113.4	2132.7	2159.6	2162.8	2184.3
47.5°	3983.2	5079.1	5216.4	3920.9	2504.1	2049.0	2010.4	2014.7	2009.3	1986.8	2003.9
50°	4339.5	5420.4	5270.1	3592.5	2174.6	1918.1	1866.5	1851.5	1777.5	1704.5	1714.1
52.5°	4745.3	5733.8	5292.7	3184.6	1918.1	1808.6	1724.9	1630.4	1491.9	1469.4	1476.9
55°	5196.1	6023.6	5234.7	2683.4	1702.3	1668.0	1541.3	1427.5	1412.5	1393.2	1396.4
57.5°	5734.9	6335.9	5116.6	2124.1	1481.2	1503.8	1380.3	1393.2	1366.4	1336.3	1330.9
60°	6324.1	6659.0	4909.5	1614.3	1252.6	1298.7	1338.5	1337.4	1329.9	1305.2	1296.6
62.5°	6854.4	6871.5	4501.6	1236.5	1051.9	1139.9	1248.3	1247.2	1240.8	1226.8	1221.5
65°	7169.9	6839.3	3821.1	973.5	886.6	1008.9	1125.9	1134.5	1135.6	1134.5	1134.5
67.5°	7114.1	6462.6	2887.3	775.0	750.3	875.8	1004.6	1016.5	1025.0	1027.2	1029.3
70°	6483.0	5635.1	1882.6	618.2	629.0	758.9	889.8	901.6	909.1	917.7	922.0
72.5°	5053.3	4143.1	1077.6	500.2	522.7	658.0	776.0	790.0	794.3	810.4	816.8
75°	3079.4	2436.5	581.8	393.9	429.3	562.4	663.3	679.4	686.9	706.3	708.4
77.5°	1464.0	1055.1	331.7	307.0	345.6	459.4	560.3	578.5	558.1	568.9	560.3
80°	494.8	391.8	209.3	234.0	264.0	358.5	448.7	466.9	424.0	421.8	417.5
82.5°	172.8	158.9	133.1	155.6	170.7	256.5	339.2	362.8	315.6	314.5	299.5
85°	67.6	64.4	74.1	84.8	102.0	157.8	223.3	235.1	194.3	156.7	154.6
87.5°	14.0	15.0	18.2	19.3	31.1	54.7	80.5	98.7	78.4	66.5	61.2
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)