

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: P965737

Luminaire Tested: **NAV-SB4A-827-U-SL3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965737
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-12)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-827-U-SL3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15661 lumens
Efficiency: N/A
Efficacy: 137.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - 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



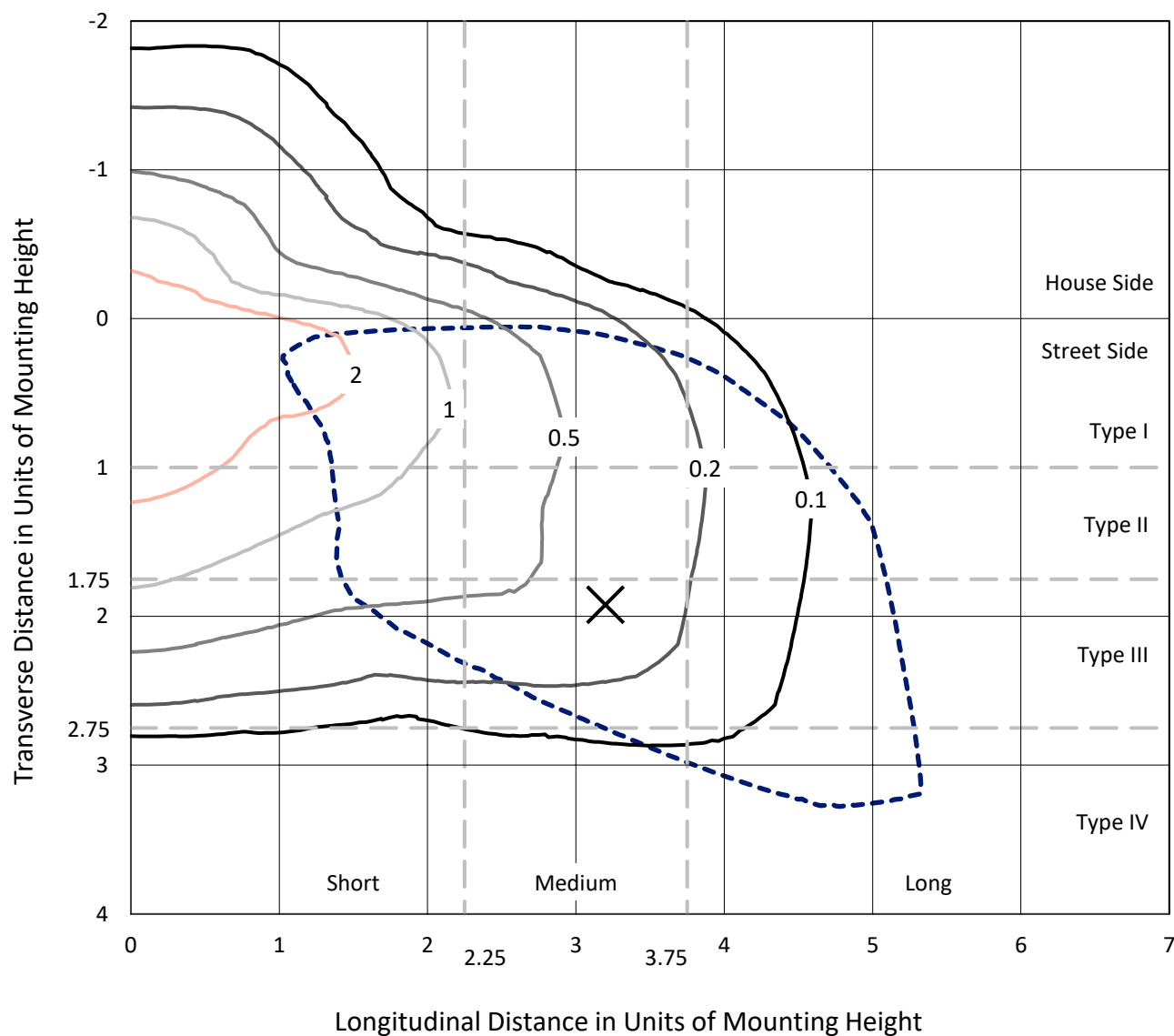
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

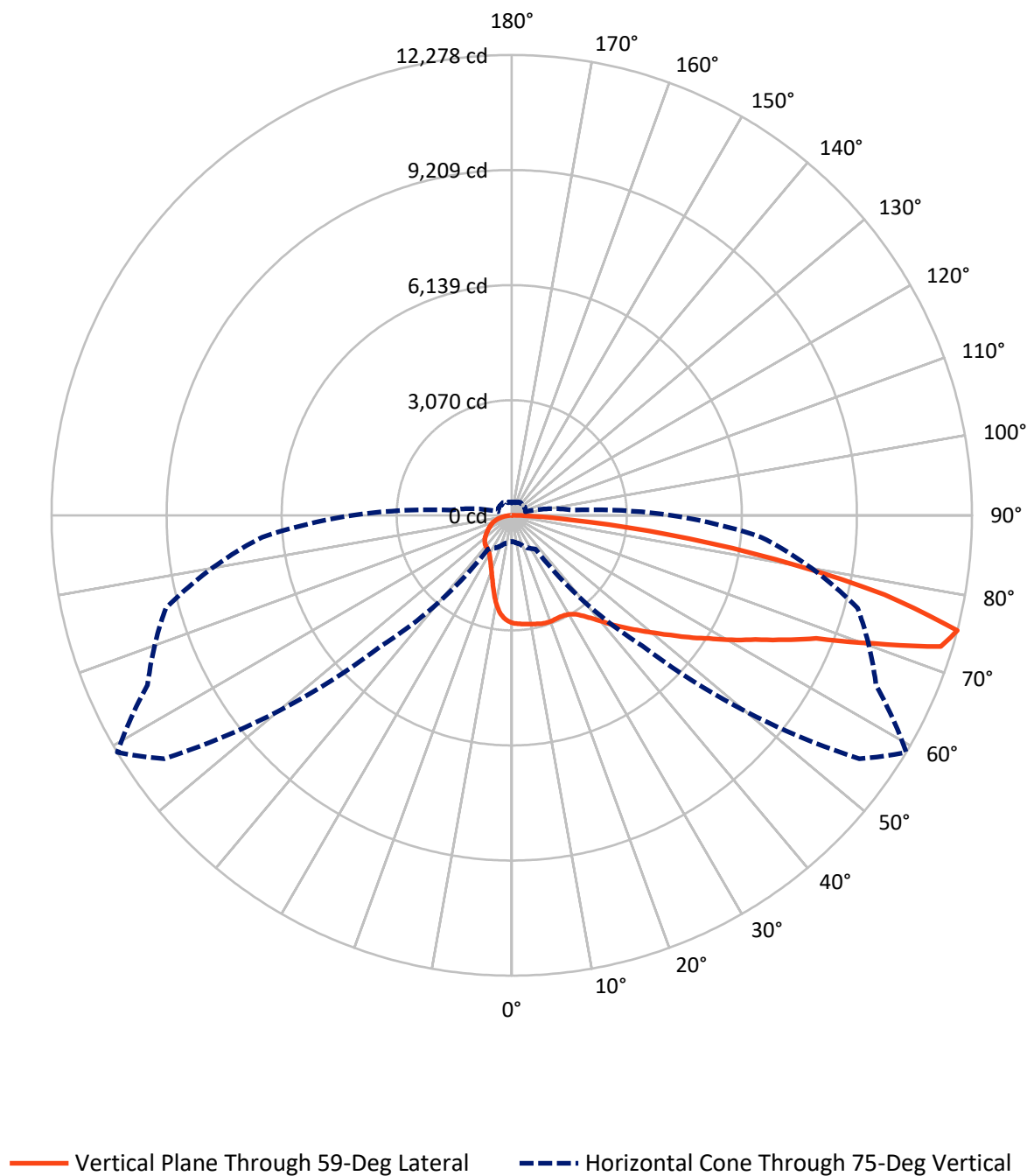


Based on 25 foot mounting height. Maximum calculated value = 4.6 fc
Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2937.3	0.0	2937.3
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	12723.6	0.0	12723.6
	% Fixture	81.2	0.0	81.2
Total	Lumens	15661.0	0.0	15661.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.7	1.6
10°-20°	658.8	4.2
20°-30°	1000.7	6.4
30°-40°	1487.5	9.5
40°-50°	2212.2	14.1
50°-60°	3002.8	19.2
60°-70°	3665.9	23.4
70°-80°	2877.0	18.4
80°-90°	498.4	3.2
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°	15661.0	100.0
0°-180°	15661.0	100.0

Coefficient of Utilization



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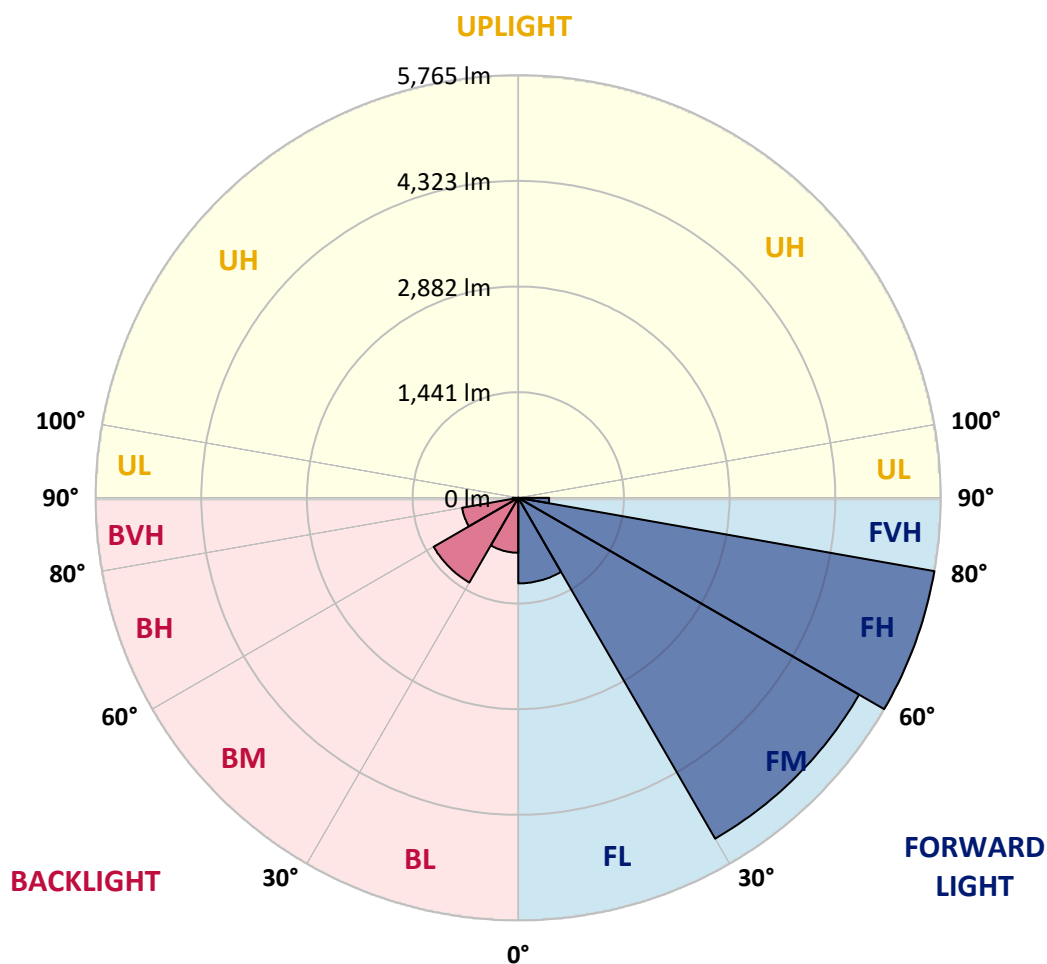
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1167.7	7.5			
FM	(30°-60°)	5369.2	34.3			
FH	(60°-80°)	5764.7	36.8			G3/7500
FVH	(80°-90°)	422.1	2.7			G3/500
BL	(0°-30°)	749.6	4.8	B2/1000		
BM	(30°-60°)	1333.3	8.5	B2/2500		
BH	(60°-80°)	778.2	5.0	B2/1000		G2/1000
BVH	(80°-90°)	76.3	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	2874.5	2874.5	2874.5	2874.5	2874.5	2874.5	2874.5	2874.5	2874.5	2874.5	2874.5
2.5°	2899.0	2888.9	2899.0	2894.8	2893.1	2889.7	2890.5	2896.4	2893.1	2897.3	2882.9
5°	2879.6	2873.7	2883.8	2881.3	2892.2	2893.9	2904.8	2911.6	2915.8	2916.6	2905.7
7.5°	2847.6	2841.7	2856.0	2867.8	2891.4	2898.1	2920.8	2931.8	2937.8	2947.8	2931.8
10°	2730.5	2727.9	2763.3	2808.0	2863.5	2898.1	2932.6	2951.2	2960.5	2987.5	2968.9
12.5°	2523.2	2526.6	2573.0	2658.8	2770.1	2881.3	2946.2	2973.1	2987.5	3021.1	3012.7
15°	2325.2	2324.4	2374.9	2466.8	2622.7	2807.2	2952.9	2999.3	3023.6	3073.4	3066.6
17.5°	2210.6	2207.3	2242.7	2312.6	2457.5	2693.4	2936.0	3013.5	3065.8	3128.1	3122.3
20°	2189.6	2182.8	2201.4	2235.9	2338.7	2568.8	2892.2	3013.5	3099.5	3180.4	3177.0
22.5°	2266.3	2255.3	2247.7	2243.5	2289.0	2465.9	2842.5	3003.5	3149.2	3255.3	3249.5
25°	2420.4	2403.6	2364.9	2327.0	2313.4	2419.6	2798.8	3000.9	3223.3	3356.5	3334.5
27.5°	2669.8	2648.7	2570.4	2479.4	2397.7	2443.2	2779.3	3016.1	3305.0	3463.5	3419.6
30°	2979.0	2956.3	2857.7	2717.8	2571.2	2530.8	2803.8	3060.8	3409.6	3605.8	3519.8
32.5°	3256.2	3230.9	3146.6	3004.3	2806.3	2682.4	2881.3	3145.8	3573.8	3803.8	3670.7
35°	3502.2	3472.7	3396.8	3265.4	3094.5	2895.6	3021.1	3296.6	3807.2	4125.6	3875.4
37.5°	3743.1	3708.6	3626.0	3487.0	3367.4	3179.5	3214.1	3490.4	4117.2	4516.6	4146.6
40°	4012.8	3963.1	3862.8	3725.5	3609.1	3512.3	3467.7	3727.9	4432.3	4952.9	4485.4
42.5°	4273.9	4226.7	4107.1	3990.0	3844.3	3816.4	3761.6	4006.0	4776.8	5432.3	4829.1
45°	4555.3	4498.8	4353.9	4205.7	4113.8	4018.6	4046.4	4284.0	5114.6	5920.9	5189.7
47.5°	4818.9	4755.8	4584.7	4419.6	4369.1	4188.8	4307.6	4589.8	5466.0	6416.3	5546.9
50°	4961.3	4899.0	4756.6	4607.5	4567.9	4398.6	4590.7	4925.9	5834.2	6910.0	5889.8
52.5°	5080.1	5012.8	4826.5	4744.0	4732.2	4626.8	4939.5	5310.1	6202.4	7346.4	6220.8
55°	5206.5	5131.6	4894.0	4819.9	4873.8	4883.0	5353.1	5745.7	6591.6	7771.9	6533.5
57.5°	5352.2	5257.0	4958.8	4883.8	5011.9	5182.9	5828.3	6197.3	6974.0	8166.2	6811.4
60°	5489.6	5393.5	5083.5	4985.8	5161.0	5530.9	6373.3	6744.1	7407.1	8517.4	7074.2
62.5°	5516.5	5437.3	5182.9	5182.1	5363.2	5936.9	7018.7	7295.8	7785.4	8864.6	7310.2
65°	5049.9	5000.2	4849.3	5174.5	5653.1	6521.7	7737.3	8001.9	8266.4	9167.8	7517.5
67.5°	3843.3	3850.1	3839.1	4466.8	5418.9	7361.6	8777.8	8757.6	8860.3	9508.2	7755.9
70°	1757.4	1797.0	2054.8	3083.5	4341.3	7458.4	10498.2	10236.2	9606.0	9948.9	7962.3
72.5°	949.5	979.8	1085.1	1493.7	2610.0	6631.1	11783.7	11969.9	10597.6	10245.4	7735.7
75°	696.7	713.6	786.9	949.5	1096.0	4928.5	11322.9	12278.3	10721.4	9553.7	6680.0
77.5°	521.5	529.1	588.9	752.3	561.1	2598.2	9047.4	10168.7	9178.0	7849.3	4934.3
80°	378.2	386.7	431.3	564.5	393.4	950.3	6212.4	7137.5	6285.7	5003.4	2459.2
82.5°	261.2	264.6	283.9	384.2	274.6	369.0	3525.0	4185.5	3508.9	1755.7	663.9
85°	157.5	161.7	170.1	224.1	155.9	175.3	1521.5	1573.8	1048.9	419.5	206.4
87.5°	64.9	69.1	75.8	94.4	61.5	48.9	251.0	315.1	196.3	123.0	64.1
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°	2874.5	2874.5	2874.5	2874.5	2874.5	2874.5	2874.5	2874.5	2874.5	2874.5	2874.5
2.5°	2878.7	2872.9	2856.9	2834.9	2814.8	2789.4	2778.5	2769.2	2760.8	2744.7	2737.3
5°	2896.4	2880.5	2837.5	2781.8	2718.7	2649.6	2582.2	2535.8	2496.3	2466.8	2442.4
7.5°	2923.4	2893.1	2814.8	2701.0	2556.0	2407.8	2273.9	2178.6	2107.0	2081.0	2035.4
10°	2951.2	2915.0	2778.5	2578.0	2327.8	2099.5	1921.7	1824.0	1766.7	1748.1	1719.5
12.5°	2984.1	2931.0	2722.1	2407.0	2072.4	1822.2	1667.3	1610.0	1580.4	1570.4	1572.9
15°	3032.1	2944.4	2636.9	2193.0	1829.0	1620.1	1519.9	1480.2	1465.0	1464.2	1467.6
17.5°	3068.3	2947.0	2504.7	1963.8	1641.9	1497.9	1415.3	1400.1	1410.3	1425.5	1431.4
20°	3108.7	2924.2	2331.2	1754.9	1510.5	1390.9	1356.4	1366.5	1390.9	1412.9	1420.4
22.5°	3137.4	2882.9	2121.3	1592.2	1396.9	1329.4	1327.8	1348.8	1362.3	1373.2	1379.1
25°	3162.6	2813.0	1898.9	1455.8	1303.3	1292.3	1310.9	1304.1	1294.9	1304.1	1310.1
27.5°	3181.2	2702.7	1700.2	1336.2	1237.6	1267.1	1256.1	1241.0	1240.1	1245.2	1253.6
30°	3175.3	2555.2	1536.7	1222.4	1191.3	1220.0	1193.8	1191.3	1188.7	1191.3	1200.6
32.5°	3175.3	2387.6	1411.1	1144.1	1161.7	1150.9	1148.3	1142.4	1132.3	1131.5	1142.4
35°	3193.0	2219.9	1303.3	1102.0	1137.3	1111.2	1112.9	1098.6	1077.5	1067.4	1077.5
37.5°	3229.3	2085.2	1196.3	1081.8	1094.4	1093.6	1086.8	1062.4	1025.3	993.3	1004.2
40°	3316.8	2045.5	1123.0	1072.5	1074.2	1084.2	1066.6	1019.4	935.1	882.9	889.7
42.5°	3454.1	2112.1	1107.0	1049.7	1060.7	1070.8	1036.3	926.7	866.9	835.8	835.8
45°	3628.6	2228.4	1141.5	1016.9	1028.7	1046.3	943.6	891.3	864.4	865.2	869.4
47.5°	3849.3	2350.5	1205.6	988.2	982.4	992.4	882.1	850.0	813.0	822.3	845.8
50°	4104.5	2474.4	1266.3	949.5	930.9	898.1	842.4	812.1	765.0	743.0	749.0
52.5°	4380.8	2594.0	1290.7	902.3	875.4	837.4	815.5	778.5	721.2	684.9	684.1
55°	4642.9	2702.7	1263.7	845.8	819.7	790.3	786.9	764.1	702.6	652.1	652.1
57.5°	4890.6	2793.6	1196.3	788.5	763.3	745.6	768.3	757.4	679.9	615.0	611.6
60°	5100.4	2856.0	1098.6	730.4	712.8	703.5	738.0	734.6	647.9	575.4	572.9
62.5°	5267.2	2880.5	990.8	674.9	670.7	653.7	695.9	695.9	607.4	536.7	534.1
65°	5397.8	2856.9	881.2	620.0	628.5	603.2	644.5	639.4	564.5	502.1	498.8
67.5°	5513.2	2779.3	759.9	566.1	585.5	553.5	590.6	578.8	517.3	467.6	464.2
70°	5564.6	2599.1	621.8	512.2	535.8	504.6	536.7	514.8	464.2	430.5	423.7
72.5°	5151.8	2160.1	489.4	455.8	476.0	450.7	478.6	453.3	406.9	391.8	379.1
75°	4262.1	1620.9	376.6	394.3	409.5	390.1	408.6	390.1	348.0	358.9	327.7
77.5°	3095.3	1094.4	288.1	329.4	336.2	326.1	342.0	321.0	283.1	280.5	267.9
80°	1539.2	641.1	225.8	260.3	257.8	251.0	269.6	259.5	227.4	241.0	238.4
82.5°	445.7	274.6	164.3	182.9	177.7	179.5	192.9	198.0	296.5	294.1	300.7
85°	139.8	107.8	98.6	102.0	96.9	99.4	113.8	225.8	208.9	122.2	132.2
87.5°	36.2	37.1	24.4	26.1	27.0	32.0	36.2	137.4	65.7	42.9	45.5
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)