

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: P966803

Luminaire Tested: **NAV-SB4C-827-U-T2U**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966803
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-16)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-827-U-T2U
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27110.2 lumens
Efficiency: N/A
Efficacy: 135.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

Input Watts (W): 200.7
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

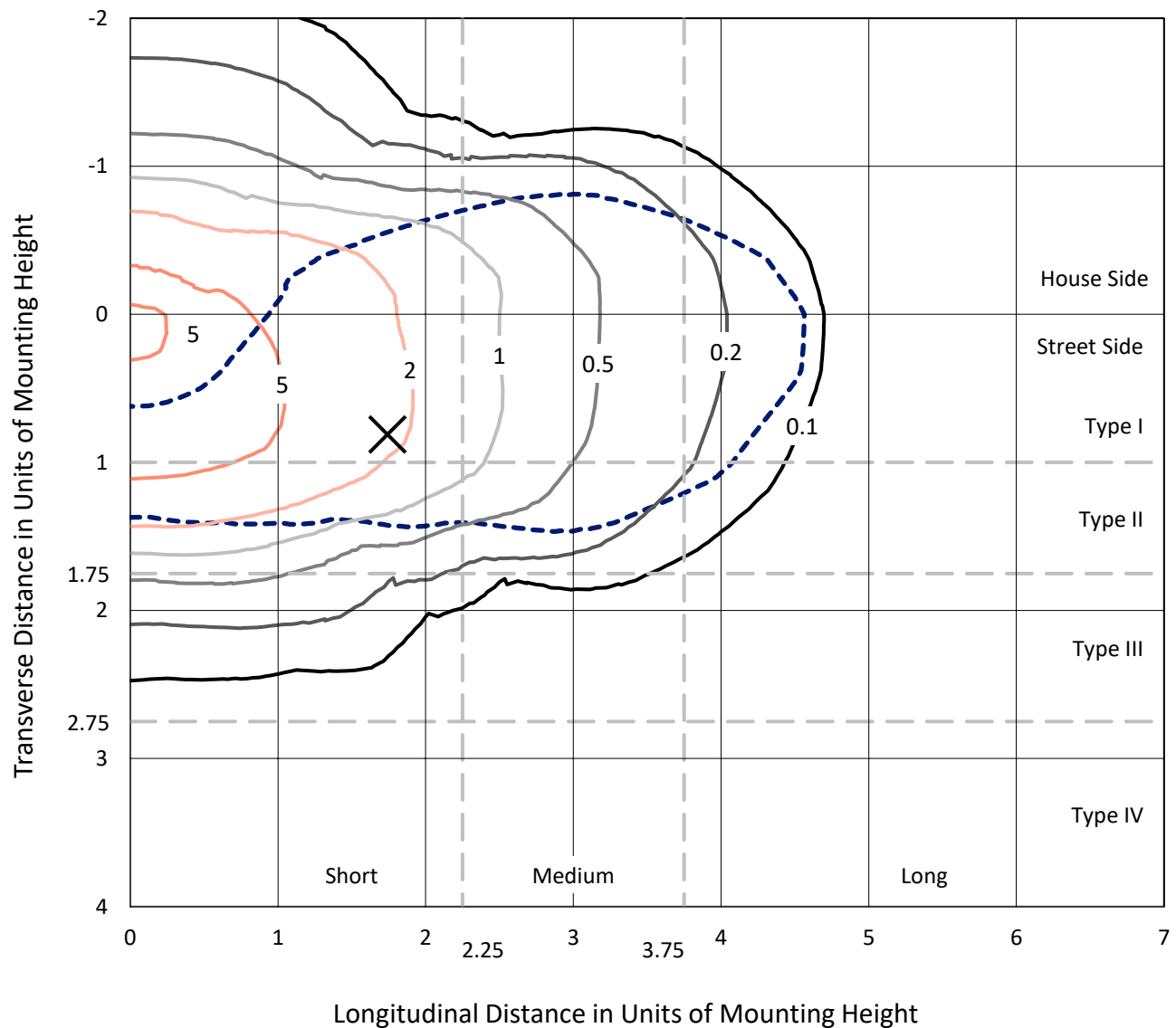


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Iso-Footcandle Lines of Horizontal Illumination

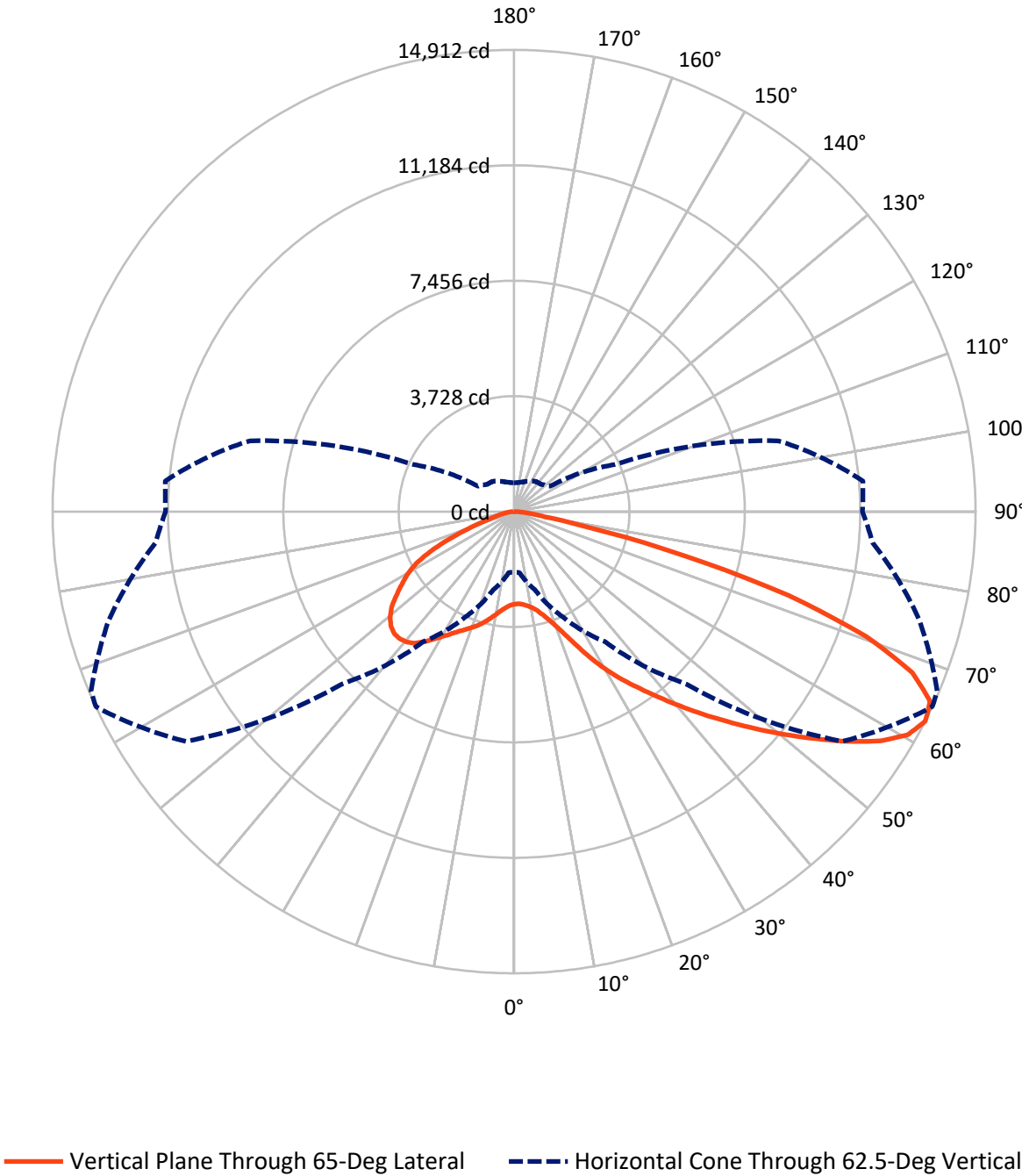
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.6 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8554.8	0.0	8554.8
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	18555.4	0.0	18555.4
	% Fixture	68.4	0.0	68.4
Total	Lumens	27110.2	0.0	27110.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	297.8	1.1
10°-20°	1010.0	3.7
20°-30°	2047.9	7.6
30°-40°	3543.9	13.1
40°-50°	5363.0	19.8
50°-60°	6287.8	23.2
60°-70°	5271.5	19.4
70°-80°	2910.3	10.7
80°-90°	378.0	1.4
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°	27110.2	100.0
0°-180°	27110.2	100.0

Coefficient of Utilization



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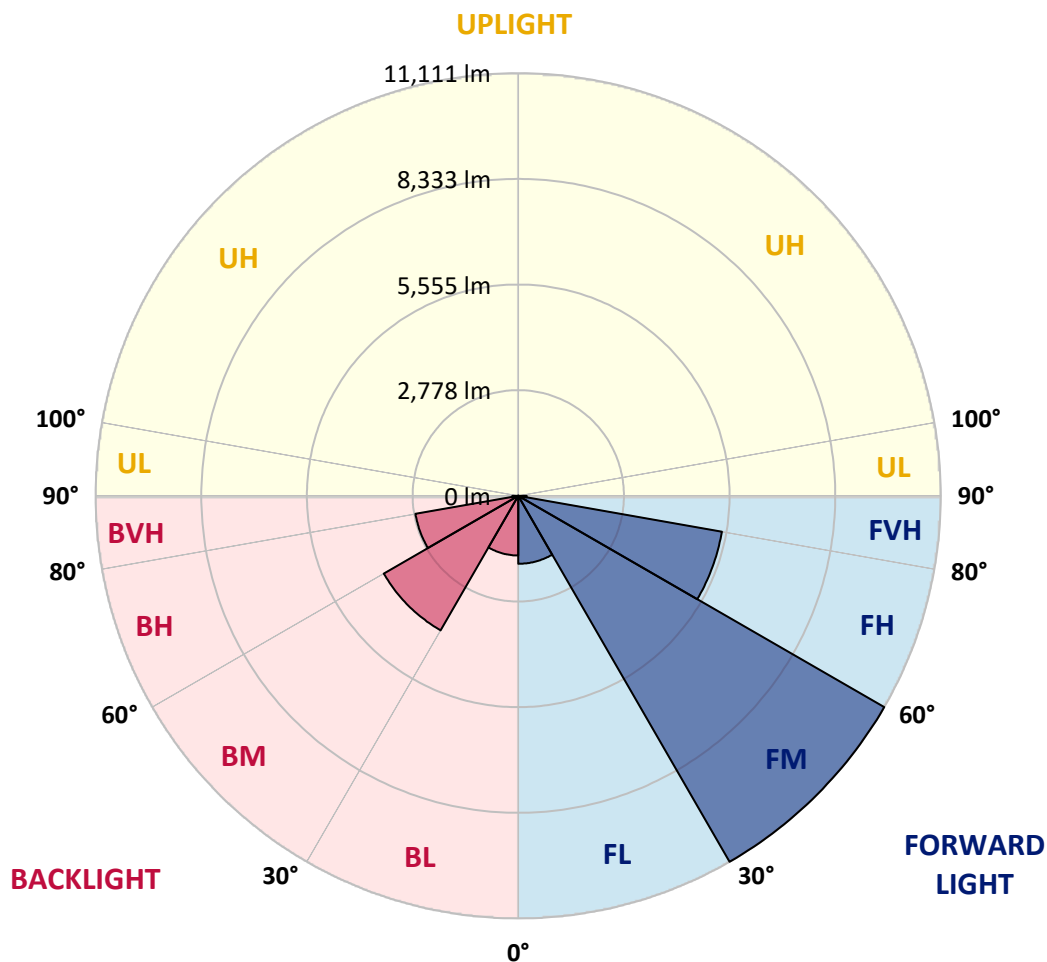
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1786.9	6.6			
FM	(30°-60°)	11110.7	41.0			
FH	(60°-80°)	5437.5	20.1			G3/7500
FVH	(80°-90°)	220.3	0.8			G2/225
BL	(0°-30°)	1568.8	5.8	B3/2500		
BM	(30°-60°)	4084.0	15.1	B3/5000		
BH	(60°-80°)	2744.3	10.1	B4/5000		G4/5000
BVH	(80°-90°)	157.7	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	2987.5	2987.5	2987.5	2987.5	2987.5	2987.5	2987.5	2987.5	2987.5	2987.5	2987.5
2.5°	2967.8	2959.3	2966.4	2966.4	2969.1	2967.8	2977.6	2980.4	2984.6	2993.1	2993.1
5°	2938.2	2936.8	2949.4	2960.7	2972.0	2981.8	2994.4	3012.8	3015.5	3025.4	3038.1
7.5°	2928.3	2919.9	2939.6	2953.6	2980.4	3004.3	3038.1	3069.1	3081.7	3085.9	3109.7
10°	3004.3	2990.2	3008.5	3017.0	3039.4	3063.4	3102.8	3152.0	3166.0	3182.9	3209.7
12.5°	3133.7	3118.3	3145.0	3157.6	3178.7	3199.8	3226.5	3274.4	3281.4	3312.3	3337.6
15°	3311.0	3292.6	3309.5	3325.0	3360.2	3379.8	3406.6	3453.0	3453.0	3476.9	3495.1
17.5°	3551.4	3527.5	3540.1	3545.8	3568.3	3597.9	3642.8	3683.6	3704.8	3696.4	3671.0
20°	3910.1	3880.5	3880.5	3852.5	3844.0	3867.9	3927.0	3983.3	4005.7	3962.1	3900.2
22.5°	4448.8	4406.6	4382.7	4287.1	4249.0	4251.9	4310.9	4379.8	4398.2	4320.8	4181.6
25°	5133.8	5067.7	5035.3	4894.7	4808.9	4734.3	4780.7	4869.4	4894.7	4799.0	4574.0
27.5°	5818.7	5822.9	5792.0	5623.3	5481.2	5344.8	5320.9	5413.6	5440.4	5332.0	5053.6
30°	6779.4	6679.5	6620.5	6417.9	6215.4	6024.1	5925.6	5963.7	5970.6	5841.3	5517.8
32.5°	7607.9	7582.5	7456.0	7278.7	7018.5	6718.9	6554.4	6493.9	6482.6	6298.3	5914.4
35°	8551.6	8537.5	8403.9	8192.9	7911.7	7495.3	7198.5	7025.6	7011.4	6752.7	6306.8
37.5°	9510.9	9510.9	9380.0	9149.4	8858.3	8337.8	7886.4	7612.1	7567.1	7229.4	6706.3
40°	10275.9	10229.6	10253.5	10156.4	9823.1	9270.3	8650.1	8252.0	8191.5	7786.4	7131.0
42.5°	10710.5	10695.2	10838.6	10946.9	10810.5	10368.8	9491.1	8945.4	8861.0	8399.7	7620.5
45°	10807.6	10790.8	11046.7	11443.4	11634.7	11453.2	10405.4	9675.4	9572.7	9041.0	8145.1
47.5°	10583.9	10550.2	10925.8	11551.6	12164.9	12484.2	11395.5	10467.3	10318.2	9665.5	8683.8
50°	9911.6	9879.4	10447.5	11278.8	12343.6	13184.7	12470.2	11307.0	11079.1	10335.1	9228.1
52.5°	8450.3	8465.8	9356.1	10498.2	12108.6	13620.6	13395.6	12191.7	11917.4	11020.0	9738.7
55°	6582.4	6616.3	7710.5	8967.9	11169.1	13554.5	14027.1	13103.1	12830.2	11664.2	10266.1
57.5°	4713.3	4862.3	5887.7	7132.5	9364.5	12506.7	14165.0	13969.4	13705.1	12367.4	10782.3
60°	3054.9	3081.7	4136.6	5391.2	7131.0	10644.5	13885.1	14626.3	14419.6	13084.7	11214.1
62.5°	1957.9	1976.1	2618.9	3770.9	5132.4	7875.1	12942.7	14911.8	14848.6	13558.8	11629.0
65°	1438.9	1424.7	1759.5	2492.3	3457.2	4856.7	11112.8	14773.9	14899.2	13855.5	11972.2
67.5°	1201.2	1181.5	1346.0	1725.8	2547.2	2758.2	8222.4	13878.1	14336.6	13821.8	12223.9
70°	1094.3	1077.4	1177.2	1281.4	1987.4	1846.7	4145.0	12065.1	12771.1	13437.9	12183.2
72.5°	926.9	897.4	1033.8	1137.9	1545.8	1416.3	1713.1	9267.5	10128.3	12207.1	11609.4
75°	718.7	699.0	815.8	1001.4	1161.7	1105.6	1083.0	5627.5	6567.0	9440.5	10156.4
77.5°	569.6	542.9	649.8	780.6	1045.0	834.0	789.0	2423.4	3354.5	6026.9	7599.4
80°	429.0	405.1	493.6	617.5	803.1	628.7	510.6	988.8	1264.4	3053.6	3821.5
82.5°	305.2	284.1	344.6	452.9	540.1	564.1	313.6	554.1	623.1	1177.2	853.7
85°	195.5	182.9	230.6	284.1	343.2	362.8	191.3	289.8	317.9	485.2	355.9
87.5°	106.9	87.2	123.8	132.2	159.0	144.8	91.4	105.5	113.9	175.8	150.5
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°	2987.5	2987.5	2987.5	2987.5	2987.5	2987.5	2987.5	2987.5	2987.5	2987.5	2987.5
2.5°	2998.6	3002.9	3017.0	3021.2	3031.0	3043.7	3052.1	3060.5	3060.5	3069.1	3069.1
5°	3039.4	3049.3	3078.9	3094.4	3119.7	3145.0	3160.4	3178.7	3190.0	3195.6	3198.4
7.5°	3118.3	3133.7	3175.9	3202.6	3246.3	3281.4	3305.3	3330.6	3336.3	3351.7	3346.1
10°	3225.2	3243.4	3291.3	3341.9	3393.9	3437.5	3460.0	3478.3	3485.3	3488.2	3481.1
12.5°	3347.4	3374.2	3436.1	3498.0	3552.9	3590.8	3596.4	3592.2	3572.5	3555.6	3555.6
15°	3498.0	3521.9	3590.8	3658.3	3711.8	3718.8	3683.6	3661.2	3637.2	3633.0	3633.0
17.5°	3678.0	3690.7	3754.0	3820.1	3824.3	3800.4	3748.3	3727.2	3704.8	3689.3	3690.7
20°	3887.6	3883.4	3928.4	3956.5	3927.0	3853.8	3775.1	3739.9	3717.4	3699.1	3700.6
22.5°	4137.9	4105.6	4100.0	4092.9	4014.2	3860.9	3754.0	3709.0	3673.8	3648.5	3656.9
25°	4502.2	4378.5	4292.7	4244.8	4067.6	3822.9	3686.5	3586.6	3520.5	3476.9	3493.8
27.5°	4957.9	4749.7	4533.2	4416.4	4067.6	3745.6	3523.3	3361.6	3253.2	3208.2	3230.8
30°	5392.5	5174.5	4855.3	4623.2	4057.8	3619.0	3260.3	3035.2	2908.6	2863.6	2890.4
32.5°	5763.9	5526.2	5197.1	4849.7	4033.9	3413.6	2934.0	2685.0	2562.7	2509.2	2536.0
35°	6108.5	5855.3	5540.2	5098.6	3970.5	3112.6	2575.3	2385.5	2249.1	2163.3	2191.3
37.5°	6461.5	6160.6	5865.2	5323.6	3856.7	2760.9	2299.7	2137.9	1977.5	1862.2	1893.2
40°	6845.5	6485.4	6212.5	5457.3	3669.6	2426.3	2085.9	1938.2	1768.0	1645.6	1669.5
42.5°	7294.2	6875.0	6599.4	5526.2	3413.6	2188.6	1946.6	1801.7	1641.4	1541.5	1561.2
45°	7762.5	7304.0	6952.4	5524.7	3128.1	2077.4	1901.6	1758.2	1581.0	1476.8	1493.7
47.5°	8253.4	7752.7	7257.6	5434.8	2880.6	2092.8	1876.3	1663.9	1468.4	1367.1	1381.2
50°	8745.7	8243.6	7552.9	5265.9	2775.1	2059.1	1782.1	1531.7	1301.0	1209.6	1215.2
52.5°	9233.7	8765.4	7807.5	5025.5	2668.2	1934.0	1661.1	1360.1	1232.2	1168.8	1168.8
55°	9724.6	9281.6	8084.6	4675.2	2401.0	1787.7	1458.6	1295.4	1177.2	1119.6	1114.0
57.5°	10216.9	9877.9	8347.6	4325.0	2064.8	1607.6	1347.5	1216.7	1122.4	1073.2	1064.8
60°	10728.9	10560.1	8619.1	4002.9	1732.9	1377.0	1265.9	1153.3	1057.7	1002.9	998.7
62.5°	11256.3	11311.2	8831.5	3588.0	1427.6	1236.4	1192.7	1077.4	984.5	932.5	931.1
65°	11788.0	12035.6	8970.7	3012.8	1157.5	1102.7	1114.0	994.4	900.2	855.2	853.7
67.5°	12188.8	12557.4	8931.3	2279.9	949.4	976.1	1015.5	907.2	818.6	783.4	784.8
70°	12233.8	12495.5	8543.2	1561.2	794.7	852.4	905.8	821.4	730.0	704.7	706.0
72.5°	11634.7	11651.6	7461.6	1019.7	672.3	748.2	790.5	734.2	645.5	620.2	618.9
75°	10063.6	9636.0	5478.3	672.3	562.6	642.8	682.1	642.8	557.0	562.6	542.9
77.5°	7624.7	6824.3	3326.4	478.2	469.8	540.1	593.6	565.4	492.3	552.8	486.7
80°	3928.4	3692.0	1483.9	357.2	371.4	431.8	488.1	451.5	389.6	371.4	339.0
82.5°	900.2	1046.4	585.1	255.9	268.7	310.9	372.7	339.0	279.9	236.3	233.5
85°	315.1	344.6	258.8	160.3	157.5	194.1	253.2	226.4	189.8	151.9	160.3
87.5°	99.8	130.8	97.1	64.7	67.5	87.2	116.7	106.9	88.6	57.7	60.5
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)