

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: P965766

Luminaire Tested: **NAV-SB4A-830-U-SL2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965766
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-10)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-830-U-SL2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16457.4 lumens
Efficiency: N/A
Efficacy: 144.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - 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



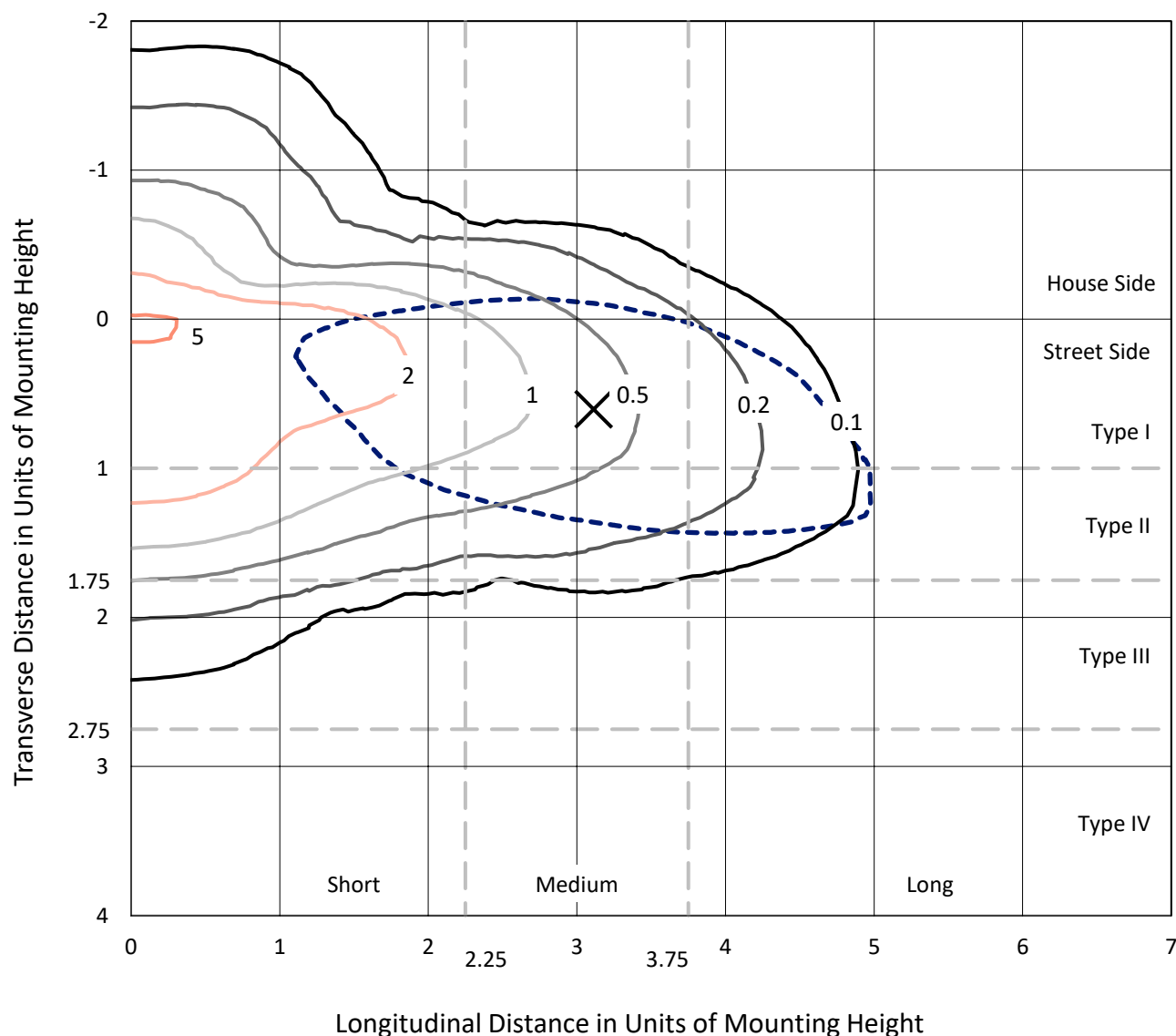
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

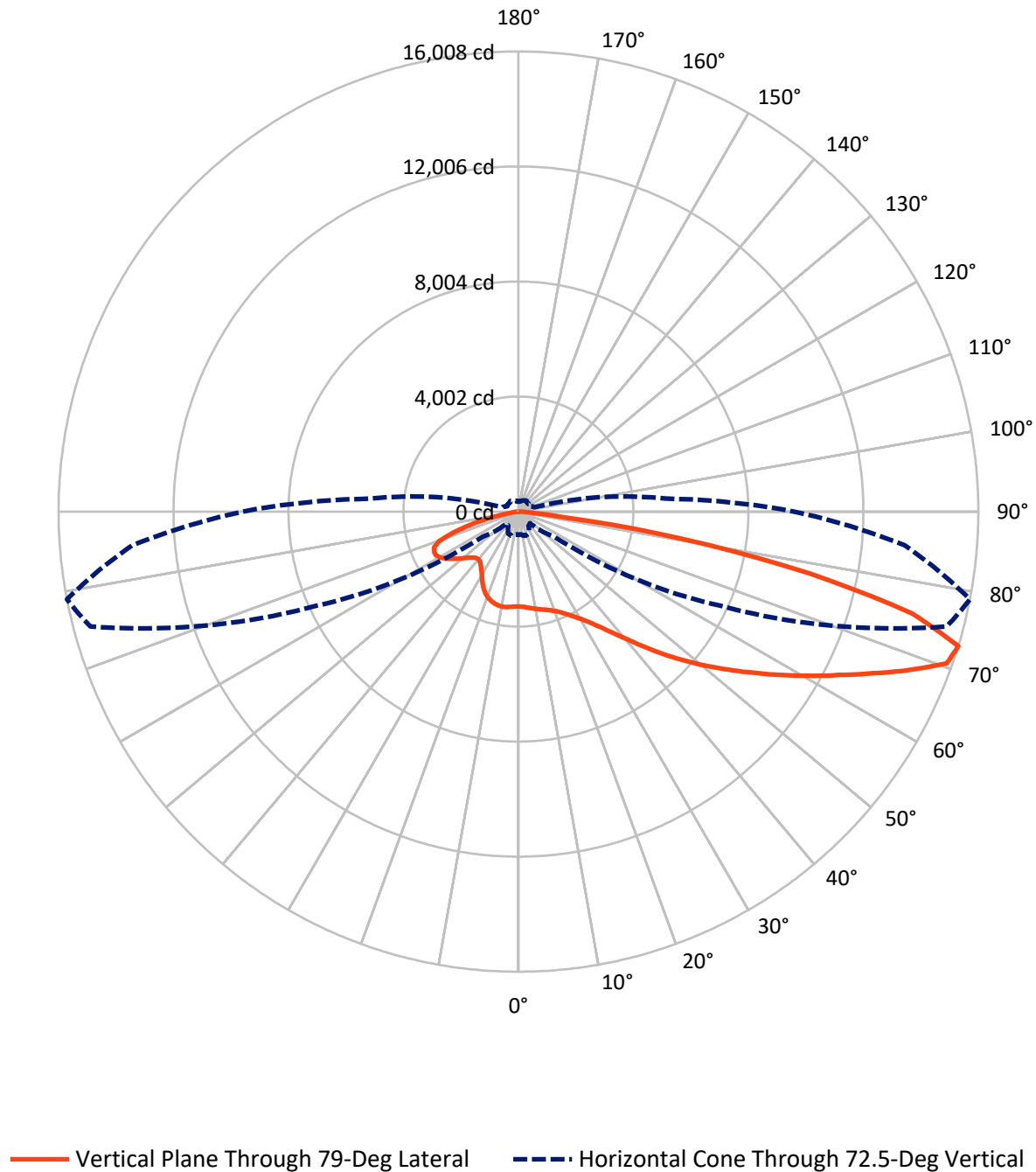
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3621.5	0.0	3621.5
	% Fixture	22.0	0.0	22.0
Street Side	Lumens	12835.9	0.0	12835.9
	% Fixture	78.0	0.0	78.0
Total	Lumens	16457.4	0.0	16457.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	299.9	1.8
10°-20°	784.0	4.8
20°-30°	1265.1	7.7
30°-40°	1898.7	11.5
40°-50°	2693.5	16.4
50°-60°	3401.5	20.7
60°-70°	3454.7	21.0
70°-80°	2354.5	14.3
80°-90°	305.5	1.9
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°	16457.4	100.0
0°-180°	16457.4	100.0

Coefficient of Utilization



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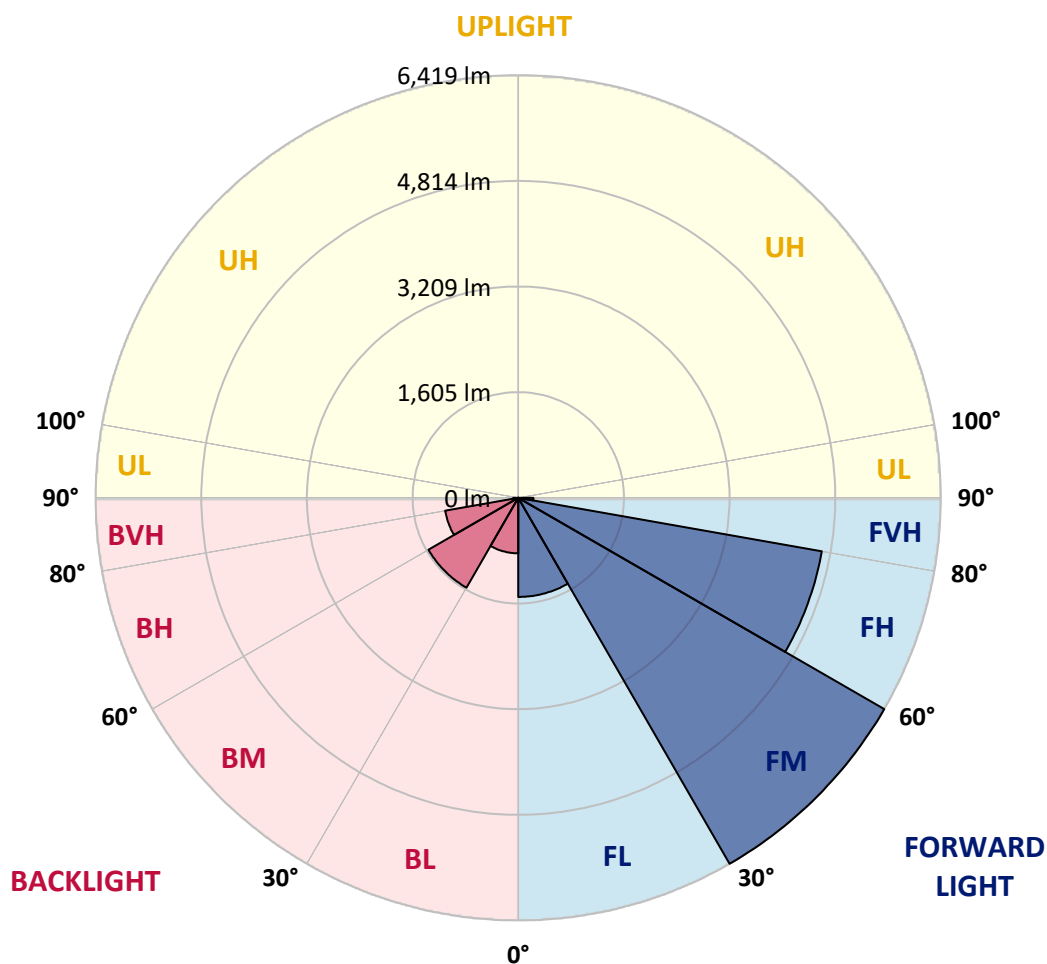
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1505.5	9.1			
FM	(30°-60°)	6418.7	39.0			
FH	(60°-80°)	4681.6	28.4			G2/5000
FVH	(80°-90°)	230.1	1.4			G3/500
BL	(0°-30°)	843.6	5.1	B2/1000		
BM	(30°-60°)	1575.0	9.6	B2/2500		
BH	(60°-80°)	1127.6	6.9	B3/2500		G3/2500
BVH	(80°-90°)	75.4	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	3303.7	3303.7	3303.7	3303.7	3303.7	3303.7	3303.7	3303.7	3303.7	3303.7	3303.7
2.5°	3305.4	3289.7	3299.3	3295.8	3300.2	3305.4	3307.2	3309.7	3318.4	3317.6	3316.7
5°	3298.4	3282.8	3295.8	3291.5	3302.8	3315.0	3325.4	3335.0	3349.0	3355.0	3346.3
7.5°	3283.7	3273.2	3286.3	3299.3	3320.2	3338.5	3353.3	3375.0	3395.1	3398.6	3404.6
10°	3197.5	3189.6	3220.1	3254.1	3311.5	3361.1	3393.4	3418.6	3440.3	3443.8	3452.5
12.5°	3107.8	3098.3	3132.2	3178.3	3271.5	3361.1	3429.0	3462.1	3481.2	3492.6	3505.6
15°	3093.0	3085.1	3104.3	3144.4	3221.9	3337.6	3453.4	3514.3	3530.9	3543.9	3549.2
17.5°	3164.4	3149.6	3157.4	3171.4	3216.7	3315.9	3472.6	3573.6	3598.8	3612.7	3612.7
20°	3329.8	3308.9	3296.7	3268.8	3261.0	3319.4	3470.9	3644.9	3678.0	3695.4	3699.7
22.5°	3550.0	3536.1	3510.0	3439.5	3362.8	3362.0	3503.9	3736.3	3798.1	3814.6	3804.2
25°	3816.4	3795.5	3762.5	3666.6	3519.5	3446.5	3559.6	3853.0	3956.6	3960.9	3930.5
27.5°	4122.9	4091.5	4046.2	3920.0	3721.6	3578.8	3644.9	3987.0	4138.5	4136.8	4074.1
30°	4445.8	4414.5	4366.6	4213.4	3963.6	3757.2	3763.3	4131.6	4354.4	4344.9	4237.8
32.5°	4681.7	4658.2	4648.7	4530.3	4242.1	3967.9	3899.1	4291.7	4620.8	4612.1	4462.3
35°	4862.8	4832.4	4843.6	4783.6	4545.9	4203.8	4065.4	4482.3	4944.6	4943.8	4757.4
37.5°	5042.1	5015.1	5024.8	4984.7	4827.1	4503.2	4268.2	4715.7	5345.9	5365.1	5114.3
40°	5205.8	5177.1	5215.3	5177.9	5045.6	4821.9	4498.9	4979.4	5810.8	5847.3	5546.2
42.5°	5304.2	5281.5	5345.1	5345.9	5235.4	5090.9	4752.2	5270.2	6348.7	6430.6	6077.2
45°	5338.1	5330.3	5426.0	5446.0	5403.4	5246.7	4980.3	5587.1	6928.6	7074.9	6682.2
47.5°	5301.5	5286.7	5419.1	5493.1	5527.0	5319.9	5169.2	5930.0	7520.5	7734.6	7342.1
50°	5117.0	5088.3	5285.0	5440.8	5561.9	5367.7	5359.8	6326.2	8193.4	8427.7	8005.5
52.5°	4785.3	4763.6	4987.2	5258.0	5485.2	5391.2	5574.1	6758.8	8832.4	9135.3	8685.3
55°	4361.4	4332.7	4579.0	4932.4	5294.5	5383.4	5788.2	7242.9	9586.3	9893.6	9387.8
57.5°	3689.3	3631.9	3943.5	4361.4	4983.8	5373.8	6011.0	7724.2	10352.4	10720.6	10137.4
60°	2709.1	2623.8	3005.9	3501.3	4376.1	5280.6	6286.9	8264.0	11271.6	11603.3	10955.6
62.5°	1577.4	1527.8	1777.7	2239.8	3298.4	4732.2	6441.9	8891.6	12175.3	12523.4	11760.0
65°	1224.9	1210.9	1232.7	1268.3	1836.0	3543.0	5964.0	9503.6	13324.4	13568.1	12598.4
67.5°	1120.3	1110.0	1119.5	1052.5	931.4	1973.5	4718.3	9658.6	14555.3	14703.3	13332.2
70°	995.9	983.7	1015.1	957.6	733.0	897.5	3048.6	9096.2	15534.6	15812.4	13890.2
72.5°	811.3	797.4	870.5	844.4	617.3	576.3	1531.2	7760.0	15431.9	16008.2	13490.6
75°	623.3	615.5	702.5	724.3	503.2	453.6	734.7	5768.2	13580.3	14160.9	11626.8
77.5°	484.0	478.0	522.3	601.6	405.7	351.7	451.8	3658.8	10234.0	10335.8	8012.3
80°	363.1	345.6	386.5	465.8	316.0	256.8	306.5	2133.6	6468.9	5863.9	3487.4
82.5°	227.2	218.5	252.5	310.8	222.8	176.7	199.4	1178.8	2592.4	1526.9	672.9
85°	129.7	126.2	137.6	177.6	121.1	101.9	114.1	520.6	473.6	325.5	202.8
87.5°	52.3	50.5	62.6	79.2	44.4	37.4	40.1	125.4	104.4	96.7	67.0
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°	3303.7	3303.7	3303.7	3303.7	3303.7	3303.7	3303.7	3303.7	3303.7	3303.7	3303.7
2.5°	3313.2	3313.2	3301.0	3281.9	3260.1	3246.2	3223.6	3217.5	3194.0	3187.0	3198.3
5°	3353.3	3346.3	3308.9	3254.9	3180.9	3113.0	3038.2	2991.2	2924.9	2901.5	2918.9
7.5°	3403.8	3384.7	3320.2	3201.8	3046.8	2894.5	2736.0	2615.9	2501.0	2460.1	2465.3
10°	3449.9	3422.9	3313.2	3106.1	2837.9	2574.2	2321.7	2145.0	2010.9	1956.1	1968.3
12.5°	3496.1	3446.5	3267.1	2946.8	2541.1	2183.2	1914.3	1776.7	1694.0	1627.9	1649.6
15°	3539.5	3469.9	3195.7	2733.5	2215.5	1852.5	1654.0	1544.4	1478.2	1434.6	1442.5
17.5°	3590.1	3489.9	3088.6	2462.8	1905.6	1623.5	1461.6	1395.4	1382.4	1377.2	1380.7
20°	3660.6	3508.3	2947.6	2159.8	1677.5	1440.7	1357.2	1351.1	1350.2	1347.6	1356.3
22.5°	3736.3	3530.0	2761.4	1884.7	1483.4	1326.7	1311.9	1299.7	1291.9	1291.0	1300.6
25°	3826.0	3537.0	2528.1	1659.3	1317.9	1272.7	1255.3	1237.1	1231.8	1231.8	1237.1
27.5°	3913.0	3513.5	2256.4	1463.4	1224.9	1223.1	1200.5	1194.3	1193.5	1196.1	1203.0
30°	4000.1	3469.1	1986.6	1282.3	1170.9	1170.9	1163.1	1167.4	1170.9	1179.6	1185.6
32.5°	4117.6	3422.1	1761.1	1148.2	1123.8	1115.2	1123.0	1131.7	1135.2	1146.5	1156.1
35°	4289.9	3389.0	1581.8	1075.1	1075.1	1063.7	1068.2	1066.4	1058.5	1053.4	1065.5
37.5°	4518.1	3387.2	1433.8	1041.2	1034.2	1032.5	1033.3	1022.0	991.6	955.0	955.8
40°	4792.3	3434.3	1319.7	1017.6	1012.4	1022.8	1017.6	987.2	903.6	840.1	838.3
42.5°	5160.5	3568.3	1246.6	988.9	1004.6	1017.6	996.7	891.4	834.9	792.2	790.5
45°	5594.0	3785.9	1209.2	958.5	989.8	1005.4	904.5	858.3	813.0	761.7	758.2
47.5°	6085.0	4060.1	1200.5	929.8	956.7	966.3	865.3	844.4	793.0	737.4	733.0
50°	6619.6	4384.8	1224.0	895.7	908.9	875.8	852.3	833.1	780.0	725.2	719.0
52.5°	7172.3	4742.7	1271.0	849.6	861.0	824.4	847.1	830.5	772.1	698.1	692.9
55°	7715.5	5103.1	1316.2	795.7	812.2	778.3	832.2	820.0	736.5	652.9	648.5
57.5°	8267.4	5461.7	1360.7	747.7	765.2	733.9	808.7	792.2	696.4	611.1	609.4
60°	8841.1	5809.9	1381.5	701.6	713.8	692.9	773.1	744.4	651.2	568.5	565.8
62.5°	9378.2	6099.8	1347.6	655.5	663.4	654.7	726.0	687.7	605.9	520.6	519.7
65°	9917.1	6272.2	1243.1	610.3	612.0	607.6	659.9	626.8	552.8	478.8	473.6
67.5°	10405.5	6368.8	1076.9	561.5	557.2	555.4	598.1	560.6	501.4	437.0	431.8
70°	10509.0	6123.3	822.7	504.0	504.0	499.7	530.1	491.9	444.8	392.6	390.8
72.5°	9598.5	5150.9	584.1	438.7	445.7	437.0	462.3	430.1	387.3	352.6	342.1
75°	7739.9	3777.2	424.9	371.8	383.9	369.1	392.6	370.0	333.4	332.5	299.5
77.5°	5318.1	2335.7	308.2	306.5	315.1	296.0	323.0	310.8	277.7	262.9	246.4
80°	2269.5	931.4	224.6	236.8	236.8	219.4	250.7	254.2	225.5	218.5	218.5
82.5°	451.8	264.7	157.5	162.8	153.2	148.0	177.6	196.7	271.6	302.1	303.0
85°	135.8	97.5	94.9	88.8	78.3	79.2	104.4	197.6	243.7	139.3	120.1
87.5°	37.4	24.4	25.2	20.0	16.5	21.7	35.7	149.8	81.8	34.8	29.6
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)