

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: P883757

Luminaire Tested: **NAV-SB4B-730-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883757
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-730-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22258 lumens
Efficiency: N/A
Efficacy: 151.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

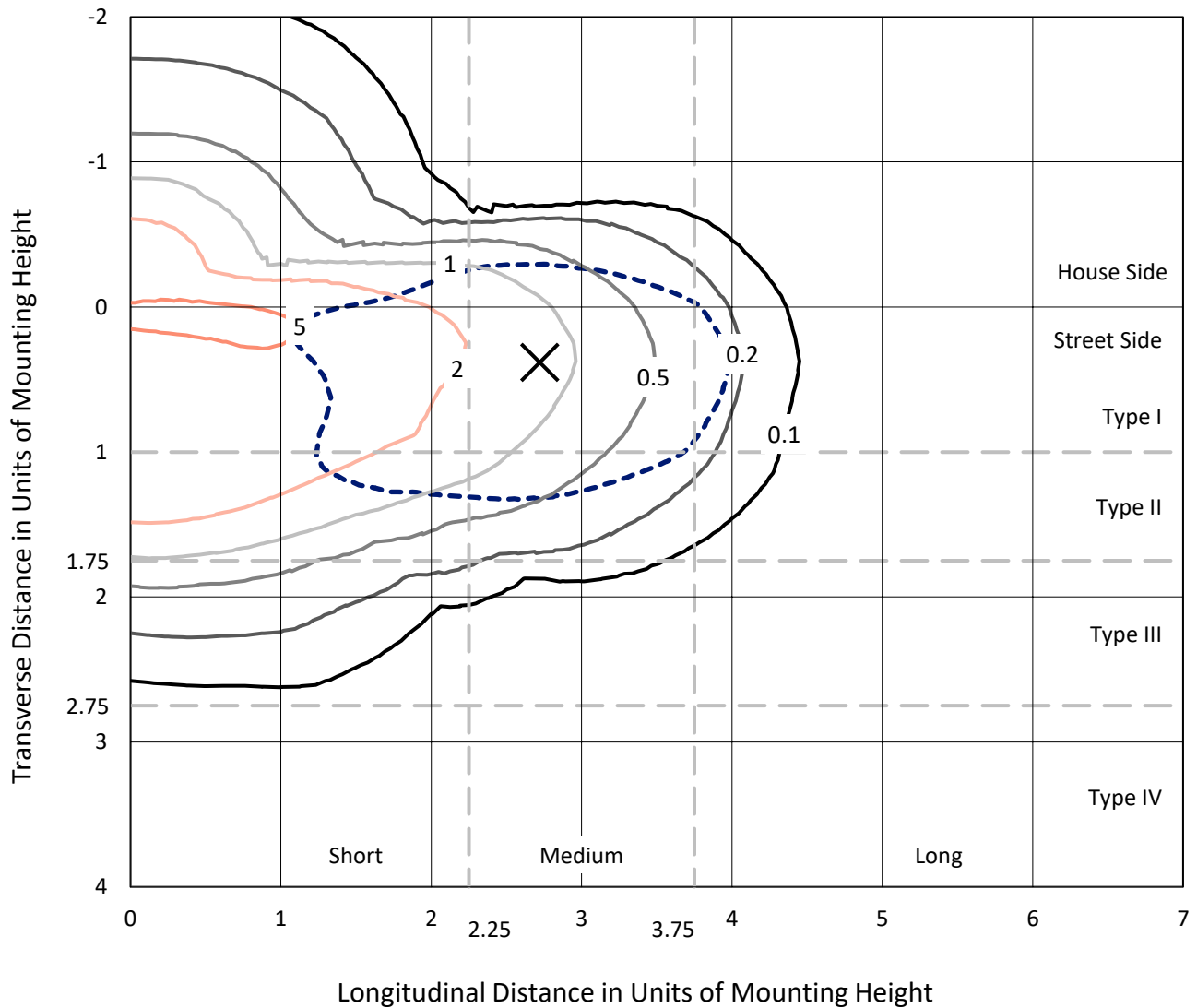
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

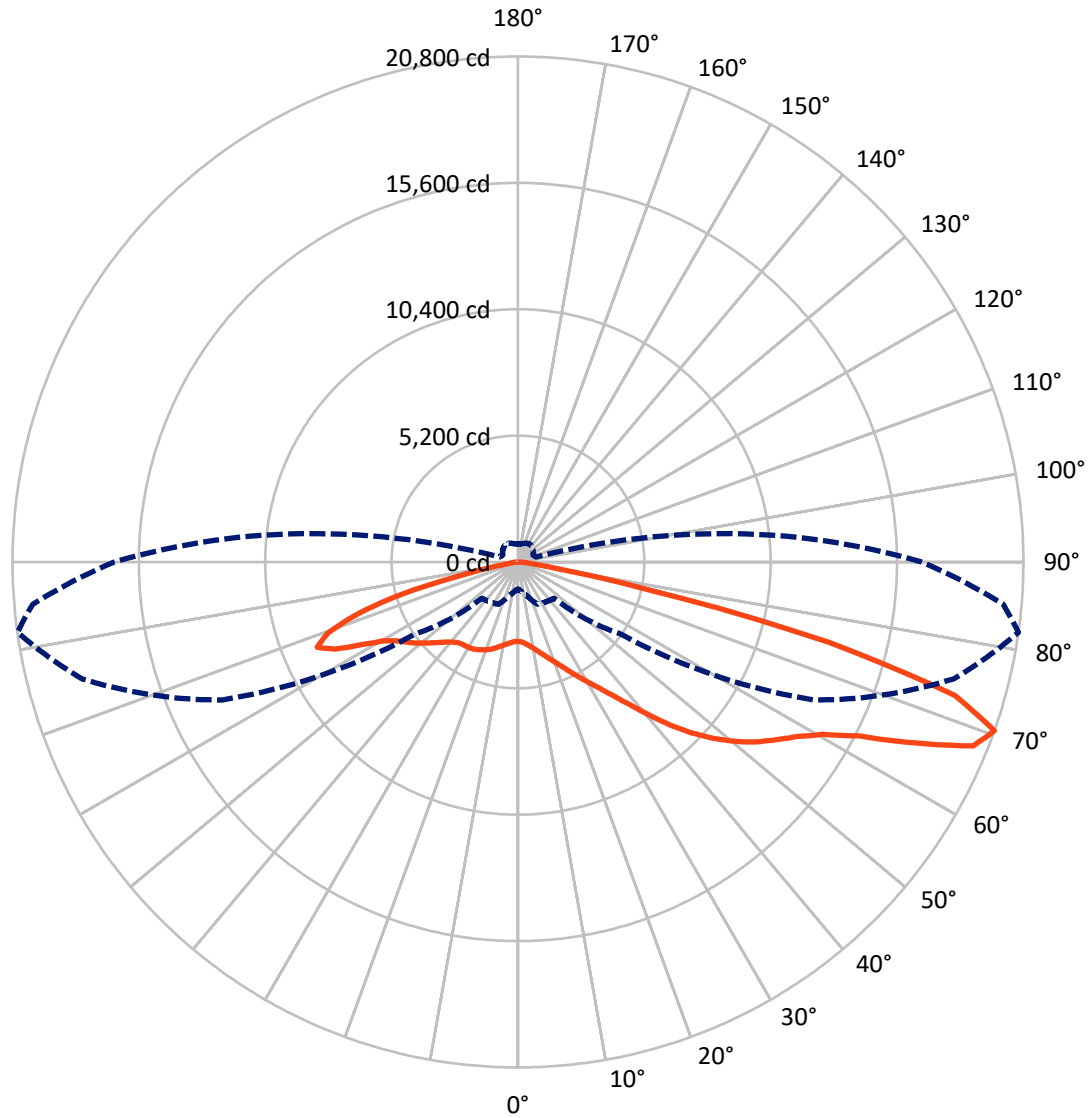
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.9 fc
 Type II - Medium - N/A

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CATALOG NUMBER: NAV-SB4B-730-U-T2

Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5487.1	0.0	5487.1
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	16770.9	0.0	16770.9
	% Fixture	75.3	0.0	75.3
Total	Lumens	22258.0	0.0	22258.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	308.1	1.4
10°-20°	885.2	4.0
20°-30°	1480.9	6.7
30°-40°	2313.5	10.4
40°-50°	3684.6	16.6
50°-60°	5127.6	23.0
60°-70°	5363.7	24.1
70°-80°	2803.3	12.6
80°-90°	291.1	1.3
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°	22258.0	100.0
0°-180°	22258.0	100.0

Coefficient of Utilization



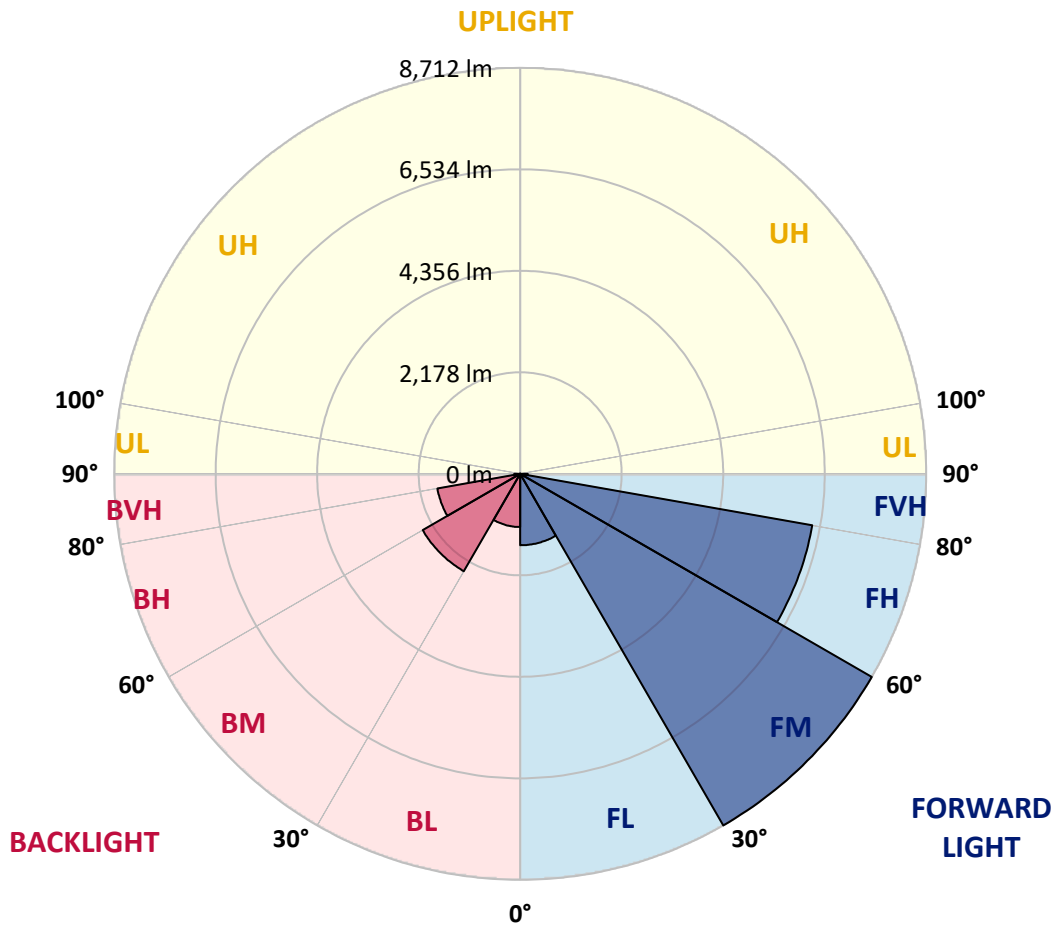
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 CATALOG NUMBER: NAV-SB4B-730-U-T2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1532.7	6.9			
FM (30°-60°)	8711.6	39.1			
FH (60°-80°)	6363.6	28.6			G3/7500
FVH (80°-90°)	163.0	0.7			G2/225
BL (0°-30°)	1141.5	5.1	B3/2500		
BM (30°-60°)	2414.1	10.8	B2/2500		
BH (60°-80°)	1803.4	8.1	B3/2500		G3/2500
BVH (80°-90°)	128.1	0.6			G2/225
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



REPORT NUMBER: P883757
 CATALOG NUMBER: NAV-SB4B-730-U-T2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	3263.3	3263.3	3263.3	3263.3	3263.3	3263.3	3263.3	3263.3	3263.3	3263.3	3263.3
2.5°	3341.3	3360.1	3354.2	3348.3	3348.3	3340.1	3338.9	3327.1	3317.6	3302.3	3298.7
5°	3383.8	3403.8	3401.5	3406.2	3421.6	3425.1	3428.7	3421.6	3402.7	3383.8	3375.5
7.5°	3346.0	3368.4	3375.5	3403.8	3451.1	3493.6	3525.5	3538.5	3520.8	3493.6	3480.6
10°	3218.4	3243.2	3268.0	3335.3	3419.2	3519.6	3604.6	3655.4	3651.9	3625.9	3603.4
12.5°	2959.8	2985.7	3038.9	3170.0	3323.5	3500.7	3659.0	3765.3	3801.9	3783.0	3744.0
15°	2753.1	2775.5	2815.7	2950.3	3149.9	3419.2	3679.0	3885.7	3979.0	3968.4	3921.2
17.5°	2747.2	2756.6	2781.4	2845.2	2998.7	3291.6	3657.8	4003.8	4182.2	4181.0	4121.9
20°	2851.1	2854.7	2868.8	2881.8	2969.2	3194.8	3603.4	4101.9	4410.1	4410.1	4346.3
22.5°	2995.2	2992.8	3007.0	2995.2	3037.7	3186.5	3569.2	4188.1	4664.1	4682.9	4602.6
25°	3211.3	3199.5	3196.0	3168.8	3177.1	3263.3	3607.0	4286.1	4965.2	5004.2	4903.8
27.5°	3499.5	3480.6	3467.6	3405.0	3383.8	3421.6	3722.7	4404.2	5300.6	5368.0	5240.4
30°	3875.1	3840.8	3821.9	3713.3	3636.5	3642.4	3897.5	4561.3	5651.4	5760.1	5598.3
32.5°	4387.7	4334.5	4283.7	4105.4	3964.9	3918.8	4123.1	4778.6	6031.7	6205.4	5997.5
35°	4961.7	4919.2	4864.8	4589.6	4373.5	4267.2	4427.8	5082.2	6477.0	6752.2	6481.7
37.5°	5514.4	5477.8	5503.8	5132.9	4854.2	4699.5	4827.0	5489.6	7026.2	7432.5	7088.8
40°	6086.1	6057.7	6061.3	5706.9	5382.1	5208.5	5311.3	6001.0	7655.7	8241.5	7818.7
42.5°	6707.3	6686.0	6615.2	6301.0	5936.1	5774.3	5868.7	6591.6	8331.3	9162.8	8619.5
45°	7403.0	7390.0	7323.8	6963.6	6545.5	6363.6	6491.2	7243.5	9010.4	10029.7	9423.8
47.5°	8004.1	8014.8	8006.5	7702.9	7269.5	7002.6	7154.9	7923.8	9642.3	10844.6	10195.0
50°	8293.5	8349.0	8430.5	8336.0	8066.7	7795.1	7824.6	8580.5	10244.6	11608.8	10934.4
52.5°	8142.3	8247.4	8469.5	8620.6	8724.6	8667.9	8588.8	9232.4	10811.5	12298.5	11633.6
55°	7578.9	7726.6	8095.1	8460.0	8990.3	9402.5	9506.4	9955.3	11364.3	12905.6	12295.0
57.5°	6552.6	6792.3	7123.0	7861.2	8754.1	9758.0	10576.5	10958.0	11950.1	13554.0	12987.1
60°	4792.8	5114.0	5525.1	6623.5	7927.4	9567.9	11487.1	12498.1	12782.7	14393.7	13888.2
62.5°	3067.2	3265.7	3643.6	4678.2	6177.0	8593.5	11765.8	14423.2	14194.1	15770.9	15239.4
65°	2099.9	2227.5	2573.6	3154.6	3993.2	6396.7	11019.4	15866.5	16435.8	17953.5	17549.5
67.5°	1525.9	1622.8	1918.1	2427.1	2601.9	3785.3	8551.0	15800.4	18614.9	20202.2	19573.9
70°	1112.6	1181.1	1429.1	1918.1	2001.9	2105.9	5180.2	13431.1	18567.6	20799.9	20047.5
72.5°	824.4	871.6	1038.2	1488.2	1620.4	1422.0	2564.1	9761.6	15955.1	18813.3	18209.8
75°	596.4	631.9	754.7	1138.6	1296.8	1083.0	1279.1	5704.6	11129.2	13233.9	13340.2
77.5°	455.9	483.1	563.4	833.8	1038.2	812.6	793.7	2624.3	5277.0	5303.0	5600.6
80°	366.1	383.8	427.5	587.0	796.0	608.3	517.3	1059.4	1667.7	1411.4	1481.1
82.5°	269.3	298.8	361.4	412.2	569.3	419.3	315.3	535.0	634.2	545.7	550.4
85°	153.5	173.6	218.5	295.3	363.8	256.3	180.7	237.4	295.3	242.1	216.1
87.5°	54.3	70.9	76.8	115.7	158.3	106.3	69.7	68.5	96.8	72.0	60.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P883757
 CATALOG NUMBER: NAV-SB4B-730-U-T2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3263.3	3263.3	3263.3	3263.3	3263.3	3263.3	3263.3	3263.3	3263.3	3263.3	3263.3
2.5°	3286.9	3281.0	3257.4	3225.5	3192.4	3160.5	3149.9	3127.5	3112.1	3103.9	3113.3
5°	3353.1	3334.2	3278.7	3207.8	3133.4	3053.1	2996.4	2944.4	2906.6	2871.2	2885.4
7.5°	3447.5	3414.5	3318.8	3194.8	3062.5	2929.1	2829.8	2754.3	2703.5	2670.4	2677.5
10°	3557.4	3506.6	3360.1	3174.7	2970.4	2779.1	2662.1	2597.2	2565.3	2547.6	2552.3
12.5°	3683.8	3611.7	3402.7	3128.7	2829.8	2611.3	2531.0	2512.1	2513.3	2514.5	2516.9
15°	3839.7	3739.3	3436.9	3028.3	2646.8	2482.6	2468.4	2499.1	2531.0	2546.4	2545.2
17.5°	4015.6	3873.9	3442.8	2862.9	2467.3	2399.9	2444.8	2511.0	2559.4	2580.6	2585.4
20°	4204.6	4010.9	3400.3	2629.1	2319.6	2332.6	2412.9	2498.0	2551.1	2578.3	2585.4
22.5°	4420.8	4157.4	3298.7	2383.4	2199.2	2259.4	2353.9	2436.6	2492.1	2519.2	2526.3
25°	4667.6	4321.5	3139.3	2176.7	2095.2	2176.7	2271.2	2339.7	2384.6	2409.4	2416.5
27.5°	4941.6	4492.8	2926.7	2012.5	2004.3	2091.7	2169.6	2222.8	2246.4	2265.3	2272.4
30°	5216.8	4648.7	2669.2	1888.5	1925.1	2007.8	2063.3	2087.0	2094.0	2097.6	2105.9
32.5°	5514.4	4783.3	2398.8	1785.8	1849.6	1926.3	1959.4	1970.0	1937.0	1914.5	1921.6
35°	5874.7	4927.4	2134.2	1704.3	1775.2	1841.3	1851.9	1842.5	1803.5	1757.4	1759.8
37.5°	6319.9	5107.0	1922.8	1646.4	1705.5	1749.2	1736.2	1733.8	1737.4	1683.0	1686.6
40°	6865.6	5340.8	1768.1	1601.5	1648.8	1658.2	1621.6	1641.7	1659.4	1576.7	1579.1
42.5°	7471.5	5623.1	1670.0	1570.8	1601.5	1579.1	1522.4	1544.8	1542.5	1433.8	1432.6
45°	8089.2	5930.2	1635.8	1548.4	1557.8	1513.0	1450.4	1456.3	1406.7	1308.6	1312.2
47.5°	8703.3	6259.7	1657.0	1529.5	1503.5	1452.7	1404.3	1378.3	1305.1	1231.9	1231.9
50°	9305.7	6605.7	1735.0	1491.7	1429.1	1399.6	1364.1	1318.1	1240.1	1177.5	1172.8
52.5°	9864.3	6954.2	1822.4	1429.1	1335.8	1353.5	1331.1	1277.9	1201.1	1137.4	1138.6
55°	10393.4	7302.6	1856.6	1342.9	1248.4	1313.4	1300.4	1202.3	1110.2	1058.2	1053.5
57.5°	10969.8	7721.8	1818.9	1233.0	1177.5	1267.3	1217.7	1109.0	1055.9	1016.9	1013.4
60°	11768.2	8379.7	1737.4	1097.2	1110.2	1198.8	1113.8	1068.9	1011.0	967.3	964.9
62.5°	13094.5	9606.8	1606.3	962.6	1031.1	1097.2	1064.1	1019.3	960.2	917.7	917.7
65°	15055.1	11312.3	1359.4	857.5	942.5	998.0	1011.0	966.1	904.7	859.8	862.2
67.5°	16708.6	12382.4	1028.7	770.1	851.6	917.7	954.3	910.6	845.6	801.9	803.1
70°	16617.7	11605.2	785.4	683.8	771.2	838.6	885.8	851.6	781.9	740.5	744.1
72.5°	14759.9	9708.4	635.4	596.4	689.7	755.9	812.6	786.6	715.7	675.6	675.6
75°	10843.4	6891.6	507.9	507.9	588.2	669.7	732.3	715.7	650.8	622.4	614.2
77.5°	4570.7	2891.3	398.0	421.6	489.0	575.2	653.1	659.0	602.3	637.8	578.7
80°	1215.3	797.2	303.5	331.9	383.8	474.8	568.1	565.7	504.3	471.2	438.2
82.5°	463.0	314.2	216.1	233.9	277.6	363.8	450.0	464.2	402.7	348.4	348.4
85°	178.3	134.6	133.5	140.5	161.8	240.9	340.1	352.0	303.5	257.5	265.7
87.5°	46.1	40.2	49.6	47.2	74.4	128.7	194.9	202.0	185.4	107.5	153.5
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)