

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: P884771

Luminaire Tested: **NAV-SB5D-727-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884771
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-727-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 46252 lumens
Efficiency: N/A
Efficacy: 126.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U0 - G5

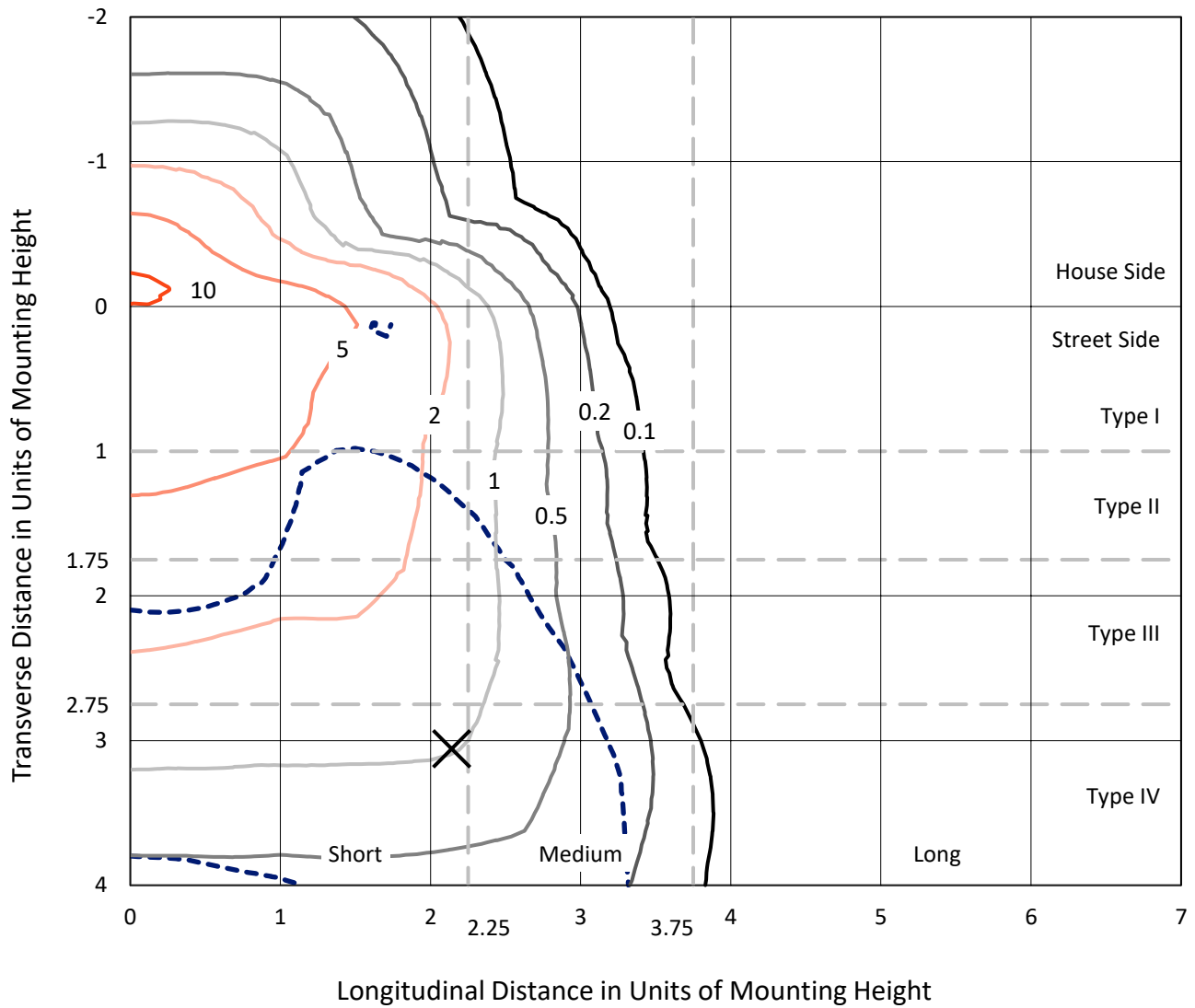
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

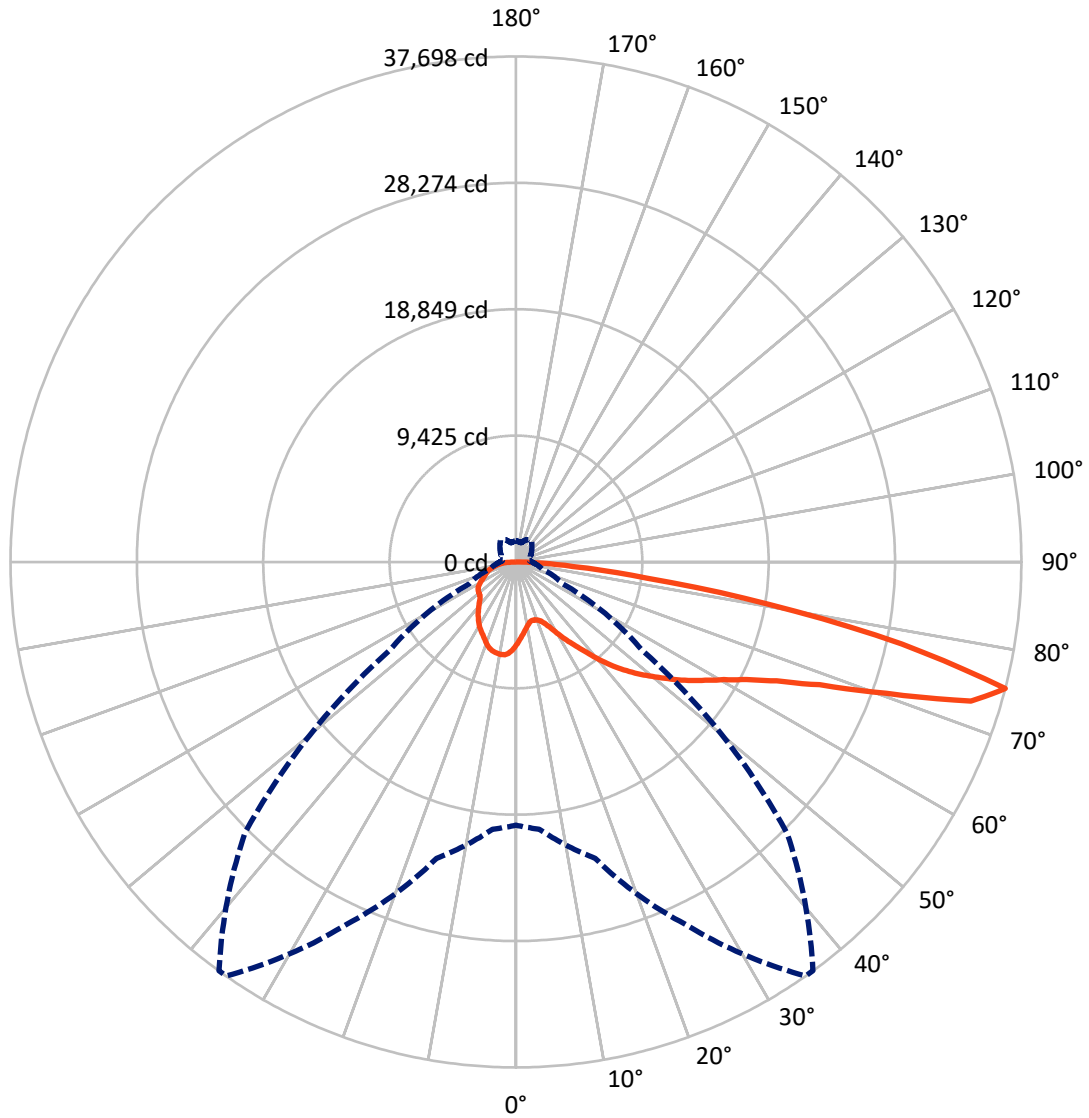
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11006.8	0.0	11006.8
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	35245.2	0.0	35245.2
	% Fixture	76.2	0.0	76.2
Total	Lumens	46252.0	0.0	46252.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	583.5	1.3
10°-20°	1683.2	3.6
20°-30°	2826.5	6.1
30°-40°	4392.9	9.5
40°-50°	6520.2	14.1
50°-60°	9001.5	19.5
60°-70°	10920.8	23.6
70°-80°	9025.2	19.5
80°-90°	1298.1	2.8
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°	46252.0	100.0
0°-180°	46252.0	100.0

Coefficient of Utilization



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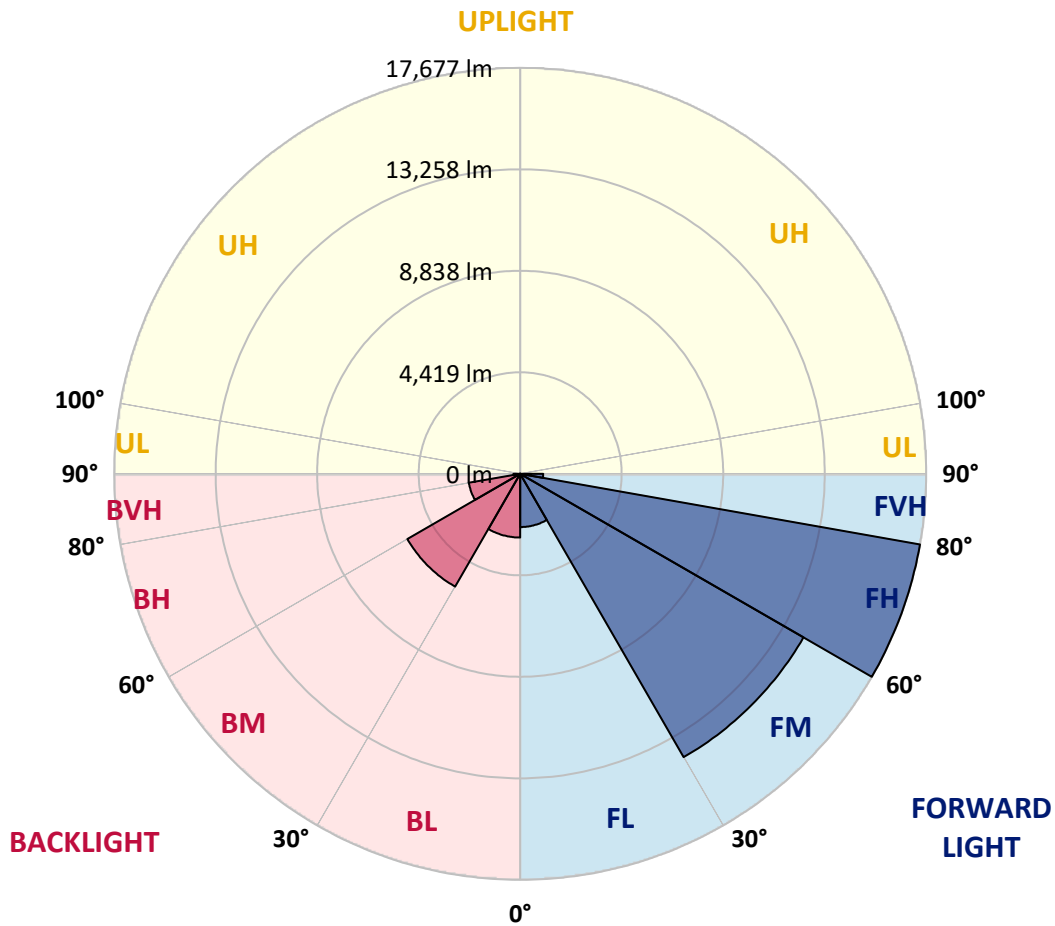
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2319.4	5.0			
FM (30°-60°)	14243.1	30.8			
FH (60°-80°)	17676.8	38.2			G5
FVH (80°-90°)	1005.8	2.2			G5
BL (0°-30°)	2773.9	6.0	B4/5000		
BM (30°-60°)	5671.4	12.3	B4/8500		
BH (60°-80°)	2269.3	4.9	B3/2500		G3/2500
BVH (80°-90°)	292.3	0.6			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	6163.4	6163.4	6163.4	6163.4	6163.4	6163.4	6163.4	6163.4	6163.4	6163.4	6163.4
2.5°	5683.3	5718.3	5733.3	5725.8	5763.3	5758.3	5810.8	5875.9	5965.9	6053.4	6180.9
5°	5245.8	5283.3	5315.8	5345.8	5418.3	5440.8	5523.3	5648.3	5813.3	5980.9	6190.9
7.5°	4838.2	4870.7	4920.7	4975.7	5098.2	5120.7	5258.3	5453.3	5683.3	5928.4	6218.4
10°	4505.7	4538.2	4590.7	4653.2	4805.7	4833.2	5008.2	5268.3	5568.3	5878.4	6248.4
12.5°	4363.1	4373.1	4403.1	4465.6	4598.2	4615.7	4808.2	5105.7	5455.8	5840.8	6293.4
15°	4355.6	4375.6	4378.1	4410.6	4520.7	4528.2	4705.7	5000.7	5385.8	5833.3	6360.9
17.5°	4430.6	4445.6	4423.1	4443.1	4535.7	4548.2	4688.2	4950.7	5363.3	5865.8	6475.9
20°	4630.7	4643.2	4575.7	4548.2	4615.7	4625.7	4763.2	4983.2	5385.8	5933.4	6633.5
22.5°	5055.7	5063.2	4898.2	4785.7	4790.7	4795.7	4915.7	5115.7	5473.3	6055.9	6833.5
25°	5718.3	5713.3	5450.8	5233.3	5108.2	5080.7	5160.7	5330.8	5620.8	6218.4	7091.0
27.5°	6493.4	6455.9	6193.4	5868.3	5595.8	5555.8	5538.3	5610.8	5830.8	6433.4	7406.1
30°	7368.6	7333.6	7051.0	6626.0	6248.4	6183.4	6018.4	5980.9	6143.4	6726.0	7843.6
32.5°	8328.7	8306.2	7968.7	7453.6	6948.5	6873.5	6596.0	6495.9	6623.5	7168.5	8453.7
35°	9133.8	9113.8	8833.8	8303.7	7686.1	7593.6	7311.1	7198.5	7263.6	7736.1	9251.3
37.5°	9861.4	9851.4	9611.4	9193.8	8556.2	8443.7	8126.2	8088.7	8076.2	8483.7	10219.0
40°	10536.5	10511.5	10261.5	10041.5	9568.9	9466.4	9186.3	9153.8	9058.8	9403.9	11314.1
42.5°	11284.1	11219.1	10856.6	10754.1	10626.5	10541.5	10374.0	10379.0	10169.0	10441.5	12474.3
45°	11894.2	11856.7	11484.2	11424.2	11561.7	11526.7	11671.7	11709.2	11301.6	11529.2	13679.5
47.5°	12549.3	12514.3	12199.3	12156.8	12529.3	12539.3	13051.9	13064.4	12406.8	12659.3	14887.2
50°	13356.9	13306.9	12994.4	13046.9	13464.4	13502.0	14439.6	14354.6	13424.4	13807.0	16084.8
52.5°	13889.5	13919.5	13852.0	13937.0	14507.1	14542.1	15804.8	15587.3	14432.1	14939.7	17260.0
55°	14282.1	14342.1	14552.1	14747.1	15607.3	15642.3	17092.5	16759.9	15267.2	15989.8	18365.2
57.5°	14787.1	14702.1	15094.7	15474.7	16652.4	16744.9	18345.2	17890.1	16007.3	16894.9	19122.8
60°	15512.2	15452.2	15757.3	16319.9	17822.6	17970.1	19670.3	18907.7	16549.9	17612.5	19270.3
62.5°	16982.5	16832.4	16879.9	17377.5	19297.8	19492.8	21165.6	19795.4	16819.9	17892.6	18480.2
65°	19180.3	18922.7	18682.7	19027.8	21375.6	21568.1	22853.3	20493.0	16719.9	17350.0	16382.4
67.5°	21948.2	21693.1	21398.1	21723.1	24436.0	24588.6	24936.1	20885.5	15932.3	15259.7	12674.3
70°	24231.0	24136.0	24488.5	25826.2	29324.2	29329.2	27606.5	20560.5	13774.5	10819.1	7333.6
72.5°	23928.5	23871.0	25728.7	29864.3	35485.1	35352.6	30134.4	18100.1	9278.8	4880.7	2747.9
75°	19630.3	20002.9	22880.8	29791.8	37698.0	37680.5	28586.6	11506.7	3838.1	2022.8	1420.2
77.5°	10526.5	11116.6	14854.6	21995.7	29429.3	29871.8	20097.9	4025.6	1647.7	1295.2	982.6
80°	3433.0	3948.1	5920.9	11199.1	19122.8	19040.3	8613.7	1580.2	1127.7	917.6	680.1
82.5°	1457.7	1517.7	2645.4	5288.3	9813.9	9661.4	2742.9	907.6	792.6	627.6	420.1
85°	570.1	637.6	1167.7	2445.4	4250.6	4158.1	990.1	450.1	507.6	410.1	250.0
87.5°	187.5	227.5	417.6	837.6	1322.7	1275.2	242.5	155.0	220.0	187.5	90.0
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°	6163.4	6163.4	6163.4	6163.4	6163.4	6163.4	6163.4	6163.4	6163.4	6163.4	6163.4
2.5°	6215.9	6255.9	6303.4	6373.4	6433.4	6483.4	6535.9	6568.5	6581.0	6618.5	6616.0
5°	6260.9	6348.4	6465.9	6581.0	6693.5	6761.0	6821.0	6851.0	6878.5	6898.5	6903.5
7.5°	6335.9	6448.4	6633.5	6783.5	6878.5	6933.5	6973.5	6963.5	6973.5	6978.5	6986.0
10°	6400.9	6558.4	6778.5	6921.0	6993.5	6996.0	6986.0	6951.0	6933.5	6936.0	6941.0
12.5°	6478.4	6653.5	6891.0	7011.0	7031.0	6976.0	6933.5	6873.5	6851.0	6841.0	6836.0
15°	6583.5	6783.5	7013.5	7058.5	7008.5	6938.5	6866.0	6768.5	6718.5	6678.5	6691.0
17.5°	6711.0	6931.0	7108.5	7076.0	6968.5	6853.5	6736.0	6588.5	6485.9	6443.4	6445.9
20°	6888.5	7086.0	7181.0	7038.5	6876.0	6701.0	6500.9	6320.9	6225.9	6183.4	6178.4
22.5°	7103.5	7293.6	7251.0	6973.5	6743.5	6463.4	6213.4	6080.9	6033.4	6003.4	6008.4
25°	7361.1	7523.6	7301.1	6878.5	6525.9	6148.4	5955.9	5913.4	5890.9	5868.3	5868.3
27.5°	7696.1	7783.6	7338.6	6738.5	6185.9	5813.3	5743.3	5750.8	5743.3	5705.8	5713.3
30°	8138.7	8121.2	7373.6	6510.9	5795.8	5510.8	5515.8	5548.3	5553.3	5528.3	5540.8
32.5°	8721.3	8543.7	7391.1	6215.9	5423.3	5245.8	5250.8	5285.8	5310.8	5268.3	5288.3
35°	9426.4	9036.3	7363.6	5845.8	5135.7	4993.2	4955.7	4965.7	4973.2	4933.2	4960.7
37.5°	10249.0	9588.9	7241.0	5435.8	4898.2	4745.7	4665.7	4598.2	4558.2	4520.7	4545.7
40°	11151.6	10191.5	7016.0	5035.7	4633.2	4483.1	4363.1	4235.6	4100.6	4050.6	4073.1
42.5°	12096.8	10811.6	6743.5	4653.2	4328.1	4205.6	4078.1	3893.1	3690.5	3588.0	3600.5
45°	13076.9	11446.7	6475.9	4275.6	4015.6	3963.1	3815.6	3593.0	3373.0	3243.0	3233.0
47.5°	14037.0	12046.7	6083.4	3895.6	3723.0	3780.5	3665.5	3460.5	3215.5	3010.4	2987.9
50°	14954.7	12609.3	5440.8	3510.5	3485.5	3725.5	3615.5	3320.5	3040.4	2777.9	2755.4
52.5°	15864.8	13064.4	4618.2	3160.5	3358.0	3710.5	3550.5	3225.5	2882.9	2607.9	2577.9
55°	16637.4	13299.4	3825.6	2860.4	3173.0	3583.0	3473.0	3113.0	2660.4	2367.8	2342.8
57.5°	17077.5	13109.4	3165.5	2565.4	2917.9	3373.0	3340.5	2872.9	2395.3	2170.3	2140.3
60°	16887.4	12339.3	2625.4	2307.8	2675.4	3145.5	3110.5	2635.4	2192.8	1980.3	1950.3
62.5°	15839.8	10871.6	2197.8	2082.8	2455.4	2912.9	2880.4	2452.9	2037.8	1832.8	1800.3
65°	13729.5	8843.8	1865.3	1895.3	2232.8	2632.9	2680.4	2300.3	1915.3	1715.2	1682.7
67.5°	10471.5	6405.9	1605.2	1732.8	2015.3	2357.8	2495.4	2190.3	1812.8	1622.7	1592.7
70°	5968.4	3638.0	1385.2	1575.2	1822.8	2102.8	2352.8	2102.8	1702.7	1545.2	1525.2
72.5°	2262.8	1670.2	1197.7	1417.7	1637.7	1887.8	2195.3	1965.3	1575.2	1457.7	1437.7
75°	1207.7	1017.6	1007.6	1232.7	1425.2	1677.7	1997.8	1830.3	1480.2	1540.2	1590.2
77.5°	822.6	720.1	842.6	1055.2	1192.7	1445.2	1787.8	1625.2	1282.7	1277.7	1177.7
80°	570.1	510.1	685.1	850.1	922.6	1215.2	1560.2	1395.2	1045.2	975.1	932.6
82.5°	342.5	332.5	512.6	635.1	652.6	937.6	1292.7	1170.2	855.1	745.1	750.1
85°	187.5	197.5	327.5	372.6	380.1	655.1	1012.6	905.1	657.6	552.6	557.6
87.5°	52.5	67.5	120.0	147.5	182.5	340.0	602.6	537.6	330.0	230.0	230.0
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)