

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: P969349

Luminaire Tested: **NAV-SB5D-740-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969349
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-740-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 57225.7 lumens
Efficiency: N/A
Efficacy: 156.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B4 - U0 - G5

Input Watts (W): 364.9
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



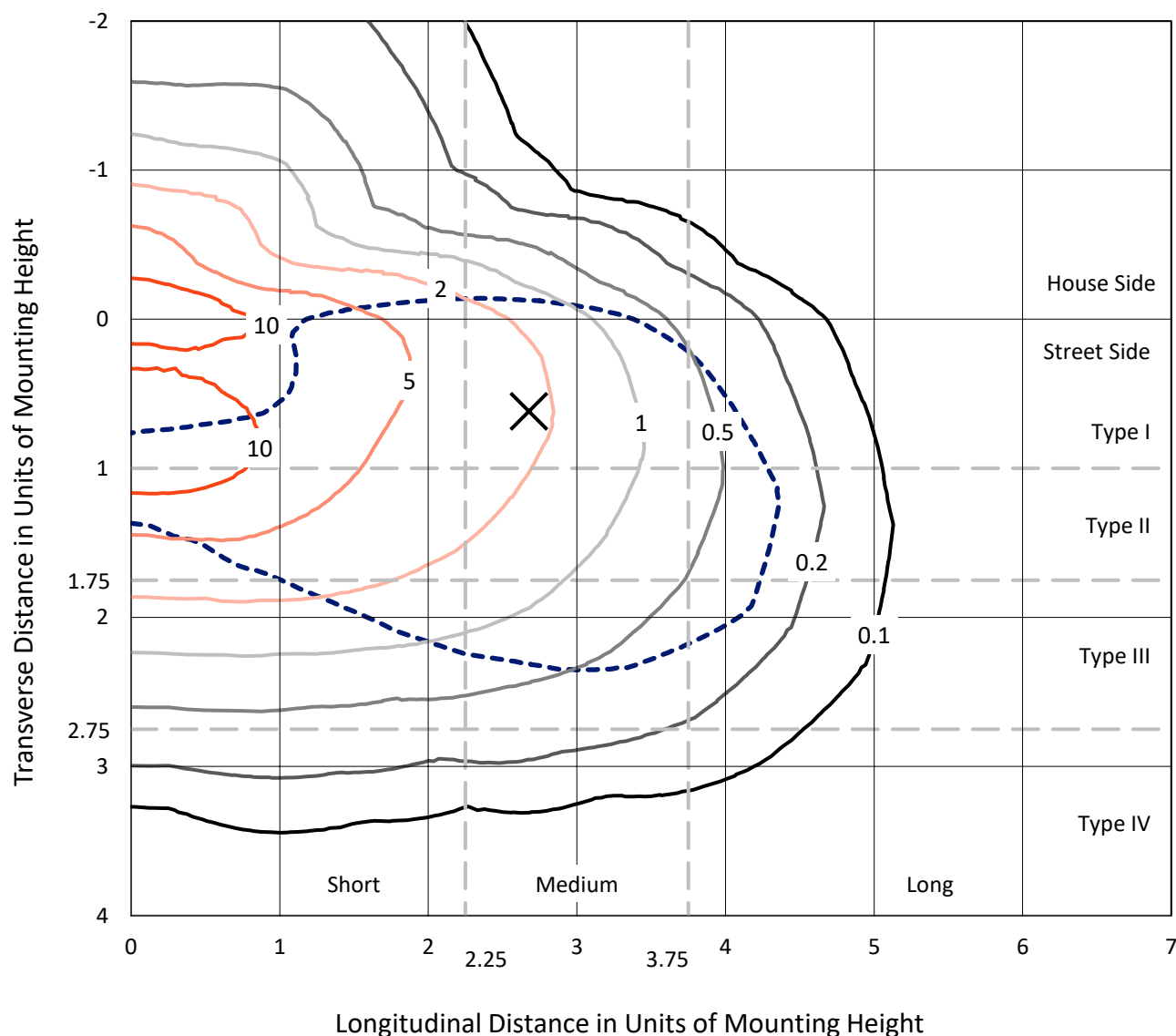
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

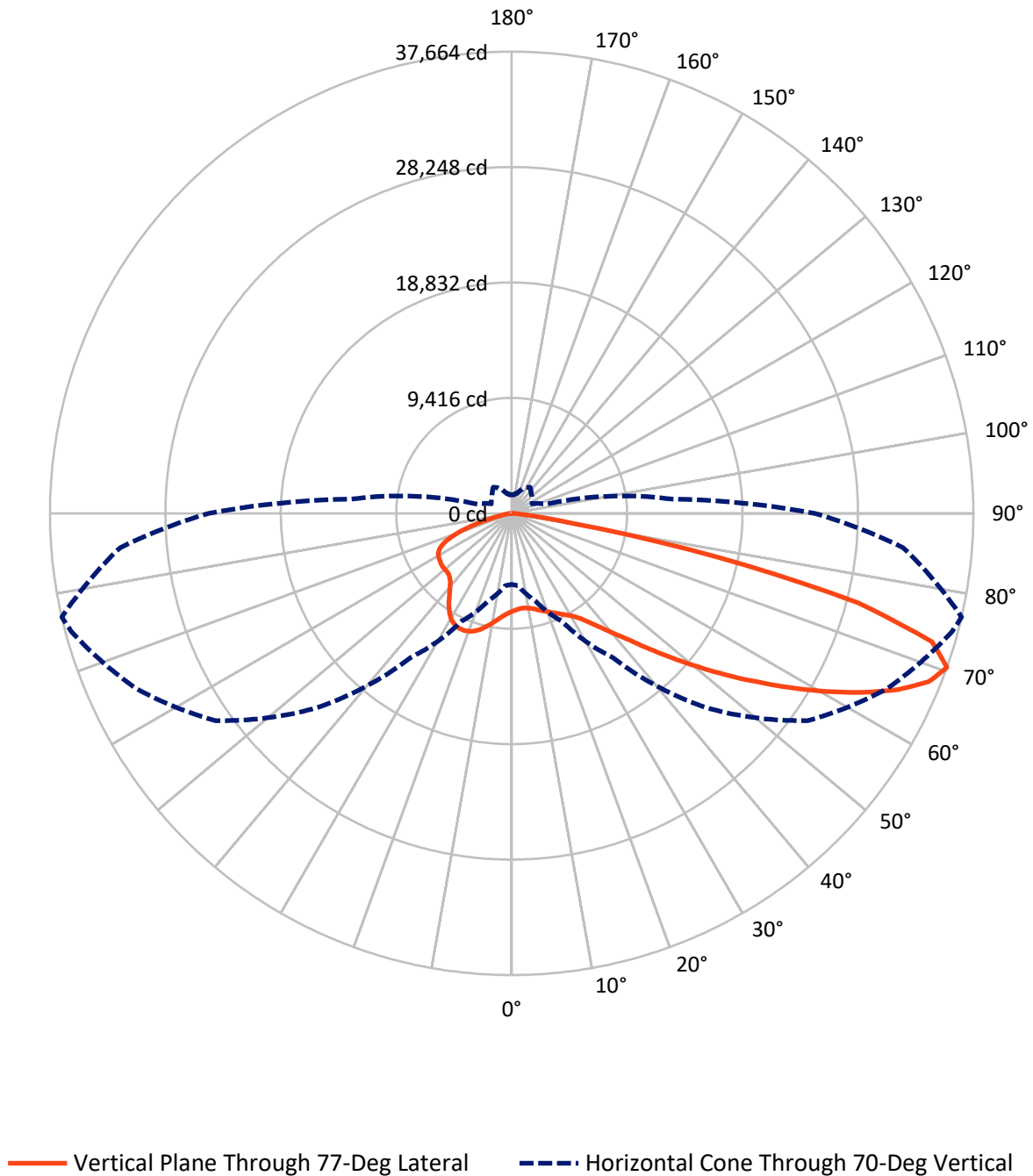
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 15.2 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12531.5	0.0	12531.5
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	44694.2	0.0	44694.2
	% Fixture	78.1	0.0	78.1
Total	Lumens	57225.7	0.0	57225.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	761.4	1.3
10°-20°	2197.5	3.8
20°-30°	3758.1	6.6
30°-40°	6043.3	10.6
40°-50°	9435.2	16.5
50°-60°	12603.2	22.0
60°-70°	13433.1	23.5
70°-80°	8269.3	14.5
80°-90°	724.6	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°	57225.7	100.0
0°-180°	57225.7	100.0

Coefficient of Utilization



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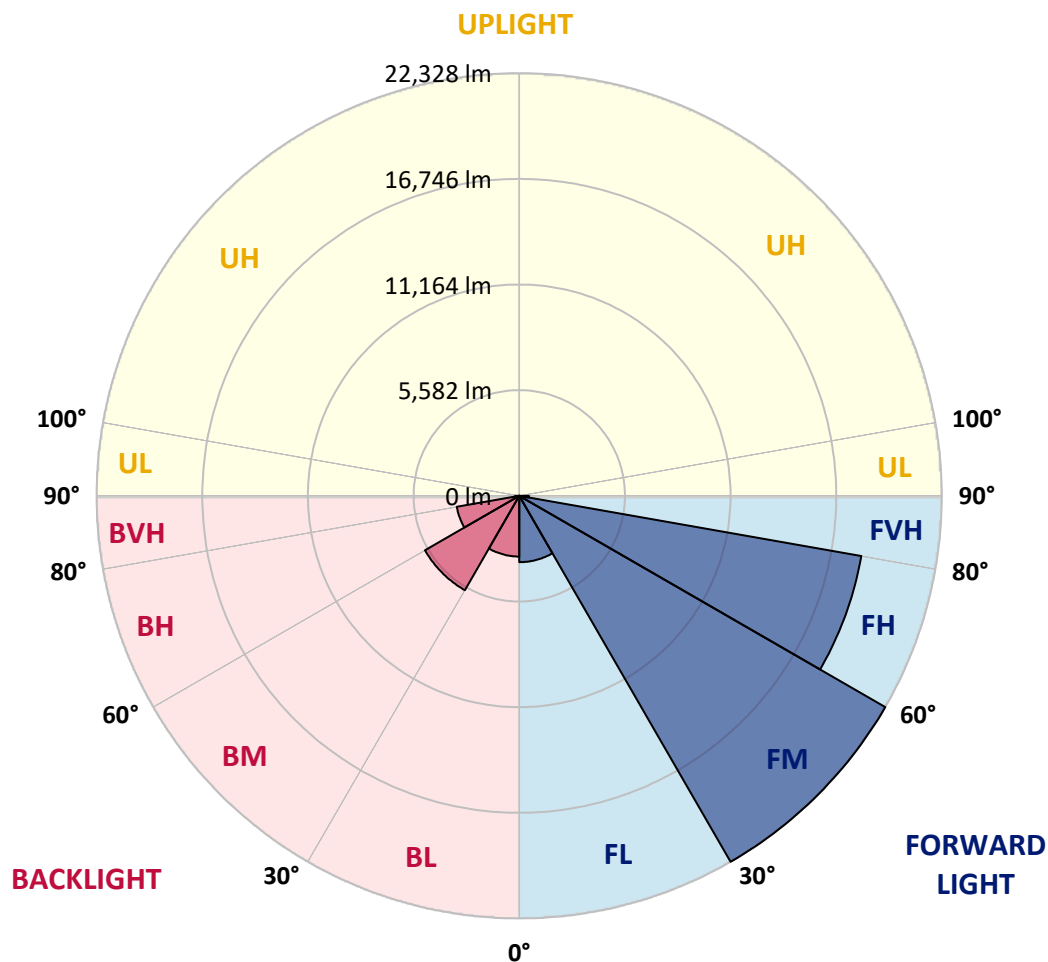
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3506.0	6.1			
FM	(30°-60°)	22328.3	39.0			
FH	(60°-80°)	18353.3	32.1			G5
FVH	(80°-90°)	506.7	0.9			G4/750
BL	(0°-30°)	3211.0	5.6	B4/5000		
BM	(30°-60°)	5753.5	10.1	B4/8500		
BH	(60°-80°)	3349.1	5.9	B4/5000		G4/5000
BVH	(80°-90°)	217.9	0.4			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	7983.5	7983.5	7983.5	7983.5	7983.5	7983.5	7983.5	7983.5	7983.5	7983.5	7983.5
2.5°	7359.3	7356.3	7394.5	7406.1	7476.5	7526.3	7620.1	7719.8	7848.7	7863.4	7942.5
5°	6934.3	6934.3	6978.2	7025.1	7116.0	7215.7	7359.3	7532.2	7754.9	7790.1	7986.5
7.5°	6573.8	6597.2	6635.3	6726.2	6831.7	6975.3	7195.1	7441.3	7734.4	7790.1	8106.6
10°	6283.7	6310.0	6356.9	6430.2	6588.5	6787.8	7075.0	7391.5	7784.3	7872.1	8282.4
12.5°	6192.7	6219.2	6245.5	6301.2	6447.8	6682.3	7025.1	7415.0	7904.4	7992.3	8522.8
15°	6403.8	6436.1	6415.6	6400.9	6477.1	6691.0	7048.6	7499.9	8053.8	8179.9	8818.8
17.5°	6890.4	6902.0	6855.2	6717.4	6705.7	6819.9	7159.9	7617.2	8241.4	8379.2	9117.8
20°	7675.8	7655.3	7558.6	7286.0	7130.6	7107.2	7350.5	7793.0	8434.8	8581.4	9440.1
22.5°	8742.6	8719.2	8525.7	8094.8	7749.0	7520.4	7626.0	8021.6	8651.7	8815.8	9753.7
25°	10073.2	10040.9	9756.7	9170.5	8634.2	8068.5	8001.2	8323.5	8918.4	9070.8	10082.0
27.5°	11626.5	11600.1	11292.4	10518.7	9744.9	8818.8	8467.1	8678.2	9196.9	9369.8	10451.2
30°	13297.0	13373.3	12828.2	11995.8	11016.9	9797.7	9094.3	9114.8	9557.4	9712.7	10899.6
32.5°	15260.7	15392.6	14736.1	13681.0	12344.6	10861.5	9885.6	9724.4	10082.0	10210.9	11465.3
35°	17206.8	17356.2	16811.1	15644.7	14105.9	12115.9	10712.1	10424.9	10779.5	10920.1	12215.6
37.5°	18889.0	19088.4	18807.0	17792.9	15990.5	13628.2	11790.7	11248.5	11638.3	11814.0	13223.8
40°	20216.7	20521.5	20501.0	19867.9	18212.0	15462.9	13159.4	12265.5	12705.1	12895.5	14445.9
42.5°	21295.2	21559.0	21787.6	21755.4	20530.3	17546.8	14768.3	13587.2	13921.3	14141.1	15820.5
45°	22039.7	22321.0	22813.4	23343.9	22760.6	19777.1	16611.8	15155.2	15460.0	15791.1	17458.8
47.5°	22705.0	23024.4	23663.4	24504.5	24653.9	22016.2	18631.1	16981.1	17259.5	17602.4	19103.0
50°	22763.6	23039.0	24029.7	25222.5	25999.1	24167.4	20799.9	19029.7	19290.6	19656.9	20864.4
52.5°	21348.0	21781.8	23510.9	25202.0	26617.6	25966.9	22954.1	21160.4	21453.5	21893.1	22687.4
55°	16570.8	17206.8	21989.8	24416.5	26397.7	27130.4	25002.7	23426.0	23801.1	24261.2	24522.1
57.5°	14273.0	14551.4	17455.9	22986.3	25395.4	27432.4	26731.9	25714.9	26318.6	26822.7	26462.2
60°	12828.2	13059.6	14777.1	20761.8	24076.5	26954.6	28068.3	27848.5	28891.9	29492.7	28446.4
62.5°	11280.6	11500.5	13062.6	17335.7	22388.5	26160.4	28912.4	29818.0	31529.6	32186.1	30316.2
65°	9744.9	9932.5	11430.2	14566.1	20243.0	25366.1	29349.1	31520.8	33971.0	34650.9	31869.6
67.5°	8033.3	8188.6	9604.2	12288.8	17634.6	24278.8	29565.9	32860.2	36095.8	36679.0	32637.4
70°	5797.1	5917.3	7379.8	9718.5	14361.0	22409.0	29478.1	33809.7	37197.8	37663.8	32057.2
72.5°	2740.3	2848.8	4566.2	6310.0	10143.5	18768.9	27699.1	33056.6	36078.3	35846.7	28505.0
75°	1462.5	1556.3	2623.1	3461.3	5357.5	12866.2	22666.8	28475.7	30295.7	29170.3	21066.6
77.5°	990.7	1063.8	1623.7	2078.0	2447.2	6107.8	14569.0	19715.6	18968.1	17110.0	10550.9
80°	785.5	861.6	1330.6	1406.8	1184.1	2206.9	6019.8	9126.5	6556.2	5243.2	3001.1
82.5°	603.7	688.7	1119.6	1019.9	644.8	905.6	1752.6	2886.8	1679.4	1277.9	726.8
85°	369.3	460.1	879.2	650.7	363.5	413.3	594.9	803.1	512.9	427.9	260.9
87.5°	187.6	263.7	445.5	237.4	164.1	96.8	158.3	158.3	134.8	117.3	67.4
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°	7983.5	7983.5	7983.5	7983.5	7983.5	7983.5	7983.5	7983.5	7983.5	7983.5	7983.5
2.5°	8012.8	8071.5	8171.1	8264.9	8338.2	8408.5	8478.8	8516.9	8528.6	8575.6	8601.9
5°	8106.6	8215.1	8408.5	8590.2	8704.5	8774.8	8824.6	8853.9	8859.8	8874.4	8897.9
7.5°	8279.5	8452.5	8722.0	8903.8	8988.7	8982.9	8962.4	8889.1	8859.8	8833.4	8839.3
10°	8522.8	8751.3	9082.5	9208.6	9155.8	9015.2	8833.4	8619.5	8519.9	8423.1	8393.8
12.5°	8824.6	9114.8	9440.1	9434.3	9173.4	8812.9	8390.9	8062.6	7854.6	7705.1	7669.9
15°	9191.0	9525.1	9774.2	9574.9	9003.4	8355.7	7737.3	7309.5	7121.9	6957.7	6940.2
17.5°	9569.1	9926.6	10040.9	9531.0	8575.6	7678.7	6978.2	6641.2	6456.6	6368.6	6395.0
20°	9938.4	10292.9	10199.2	9278.9	7924.9	6910.9	6286.5	6101.9	6063.8	6084.4	6075.6
22.5°	10328.2	10644.7	10231.4	8792.4	7095.5	6125.4	5782.4	5788.4	5873.4	5934.9	5949.5
25°	10726.7	10940.7	10146.5	8089.0	6204.5	5548.0	5463.0	5556.8	5723.9	5844.0	5876.2
27.5°	11110.7	11204.5	9961.8	7218.6	5439.6	5134.7	5149.4	5342.8	5594.9	5761.9	5803.0
30°	11544.5	11438.9	9607.2	6239.7	4909.1	4780.2	4903.2	5128.9	5380.9	5530.4	5565.6
32.5°	12033.9	11641.1	9044.5	5334.1	4534.0	4495.9	4698.1	4844.7	4956.0	5000.0	5023.4
35°	12643.5	11925.5	8323.5	4698.1	4196.9	4287.8	4481.2	4407.9	4363.9	4340.6	4363.9
37.5°	13434.8	12309.4	7479.4	4284.8	3924.3	4138.3	4217.5	3988.8	3815.9	3730.9	3751.4
40°	14387.3	12872.1	6667.6	3965.4	3751.4	4009.4	3871.6	3596.1	3376.2	3256.1	3264.9
42.5°	15445.3	13461.2	5984.7	3725.1	3654.7	3903.8	3616.6	3288.4	2933.8	2895.6	2933.8
45°	16556.1	14067.8	5518.7	3540.5	3607.8	3813.0	3470.0	2939.6	2687.5	2842.8	2924.9
47.5°	17666.9	14624.7	5237.3	3402.7	3584.4	3710.4	3341.1	2746.2	2567.4	2793.0	2898.6
50°	18903.7	15123.0	5111.4	3303.1	3558.0	3669.4	3147.7	2696.4	2441.3	2590.8	2702.2
52.5°	20131.7	15509.8	5017.6	3203.3	3519.8	3637.1	3053.9	2637.7	2288.9	2297.7	2359.3
55°	21356.8	15761.8	4915.0	3071.5	3434.9	3566.8	3045.1	2573.3	2174.6	2133.6	2163.0
57.5°	22663.9	15905.4	4788.9	2924.9	3288.4	3388.0	3036.4	2523.4	2139.5	2072.0	2080.9
60°	23994.5	16116.5	4624.8	2746.2	3092.0	3174.0	3015.8	2505.8	2119.0	2004.7	2013.5
62.5°	25187.3	16189.8	4428.4	2576.1	2840.0	2963.1	2971.9	2491.2	2063.3	1866.9	1866.9
65°	25969.9	15873.3	4085.5	2382.7	2567.4	2746.2	2886.8	2441.3	1963.6	1767.3	1767.3
67.5°	25937.6	14970.5	3549.2	2133.6	2303.6	2505.8	2763.7	2356.4	1843.5	1644.2	1653.0
70°	24730.2	13188.7	2869.3	1843.5	2013.5	2247.9	2605.4	2230.3	1699.9	1509.4	1526.9
72.5°	21210.2	10322.3	2083.8	1503.5	1676.4	1981.2	2400.3	2078.0	1553.3	1389.2	1380.4
75°	15152.3	6532.7	1412.7	1154.8	1304.2	1679.4	2145.3	1899.1	1418.5	1395.0	1315.9
77.5°	7740.3	3121.3	934.9	844.1	908.6	1324.7	1802.5	1696.9	1439.0	1151.8	1025.8
80°	2517.6	1151.8	589.1	574.4	603.7	882.2	1395.0	1392.2	1090.3	782.5	691.7
82.5°	803.1	495.3	384.0	369.3	354.6	553.9	973.0	1102.0	735.6	495.3	492.4
85°	319.5	296.0	225.7	208.1	149.4	260.9	509.9	732.7	548.1	357.5	366.3
87.5°	117.3	117.3	61.5	44.0	32.3	87.9	137.8	219.8	313.5	184.6	181.7
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)