

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: P967264

Luminaire Tested: **NAV-SB4D-750-U-T2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967264
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-750-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 5000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32294.7 lumens
Efficiency: N/A
Efficacy: 110.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G4

Input Watts (W): 293.6
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

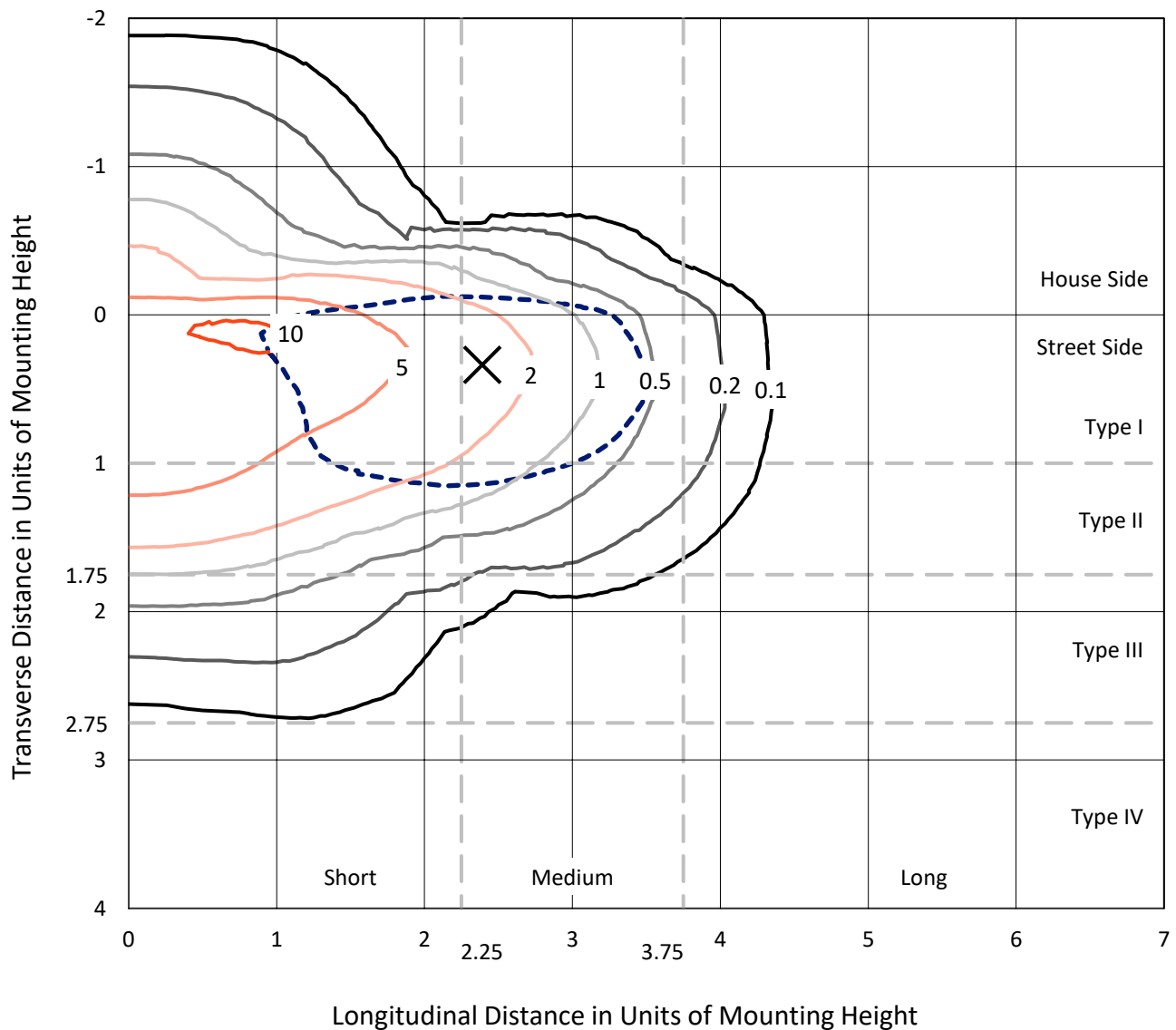


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

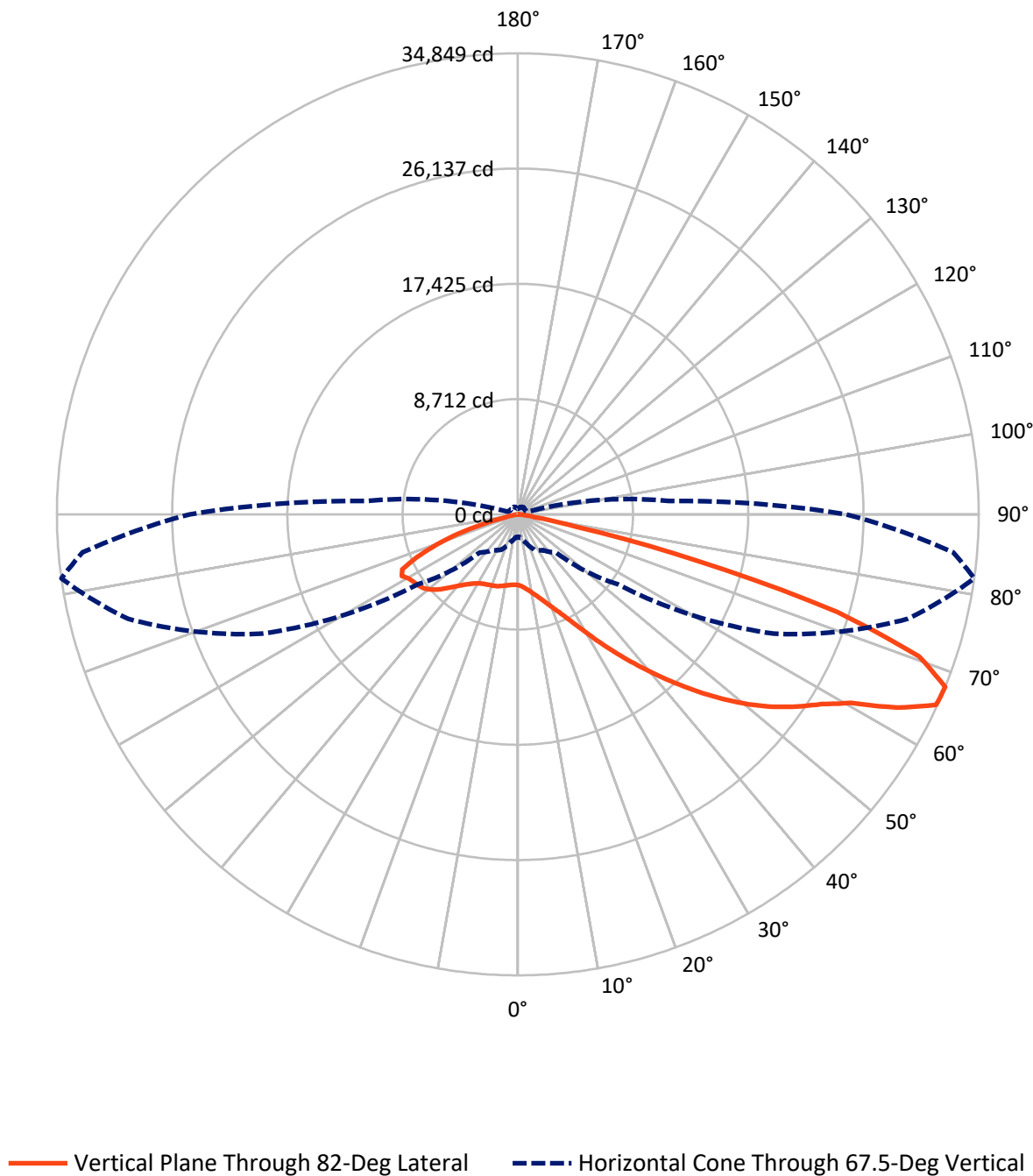


Based on 25 foot mounting height. Maximum calculated value = 11.3 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5849.9	0.0	5849.9
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	26444.8	0.0	26444.8
	% Fixture	81.9	0.0	81.9
Total	Lumens	32294.7	0.0	32294.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	476.7	1.5
10°-20°	1238.6	3.8
20°-30°	1983.9	6.1
30°-40°	3508.1	10.9
40°-50°	6146.6	19.0
50°-60°	8197.9	25.4
60°-70°	7631.8	23.6
70°-80°	2929.1	9.1
80°-90°	181.9	0.6
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°	32294.7	100.0
0°-180°	32294.7	100.0

Coefficient of Utilization



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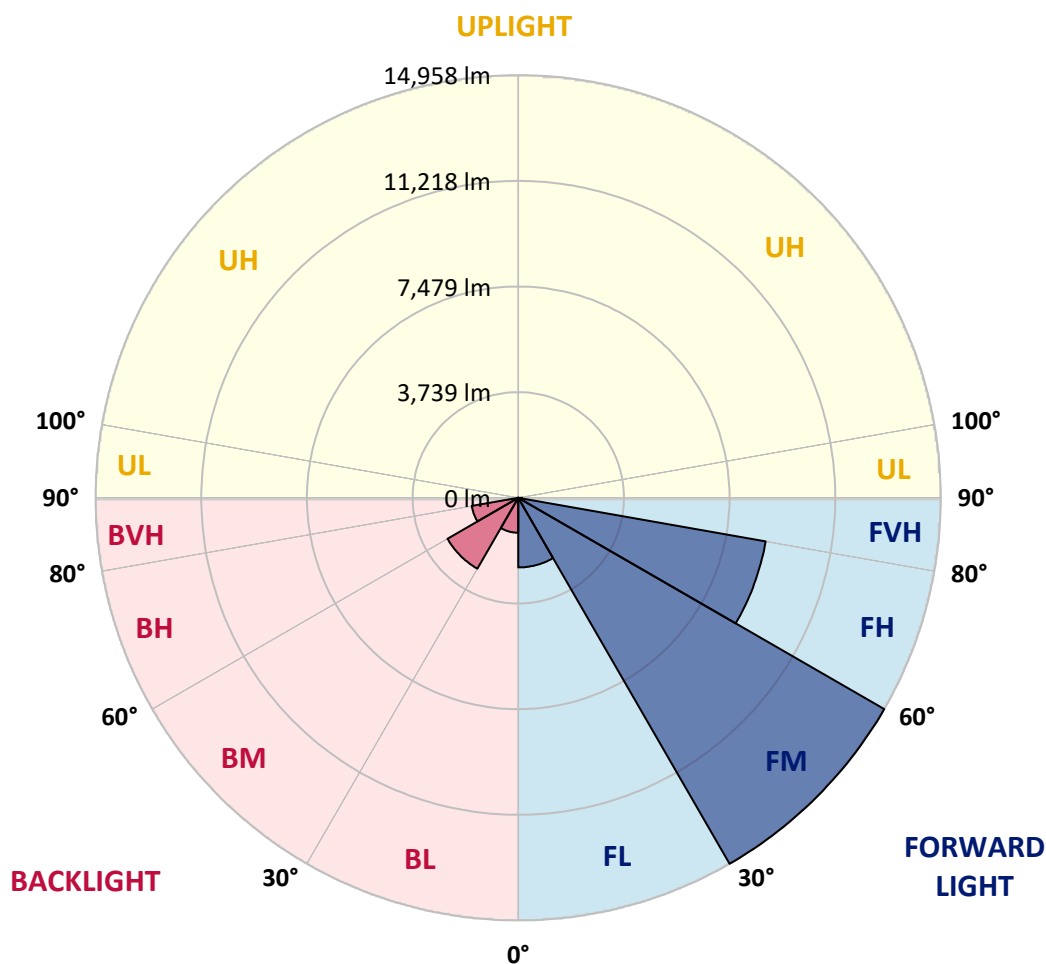
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2463.7	7.6			
FM	(30°-60°)	14957.6	46.3			
FH	(60°-80°)	8891.2	27.5			G4/12000
FVH	(80°-90°)	132.3	0.4			G2/225
BL	(0°-30°)	1235.5	3.8	B3/2500		
BM	(30°-60°)	2895.1	9.0	B3/5000		
BH	(60°-80°)	1669.7	5.2	B3/2500		G3/2500
BVH	(80°-90°)	49.7	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	5350.1	5350.1	5350.1	5350.1	5350.1	5350.1	5350.1	5350.1	5350.1	5350.1	5350.1
2.5°	5654.7	5687.3	5668.7	5659.3	5643.1	5619.9	5601.2	5543.1	5482.6	5443.2	5429.2
5°	5768.7	5801.2	5798.8	5808.2	5819.8	5826.8	5822.1	5757.0	5671.0	5603.6	5564.0
7.5°	5671.0	5708.2	5738.5	5784.9	5866.3	5952.4	5994.2	5980.3	5891.9	5798.8	5750.0
10°	5394.3	5433.8	5505.9	5615.2	5787.3	5973.3	6129.1	6201.1	6145.3	6043.0	5975.5
12.5°	4887.4	4927.0	5068.8	5305.9	5594.2	5917.4	6215.1	6408.1	6422.0	6319.7	6240.7
15°	4317.8	4357.3	4508.5	4806.0	5245.5	5764.0	6261.6	6626.6	6749.8	6661.5	6566.2
17.5°	3964.4	3999.2	4113.1	4352.7	4810.7	5457.1	6245.3	6859.2	7140.5	7070.8	6956.8
20°	3857.4	3887.6	3941.1	4108.5	4489.8	5138.5	6138.3	7077.7	7561.3	7521.9	7393.9
22.5°	3971.4	3999.2	4015.5	4090.0	4329.4	4929.3	6003.5	7301.0	8049.6	8054.2	7898.4
25°	4234.1	4262.0	4243.4	4289.8	4394.5	4864.1	5952.4	7563.7	8663.4	8714.7	8537.9
27.5°	4666.5	4668.9	4624.7	4622.3	4638.6	4961.8	6005.8	7845.0	9437.7	9533.0	9314.5
30°	5533.8	5498.9	5329.2	5145.5	5061.9	5254.8	6154.6	8177.4	10351.5	10521.2	10246.8
32.5°	6870.8	6819.6	6508.0	6068.6	5626.8	5726.8	6422.0	8556.5	11346.6	11653.5	11318.8
35°	8321.7	8307.7	7982.2	7328.9	6556.9	6398.8	6856.8	9054.0	12432.5	12920.7	12523.1
37.5°	9670.3	9663.3	9477.3	8707.6	7768.3	7335.8	7554.4	9705.1	13595.1	14301.9	13832.3
40°	10902.5	10923.5	10737.5	10049.2	9102.9	8537.9	8503.0	10509.6	14887.8	15806.2	15248.2
42.5°	11967.5	11990.8	11802.4	11293.1	10421.3	9867.9	9667.9	11495.5	16150.4	17422.2	16761.9
45°	12690.6	12834.7	12806.9	12399.9	11774.5	11200.2	11067.6	12732.4	17589.6	19135.8	18361.5
47.5°	12895.2	13027.7	13237.0	13292.8	12911.5	12346.4	12504.6	14222.8	19045.2	20851.8	19970.6
50°	12390.6	12513.9	12948.7	13527.6	13792.7	13618.4	13902.0	15820.3	20535.6	22563.1	21549.4
52.5°	11395.4	11521.0	12069.8	12985.8	14067.1	14615.8	15304.1	17394.4	21979.5	24183.7	23044.5
55°	9956.2	10088.8	10793.2	11830.2	13543.9	15027.3	16473.6	18966.1	23302.5	25641.6	24392.9
57.5°	7998.5	8096.2	8828.5	10279.4	12227.8	14618.1	17336.2	20682.0	24548.7	27073.8	25730.0
60°	5212.9	5298.9	6150.0	7768.3	10046.9	13250.9	17508.2	22595.6	26204.2	28936.3	27531.9
62.5°	3466.8	3524.9	4029.5	5217.6	7075.4	10625.9	16501.5	24123.3	28631.7	32177.5	30622.0
65°	2378.6	2436.7	2941.3	3769.0	4571.2	7028.8	13606.7	23920.9	30831.3	34751.5	32912.2
67.5°	1697.3	1746.2	2174.0	2955.3	3308.7	4083.0	9223.8	21335.5	30515.1	34849.1	33035.5
70°	1216.1	1243.9	1597.4	2301.8	2629.7	2453.0	5129.2	16317.8	26718.2	32179.9	30519.7
72.5°	851.0	860.3	1109.0	1753.2	2118.2	1790.4	2441.3	10879.3	20207.8	25257.9	23660.6
75°	576.7	588.2	746.4	1285.8	1699.7	1367.1	1292.7	5833.8	11862.8	13981.0	12532.5
77.5°	353.4	358.0	481.3	878.9	1271.8	1041.7	832.4	2471.6	4589.8	4506.1	3841.1
80°	200.0	200.0	306.9	546.4	867.3	672.0	583.6	1050.9	1453.2	1276.5	1125.3
82.5°	111.6	114.0	223.2	339.5	574.3	397.6	320.8	486.0	627.8	555.8	483.6
85°	46.5	51.1	137.1	160.4	274.4	197.6	130.2	204.6	232.5	206.9	151.1
87.5°	4.6	7.0	41.8	30.2	32.6	39.6	18.6	39.6	32.6	32.6	23.3
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°	5350.1	5350.1	5350.1	5350.1	5350.1	5350.1	5350.1	5350.1	5350.1	5350.1	5350.1
2.5°	5385.0	5350.1	5261.7	5159.4	5024.7	4959.5	4871.1	4810.7	4759.6	4764.2	4717.7
5°	5489.6	5401.2	5203.6	4957.2	4650.2	4431.7	4199.2	4038.8	3908.5	3880.6	3817.9
7.5°	5633.8	5494.3	5147.9	4703.7	4185.3	3792.3	3441.2	3215.6	3055.2	3004.1	2952.9
10°	5819.8	5617.5	5075.8	4385.2	3638.9	3139.0	2762.3	2585.6	2476.3	2439.1	2411.2
12.5°	6036.0	5759.4	4980.5	3996.9	3076.1	2594.9	2355.3	2267.0	2232.1	2220.5	2213.5
15°	6308.1	5936.1	4836.3	3536.6	2599.5	2262.4	2160.1	2148.4	2153.1	2148.4	2146.1
17.5°	6631.2	6129.1	4601.4	3062.2	2278.7	2092.6	2055.4	2064.8	2076.3	2074.0	2069.4
20°	6984.7	6319.7	4301.5	2641.3	2060.0	1971.7	1950.8	1960.1	1969.4	1964.7	1962.4
22.5°	7387.0	6524.3	3969.0	2313.5	1913.6	1860.1	1836.9	1839.2	1839.2	1829.8	1825.2
25°	7868.2	6749.8	3620.2	2081.0	1802.0	1760.1	1732.2	1722.9	1709.0	1681.1	1676.4
27.5°	8442.5	6989.4	3285.4	1918.2	1713.6	1674.1	1641.5	1618.3	1583.4	1536.9	1532.3
30°	9089.0	7280.0	3001.7	1815.9	1643.9	1604.3	1567.1	1532.3	1481.1	1423.0	1418.3
32.5°	9849.2	7591.6	2794.8	1748.5	1581.1	1539.2	1495.1	1453.2	1397.4	1339.3	1341.6
35°	10756.0	7968.2	2673.9	1702.0	1532.3	1476.4	1427.6	1381.1	1339.3	1288.1	1283.5
37.5°	11739.6	8368.2	2636.7	1678.7	1499.7	1413.7	1357.9	1325.3	1320.7	1290.5	1288.1
40°	12816.2	8842.5	2664.6	1664.8	1464.8	1353.2	1292.7	1285.8	1297.4	1243.9	1246.3
42.5°	13955.5	9405.2	2711.1	1648.5	1416.0	1292.7	1234.6	1234.6	1225.4	1151.0	1151.0
45°	15187.7	10053.9	2757.7	1608.9	1357.9	1232.4	1188.2	1171.9	1132.3	1060.3	1057.9
47.5°	16429.4	10714.2	2792.5	1536.9	1288.1	1181.2	1141.6	1104.4	1046.3	981.2	978.9
50°	17608.3	11307.1	2755.3	1430.0	1209.1	1132.3	1090.5	1039.4	976.5	932.3	925.4
52.5°	18661.6	11821.0	2597.1	1304.4	1125.3	1081.2	1044.0	990.5	939.3	892.9	888.2
55°	19577.6	12237.2	2318.1	1185.8	1050.9	1037.0	999.8	932.3	862.6	823.1	818.5
57.5°	20456.5	12553.4	1969.4	1088.1	983.5	988.2	932.3	872.0	806.8	765.0	760.3
60°	21626.1	12976.6	1616.0	997.5	911.4	925.4	865.0	820.8	739.4	685.9	679.0
62.5°	23495.5	13634.6	1283.5	885.9	827.8	832.4	806.8	753.4	655.7	592.9	588.2
65°	24978.9	13392.8	1011.5	765.0	732.5	739.4	739.4	681.2	576.7	504.5	497.5
67.5°	24811.6	11467.6	806.8	646.4	641.8	646.4	662.7	613.9	511.6	453.4	444.1
70°	22856.1	9121.5	646.4	537.1	558.0	546.4	592.9	560.4	460.3	402.2	395.2
72.5°	18649.9	6570.9	492.9	444.1	427.8	446.4	534.7	504.5	383.7	318.6	311.6
75°	10897.9	3506.3	367.4	351.1	309.2	372.0	474.4	430.2	292.9	234.8	227.9
77.5°	3548.1	1223.0	269.7	258.1	230.2	299.9	404.6	362.7	239.4	186.0	179.1
80°	951.0	369.7	183.7	169.7	148.8	223.2	320.8	288.3	172.1	121.0	118.6
82.5°	381.3	155.8	106.9	95.3	81.4	153.4	253.5	232.5	127.9	76.8	76.8
85°	123.2	51.1	39.6	30.2	37.2	95.3	151.1	158.2	90.7	39.6	30.2
87.5°	16.3	7.0	7.0	9.3	7.0	16.3	46.5	44.2	25.6	4.6	0.0
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)