

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: P966169

Luminaire Tested: **NAV-SB4B-740-U-SL2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966169
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-SB4B-740-U-SL2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24325.3 lumens
Efficiency: N/A
Efficacy: 165.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

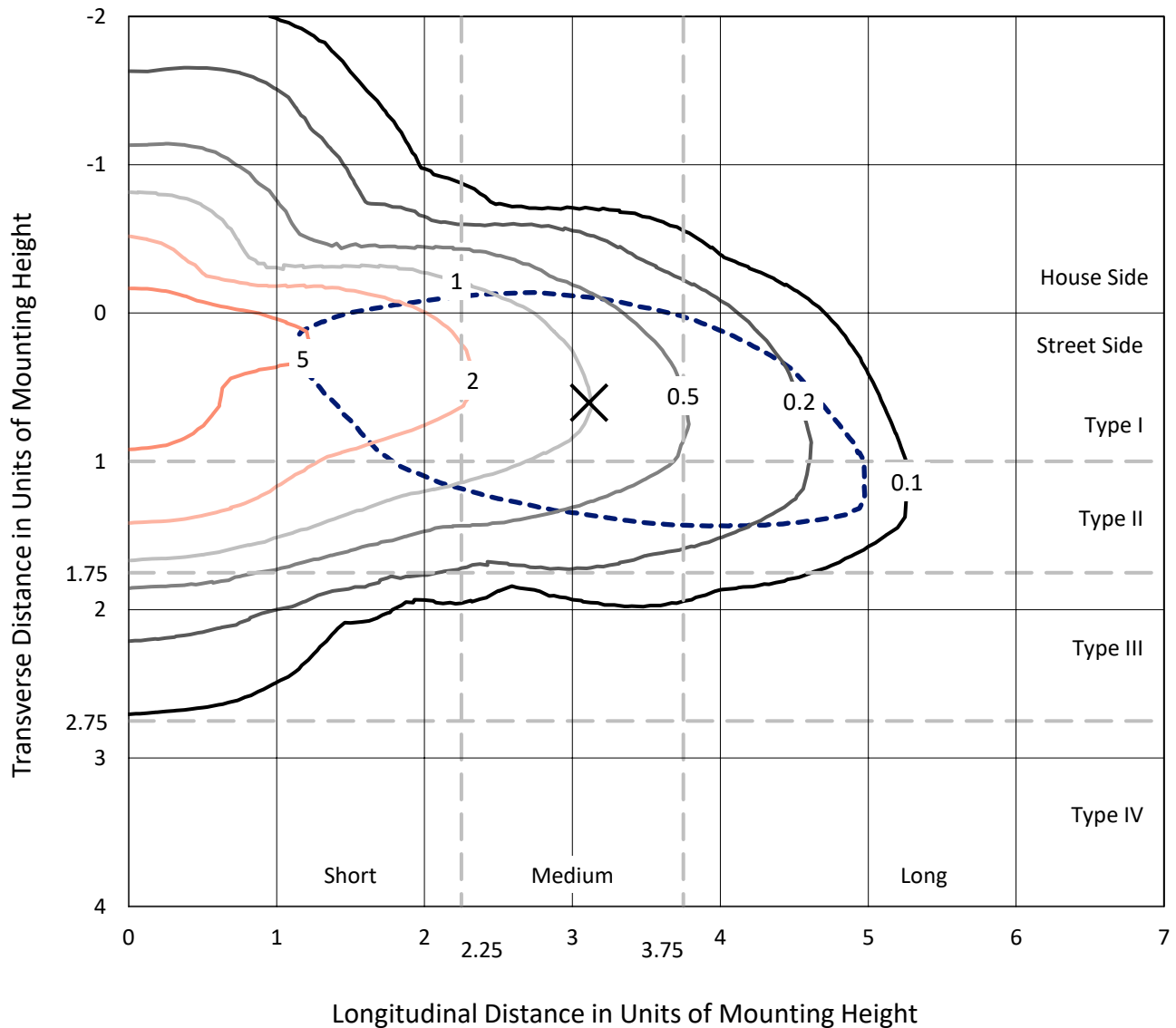
Input Watts (W): 147
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

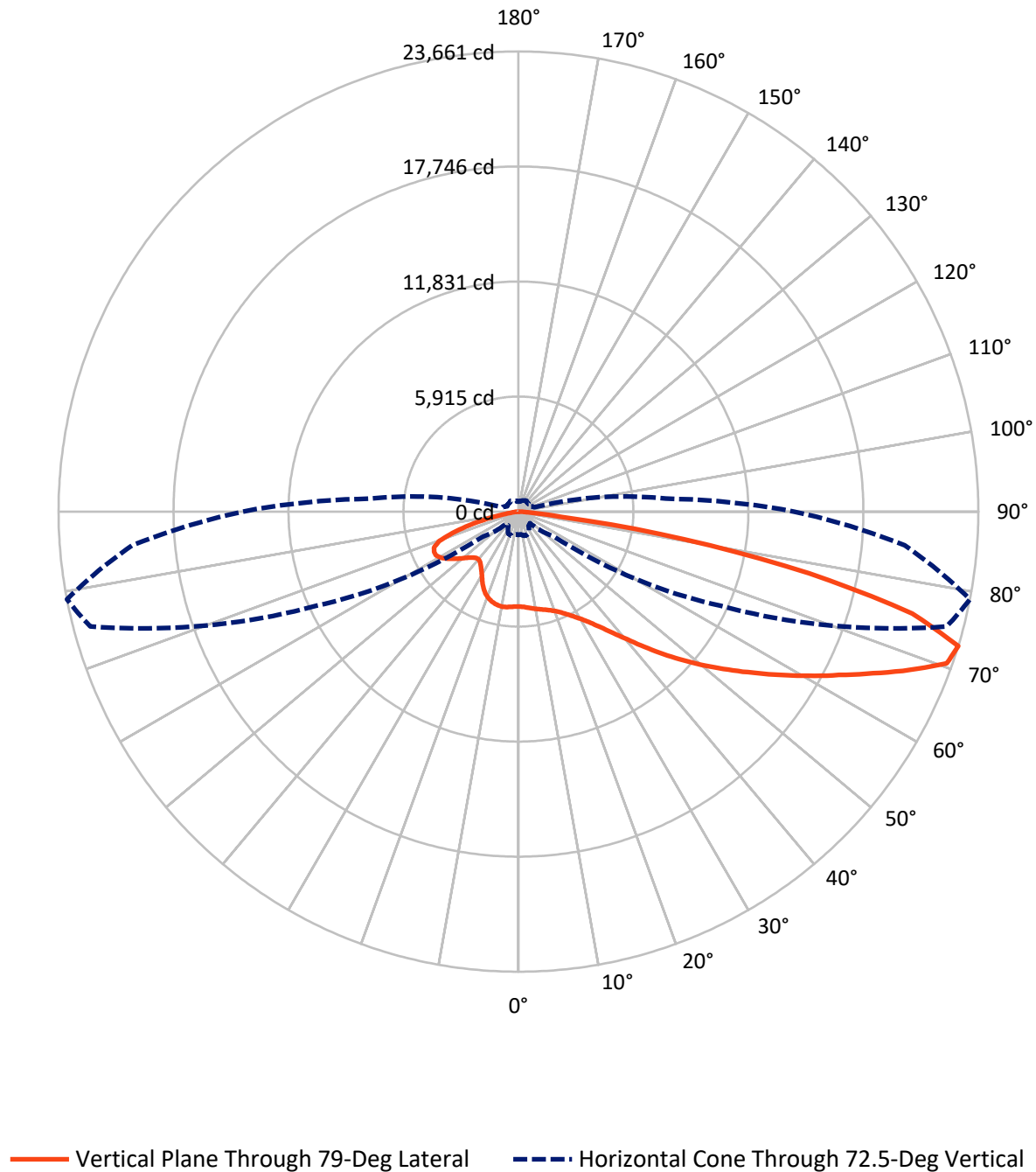
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.8 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	5352.9	0.0	5352.9
	% Fixture	22.0	0.0	22.0
Street Side	Lumens	18972.4	0.0	18972.4
	% Fixture	78.0	0.0	78.0
Total	Lumens	24325.3	0.0	24325.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	443.2	1.8
10°-20°	1158.9	4.8
20°-30°	1869.9	7.7
30°-40°	2806.5	11.5
40°-50°	3981.2	16.4
50°-60°	5027.7	20.7
60°-70°	5106.3	21.0
70°-80°	3480.1	14.3
80°-90°	451.5	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°	24325.3	100.0
0°-180°	24325.3	100.0

Coefficient of Utilization



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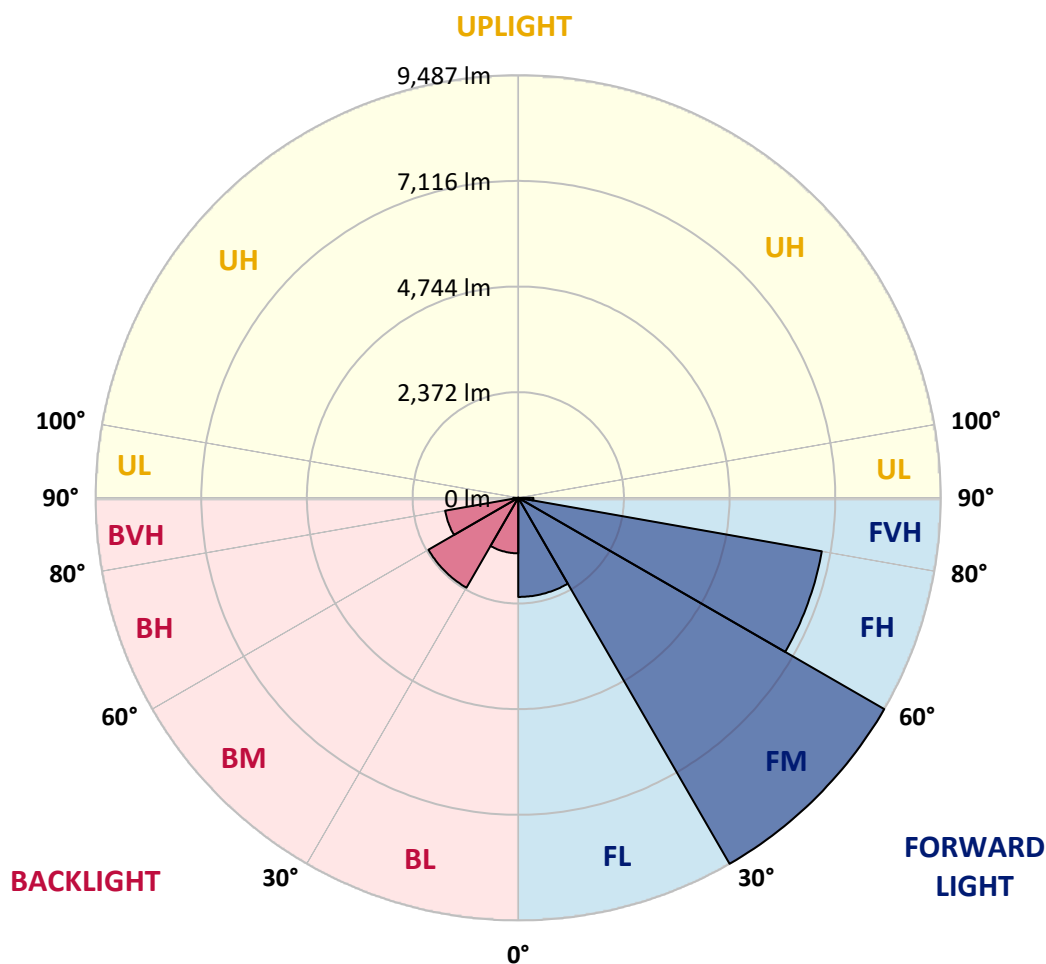
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2225.2	9.1			
FM	(30°-60°)	9487.4	39.0			
FH	(60°-80°)	6919.7	28.4			G3/7500
FVH	(80°-90°)	340.1	1.4			G3/500
BL	(0°-30°)	1246.8	5.1	B3/2500		
BM	(30°-60°)	2328.0	9.6	B2/2500		
BH	(60°-80°)	1666.7	6.9	B3/2500		G3/2500
BVH	(80°-90°)	111.4	0.5			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



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	4883.1	4883.1	4883.1	4883.1	4883.1	4883.1	4883.1	4883.1	4883.1	4883.1	4883.1
2.5°	4885.7	4862.5	4876.6	4871.5	4878.0	4885.7	4888.2	4892.1	4904.9	4903.7	4902.4
5°	4875.3	4852.1	4871.5	4865.1	4881.8	4899.8	4915.3	4929.4	4950.0	4959.0	4946.1
7.5°	4853.5	4838.0	4857.4	4876.6	4907.5	4934.6	4956.4	4988.6	5018.2	5023.3	5032.3
10°	4726.1	4714.5	4759.6	4809.7	4894.7	4968.0	5015.6	5052.9	5085.1	5090.3	5103.1
12.5°	4593.5	4579.4	4629.6	4697.8	4835.4	4968.0	5068.3	5117.2	5145.6	5162.3	5181.6
15°	4571.7	4560.1	4588.4	4647.6	4762.2	4933.2	5104.4	5194.5	5218.9	5238.2	5246.0
17.5°	4677.2	4655.3	4666.9	4687.5	4754.4	4901.0	5132.7	5281.9	5319.2	5339.8	5339.8
20°	4921.6	4890.8	4872.7	4831.6	4820.1	4906.3	5130.1	5387.5	5436.4	5462.1	5468.5
22.5°	5247.2	5226.6	5188.0	5083.8	4970.5	4969.3	5179.0	5522.6	5613.9	5638.4	5622.9
25°	5641.0	5610.0	5561.1	5419.6	5202.2	5094.0	5261.3	5695.0	5848.1	5854.5	5809.5
27.5°	6093.8	6047.5	5980.7	5794.0	5500.7	5289.7	5387.5	5893.1	6117.0	6114.4	6021.8
30°	6571.3	6524.9	6454.1	6227.7	5858.4	5553.4	5562.5	6106.7	6436.2	6421.9	6263.7
32.5°	6920.0	6885.2	6871.1	6696.0	6270.1	5864.8	5763.2	6343.5	6829.9	6817.0	6595.7
35°	7187.6	7142.5	7159.3	7070.4	6719.2	6213.5	6009.0	6625.3	7308.6	7307.2	7031.9
37.5°	7452.7	7412.8	7426.9	7367.7	7134.8	6656.1	6308.8	6970.1	7901.7	7930.0	7559.5
40°	7694.6	7652.0	7708.7	7653.4	7457.8	7127.1	6649.7	7360.0	8588.8	8642.8	8197.6
42.5°	7839.9	7806.5	7900.4	7901.7	7738.2	7524.7	7024.1	7789.8	9384.0	9504.9	8982.6
45°	7890.1	7878.6	8020.1	8049.6	7986.6	7755.0	7361.2	8258.1	10241.0	10457.2	9876.8
47.5°	7836.1	7814.2	8009.8	8119.1	8169.4	7863.1	7640.5	8765.1	11115.9	11432.4	10852.1
50°	7563.3	7520.8	7811.6	8041.9	8220.8	7933.9	7922.3	9350.6	12110.6	12456.6	11832.6
52.5°	7073.0	7040.9	7371.6	7771.8	8107.5	7968.7	8238.8	9990.1	13055.0	13502.7	12837.5
55°	6446.4	6404.0	6768.1	7290.5	7825.8	7957.1	8555.4	10705.4	14169.3	14623.5	13875.9
57.5°	5453.1	5368.1	5828.8	6446.4	7366.5	7942.8	8884.7	11417.0	15301.6	15845.9	14983.8
60°	4004.3	3878.2	4443.1	5175.1	6468.3	7805.2	9292.6	12214.7	16660.4	17150.6	16193.3
62.5°	2331.6	2258.2	2627.5	3310.7	4875.3	6994.6	9521.6	13142.4	17995.9	18510.7	17382.2
65°	1810.4	1789.9	1821.9	1874.7	2713.7	5236.9	8815.3	14047.0	19694.5	20054.7	18621.3
67.5°	1656.0	1640.5	1654.8	1555.6	1376.8	2916.9	6974.0	14276.1	21513.8	21732.6	19706.0
70°	1472.0	1454.0	1500.3	1415.4	1083.4	1326.6	4506.1	13444.8	22961.3	23371.8	20530.8
72.5°	1199.2	1178.6	1286.7	1248.1	912.2	851.8	2263.3	11469.7	22809.5	23661.3	19940.1
75°	921.3	909.7	1038.4	1070.5	743.7	670.3	1086.0	8525.7	20072.7	20930.9	17185.4
77.5°	715.4	706.4	772.0	889.1	599.6	519.9	667.8	5408.0	15126.5	15277.1	11842.8
80°	536.6	510.9	571.3	688.4	467.1	379.6	452.9	3153.7	9561.5	8667.3	5154.5
82.5°	335.8	323.0	373.1	459.4	329.4	261.2	294.7	1742.2	3831.9	2256.8	994.7
85°	191.7	186.5	203.3	262.5	178.9	150.6	168.5	769.5	700.0	481.2	299.8
87.5°	77.2	74.6	92.7	117.1	65.6	55.4	59.1	185.3	154.4	142.8	99.1
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°	4883.1	4883.1	4883.1	4883.1	4883.1	4883.1	4883.1	4883.1	4883.1	4883.1	4883.1
2.5°	4897.2	4897.2	4879.2	4850.9	4818.7	4798.1	4764.7	4755.7	4720.9	4710.7	4727.4
5°	4956.4	4946.1	4890.8	4811.0	4701.7	4601.3	4490.6	4421.1	4323.3	4288.6	4314.3
7.5°	5031.0	5002.7	4907.5	4732.5	4503.5	4278.3	4044.1	3866.6	3696.8	3636.3	3644.0
10°	5099.3	5059.4	4897.2	4591.0	4194.7	3804.8	3431.7	3170.4	2972.3	2891.2	2909.3
12.5°	5167.4	5094.0	4829.0	4355.5	3755.9	3227.1	2829.5	2626.2	2504.0	2406.2	2438.3
15°	5231.8	5128.8	4723.5	4040.2	3274.7	2738.1	2444.7	2282.7	2184.8	2120.5	2132.1
17.5°	5306.4	5158.4	4565.2	3640.1	2816.6	2399.7	2160.4	2062.6	2043.3	2035.5	2040.8
20°	5410.7	5185.5	4356.8	3192.4	2479.5	2129.5	2006.0	1997.0	1995.7	1991.8	2004.7
22.5°	5522.6	5217.7	4081.4	2785.7	2192.6	1960.9	1939.1	1921.1	1909.5	1908.2	1922.4
25°	5655.1	5227.9	3736.6	2452.5	1948.1	1881.2	1855.5	1828.4	1820.7	1820.7	1828.4
27.5°	5783.8	5193.2	3335.1	2163.0	1810.4	1807.8	1774.4	1765.4	1764.1	1767.9	1778.3
30°	5912.4	5127.6	2936.3	1895.3	1730.6	1730.6	1719.0	1725.5	1730.6	1743.5	1752.5
32.5°	6086.1	5058.1	2603.0	1697.2	1661.1	1648.3	1659.9	1672.7	1677.8	1694.6	1708.8
35°	6341.0	5009.2	2337.9	1589.1	1589.1	1572.4	1578.8	1576.2	1564.7	1556.9	1574.9
37.5°	6678.1	5006.6	2119.2	1538.9	1528.6	1526.0	1527.4	1510.6	1465.5	1411.5	1412.9
40°	7083.4	5076.1	1950.7	1504.2	1496.4	1511.9	1504.2	1459.1	1335.6	1241.7	1239.1
42.5°	7627.6	5274.2	1842.5	1461.8	1484.8	1504.2	1473.3	1317.6	1234.0	1170.9	1168.3
45°	8268.4	5595.9	1787.3	1416.7	1463.0	1486.1	1336.9	1268.7	1201.8	1125.9	1120.7
47.5°	8994.1	6001.3	1774.4	1374.2	1414.1	1428.2	1279.0	1248.1	1172.2	1089.9	1083.4
50°	9784.1	6481.2	1809.1	1324.0	1343.4	1294.5	1259.7	1231.3	1152.9	1071.8	1062.8
52.5°	10601.3	7010.0	1878.6	1255.8	1272.5	1218.5	1251.9	1227.5	1141.3	1032.0	1024.2
55°	11404.2	7542.7	1945.6	1176.1	1200.5	1150.4	1230.1	1212.1	1088.6	965.0	958.6
57.5°	12219.9	8072.8	2011.2	1105.3	1131.0	1084.7	1195.4	1170.9	1029.4	903.2	900.7
60°	13067.8	8587.6	2042.0	1037.1	1055.1	1024.2	1142.6	1100.1	962.5	840.2	836.4
62.5°	13861.8	9016.0	1991.8	968.9	980.5	967.6	1073.1	1016.5	895.5	769.5	768.1
65°	14658.2	9270.7	1837.4	902.0	904.6	898.1	975.3	926.4	817.0	707.7	700.0
67.5°	15380.0	9413.6	1591.6	829.9	823.5	820.9	884.0	828.6	741.2	646.0	638.2
70°	15533.2	9050.8	1216.0	745.0	745.0	738.6	783.6	727.0	657.5	580.4	577.7
72.5°	14187.3	7613.5	863.4	648.5	658.8	646.0	683.3	635.6	572.6	521.1	505.6
75°	11440.1	5583.1	627.9	549.4	567.4	545.6	580.4	546.8	492.8	491.5	442.6
77.5°	7860.5	3452.2	455.5	452.9	465.8	437.5	477.3	459.4	410.4	388.6	364.2
80°	3354.4	1376.8	332.0	349.9	349.9	324.2	370.5	375.8	333.2	323.0	323.0
82.5°	667.8	391.1	232.9	240.6	226.4	218.7	262.5	290.8	401.5	446.5	447.8
85°	200.7	144.1	140.2	131.2	115.8	117.1	154.4	292.1	360.3	205.9	177.5
87.5°	55.4	36.0	37.3	29.6	24.5	32.2	52.8	221.3	121.0	51.5	43.8
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)