

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: P966138

Luminaire Tested: **NAV-SB4B-735-U-SL2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966138
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-735-U-SL2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 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: 22991.8 lumens
Efficiency: N/A
Efficacy: 156.4 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): 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

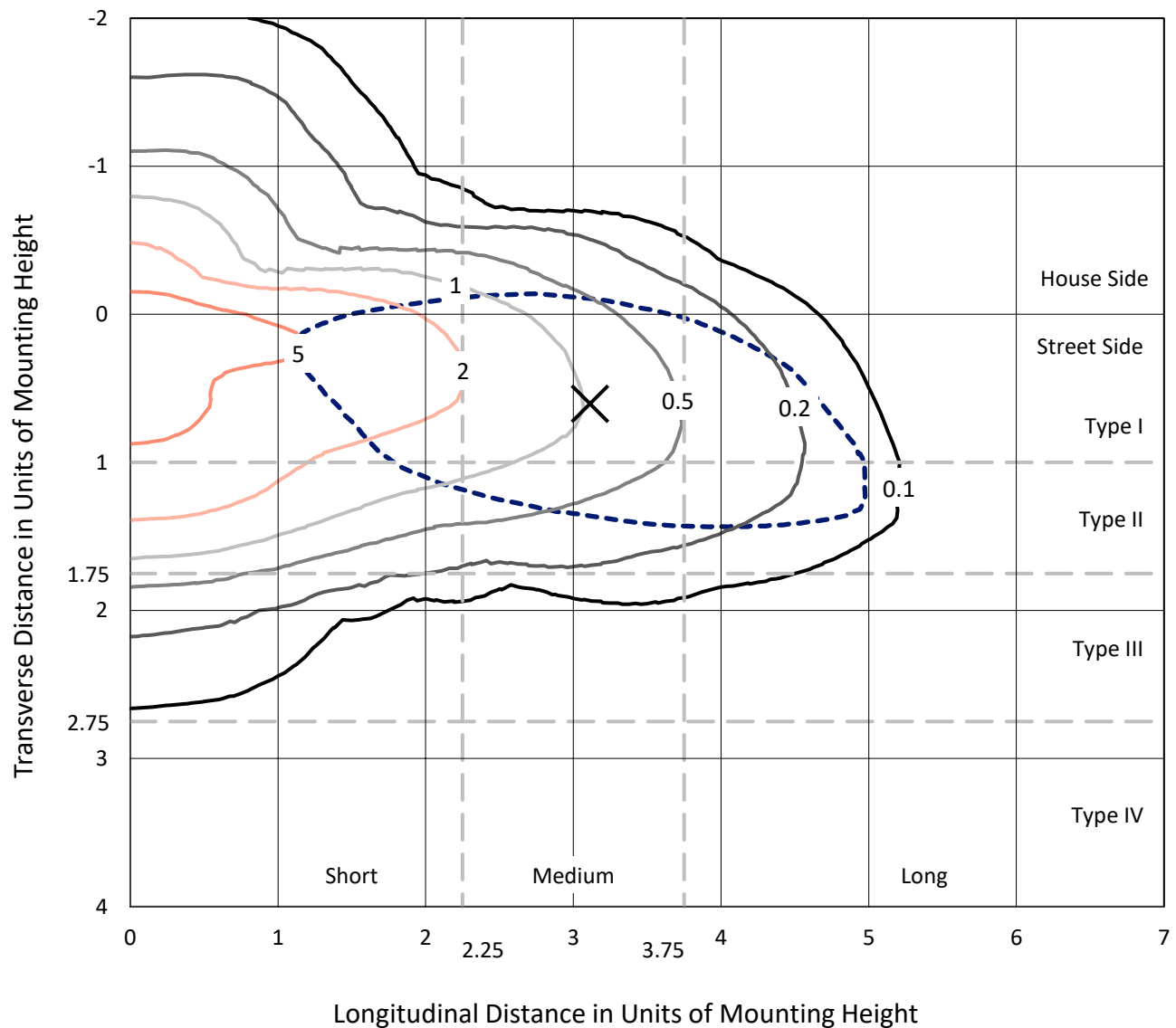


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Iso-Footcandle Lines of Horizontal Illumination

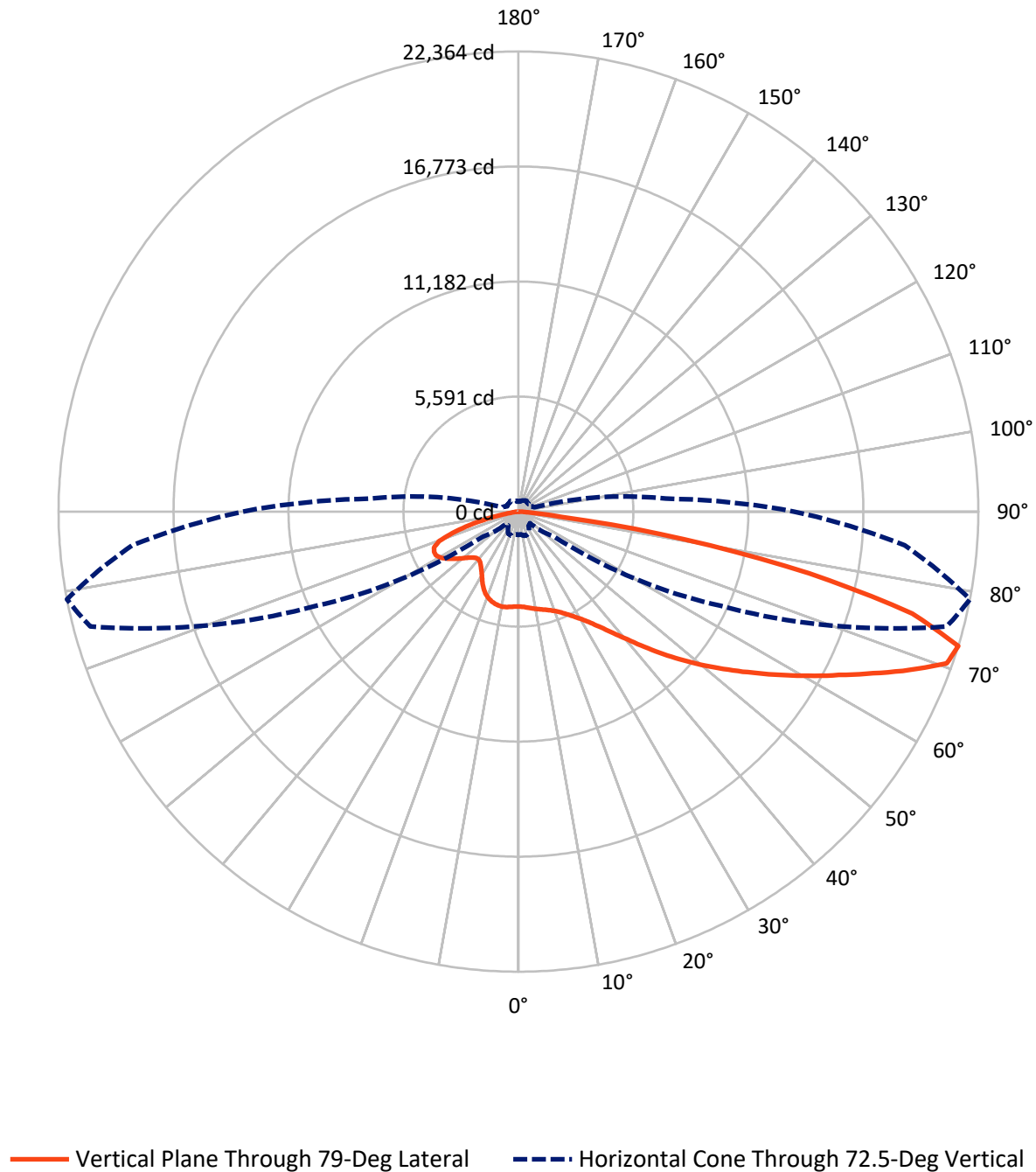
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.4 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	5059.4	0.0	5059.4
	% Fixture	22.0	0.0	22.0
Street Side	Lumens	17932.3	0.0	17932.3
	% Fixture	78.0	0.0	78.0
Total	Lumens	22991.8	0.0	22991.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	418.9	1.8
10°-20°	1095.3	4.8
20°-30°	1767.4	7.7
30°-40°	2652.6	11.5
40°-50°	3762.9	16.4
50°-60°	4752.0	20.7
60°-70°	4826.4	21.0
70°-80°	3289.4	14.3
80°-90°	426.8	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°	22991.8	100.0
0°-180°	22991.8	100.0

Coefficient of Utilization



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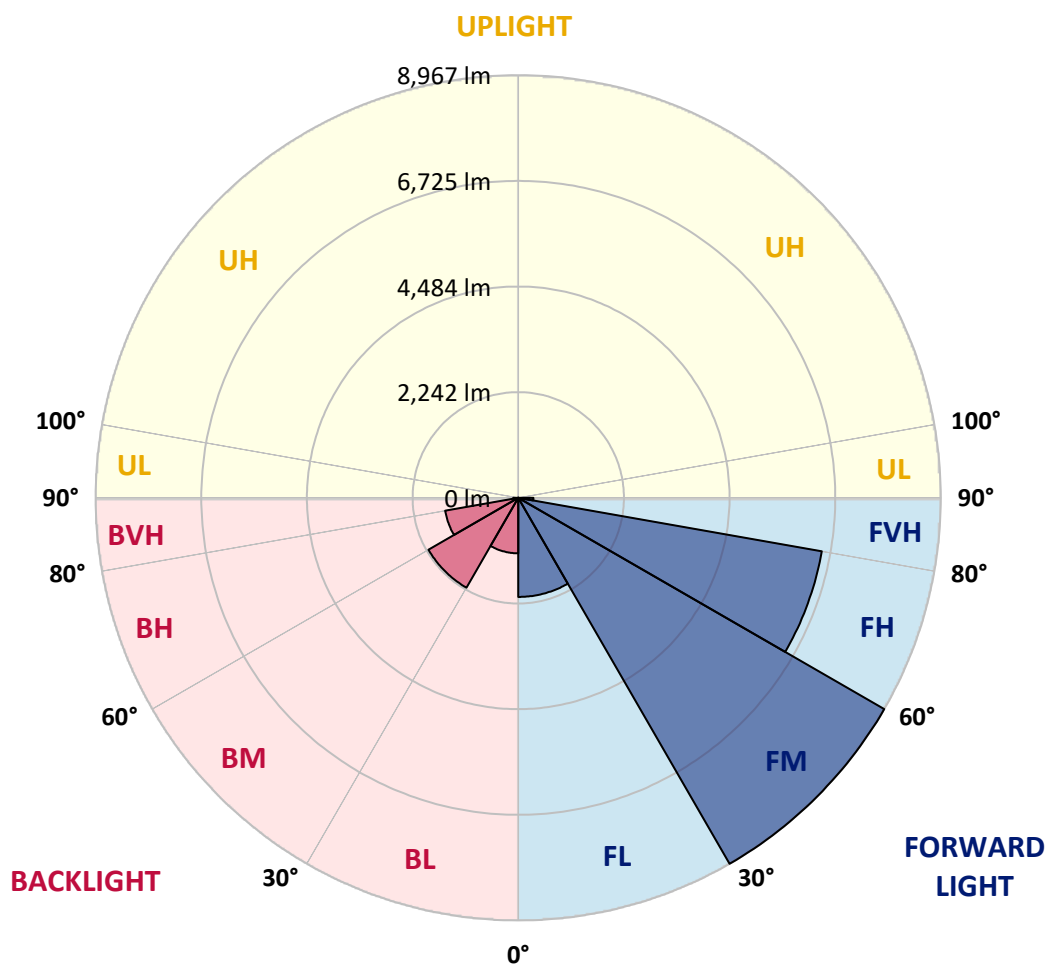
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2103.2	9.1			
FM	(30°-60°)	8967.3	39.0			
FH	(60°-80°)	6540.4	28.4			G3/7500
FVH	(80°-90°)	321.5	1.4			G3/500
BL	(0°-30°)	1178.5	5.1	B3/2500		
BM	(30°-60°)	2200.3	9.6	B2/2500		
BH	(60°-80°)	1575.3	6.9	B3/2500		G3/2500
BVH	(80°-90°)	105.3	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°	4615.4	4615.4	4615.4	4615.4	4615.4	4615.4	4615.4	4615.4	4615.4	4615.4	4615.4
2.5°	4617.8	4595.9	4609.3	4604.4	4610.6	4617.8	4620.3	4623.9	4636.1	4634.8	4633.6
5°	4608.1	4586.2	4604.4	4598.4	4614.1	4631.2	4645.8	4659.1	4678.6	4687.1	4674.9
7.5°	4587.4	4572.8	4591.1	4609.3	4638.5	4664.1	4684.7	4715.1	4743.1	4747.9	4756.4
10°	4467.1	4456.1	4498.6	4546.1	4626.3	4695.6	4740.6	4775.9	4806.3	4811.1	4823.3
12.5°	4341.7	4328.4	4375.8	4440.3	4570.4	4695.6	4790.5	4836.8	4863.5	4879.3	4897.6
15°	4321.1	4310.1	4336.9	4392.8	4501.1	4662.8	4824.6	4909.6	4932.8	4951.1	4958.3
17.5°	4420.8	4400.1	4411.1	4430.6	4493.8	4632.4	4851.3	4992.4	5027.6	5047.1	5047.1
20°	4651.9	4622.6	4605.6	4566.7	4555.8	4637.3	4848.9	5092.1	5138.3	5162.6	5168.8
22.5°	4959.6	4940.1	4903.6	4805.1	4698.1	4696.9	4895.1	5219.8	5306.1	5329.3	5314.7
25°	5331.7	5302.5	5256.3	5122.5	4917.0	4814.8	4972.9	5382.8	5527.5	5533.6	5491.0
27.5°	5759.8	5716.0	5652.8	5476.5	5199.1	4999.6	5092.1	5570.1	5781.7	5779.3	5691.7
30°	6211.0	6167.2	6100.3	5886.3	5537.3	5249.0	5257.5	5772.0	6083.3	6069.9	5920.3
32.5°	6540.6	6507.7	6494.4	6329.0	5926.4	5543.3	5447.3	5995.7	6455.4	6443.3	6234.2
35°	6793.6	6751.0	6766.7	6682.9	6350.9	5872.9	5679.5	6262.0	6907.9	6906.7	6646.4
37.5°	7044.1	7006.4	7019.7	6963.8	6743.7	6291.2	5962.9	6588.0	7468.6	7495.3	7145.1
40°	7272.7	7232.6	7286.1	7233.8	7048.9	6736.4	6285.2	6956.5	8118.0	8169.0	7748.3
42.5°	7410.1	7378.6	7467.3	7468.6	7314.1	7112.2	6639.1	7362.7	8869.5	8983.9	8490.1
45°	7457.6	7446.6	7580.4	7608.4	7548.8	7329.9	6957.7	7805.4	9679.5	9883.9	9335.4
47.5°	7406.5	7385.8	7570.6	7674.1	7721.5	7432.1	7221.6	8284.6	10506.6	10805.8	10257.2
50°	7148.7	7108.6	7383.4	7601.1	7770.1	7498.9	7487.9	8838.0	11446.6	11773.8	11184.0
52.5°	6685.4	6654.9	6967.4	7345.7	7663.1	7531.8	7787.1	9442.4	12339.3	12762.5	12133.7
55°	6093.0	6052.9	6397.0	6890.9	7396.8	7520.8	8086.3	10118.6	13392.5	13821.8	13115.2
57.5°	5154.1	5073.9	5509.3	6093.0	6962.6	7507.4	8397.7	10791.1	14462.7	14977.2	14162.3
60°	3784.7	3665.5	4199.4	4891.4	6113.7	7377.3	8783.2	11545.2	15747.0	16210.4	15305.5
62.5°	2203.8	2134.4	2483.5	3129.2	4608.1	6611.1	8999.7	12422.0	17009.4	17495.9	16429.3
65°	1711.1	1691.7	1722.1	1771.9	2565.0	4949.8	8332.0	13276.9	18614.7	18955.3	17600.5
67.5°	1565.2	1550.6	1564.0	1470.4	1301.3	2757.0	6591.7	13493.4	20334.5	20541.2	18625.7
70°	1391.3	1374.3	1418.1	1337.8	1024.0	1253.9	4259.1	12707.8	21702.6	22090.6	19405.3
72.5°	1133.4	1114.0	1216.2	1179.7	862.2	805.1	2139.3	10841.0	21559.1	22364.3	18847.1
75°	870.7	859.9	981.4	1011.9	702.9	633.7	1026.4	8058.3	18972.3	19783.5	16243.2
77.5°	676.2	667.7	729.7	840.4	566.7	491.4	631.2	5111.6	14297.3	14439.6	11193.6
80°	507.2	482.8	540.0	650.7	441.5	358.7	428.1	2980.8	9037.4	8192.1	4872.0
82.5°	317.4	305.2	352.7	434.2	311.3	246.9	278.5	1646.7	3621.7	2133.1	940.1
85°	181.2	176.3	192.2	248.0	169.0	142.3	159.3	727.2	661.6	454.9	283.4
87.5°	73.0	70.5	87.5	110.7	62.0	52.3	56.0	175.2	146.0	135.0	93.7
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°	4615.4	4615.4	4615.4	4615.4	4615.4	4615.4	4615.4	4615.4	4615.4	4615.4	4615.4
2.5°	4628.8	4628.8	4611.8	4584.9	4554.6	4535.1	4503.5	4494.9	4462.1	4452.4	4468.2
5°	4684.7	4674.9	4622.6	4547.3	4443.9	4349.1	4244.4	4178.8	4086.4	4053.5	4077.9
7.5°	4755.3	4728.5	4638.5	4473.1	4256.6	4043.7	3822.4	3654.6	3494.0	3436.9	3444.2
10°	4819.7	4782.0	4628.8	4339.3	3964.7	3596.2	3243.5	2996.7	2809.3	2732.8	2749.8
12.5°	4884.1	4814.8	4564.3	4116.7	3550.0	3050.2	2674.3	2482.2	2366.7	2274.3	2304.6
15°	4945.0	4847.6	4464.6	3818.7	3095.2	2588.0	2310.8	2157.5	2065.1	2004.3	2015.2
17.5°	5015.5	4875.6	4314.9	3440.5	2662.2	2268.1	2042.0	1949.5	1931.3	1924.0	1928.8
20°	5114.0	4901.1	4117.9	3017.3	2343.6	2012.8	1896.0	1887.5	1886.3	1882.6	1894.8
22.5°	5219.8	4931.6	3857.7	2633.0	2072.3	1853.4	1832.8	1815.8	1804.8	1803.6	1816.9
25°	5345.1	4941.3	3531.7	2318.0	1841.3	1778.1	1753.7	1728.2	1720.9	1720.9	1728.2
27.5°	5466.7	4908.5	3152.3	2044.4	1711.1	1708.7	1677.1	1668.6	1667.4	1671.1	1680.8
30°	5588.3	4846.4	2775.3	1791.4	1635.8	1635.8	1624.8	1630.9	1635.8	1647.9	1656.4
32.5°	5752.5	4780.8	2460.3	1604.1	1570.1	1557.9	1568.9	1581.1	1585.9	1601.7	1615.1
35°	5993.3	4734.6	2209.8	1501.9	1501.9	1486.1	1492.2	1489.8	1478.9	1471.6	1488.6
37.5°	6312.0	4732.1	2003.1	1454.6	1444.8	1442.4	1443.6	1427.8	1385.2	1334.1	1335.4
40°	6695.0	4797.8	1843.8	1421.7	1414.4	1429.1	1421.7	1379.1	1262.4	1173.6	1171.2
42.5°	7209.4	4985.1	1741.6	1381.6	1403.4	1421.7	1392.6	1245.4	1166.3	1106.7	1104.3
45°	7815.1	5289.1	1689.3	1339.0	1382.8	1404.7	1263.6	1199.1	1135.9	1064.2	1059.3
47.5°	8501.0	5672.2	1677.1	1298.9	1336.6	1349.9	1208.9	1179.7	1107.9	1030.1	1024.0
50°	9247.8	6125.9	1709.9	1251.4	1269.7	1223.4	1190.6	1163.9	1089.7	1013.1	1004.6
52.5°	10020.1	6625.7	1775.6	1186.9	1202.8	1151.7	1183.4	1160.2	1078.7	975.4	968.1
55°	10778.9	7129.2	1838.8	1111.6	1134.7	1087.2	1162.7	1145.6	1028.9	912.1	906.1
57.5°	11550.0	7630.3	1900.9	1044.7	1069.0	1025.2	1129.9	1106.7	972.9	853.7	851.4
60°	12351.5	8116.8	1930.1	980.2	997.2	968.1	1079.9	1039.9	909.7	794.2	790.5
62.5°	13101.9	8521.7	1882.6	915.7	926.7	914.6	1014.3	960.7	846.4	727.2	726.0
65°	13854.6	8762.5	1736.7	852.5	855.0	848.9	921.9	875.7	772.2	668.9	661.6
67.5°	14537.0	8897.5	1504.4	784.4	778.4	775.9	835.5	783.2	700.5	610.5	603.2
70°	14681.7	8554.5	1149.3	704.2	704.2	698.1	740.7	687.2	621.5	548.5	546.0
72.5°	13409.6	7196.1	816.0	612.9	622.7	610.5	645.8	600.8	541.2	492.5	478.0
75°	10813.0	5277.0	593.5	519.3	536.4	515.7	548.5	516.9	465.8	464.5	418.4
77.5°	7429.6	3263.0	430.5	428.1	440.2	413.5	451.2	434.2	388.0	367.3	344.2
80°	3170.5	1301.3	313.8	330.8	330.8	306.5	350.2	355.2	315.0	305.2	305.2
82.5°	631.2	369.7	220.2	227.4	214.0	206.7	248.0	274.9	379.5	422.0	423.2
85°	189.7	136.2	132.5	124.0	109.5	110.7	146.0	276.0	340.5	194.5	167.8
87.5°	52.3	34.0	35.3	28.0	23.1	30.4	49.8	209.2	114.3	48.7	41.3
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)