

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: P967207

Luminaire Tested: **NAV-SB4D-735-U-T2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967207
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-735-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 41420.2 lumens
Efficiency: N/A
Efficacy: 141.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B4 - 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

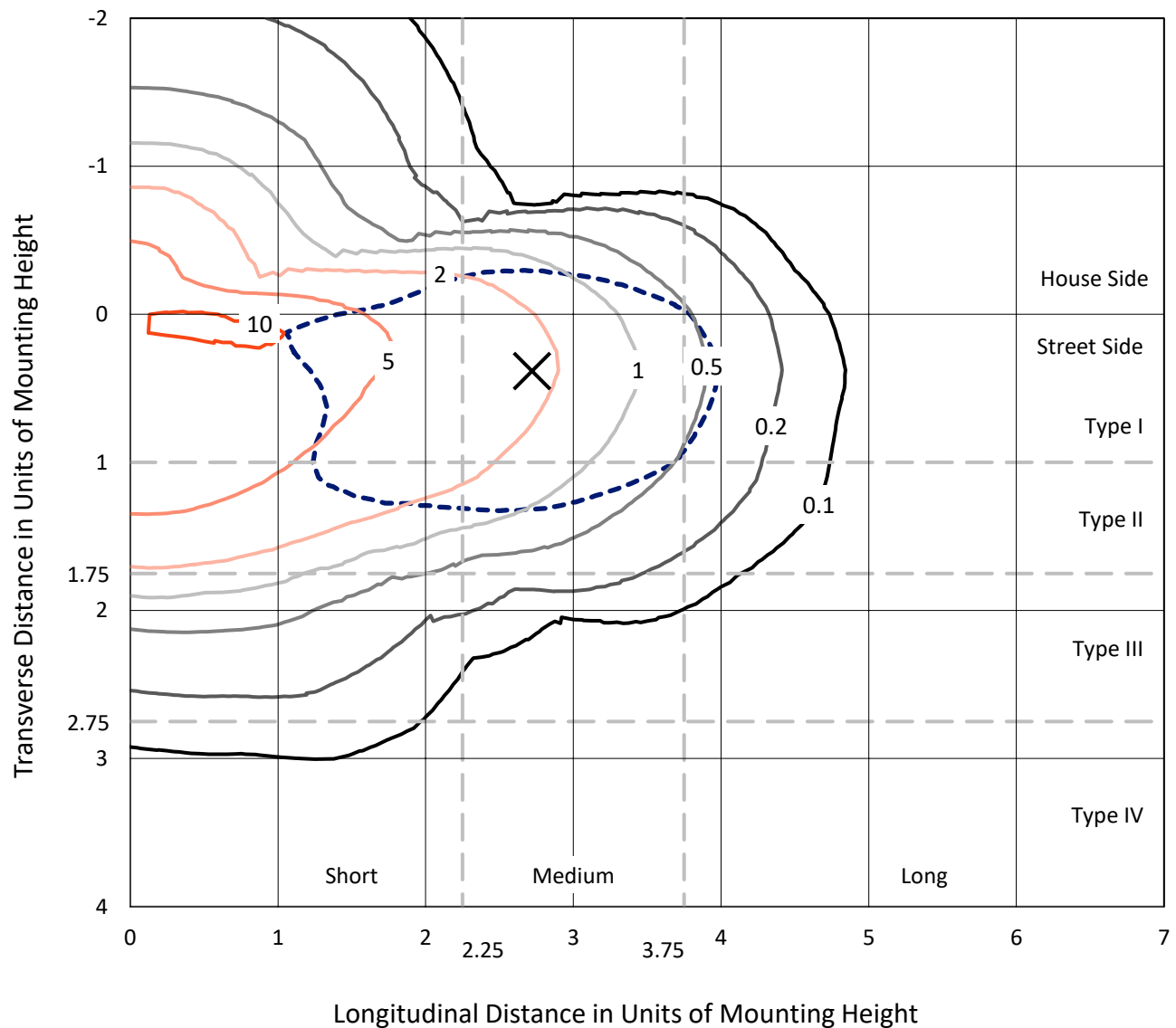


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Iso-Footcandle Lines of Horizontal Illumination

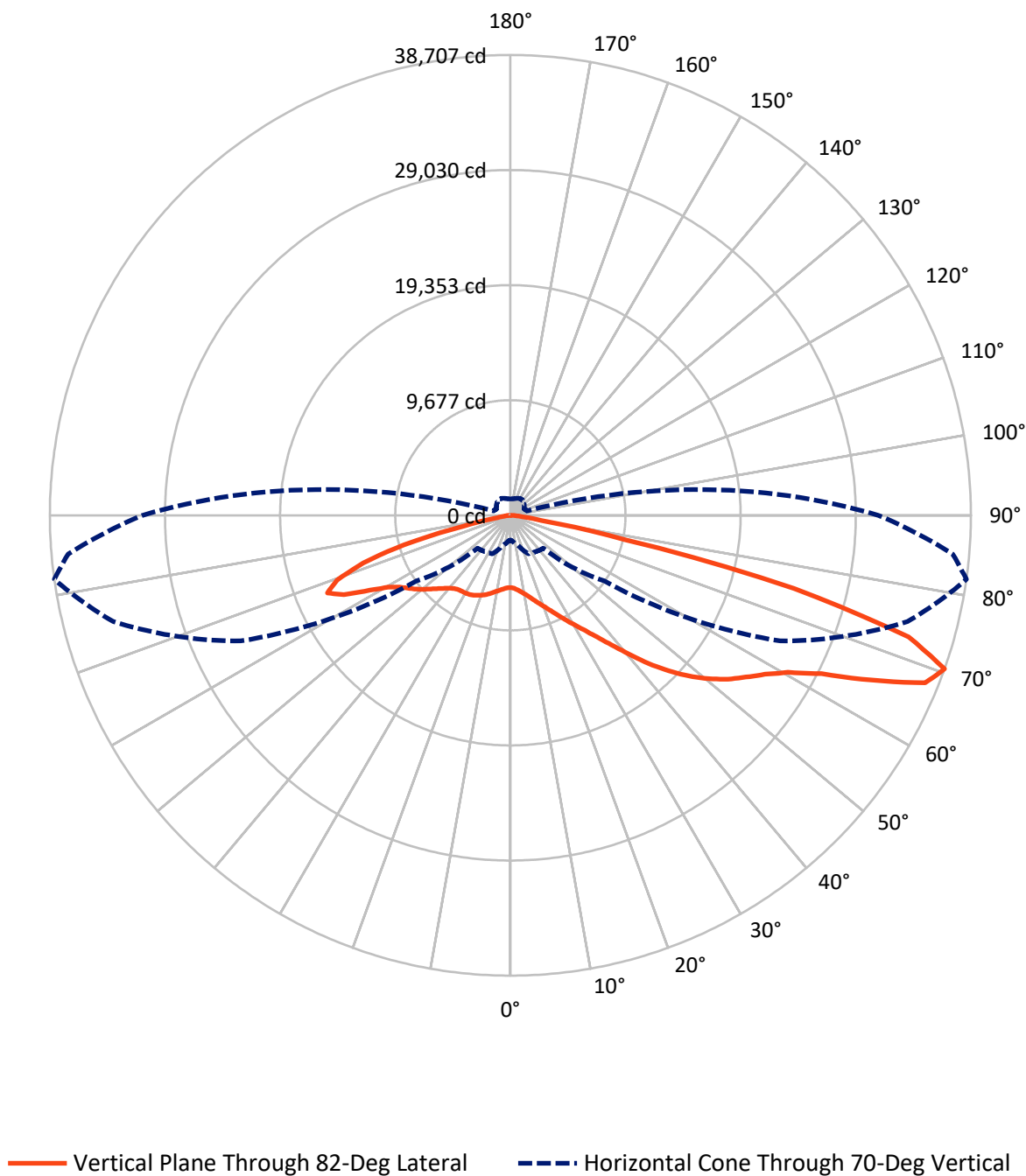
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11 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	10211.1	0.0	10211.1
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	31209.1	0.0	31209.1
	% Fixture	75.3	0.0	75.3
Total	Lumens	41420.2	0.0	41420.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	573.4	1.4
10°-20°	1647.3	4.0
20°-30°	2755.8	6.7
30°-40°	4305.3	10.4
40°-50°	6856.7	16.6
50°-60°	9541.9	23.0
60°-70°	9981.3	24.1
70°-80°	5216.8	12.6
80°-90°	541.7	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°	41420.2	100.0
0°-180°	41420.2	100.0

Coefficient of Utilization



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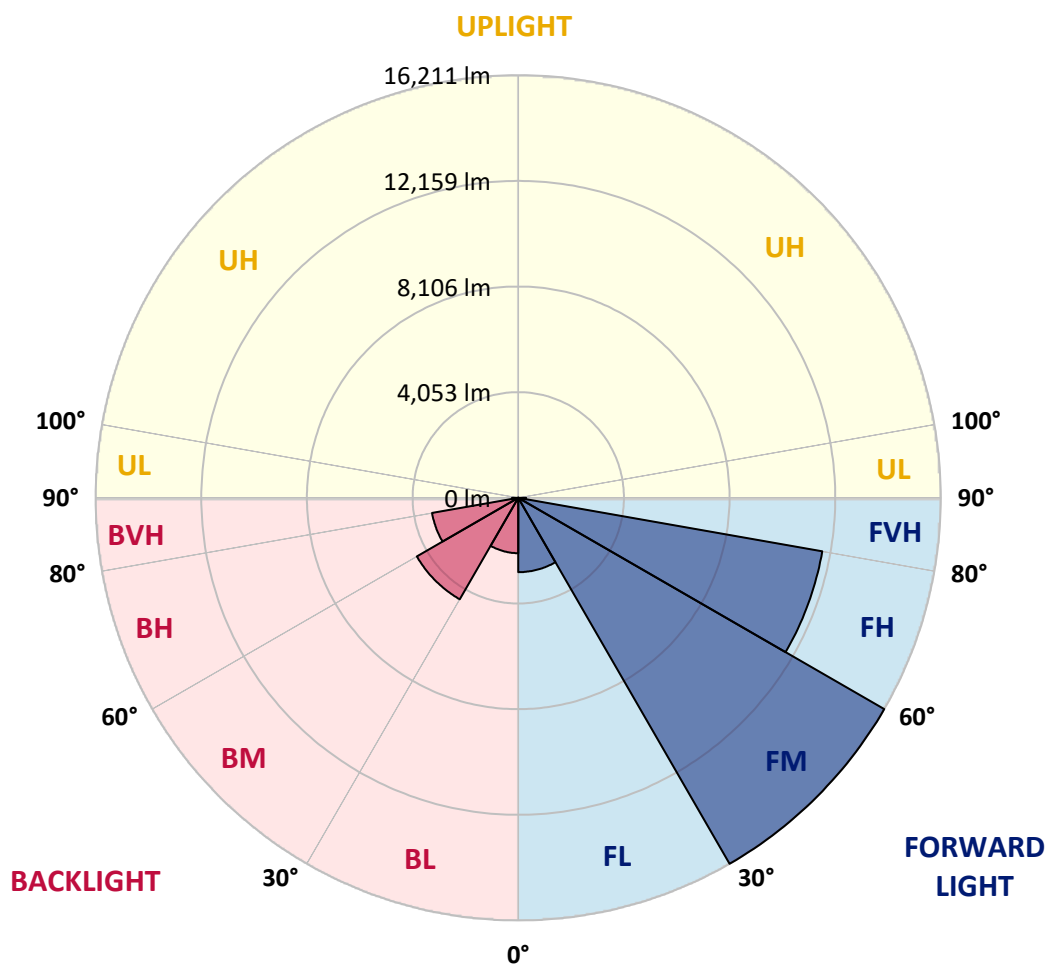
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2852.2	6.9			
FM	(30°-60°)	16211.5	39.1			
FH	(60°-80°)	11842.2	28.6			G4/12000
FVH	(80°-90°)	303.2	0.7			G3/500
BL	(0°-30°)	2124.3	5.1	B3/2500		
BM	(30°-60°)	4492.5	10.8	B3/5000		
BH	(60°-80°)	3355.9	8.1	B4/5000		G4/5000
BVH	(80°-90°)	238.5	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-G4

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	6072.7	6072.7	6072.7	6072.7	6072.7	6072.7	6072.7	6072.7	6072.7	6072.7	6072.7
2.5°	6217.8	6252.9	6241.9	6231.0	6231.0	6215.6	6213.3	6191.4	6173.8	6145.3	6138.6
5°	6296.9	6334.3	6329.9	6338.7	6367.2	6373.9	6380.4	6367.2	6332.0	6296.9	6281.5
7.5°	6226.6	6268.4	6281.5	6334.3	6422.1	6501.3	6560.6	6584.8	6551.9	6501.3	6477.2
10°	5989.2	6035.4	6081.5	6206.8	6362.9	6549.6	6707.9	6802.4	6795.9	6747.5	6705.8
12.5°	5507.8	5556.2	5655.1	5899.1	6184.8	6514.5	6809.0	7006.8	7075.0	7039.8	6967.2
15°	5123.3	5165.0	5239.7	5490.3	5861.8	6362.9	6846.4	7231.0	7404.6	7384.8	7297.0
17.5°	5112.3	5129.8	5176.0	5294.6	5580.4	6125.5	6806.8	7450.8	7782.7	7780.5	7670.6
20°	5305.7	5312.3	5338.6	5362.8	5525.5	5945.2	6705.8	7633.2	8206.9	8206.9	8088.2
22.5°	5573.8	5569.4	5595.8	5573.8	5653.0	5929.8	6642.0	7793.7	8679.4	8714.6	8565.1
25°	5976.1	5954.0	5947.5	5896.9	5912.3	6072.7	6712.3	7976.0	9239.9	9312.4	9125.6
27.5°	6512.3	6477.2	6453.0	6336.4	6296.9	6367.2	6927.7	8195.9	9864.1	9989.3	9752.0
30°	7211.2	7147.5	7112.3	6910.1	6767.3	6778.2	7253.0	8488.2	10516.8	10719.0	10417.9
32.5°	8165.2	8066.2	7971.7	7639.8	7378.3	7292.6	7672.7	8892.6	11224.6	11547.6	11160.8
35°	9233.3	9154.2	9053.0	8540.9	8138.7	7940.9	8239.9	9457.5	12053.2	12565.3	12061.9
37.5°	10261.9	10193.7	10242.1	9552.0	9033.2	8745.3	8982.7	10215.8	13075.1	13831.2	13191.6
40°	11325.6	11272.8	11279.5	10620.1	10015.7	9692.6	9883.9	11167.4	14246.6	15336.8	14550.0
42.5°	12481.7	12442.2	12310.2	11725.7	11046.5	10745.4	10921.3	12266.4	15503.8	17051.1	16040.1
45°	13776.3	13752.1	13629.0	12958.7	12180.6	11842.1	12079.5	13479.6	16767.6	18664.3	17536.8
47.5°	14895.0	14914.8	14899.4	14334.5	13528.0	13031.2	13314.7	14745.5	17943.4	20180.9	18972.0
50°	15433.4	15536.7	15688.4	15512.6	15011.4	14506.0	14560.9	15967.6	19064.4	21602.9	20347.9
52.5°	15152.2	15347.7	15760.9	16042.3	16235.7	16130.2	15982.9	17180.7	20119.3	22886.5	21649.0
55°	14103.8	14378.5	15064.2	15743.4	16730.3	17497.3	17690.7	18525.8	21147.9	24016.2	22879.8
57.5°	12193.8	12640.0	13255.4	14629.0	16290.6	18158.8	19681.9	20391.9	22238.1	25222.8	24167.9
60°	8918.9	9516.8	10281.7	12325.7	14752.1	17805.0	21376.5	23257.9	23787.6	26785.5	25844.8
62.5°	5707.9	6077.1	6780.5	8705.7	11494.9	15991.7	21895.2	26840.4	26414.0	29348.2	28359.2
65°	3907.8	4145.2	4789.2	5870.5	7431.0	11903.7	20506.1	29526.3	30585.6	33409.9	32658.2
67.5°	2839.7	3019.9	3569.4	4516.7	4841.9	7044.2	15912.6	29403.2	34640.7	37594.6	36425.3
70°	2070.4	2197.9	2659.5	3569.4	3725.4	3918.8	9639.9	24994.2	34552.8	38706.8	37306.7
72.5°	1534.1	1622.1	1931.9	2769.3	3015.4	2646.2	4771.6	18165.5	29691.1	35009.9	33886.8
75°	1110.0	1175.9	1404.5	2118.8	2413.3	2015.5	2380.3	10615.7	20710.5	24627.2	24825.0
77.5°	848.4	898.9	1048.4	1551.7	1931.9	1512.2	1476.9	4883.7	9820.1	9868.5	10422.3
80°	681.3	714.3	795.6	1092.3	1481.3	1131.9	962.7	1971.5	3103.4	2626.5	2756.1
82.5°	501.1	556.1	672.5	767.0	1059.3	780.2	586.8	995.7	1180.3	1015.5	1024.2
85°	285.8	323.1	406.6	549.5	676.9	476.9	336.3	441.8	549.5	450.6	402.2
87.5°	101.1	131.9	142.9	215.4	294.5	197.8	129.7	127.5	180.2	134.1	112.1
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°	6072.7	6072.7	6072.7	6072.7	6072.7	6072.7	6072.7	6072.7	6072.7	6072.7	6072.7
2.5°	6116.7	6105.7	6061.7	6002.4	5940.9	5881.6	5861.8	5820.0	5791.4	5776.0	5793.6
5°	6239.8	6204.6	6101.3	5969.4	5830.9	5681.5	5576.0	5479.3	5408.9	5343.0	5369.4
7.5°	6415.6	6354.1	6176.0	5945.2	5699.1	5450.7	5266.1	5125.4	5030.9	4969.4	4982.6
10°	6620.0	6525.5	6252.9	5907.9	5527.6	5171.6	4954.0	4833.1	4773.7	4740.8	4749.6
12.5°	6855.2	6721.1	6332.0	5822.2	5266.1	4859.5	4710.1	4674.9	4677.1	4679.2	4683.6
15°	7145.3	6958.5	6395.8	5635.3	4925.4	4620.0	4593.5	4650.7	4710.1	4738.6	4736.4
17.5°	7472.8	7209.0	6406.8	5327.6	4591.4	4466.1	4549.6	4672.7	4762.8	4802.3	4811.1
20°	7824.4	7463.9	6327.6	4892.4	4316.6	4340.8	4490.2	4648.5	4747.4	4797.9	4811.1
22.5°	8226.6	7736.5	6138.6	4435.3	4092.4	4204.5	4380.3	4534.2	4637.5	4688.0	4701.3
25°	8686.0	8042.0	5842.0	4050.7	3899.0	4050.7	4226.5	4354.0	4437.5	4483.7	4496.9
27.5°	9195.9	8360.7	5446.3	3745.1	3729.8	3892.4	4037.5	4136.4	4180.4	4215.5	4228.7
30°	9708.0	8650.8	4967.2	3514.4	3582.6	3736.4	3839.6	3883.6	3896.8	3903.4	3918.8
32.5°	10261.9	8901.4	4463.9	3323.2	3441.8	3584.7	3646.2	3666.0	3604.5	3562.8	3575.9
35°	10932.2	9169.5	3971.6	3171.6	3303.4	3426.5	3446.3	3428.7	3356.2	3270.5	3274.9
37.5°	11760.8	9503.6	3578.2	3063.8	3173.7	3255.1	3230.9	3226.5	3233.1	3132.0	3138.5
40°	12776.2	9938.8	3290.2	2980.3	3068.2	3085.9	3017.7	3055.0	3088.0	2934.2	2938.6
42.5°	13903.7	10464.1	3107.8	2923.2	2980.3	2938.6	2833.1	2874.8	2870.4	2668.2	2666.0
45°	15053.3	11035.6	3044.0	2881.4	2899.0	2815.5	2699.0	2710.0	2617.6	2435.2	2441.9
47.5°	16196.1	11648.7	3083.6	2846.2	2797.9	2703.3	2613.2	2565.0	2428.6	2292.4	2292.4
50°	17317.1	12292.7	3228.6	2775.9	2659.5	2604.5	2538.5	2452.8	2307.8	2191.2	2182.5
52.5°	18356.6	12941.0	3391.3	2659.5	2485.8	2518.7	2477.0	2378.1	2235.2	2116.5	2118.8
55°	19341.3	13589.4	3455.1	2499.0	2323.2	2444.0	2419.8	2237.5	2066.0	1969.3	1960.5
57.5°	20413.9	14369.7	3384.8	2294.6	2191.2	2358.3	2266.0	2063.8	1964.9	1892.4	1885.8
60°	21899.6	15593.9	3233.1	2041.8	2066.0	2230.8	2072.5	1989.1	1881.4	1800.1	1795.7
62.5°	24367.8	17877.5	2989.1	1791.3	1918.7	2041.8	1980.3	1896.8	1786.9	1707.8	1707.8
65°	28016.3	21051.2	2529.8	1595.6	1753.9	1857.2	1881.4	1797.8	1683.6	1600.0	1604.4
67.5°	31093.4	23042.5	1914.4	1433.1	1584.6	1707.8	1775.9	1694.5	1573.7	1492.4	1494.6
70°	30924.0	21596.3	1461.5	1272.5	1435.2	1560.5	1648.4	1584.6	1455.0	1378.1	1384.7
72.5°	27466.8	18066.5	1182.4	1110.0	1283.6	1406.6	1512.2	1463.8	1331.9	1257.2	1257.2
75°	20178.7	12824.6	945.0	945.0	1094.5	1246.2	1362.6	1331.9	1211.0	1158.2	1142.9
77.5°	8505.8	5380.4	740.7	784.6	909.9	1070.4	1215.4	1226.4	1120.9	1186.8	1077.0
80°	2261.7	1483.6	564.9	617.6	714.3	883.6	1057.2	1052.8	938.5	877.0	815.4
82.5°	861.6	584.7	402.2	435.2	516.5	676.9	837.4	863.8	749.5	648.4	648.4
85°	331.9	250.5	248.4	261.6	301.1	448.3	632.9	655.0	564.9	479.2	494.6
87.5°	85.7	74.7	92.4	87.9	138.5	239.5	362.6	375.9	345.1	200.0	285.8
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)