

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: P969442

Luminaire Tested: **NAV-SB5D-827-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969442
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-827-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 47035.2 lumens
Efficiency: N/A
Efficacy: 128.9 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



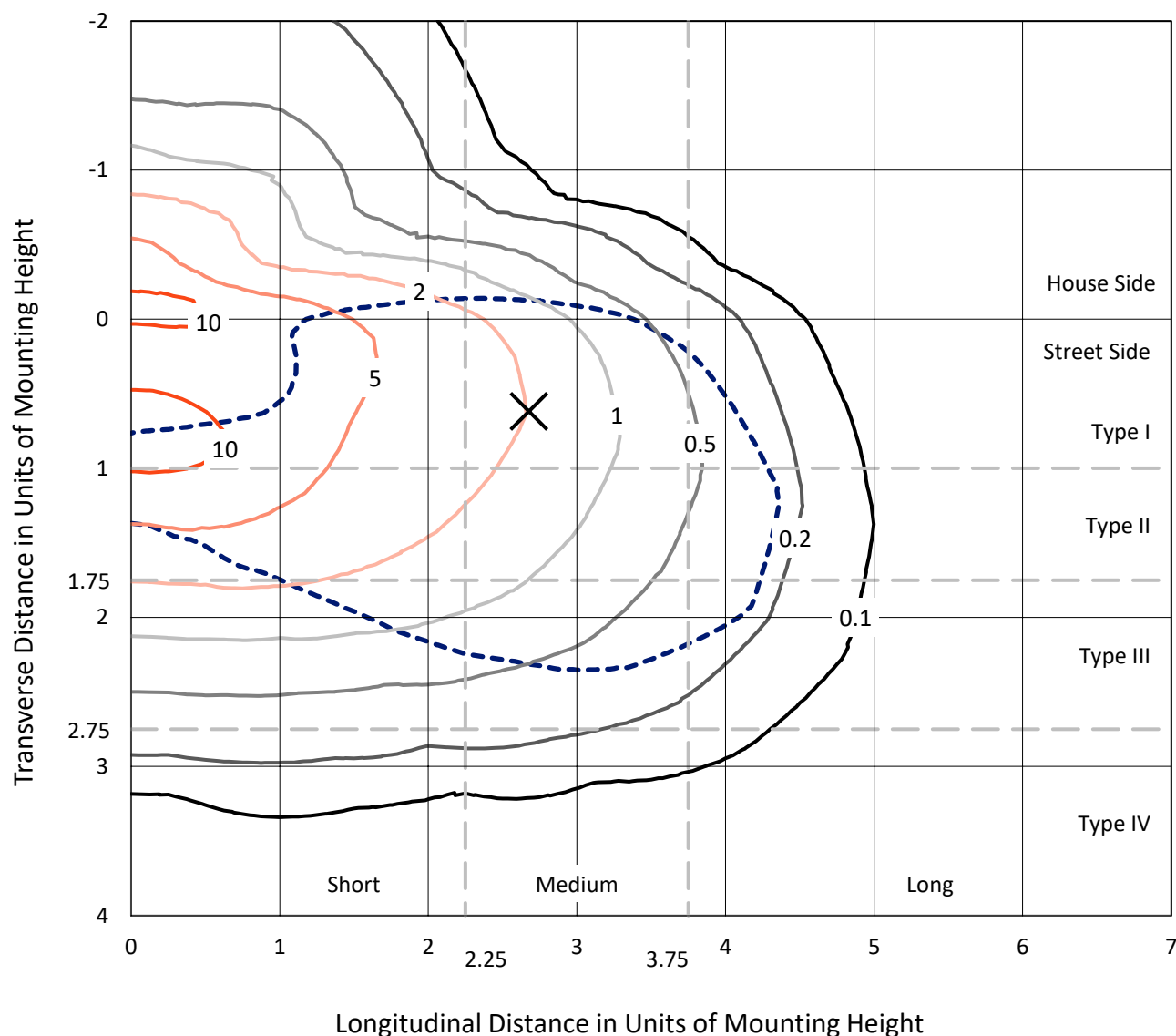
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

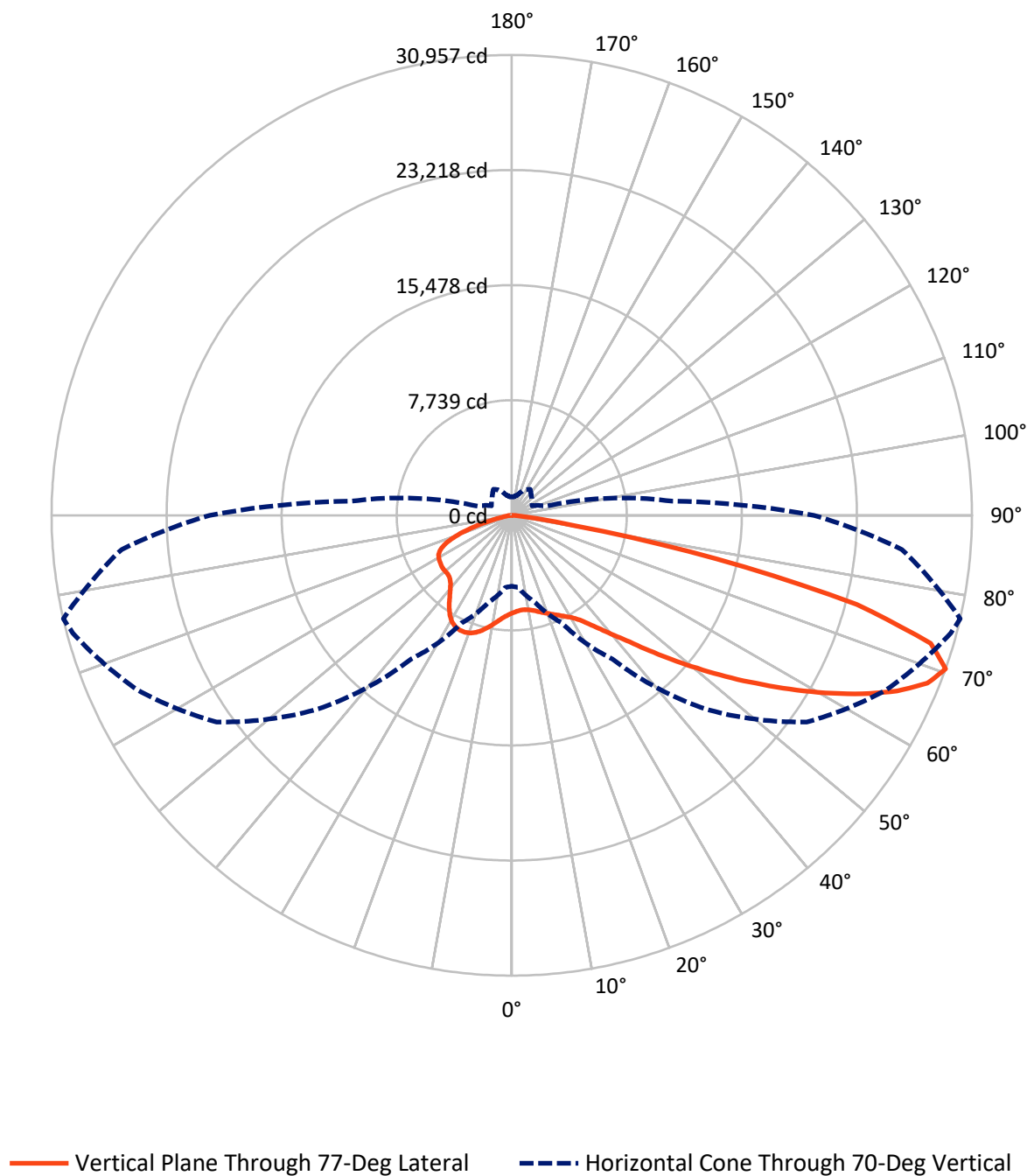


Based on 25 foot mounting height. Maximum calculated value = 12.5 fc

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	10300.0	0.0	10300.0
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	36735.2	0.0	36735.2
	% Fixture	78.1	0.0	78.1
Total	Lumens	47035.2	0.0	47035.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	625.8	1.3
10°-20°	1806.2	3.8
20°-30°	3088.8	6.6
30°-40°	4967.2	10.6
40°-50°	7755.0	16.5
50°-60°	10358.9	22.0
60°-70°	11041.0	23.5
70°-80°	6796.7	14.5
80°-90°	595.6	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°	47035.2	100.0
0°-180°	47035.2	100.0

Coefficient of Utilization



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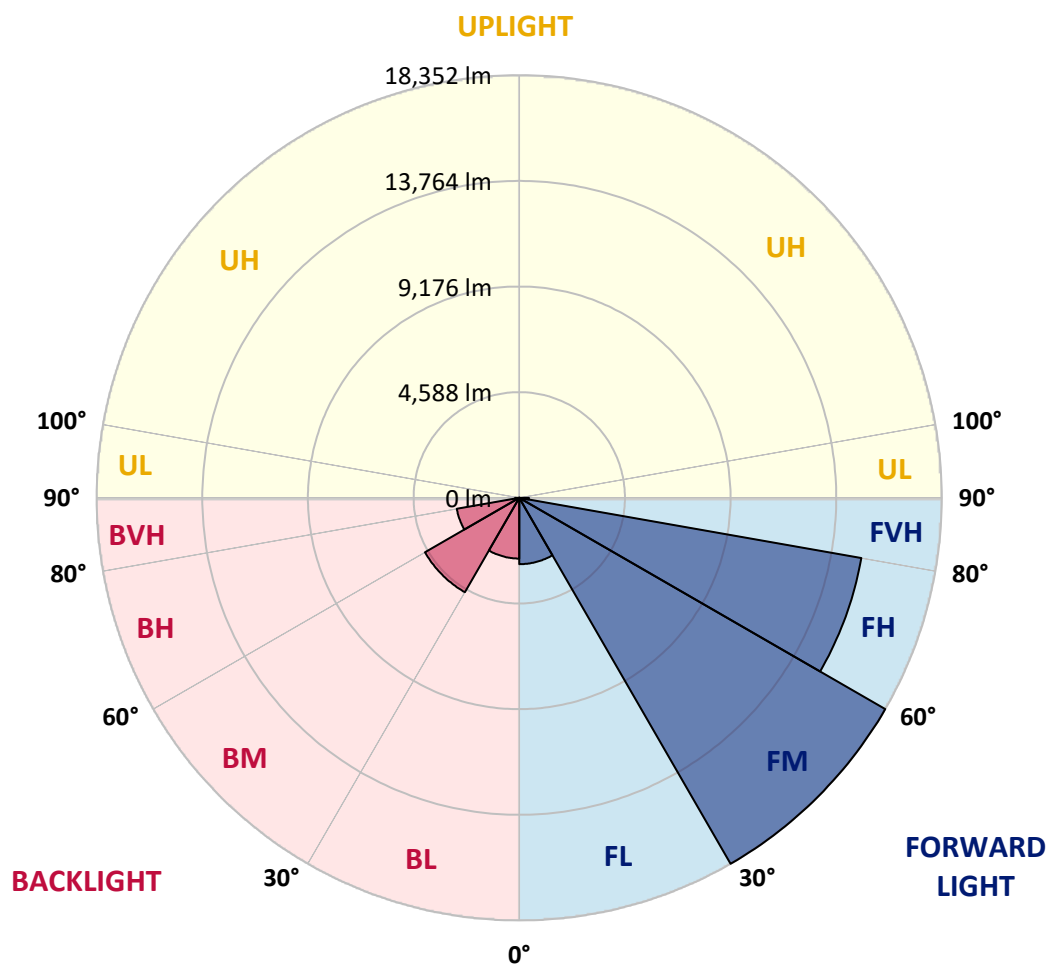
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2881.7	6.1			
FM	(30°-60°)	18352.1	39.0			
FH	(60°-80°)	15085.0	32.1			G5
FVH	(80°-90°)	416.5	0.9			G3/500
BL	(0°-30°)	2639.2	5.6	B4/5000		
BM	(30°-60°)	4729.0	10.1	B3/5000		
BH	(60°-80°)	2752.7	5.9	B4/5000		G4/5000
BVH	(80°-90°)	179.1	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°	6561.8	6561.8	6561.8	6561.8	6561.8	6561.8	6561.8	6561.8	6561.8	6561.8	6561.8
2.5°	6048.7	6046.4	6077.6	6087.3	6145.1	6186.1	6263.2	6345.1	6451.0	6463.0	6528.1
5°	5699.4	5699.4	5735.6	5774.1	5848.9	5930.8	6048.7	6190.9	6374.0	6402.9	6564.2
7.5°	5403.2	5422.5	5453.7	5528.4	5615.2	5733.1	5913.8	6116.2	6357.0	6402.9	6663.0
10°	5164.7	5186.4	5224.9	5285.1	5415.2	5579.0	5815.0	6075.3	6398.0	6470.3	6807.5
12.5°	5090.0	5111.7	5133.4	5179.1	5299.6	5492.3	5774.1	6094.5	6496.8	6569.0	7005.1
15°	5263.5	5289.9	5273.1	5261.0	5323.6	5499.5	5793.4	6164.3	6619.7	6723.3	7248.4
17.5°	5663.3	5673.0	5634.4	5521.2	5511.5	5605.5	5884.9	6260.7	6773.8	6887.1	7494.1
20°	6308.9	6292.1	6212.5	5988.6	5860.8	5841.6	6041.6	6405.2	6932.8	7053.2	7759.0
22.5°	7185.8	7166.5	7007.5	6653.4	6369.1	6181.3	6268.0	6593.1	7111.0	7245.9	8016.8
25°	8279.3	8252.9	8019.2	7537.4	7096.6	6631.6	6576.3	6841.3	7330.3	7455.5	8286.6
27.5°	9556.1	9534.4	9281.5	8645.6	8009.6	7248.4	6959.3	7132.8	7559.2	7701.2	8590.1
30°	10929.2	10991.8	10543.8	9859.6	9055.1	8052.9	7474.8	7491.7	7855.4	7983.1	8958.7
32.5°	12543.1	12651.6	12111.9	11244.8	10146.3	8927.3	8125.2	7992.7	8286.6	8392.6	9423.6
35°	14142.6	14265.5	13817.4	12858.7	11594.0	9958.4	8804.5	8568.5	8859.9	8975.5	10040.3
37.5°	15525.4	15689.2	15457.9	14624.4	13143.0	11201.4	9691.0	9245.4	9565.7	9710.2	10869.0
40°	16616.6	16867.1	16850.3	16329.9	14968.9	12709.4	10816.0	10081.3	10442.6	10599.1	11873.5
42.5°	17503.1	17719.9	17907.8	17881.2	16874.4	14422.1	12138.5	11167.7	11442.3	11622.9	13003.3
45°	18114.9	18346.2	18750.8	19186.9	18707.5	16255.3	13653.6	12456.4	12706.9	12979.2	14349.8
47.5°	18661.8	18924.3	19449.5	20140.8	20263.6	18095.7	15313.4	13957.1	14186.0	14467.9	15701.2
50°	18709.9	18936.4	19750.5	20730.9	21369.3	19863.8	17096.0	15641.0	15855.4	16156.5	17149.0
52.5°	17546.5	17903.0	19324.2	20714.1	21877.6	21342.9	18866.5	17392.2	17633.2	17994.5	18647.3
55°	13619.9	14142.6	18073.9	20068.6	21697.0	22299.2	20550.3	19254.3	19562.6	19940.9	20155.3
57.5°	11731.3	11960.2	14347.4	18893.0	20873.1	22547.3	21971.6	21135.7	21631.9	22046.2	21750.0
60°	10543.8	10734.0	12145.6	17064.6	19789.1	22154.7	23070.0	22889.4	23746.9	24240.7	23380.8
62.5°	9271.8	9452.6	10736.5	14248.6	18401.6	21501.8	23763.8	24508.2	25915.0	26454.5	24917.6
65°	8009.6	8163.7	9394.7	11972.2	16638.3	20849.0	24122.8	25907.7	27921.5	28480.4	26194.4
67.5°	6602.7	6730.5	7893.9	10100.6	14494.3	19955.3	24301.0	27008.5	29668.0	30147.4	26825.5
70°	4764.8	4863.5	6065.6	7987.9	11803.6	18418.4	24228.7	27789.1	30573.7	30956.7	26348.5
72.5°	2252.3	2341.4	3753.0	5186.4	8337.2	15426.6	22766.5	27170.0	29653.6	29463.2	23428.9
75°	1202.0	1279.1	2156.0	2844.9	4403.5	10575.0	18630.4	23404.8	24900.7	23975.8	17315.1
77.5°	814.2	874.4	1334.6	1708.0	2011.5	5020.1	11974.7	16204.6	15590.4	14063.1	8672.0
80°	645.5	708.2	1093.7	1156.3	973.2	1813.9	4947.9	7501.4	5388.7	4309.5	2466.7
82.5°	496.2	566.1	920.2	838.3	529.9	744.4	1440.5	2372.8	1380.3	1050.3	597.4
85°	303.5	378.2	722.6	534.7	298.7	339.7	489.0	660.0	421.6	351.7	214.4
87.5°	154.2	216.8	366.1	195.2	134.9	79.5	130.1	130.1	110.8	96.4	55.5
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°	6561.8	6561.8	6561.8	6561.8	6561.8	6561.8	6561.8	6561.8	6561.8	6561.8	6561.8
2.5°	6585.9	6634.1	6716.0	6793.1	6853.4	6911.2	6969.0	7000.2	7009.9	7048.4	7070.1
5°	6663.0	6752.2	6911.2	7060.5	7154.4	7212.2	7253.2	7277.3	7282.1	7294.1	7313.4
7.5°	6805.2	6947.2	7168.8	7318.2	7388.1	7383.3	7366.4	7306.2	7282.1	7260.4	7265.2
10°	7005.1	7192.9	7465.2	7568.8	7525.4	7409.7	7260.4	7084.6	7002.7	6923.2	6899.1
12.5°	7253.2	7491.7	7759.0	7754.2	7539.9	7243.6	6896.7	6626.8	6455.9	6333.0	6304.1
15°	7554.4	7828.9	8033.6	7869.8	7400.1	6867.8	6359.5	6007.8	5853.7	5718.7	5704.2
17.5°	7865.0	8158.9	8252.9	7833.8	7048.4	6311.3	5735.6	5458.5	5306.8	5234.6	5256.2
20°	8168.5	8460.0	8383.0	7626.6	6513.7	5680.1	5167.1	5015.3	4984.0	5000.9	4993.7
22.5°	8488.9	8749.1	8409.5	7226.7	5831.9	5034.6	4752.7	4757.5	4827.4	4878.0	4890.1
25°	8816.5	8992.4	8339.6	6648.6	5099.7	4560.0	4490.2	4567.3	4704.5	4803.4	4829.8
27.5°	9132.1	9209.2	8187.8	5933.1	4470.9	4220.4	4232.4	4391.4	4598.6	4735.9	4769.6
30°	9488.6	9401.9	7896.4	5128.6	4034.9	3928.9	4030.1	4215.6	4422.8	4545.6	4574.5
32.5°	9890.9	9568.2	7433.8	4384.2	3726.6	3695.2	3861.5	3981.9	4073.5	4109.5	4128.8
35°	10392.0	9801.8	6841.3	3861.5	3449.5	3524.3	3683.2	3623.0	3586.9	3567.6	3586.9
37.5°	11042.4	10117.4	6147.5	3521.8	3225.5	3401.4	3466.4	3278.5	3136.4	3066.5	3083.4
40°	11825.3	10579.8	5480.3	3259.2	3083.4	3295.4	3182.1	2955.7	2775.1	2676.3	2683.6
42.5°	12694.9	11064.1	4919.0	3061.7	3003.9	3208.7	2972.6	2702.8	2411.3	2379.9	2411.3
45°	13607.9	11562.7	4535.9	2910.0	2965.3	3133.9	2852.2	2416.1	2209.0	2336.6	2404.0
47.5°	14520.9	12020.4	4304.7	2796.7	2946.1	3049.7	2746.2	2257.2	2110.2	2295.7	2382.4
50°	15537.4	12429.9	4201.2	2714.8	2924.4	3016.0	2587.2	2216.2	2006.6	2129.4	2221.0
52.5°	16546.7	12747.9	4124.0	2632.9	2893.1	2989.4	2510.1	2168.0	1881.4	1888.6	1939.2
55°	17553.6	12955.1	4039.7	2524.6	2823.3	2931.6	2502.8	2115.0	1787.4	1753.7	1777.8
57.5°	18628.0	13073.1	3936.1	2404.0	2702.8	2784.7	2495.7	2074.1	1758.5	1703.1	1710.3
60°	19721.6	13246.5	3801.2	2257.2	2541.4	2608.8	2478.8	2059.6	1741.7	1647.7	1654.9
62.5°	20702.0	13306.8	3639.9	2117.4	2334.2	2435.4	2442.6	2047.5	1695.9	1534.4	1534.4
65°	21345.2	13046.6	3358.0	1958.5	2110.2	2257.2	2372.8	2006.6	1614.0	1452.5	1452.5
67.5°	21318.8	12304.6	2917.1	1753.7	1893.4	2059.6	2271.6	1936.7	1515.2	1351.4	1358.6
70°	20326.3	10840.1	2358.3	1515.2	1654.9	1847.7	2141.5	1833.2	1397.2	1240.6	1255.0
72.5°	17433.2	8484.1	1712.8	1235.7	1377.9	1628.4	1972.9	1708.0	1276.7	1141.8	1134.6
75°	12454.0	5369.5	1161.1	949.1	1071.9	1380.3	1763.3	1561.0	1165.9	1146.7	1081.6
77.5°	6361.9	2565.5	768.4	693.7	746.7	1088.9	1481.4	1394.7	1182.7	946.7	843.2
80°	2069.3	946.7	484.2	472.1	496.2	725.1	1146.7	1144.2	896.2	643.2	568.5
82.5°	660.0	407.1	315.6	303.5	291.5	455.3	799.7	905.8	604.6	407.1	404.7
85°	262.6	243.3	185.5	171.1	122.9	214.4	419.1	602.2	450.5	293.9	301.1
87.5°	96.4	96.4	50.6	36.2	26.5	72.3	113.3	180.7	257.8	151.8	149.3
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)