

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: P884777

Luminaire Tested: **NAV-SB5D-730-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884777
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-730-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 50364 lumens
Efficiency: N/A
Efficacy: 138.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B4 - U0 - G5

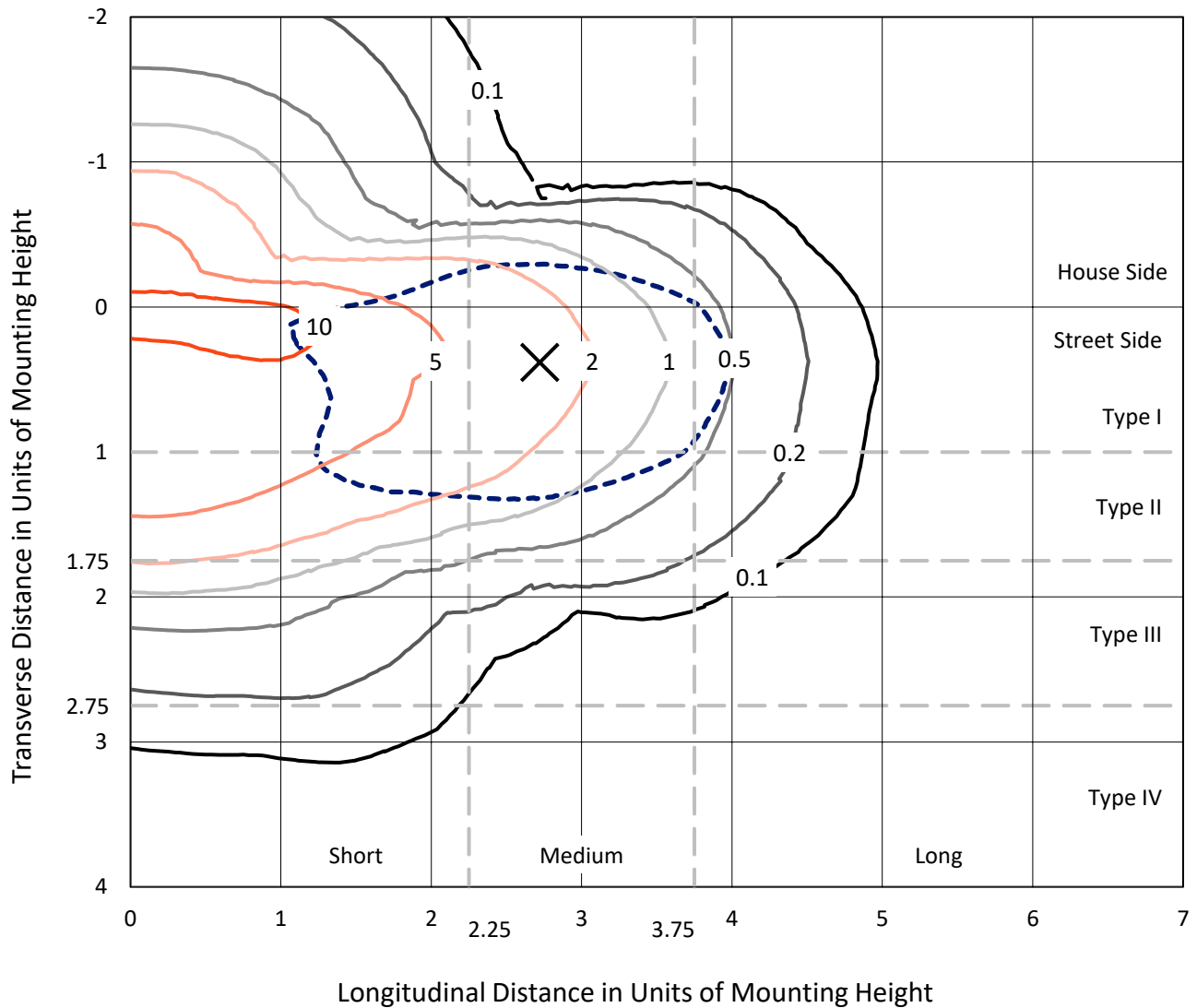
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

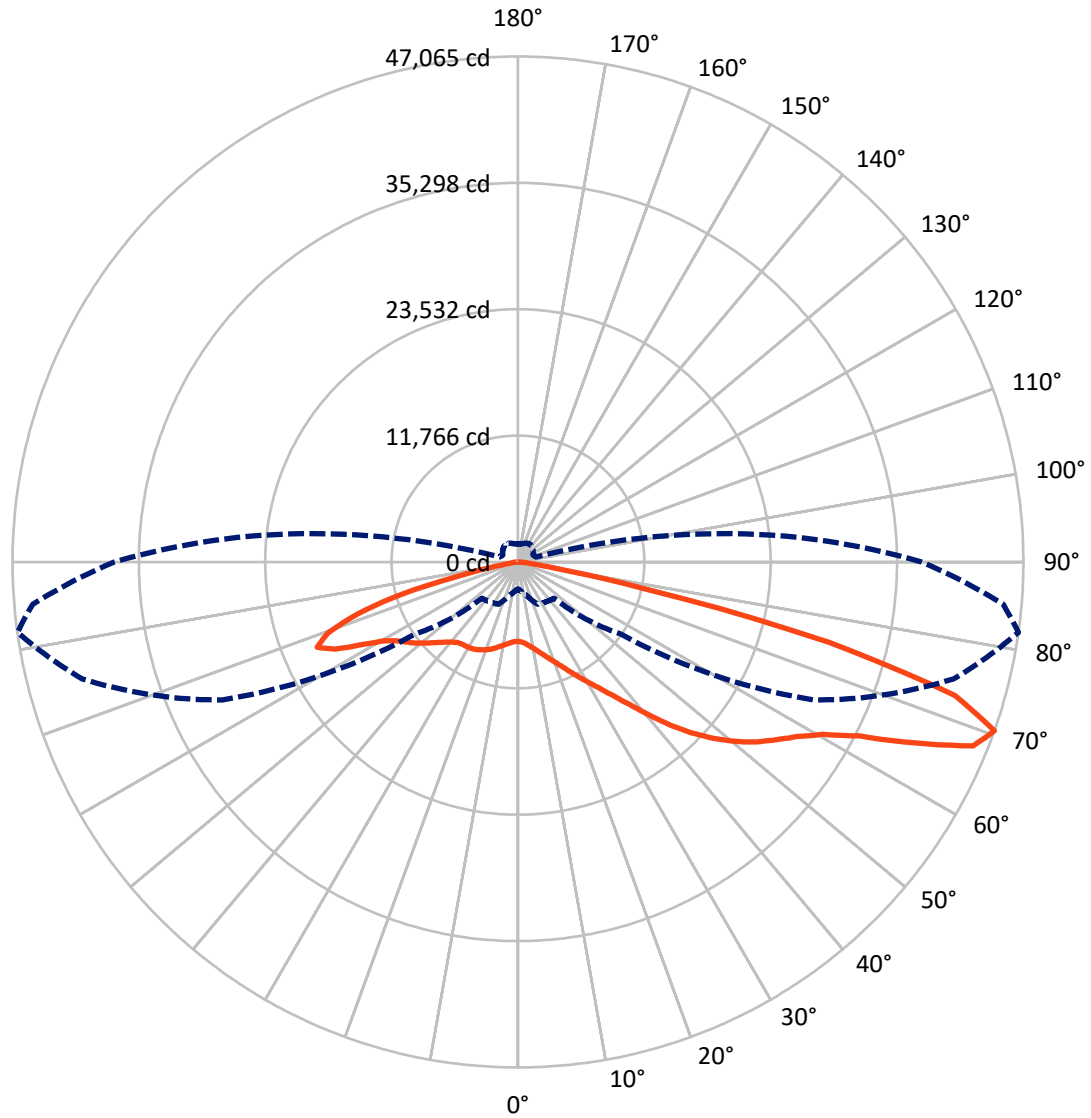
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.4 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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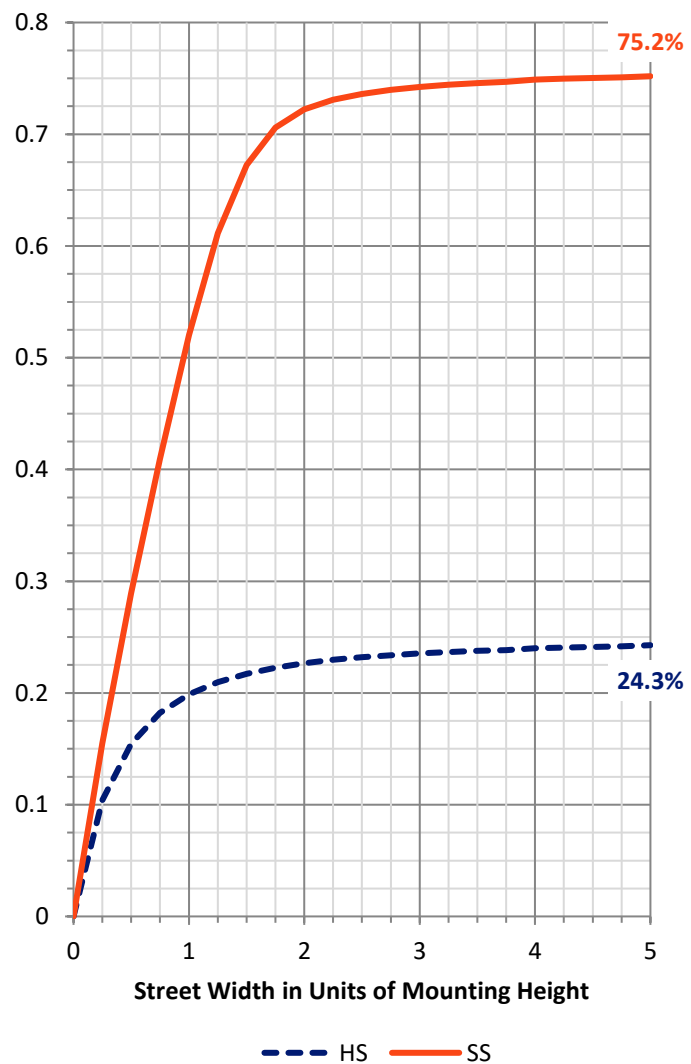
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12416.0	0.0	12416.0
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	37948.0	0.0	37948.0
	% Fixture	75.3	0.0	75.3
Total	Lumens	50364.0	0.0	50364.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	697.2	1.4
10°-20°	2003.0	4.0
20°-30°	3350.9	6.7
30°-40°	5234.9	10.4
40°-50°	8337.3	16.6
50°-60°	11602.3	23.0
60°-70°	12136.5	24.1
70°-80°	6343.2	12.6
80°-90°	658.7	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°	50364.0	100.0
0°-180°	50364.0	100.0

Coefficient of Utilization



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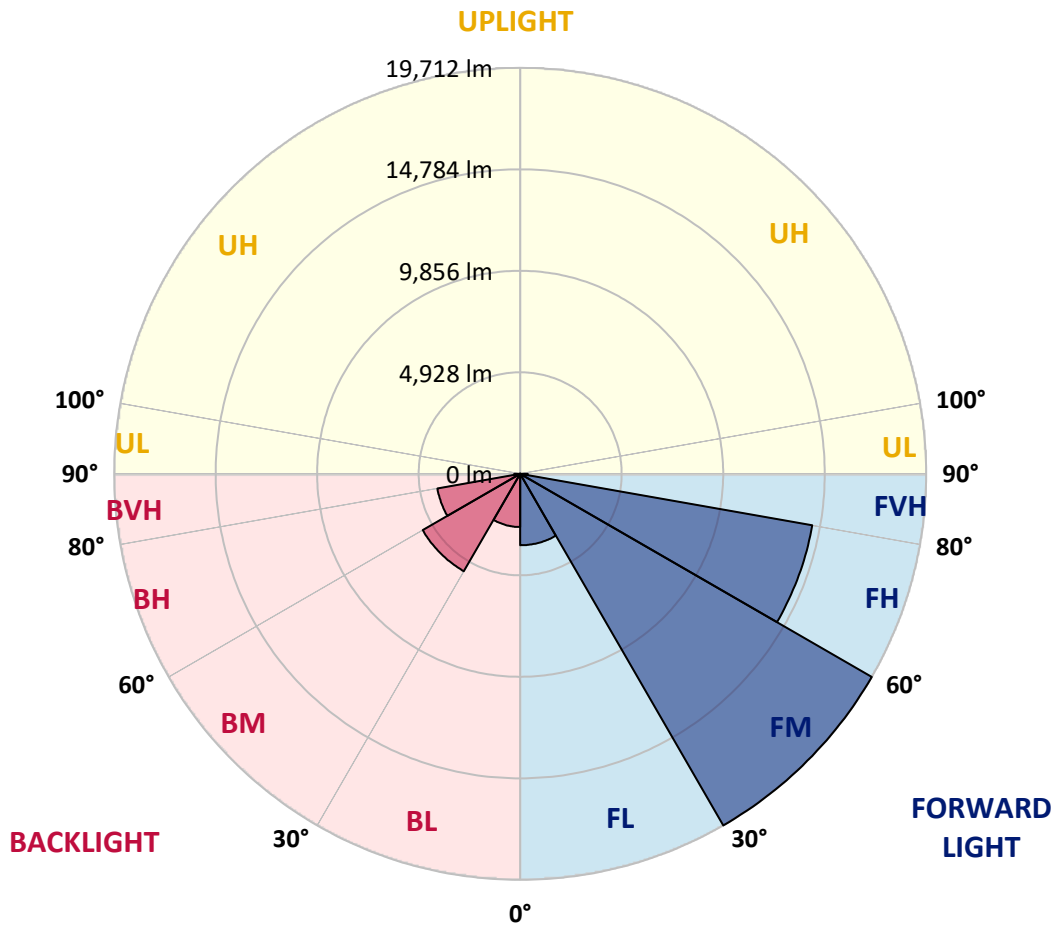
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3468.1	6.9			
FM (30°-60°)	19712.0	39.1			
FH (60°-80°)	14399.2	28.6			G5
FVH (80°-90°)	368.7	0.7			G3/500
BL (0°-30°)	2583.0	5.1	B4/5000		
BM (30°-60°)	5462.5	10.8	B4/8500		
BH (60°-80°)	4080.5	8.1	B4/5000		G4/5000
BVH (80°-90°)	289.9	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-G5

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	7384.0	7384.0	7384.0	7384.0	7384.0	7384.0	7384.0	7384.0	7384.0	7384.0	7384.0
2.5°	7560.4	7603.1	7589.8	7576.4	7576.4	7557.7	7555.0	7528.3	7506.9	7472.2	7464.2
5°	7656.6	7702.0	7696.7	7707.4	7742.1	7750.1	7758.1	7742.1	7699.3	7656.6	7637.9
7.5°	7571.1	7621.8	7637.9	7702.0	7808.9	7905.1	7977.3	8006.7	7966.6	7905.1	7875.7
10°	7282.4	7338.6	7394.7	7547.0	7736.8	7963.9	8156.3	8271.2	8263.2	8204.4	8153.7
12.5°	6697.2	6756.0	6876.2	7172.9	7520.3	7921.2	8279.3	8519.8	8602.6	8559.9	8471.7
15°	6229.5	6280.3	6371.1	6675.8	7127.4	7736.8	8324.7	8792.4	9003.5	8979.4	8872.5
17.5°	6216.1	6237.5	6293.6	6437.9	6785.4	7448.1	8276.6	9059.6	9463.2	9460.5	9326.9
20°	6451.3	6459.3	6491.4	6520.8	6718.6	7229.0	8153.7	9281.4	9978.9	9978.9	9834.6
22.5°	6777.3	6772.0	6804.1	6777.3	6873.6	7210.3	8076.2	9476.5	10553.5	10596.3	10414.6
25°	7266.4	7239.7	7231.7	7170.2	7188.9	7384.0	8161.7	9698.3	11235.0	11323.2	11096.0
27.5°	7918.5	7875.7	7846.3	7704.7	7656.6	7742.1	8423.6	9965.6	11994.0	12146.3	11857.7
30°	8768.3	8690.8	8648.1	8402.2	8228.5	8241.9	8819.1	10321.0	12787.7	13033.6	12667.4
32.5°	9928.2	9807.9	9693.0	9289.5	8971.4	8867.2	9329.5	10812.8	13648.2	14041.1	13570.7
35°	11227.0	11130.8	11007.8	10385.2	9896.1	9655.6	10019.0	11499.6	14655.7	15278.4	14666.4
37.5°	12477.7	12394.8	12453.6	11614.5	10983.8	10633.7	10922.3	12421.6	15898.4	16817.8	16040.1
40°	13771.2	13707.0	13715.0	12913.3	12178.4	11785.5	12018.0	13578.7	17322.9	18648.4	17691.6
42.5°	15176.9	15128.8	14968.4	14257.5	13431.8	13065.6	13279.4	14915.0	18851.5	20732.9	19503.6
45°	16750.9	16721.5	16571.9	15756.8	14810.7	14399.2	14687.8	16390.2	20388.2	22694.5	21323.5
47.5°	18111.2	18135.3	18116.6	17429.7	16449.0	15845.0	16189.7	17929.5	21817.9	24538.5	23068.6
50°	18766.0	18891.6	19076.0	18862.2	18252.9	17638.2	17705.0	19415.4	23180.9	26267.6	24741.6
52.5°	18423.9	18661.8	19164.2	19506.2	19741.4	19613.1	19434.1	20890.6	24463.6	27828.3	26323.7
55°	17149.1	17483.2	18317.0	19142.8	20342.7	21275.4	21510.6	22526.1	25714.4	29201.9	27820.3
57.5°	14826.8	15369.3	16117.6	17787.9	19808.2	22079.8	23931.8	24795.0	27039.9	30669.1	29386.3
60°	10844.8	11571.7	12501.7	14987.1	17937.5	21649.6	25992.3	28279.9	28924.0	32569.2	31425.4
62.5°	6940.4	7389.3	8244.5	10585.6	13976.9	19444.8	26623.0	32636.0	32117.6	35685.3	34482.7
65°	4751.6	5040.2	5823.3	7138.1	9035.6	14474.0	24934.0	35901.8	37189.9	40624.0	39710.0
67.5°	3452.8	3672.0	4340.1	5491.9	5887.4	8565.2	19348.6	35752.1	42120.6	45712.3	44290.6
70°	2517.5	2672.5	3233.7	4340.1	4529.8	4765.0	11721.4	30391.2	42013.7	47064.6	45362.2
72.5°	1865.4	1972.3	2349.1	3367.3	3666.6	3217.6	5801.9	22087.8	36102.2	42569.5	41203.9
75°	1349.6	1429.8	1707.7	2576.2	2934.4	2450.6	2894.3	12908.0	25182.5	29944.9	30185.4
77.5°	1031.6	1093.0	1274.8	1886.8	2349.1	1838.6	1795.9	5938.2	11940.5	11999.3	12672.8
80°	828.5	868.5	967.4	1328.2	1801.2	1376.3	1170.5	2397.2	3773.5	3193.6	3351.3
82.5°	609.3	676.1	817.8	932.7	1288.1	948.7	713.5	1210.6	1435.1	1234.7	1245.4
85°	347.4	392.9	494.4	668.1	823.1	579.9	408.9	537.2	668.1	547.9	489.1
87.5°	122.9	160.3	173.7	261.9	358.1	240.5	157.7	155.0	219.1	163.0	136.3
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°	7384.0	7384.0	7384.0	7384.0	7384.0	7384.0	7384.0	7384.0	7384.0	7384.0	7384.0
2.5°	7437.4	7424.1	7370.6	7298.5	7223.6	7151.5	7127.4	7076.7	7041.9	7023.2	7044.6
5°	7587.1	7544.3	7418.7	7258.4	7090.0	6908.3	6780.0	6662.4	6576.9	6496.7	6528.8
7.5°	7800.9	7726.1	7509.6	7229.0	6929.7	6627.7	6403.2	6232.2	6117.2	6042.4	6058.5
10°	8049.4	7934.5	7603.1	7183.6	6721.2	6288.3	6023.7	5876.7	5804.6	5764.5	5775.2
12.5°	8335.4	8172.4	7699.3	7079.3	6403.2	5908.8	5727.1	5684.3	5687.0	5689.7	5695.0
15°	8688.2	8461.0	7776.8	6852.2	5989.0	5617.5	5585.4	5654.9	5727.1	5761.8	5759.1
17.5°	9086.3	8765.7	7790.2	6478.0	5582.8	5430.4	5532.0	5681.6	5791.2	5839.3	5850.0
20°	9513.9	9075.7	7694.0	5948.9	5248.7	5278.1	5459.8	5652.2	5772.5	5834.0	5850.0
22.5°	10003.0	9407.0	7464.2	5393.0	4976.1	5112.4	5326.2	5513.3	5638.9	5700.3	5716.4
25°	10561.5	9778.5	7103.4	4925.3	4740.9	4925.3	5139.1	5294.1	5395.7	5451.8	5467.8
27.5°	11181.6	10166.0	6622.3	4553.9	4535.2	4732.9	4909.3	5029.6	5083.0	5125.8	5141.8
30°	11804.2	10518.8	6039.7	4273.3	4356.1	4543.2	4668.8	4722.2	4738.3	4746.3	4765.0
32.5°	12477.7	10823.4	5427.8	4040.8	4185.1	4358.8	4433.6	4457.7	4382.8	4332.0	4348.1
35°	13292.8	11149.5	4829.1	3856.4	4016.7	4166.4	4190.4	4169.0	4080.8	3976.6	3982.0
37.5°	14300.3	11555.7	4350.8	3725.4	3859.0	3957.9	3928.5	3923.2	3931.2	3808.2	3816.3
40°	15535.0	12084.8	4000.7	3623.8	3730.7	3752.1	3669.3	3714.7	3754.8	3567.7	3573.1
42.5°	16905.9	12723.6	3778.9	3554.4	3623.8	3573.1	3444.8	3495.6	3490.2	3244.4	3241.7
45°	18303.6	13418.4	3701.3	3503.6	3525.0	3423.4	3281.8	3295.1	3182.9	2961.1	2969.1
47.5°	19693.3	14164.0	3749.5	3460.8	3402.0	3287.1	3177.5	3118.8	2953.1	2787.4	2787.4
50°	21056.3	14947.0	3925.8	3375.3	3233.7	3166.9	3086.7	2982.5	2806.1	2664.4	2653.7
52.5°	22320.3	15735.4	4123.6	3233.7	3022.5	3062.6	3011.9	2891.6	2717.9	2573.6	2576.2
55°	23517.6	16523.8	4201.1	3038.6	2824.8	2971.8	2942.4	2720.6	2512.1	2394.5	2383.8
57.5°	24821.8	17472.5	4115.6	2790.0	2664.4	2867.5	2755.3	2509.4	2389.2	2301.0	2293.0
60°	26628.3	18961.1	3931.2	2482.7	2512.1	2712.5	2520.1	2418.6	2287.6	2188.7	2183.4
62.5°	29629.5	21737.7	3634.5	2178.1	2333.1	2482.7	2407.9	2306.3	2172.7	2076.5	2076.5
65°	34065.8	25596.8	3076.0	1940.2	2132.6	2258.2	2287.6	2186.1	2047.1	1945.5	1950.9
67.5°	37807.2	28018.0	2327.7	1742.4	1926.8	2076.5	2159.3	2060.5	1913.5	1814.6	1817.3
70°	37601.4	26259.5	1777.2	1547.4	1745.1	1897.4	2004.3	1926.8	1769.2	1675.6	1683.6
72.5°	33397.7	21967.6	1437.8	1349.6	1560.7	1710.4	1838.6	1779.9	1619.5	1528.6	1528.6
75°	24535.8	15593.8	1149.2	1149.2	1330.9	1515.3	1656.9	1619.5	1472.5	1408.4	1389.7
77.5°	10342.4	6542.2	900.6	954.1	1106.4	1301.5	1477.9	1491.2	1363.0	1443.1	1309.5
80°	2750.0	1803.9	686.8	751.0	868.5	1074.3	1285.5	1280.1	1141.1	1066.3	991.5
82.5°	1047.6	710.9	489.1	529.1	628.0	823.1	1018.2	1050.3	911.3	788.4	788.4
85°	403.5	304.7	302.0	318.0	366.1	545.2	769.7	796.4	686.8	582.6	601.3
87.5°	104.2	90.9	112.2	106.9	168.4	291.3	441.0	457.0	419.6	243.2	347.4
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)