

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: P968367

Luminaire Tested: **NAV-SB5B-827-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968367
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-14)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-827-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25784.9 lumens
Efficiency: N/A
Efficacy: 141.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G2

Input Watts (W): 182.7
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

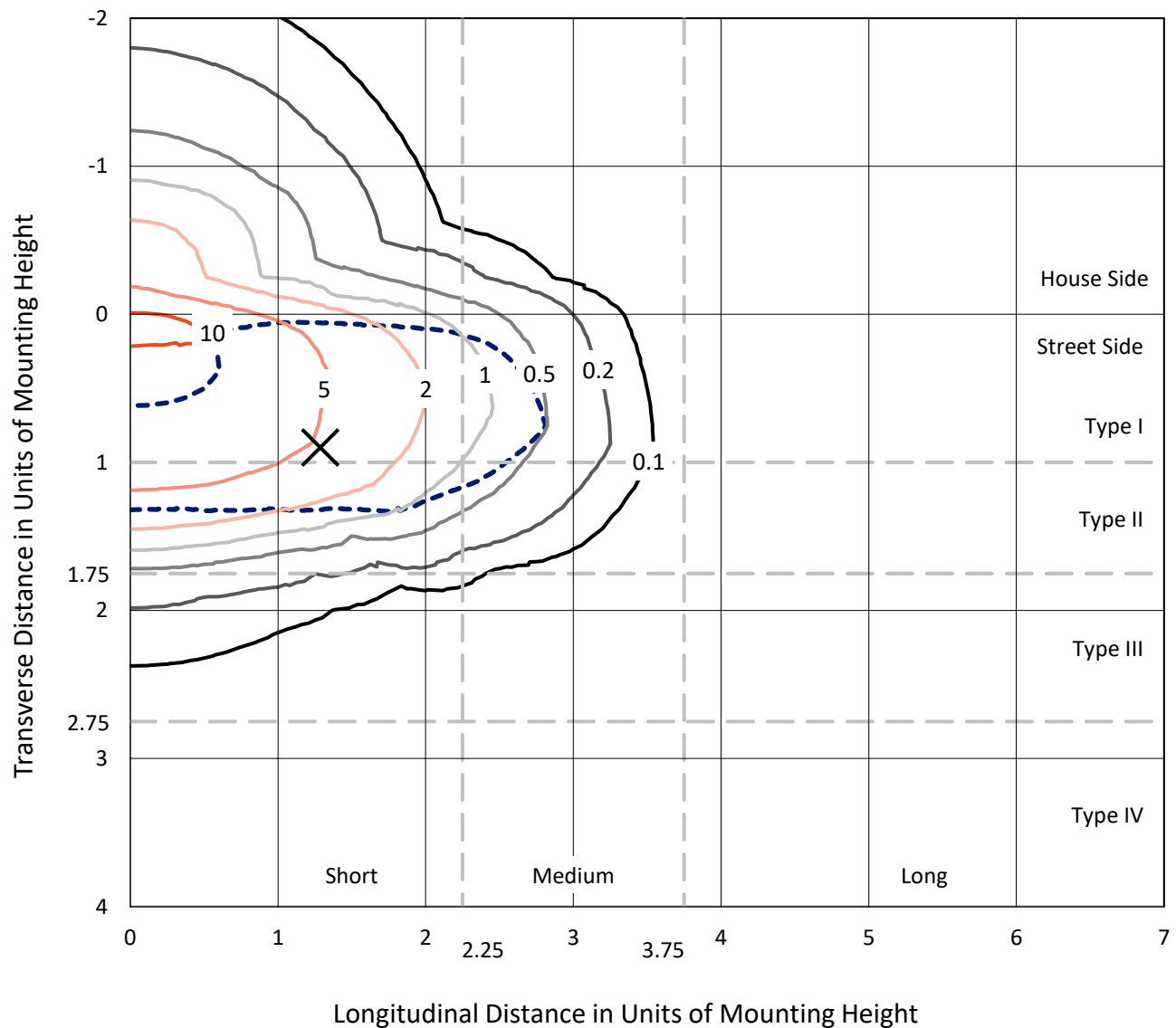


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Iso-Footcandle Lines of Horizontal Illumination

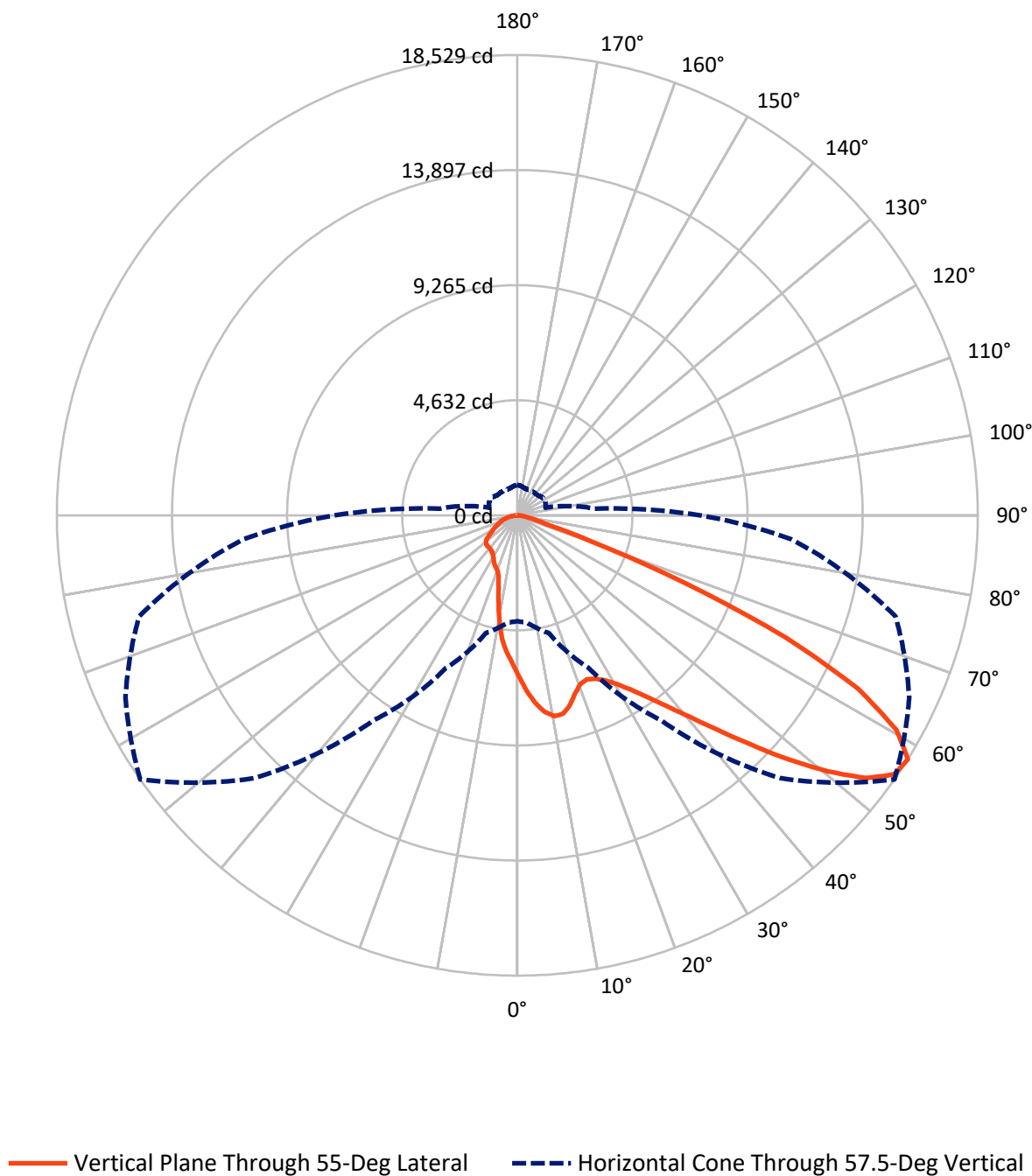
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.5 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4665.6	0.0	4665.6
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	21119.2	0.0	21119.2
	% Fixture	81.9	0.0	81.9
Total	Lumens	25784.9	0.0	25784.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	599.5	2.3
10°-20°	1513.2	5.9
20°-30°	2414.7	9.4
30°-40°	3823.1	14.8
40°-50°	5851.6	22.7
50°-60°	6267.6	24.3
60°-70°	3943.0	15.3
70°-80°	1166.0	4.5
80°-90°	206.2	0.8
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°	25784.9	100.0
0°-180°	25784.9	100.0

Coefficient of Utilization



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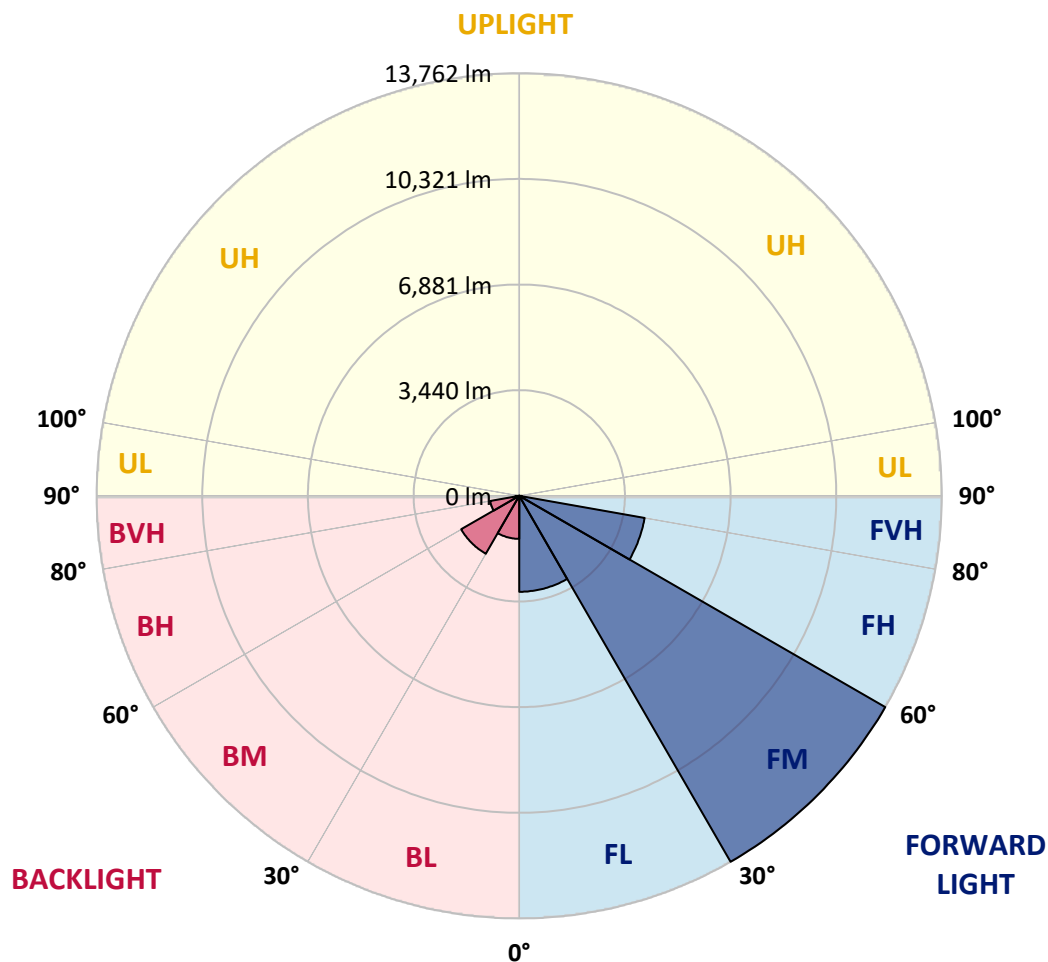
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3125.1	12.1			
FM	(30°-60°)	13761.6	53.4			
FH	(60°-80°)	4145.4	16.1			G2/5000
FVH	(80°-90°)	87.1	0.3			G1/100
BL	(0°-30°)	1402.3	5.4	B3/2500		
BM	(30°-60°)	2180.7	8.5	B2/2500		
BH	(60°-80°)	963.6	3.7	B2/1000		G2/1000
BVH	(80°-90°)	119.1	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-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6460.9	6460.9	6460.9	6460.9	6460.9	6460.9	6460.9	6460.9	6460.9	6460.9	6460.9
2.5°	7412.6	7407.3	7436.6	7336.6	7268.6	7176.6	7055.4	6900.7	6734.1	6558.2	6482.2
5°	8080.4	8033.7	8064.4	7989.8	7915.2	7776.5	7596.6	7344.6	7036.7	6686.2	6499.5
7.5°	7975.1	7943.1	8021.8	8088.4	8144.3	8127.0	7995.1	7731.2	7334.0	6824.8	6554.2
10°	7126.0	7090.0	7200.6	7431.2	7769.8	8064.4	8224.4	8060.4	7637.9	6976.8	6607.5
12.5°	6376.8	6359.5	6432.9	6619.4	6995.4	7560.5	8195.1	8348.3	7953.8	7156.7	6679.5
15°	6056.9	6035.6	6082.2	6177.0	6416.9	6943.4	7928.5	8545.6	8264.4	7364.6	6794.1
17.5°	5986.3	5962.3	5982.3	6031.6	6186.3	6587.5	7525.9	8642.9	8588.3	7596.6	6890.0
20°	6117.0	6097.0	6099.7	6097.0	6204.9	6523.5	7245.9	8605.6	8870.9	7809.8	6983.4
22.5°	6432.9	6399.6	6400.9	6330.2	6388.9	6635.4	7172.6	8505.7	9122.8	7996.4	7054.0
25°	6947.3	6887.4	6899.4	6719.5	6703.5	6886.1	7287.3	8428.3	9373.4	8145.7	7067.4
27.5°	7651.2	7583.3	7547.2	7279.3	7151.3	7241.9	7520.5	8454.9	9610.6	8275.0	7034.1
30°	8531.0	8448.3	8375.0	7995.1	7763.1	7729.8	7883.2	8630.9	9890.5	8410.9	6976.8
32.5°	9609.3	9513.3	9380.1	8876.2	8549.6	8375.0	8352.3	8944.2	10218.4	8584.3	6947.3
35°	10893.0	10767.6	10578.4	9926.5	9513.3	9156.1	8970.8	9396.1	10667.7	8845.5	6980.8
37.5°	12215.2	12074.0	11900.7	11124.8	10617.1	10090.5	9725.3	10009.2	11266.2	9200.1	7068.7
40°	13434.9	13276.3	13115.0	12424.5	11879.3	11244.9	10649.0	10784.9	11997.9	9623.9	7217.9
42.5°	14154.7	14037.4	13976.1	13602.9	13181.6	12537.8	11798.1	11704.7	12820.4	10111.8	7388.6
45°	14122.8	14074.7	14264.0	14418.7	14318.6	13961.4	13144.3	12721.8	13645.5	10534.3	7545.8
47.5°	13368.3	13400.2	13822.8	14691.9	15074.5	15261.0	14677.2	13720.1	14362.6	10850.3	7616.6
50°	11315.5	11342.1	12320.6	14194.7	15269.0	16320.8	16198.2	14694.6	14918.5	11043.6	7600.6
52.5°	9690.7	9708.0	10127.8	12720.5	14626.5	16854.0	17568.4	15613.0	15325.1	11096.9	7511.2
55°	7299.3	7359.3	7829.8	9979.9	12955.1	16431.4	18402.8	16559.4	15582.4	11102.2	7417.9
57.5°	4264.1	4329.5	4910.7	6774.1	10069.2	14958.4	18529.4	17399.2	15756.9	11059.5	7362.0
60°	2088.7	2116.7	2370.0	3560.3	6208.9	12120.6	17511.1	17805.7	15854.2	11036.9	7359.3
62.5°	1407.6	1403.6	1414.3	1756.8	3059.1	7787.1	15389.0	17093.9	15802.2	10950.3	7332.6
65°	1210.3	1195.7	1155.7	1233.0	1584.9	3561.7	11890.0	14969.1	15406.4	10733.0	7150.0
67.5°	1046.4	1047.8	1049.1	1025.0	1131.7	1643.6	7265.9	11791.4	13985.4	9704.0	6446.2
70°	866.4	878.4	883.8	883.8	922.4	1078.4	3101.8	8081.7	11031.6	7608.6	5191.8
72.5°	789.1	763.8	766.5	753.2	753.2	821.1	1249.0	4581.3	6950.0	4280.1	3168.5
75°	643.8	659.8	662.5	653.1	622.5	626.5	741.1	1922.1	2973.8	1775.5	1566.2
77.5°	555.9	555.9	561.2	554.5	530.5	469.2	494.6	745.2	1011.7	727.7	782.5
80°	446.6	445.3	467.9	481.2	443.8	346.6	315.9	411.8	449.3	319.9	406.5
82.5°	217.3	230.6	321.2	366.5	337.2	250.6	193.3	255.9	240.0	141.2	182.7
85°	126.6	119.9	143.9	204.0	193.3	138.6	93.3	133.2	125.3	72.0	73.3
87.5°	40.0	37.3	29.3	69.3	56.0	38.6	25.3	38.6	34.6	16.0	16.0
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6460.9	6460.9	6460.9	6460.9	6460.9	6460.9	6460.9	6460.9	6460.9	6460.9
2.5°	6387.6	6230.3	6074.3	5931.7	5845.1	5789.1	5733.0	5670.4	5646.4	5610.4
5°	6323.5	6019.6	5749.0	5515.8	5303.9	5137.2	4969.3	4833.3	4772.0	4813.3
7.5°	6286.2	5846.4	5429.1	5001.3	4589.3	4260.1	3973.5	3772.3	3681.6	3704.2
10°	6252.9	5650.4	5014.6	4338.8	3747.0	3339.0	3045.8	2892.5	2835.3	2847.2
12.5°	6222.3	5430.4	4514.7	3625.6	2996.5	2727.2	2643.3	2644.6	2655.3	2663.3
15°	6216.9	5165.2	3956.2	3001.8	2591.3	2574.0	2664.6	2721.9	2752.5	2761.9
17.5°	6208.9	4847.9	3387.0	2576.6	2492.6	2610.0	2693.9	2731.2	2755.2	2756.5
20°	6177.0	4445.4	2861.9	2374.0	2471.3	2572.6	2624.6	2653.9	2673.9	2680.6
22.5°	6078.2	3997.5	2452.6	2283.4	2386.0	2467.3	2528.7	2562.0	2574.0	2582.0
25°	5901.0	3496.4	2170.0	2196.7	2267.4	2370.0	2419.3	2426.0	2422.0	2434.0
27.5°	5669.1	2959.2	1994.1	2079.4	2170.0	2258.1	2284.7	2280.7	2272.7	2286.1
30°	5389.1	2476.6	1882.1	1947.5	2071.4	2151.4	2175.4	2166.0	2150.0	2164.7
32.5°	5093.2	2082.1	1790.2	1855.5	1990.1	2068.8	2092.7	2083.4	2071.4	2083.4
35°	4817.3	1806.2	1704.9	1794.2	1926.1	2003.5	2034.1	2035.4	2035.4	2050.1
37.5°	4564.0	1644.9	1634.3	1755.5	1882.1	1951.5	1995.5	1998.1	1940.8	1944.8
40°	4329.5	1576.9	1602.2	1730.2	1839.5	1906.1	1908.8	1759.5	1654.2	1651.6
42.5°	4137.5	1563.5	1611.5	1727.5	1808.8	1811.5	1623.5	1507.6	1478.3	1479.6
45°	3957.5	1559.5	1632.9	1727.5	1763.5	1564.9	1438.3	1407.6	1410.3	1421.0
47.5°	3756.3	1543.5	1636.9	1703.6	1632.9	1391.6	1354.3	1341.0	1335.7	1338.3
50°	3536.4	1486.2	1586.2	1655.6	1409.0	1316.9	1270.3	1266.3	1272.9	1276.9
52.5°	3304.4	1393.0	1499.6	1568.9	1306.3	1251.6	1199.7	1209.0	1238.3	1247.6
55°	3152.5	1283.6	1385.0	1395.6	1234.3	1190.3	1146.4	1167.7	1222.3	1239.6
57.5°	3112.4	1167.7	1254.3	1242.3	1142.4	1137.0	1110.4	1129.0	1198.3	1223.6
60°	3100.4	1063.7	1126.4	1117.0	1053.1	1078.4	1071.7	1081.1	1105.1	1113.0
62.5°	3007.1	981.0	1011.7	998.4	973.0	1017.0	1033.0	1013.0	1031.7	1041.1
65°	2769.9	914.4	899.7	890.4	901.1	941.1	973.0	933.1	950.4	977.0
67.5°	2378.0	823.8	783.8	794.5	827.8	849.1	890.4	845.1	859.8	905.1
70°	1923.4	709.1	673.1	703.8	735.7	779.8	786.5	755.8	790.5	841.1
72.5°	1361.0	593.2	567.8	630.5	641.1	698.4	683.8	669.1	717.1	734.4
75°	943.7	478.6	463.9	511.9	550.5	599.8	589.2	606.5	707.8	715.8
77.5°	597.2	371.9	362.5	393.2	446.6	501.2	518.5	715.8	1209.0	1257.0
80°	346.6	277.3	266.6	290.6	337.2	387.9	499.9	878.4	797.1	787.8
82.5°	193.3	190.6	177.3	184.0	225.3	279.9	706.4	618.5	502.6	518.5
85°	90.6	111.9	95.9	91.9	126.6	327.9	471.9	353.2	234.6	229.3
87.5°	24.0	21.3	21.3	24.0	53.3	282.6	188.0	150.7	89.3	86.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)