

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: P967871

Luminaire Tested: **NAV-SB5A-830-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967871
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-SB5A-830-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21224.7 lumens
Efficiency: N/A
Efficacy: 149.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G2

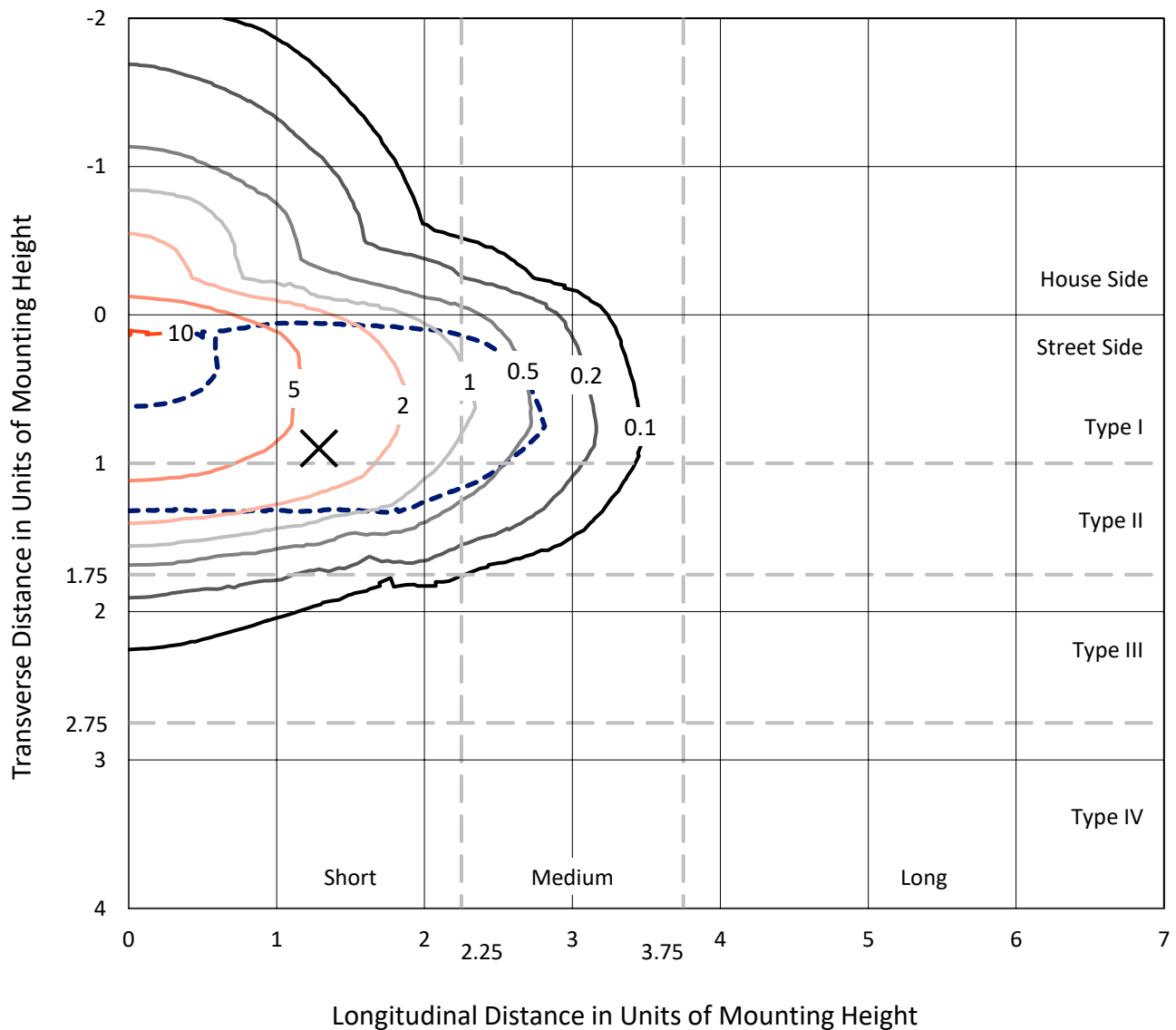
Input Watts (W): 141.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

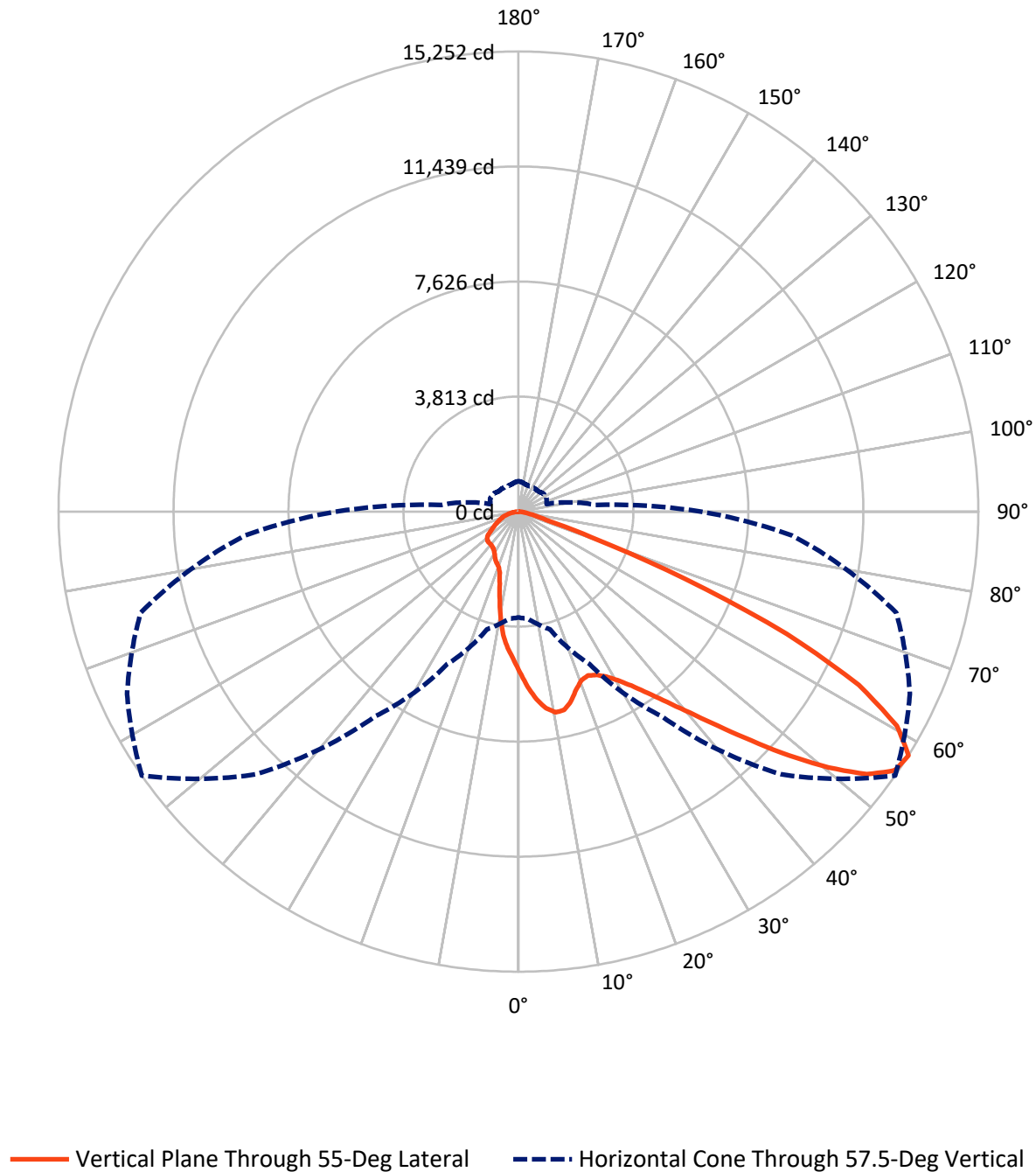
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.3 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	3840.5	0.0	3840.5
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	17384.2	0.0	17384.2
	% Fixture	81.9	0.0	81.9
Total	Lumens	21224.7	0.0	21224.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	493.5	2.3
10°-20°	1245.6	5.9
20°-30°	1987.6	9.4
30°-40°	3146.9	14.8
40°-50°	4816.7	22.7
50°-60°	5159.1	24.3
60°-70°	3245.6	15.3
70°-80°	959.8	4.5
80°-90°	169.7	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°	21224.7	100.0
0°-180°	21224.7	100.0

Coefficient of Utilization



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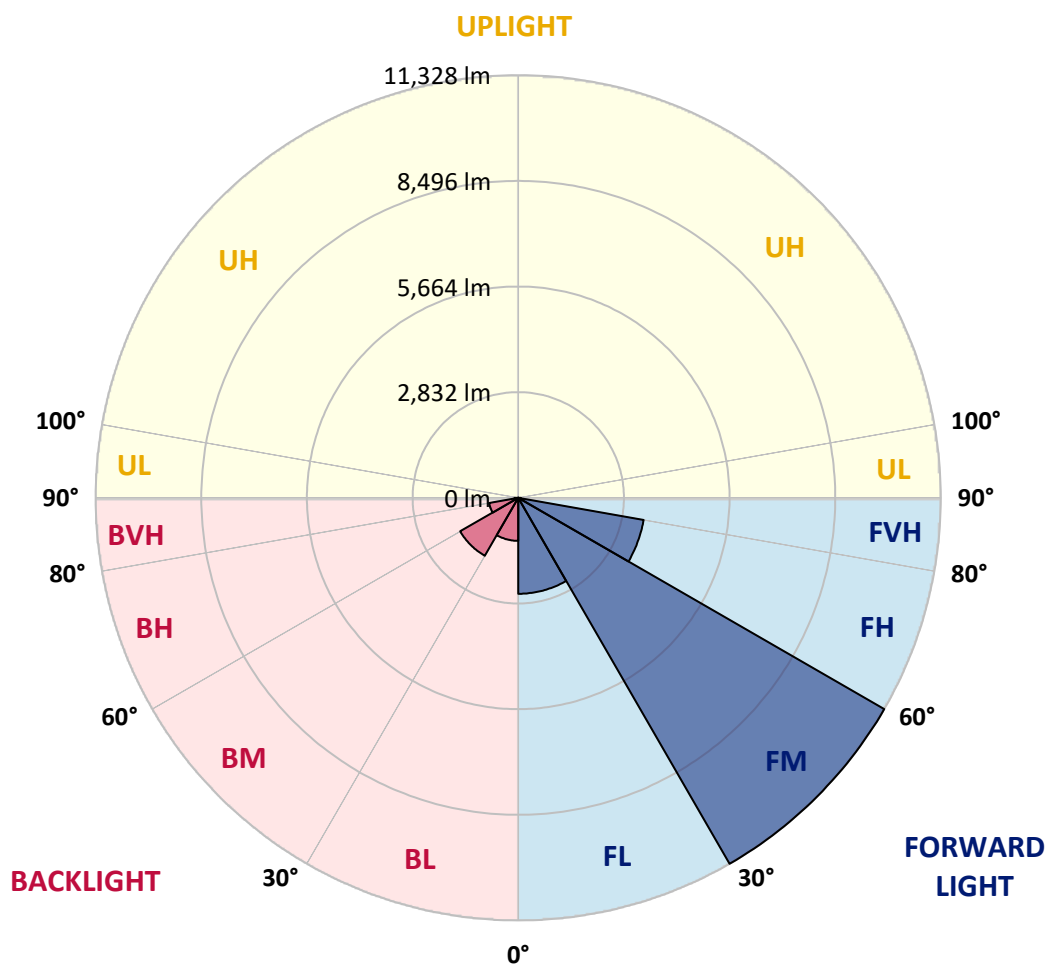
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2572.4	12.1			
FM	(30°-60°)	11327.8	53.4			
FH	(60°-80°)	3412.3	16.1			G2/5000
FVH	(80°-90°)	71.7	0.3			G1/100
BL	(0°-30°)	1154.3	5.4	B3/2500		
BM	(30°-60°)	1795.0	8.5	B2/2500		
BH	(60°-80°)	793.2	3.7	B2/1000		G2/1000
BVH	(80°-90°)	98.0	0.5			G1/100
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°	5318.2	5318.2	5318.2	5318.2	5318.2	5318.2	5318.2	5318.2	5318.2	5318.2	5318.2
2.5°	6101.6	6097.2	6121.4	6039.1	5983.1	5907.4	5807.5	5680.3	5543.1	5398.3	5335.7
5°	6651.3	6612.9	6638.2	6576.7	6515.3	6401.1	6253.0	6045.7	5792.2	5503.6	5350.0
7.5°	6564.6	6538.3	6603.0	6657.9	6704.0	6689.8	6581.1	6363.8	6036.9	5617.7	5395.0
10°	5865.8	5836.1	5927.2	6117.0	6395.7	6638.2	6769.8	6634.8	6287.0	5742.9	5439.0
12.5°	5249.1	5234.8	5295.2	5448.8	5758.2	6223.4	6745.7	6871.9	6547.1	5891.0	5498.2
15°	4985.8	4968.2	5006.6	5084.5	5282.0	5715.4	6526.3	7034.3	6802.7	6062.2	5592.5
17.5°	4927.6	4907.9	4924.3	4964.9	5092.2	5422.5	6194.9	7114.3	7069.4	6253.0	5671.5
20°	5035.1	5018.7	5020.9	5018.7	5107.6	5369.8	5964.5	7083.7	7302.0	6428.6	5748.3
22.5°	5295.2	5267.8	5268.8	5210.7	5259.0	5461.9	5904.1	7001.4	7509.4	6582.2	5806.5
25°	5718.7	5669.3	5679.2	5531.1	5517.9	5668.2	5998.5	6937.7	7715.6	6705.1	5817.5
27.5°	6298.0	6242.0	6212.4	5991.9	5886.6	5961.2	6190.5	6959.6	7910.9	6811.5	5790.0
30°	7022.2	6954.2	6893.8	6581.1	6390.2	6362.8	6489.0	7104.5	8141.4	6923.5	5742.9
32.5°	7909.8	7830.8	7721.1	7306.4	7037.5	6893.8	6875.2	7362.4	8411.3	7066.0	5718.7
35°	8966.5	8863.3	8707.5	8171.0	7830.8	7536.8	7384.3	7734.2	8781.1	7281.1	5746.2
37.5°	10054.9	9938.6	9795.9	9157.3	8739.4	8306.0	8005.2	8239.1	9273.7	7573.0	5818.5
40°	11058.8	10928.2	10795.5	10227.1	9778.4	9256.2	8765.7	8877.6	9876.1	7921.9	5941.4
42.5°	11651.4	11554.8	11504.3	11197.1	10850.3	10320.4	9711.5	9634.7	10553.0	8323.5	6081.8
45°	11625.0	11585.5	11741.4	11868.6	11786.3	11492.3	10819.7	10471.8	11232.3	8671.3	6211.4
47.5°	11004.0	11030.3	11378.1	12093.6	12408.4	12562.1	12081.5	11293.7	11822.6	8931.3	6269.5
50°	9314.3	9336.2	10141.6	11684.3	12568.7	13434.4	13333.4	12095.7	12280.0	9090.4	6256.3
52.5°	7976.8	7991.0	8336.6	10470.8	12039.8	13873.3	14461.3	12851.8	12614.7	9134.3	6182.8
55°	6008.3	6057.7	6445.1	8214.9	10663.9	13525.4	15148.2	13630.8	12826.4	9138.7	6106.0
57.5°	3510.0	3563.7	4042.2	5576.1	8288.4	12313.0	15252.4	14322.0	12970.2	9103.6	6059.9
60°	1719.3	1742.4	1950.9	2930.7	5110.9	9977.0	14414.2	14656.7	13050.3	9085.0	6057.7
62.5°	1158.7	1155.4	1164.2	1446.2	2518.1	6409.9	12667.4	14070.7	13007.6	9013.6	6035.8
65°	996.3	984.2	951.3	1015.0	1304.6	2931.8	9787.2	12321.7	12681.6	8834.8	5885.4
67.5°	861.3	862.4	863.5	843.8	931.5	1352.9	5981.0	9706.0	11512.0	7987.7	5306.1
70°	713.2	723.0	727.4	727.4	759.3	887.6	2553.3	6652.5	9080.6	6263.0	4273.6
72.5°	649.5	628.7	630.9	619.9	619.9	675.9	1028.1	3771.2	5720.9	3523.1	2608.1
75°	529.9	543.1	545.3	537.6	512.4	515.7	610.1	1582.2	2447.9	1461.4	1289.2
77.5°	457.6	457.6	462.0	456.4	436.6	386.2	407.0	613.4	832.8	599.1	644.1
80°	367.6	366.4	385.1	396.1	365.4	285.3	260.0	339.1	369.7	263.3	334.7
82.5°	178.9	189.8	264.4	301.8	277.6	206.2	159.1	210.6	197.5	116.3	150.4
85°	104.2	98.7	118.5	167.9	159.1	114.1	76.8	109.7	103.1	59.2	60.4
87.5°	32.9	30.7	24.2	57.1	46.1	31.8	20.8	31.8	28.5	13.1	13.1
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5318.2	5318.2	5318.2	5318.2	5318.2	5318.2	5318.2	5318.2	5318.2	5318.2
2.5°	5257.8	5128.4	5000.1	4882.6	4811.3	4765.2	4719.1	4667.5	4647.9	4618.2
5°	5205.2	4955.1	4732.3	4540.2	4365.8	4228.6	4090.5	3978.5	3928.0	3962.0
7.5°	5174.5	4812.4	4469.0	4116.8	3777.7	3506.7	3270.8	3105.1	3030.5	3049.2
10°	5147.0	4651.1	4127.8	3571.4	3084.3	2748.5	2507.1	2381.0	2333.8	2343.7
12.5°	5121.8	4470.0	3716.2	2984.4	2466.6	2245.0	2175.8	2176.9	2185.6	2192.3
15°	5117.4	4251.7	3256.5	2471.0	2133.0	2118.8	2193.3	2240.5	2265.8	2273.4
17.5°	5110.9	3990.5	2788.0	2120.9	2051.8	2148.4	2217.5	2248.2	2267.9	2269.0
20°	5084.5	3659.2	2355.8	1954.2	2034.2	2117.6	2160.4	2184.6	2201.0	2206.5
22.5°	5003.3	3290.6	2018.8	1879.5	1964.0	2030.9	2081.5	2108.8	2118.8	2125.3
25°	4857.4	2878.0	1786.3	1808.2	1866.3	1950.9	1991.5	1996.9	1993.6	2003.6
27.5°	4666.5	2435.8	1641.4	1711.6	1786.3	1858.7	1880.7	1877.4	1870.7	1881.7
30°	4436.1	2038.6	1549.3	1603.0	1705.1	1770.9	1790.7	1783.0	1769.8	1781.9
32.5°	4192.5	1713.9	1473.5	1527.4	1638.2	1702.8	1722.6	1714.9	1705.1	1714.9
35°	3965.3	1486.8	1403.3	1476.8	1585.5	1649.1	1674.3	1675.5	1675.5	1687.6
37.5°	3756.8	1353.9	1345.2	1445.0	1549.3	1606.3	1642.6	1644.7	1597.6	1600.8
40°	3563.7	1298.0	1318.9	1424.2	1514.1	1569.1	1571.2	1448.3	1361.6	1359.5
42.5°	3405.8	1287.0	1326.6	1422.0	1488.9	1491.2	1336.4	1241.0	1216.8	1217.9
45°	3257.7	1283.7	1344.1	1422.0	1451.6	1288.1	1183.9	1158.7	1160.8	1169.6
47.5°	3091.9	1270.6	1347.4	1402.2	1344.1	1145.5	1114.8	1103.8	1099.4	1101.6
50°	2910.9	1223.4	1305.6	1362.7	1159.8	1084.0	1045.6	1042.3	1047.9	1051.1
52.5°	2720.0	1146.6	1234.4	1291.4	1075.2	1030.3	987.5	995.2	1019.4	1026.9
55°	2594.9	1056.6	1140.0	1148.8	1016.0	979.8	943.6	961.1	1006.1	1020.4
57.5°	2562.0	961.1	1032.5	1022.6	940.3	935.9	914.0	929.4	986.4	1007.3
60°	2552.1	875.6	927.1	919.4	866.8	887.6	882.1	889.8	909.6	916.1
62.5°	2475.3	807.6	832.8	821.8	800.9	837.2	850.3	833.8	849.2	856.9
65°	2280.0	752.7	740.7	733.0	741.7	774.6	800.9	768.0	782.3	804.2
67.5°	1957.4	678.0	645.1	653.9	681.4	698.9	733.0	695.7	707.7	745.0
70°	1583.3	583.7	554.1	579.3	605.7	641.9	647.4	622.1	650.7	692.4
72.5°	1120.2	488.3	467.4	519.0	527.8	574.9	562.8	550.8	590.3	604.5
75°	776.8	393.9	381.8	421.4	453.2	493.7	484.9	499.3	582.6	589.2
77.5°	491.6	306.2	298.5	323.7	367.6	412.6	426.8	589.2	995.2	1034.6
80°	285.3	228.3	219.5	239.2	277.6	319.3	411.4	723.0	656.1	648.4
82.5°	159.1	156.9	146.0	151.4	185.4	230.4	581.5	509.1	413.7	426.8
85°	74.6	92.1	79.0	75.7	104.2	269.9	388.4	290.8	193.1	188.7
87.5°	19.8	17.5	17.5	19.8	43.9	232.6	154.7	124.0	73.5	71.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)