

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: P965763

Luminaire Tested: **NAV-SB4A-830-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965763
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-SB4A-830-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 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: 16839.7 lumens
Efficiency: N/A
Efficacy: 147.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 114
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

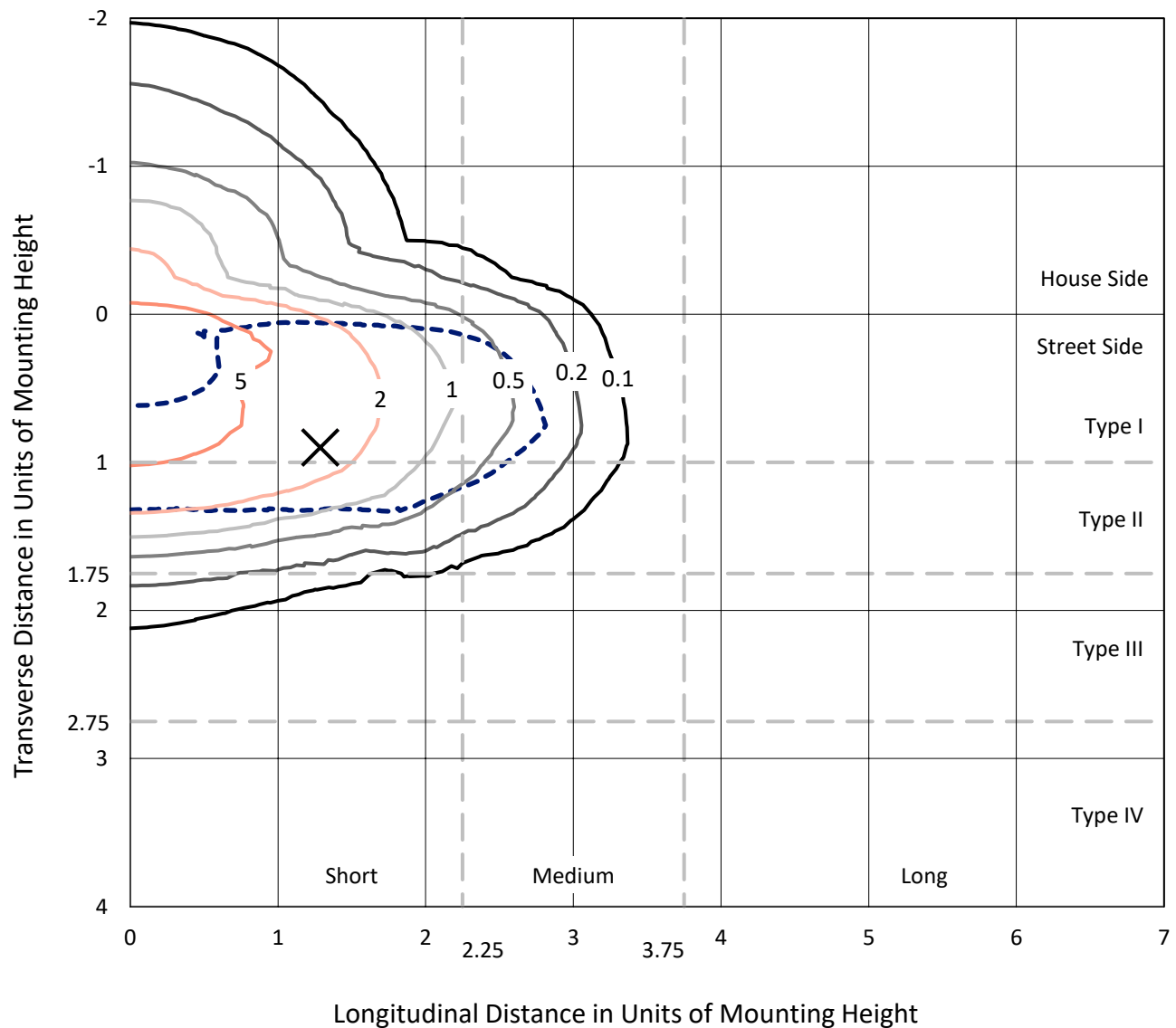


REPORT NUMBER: P965763

CATALOG NUMBER: NAV-SB4A-830-U-AFL

Iso-Footcandle Lines of Horizontal Illumination

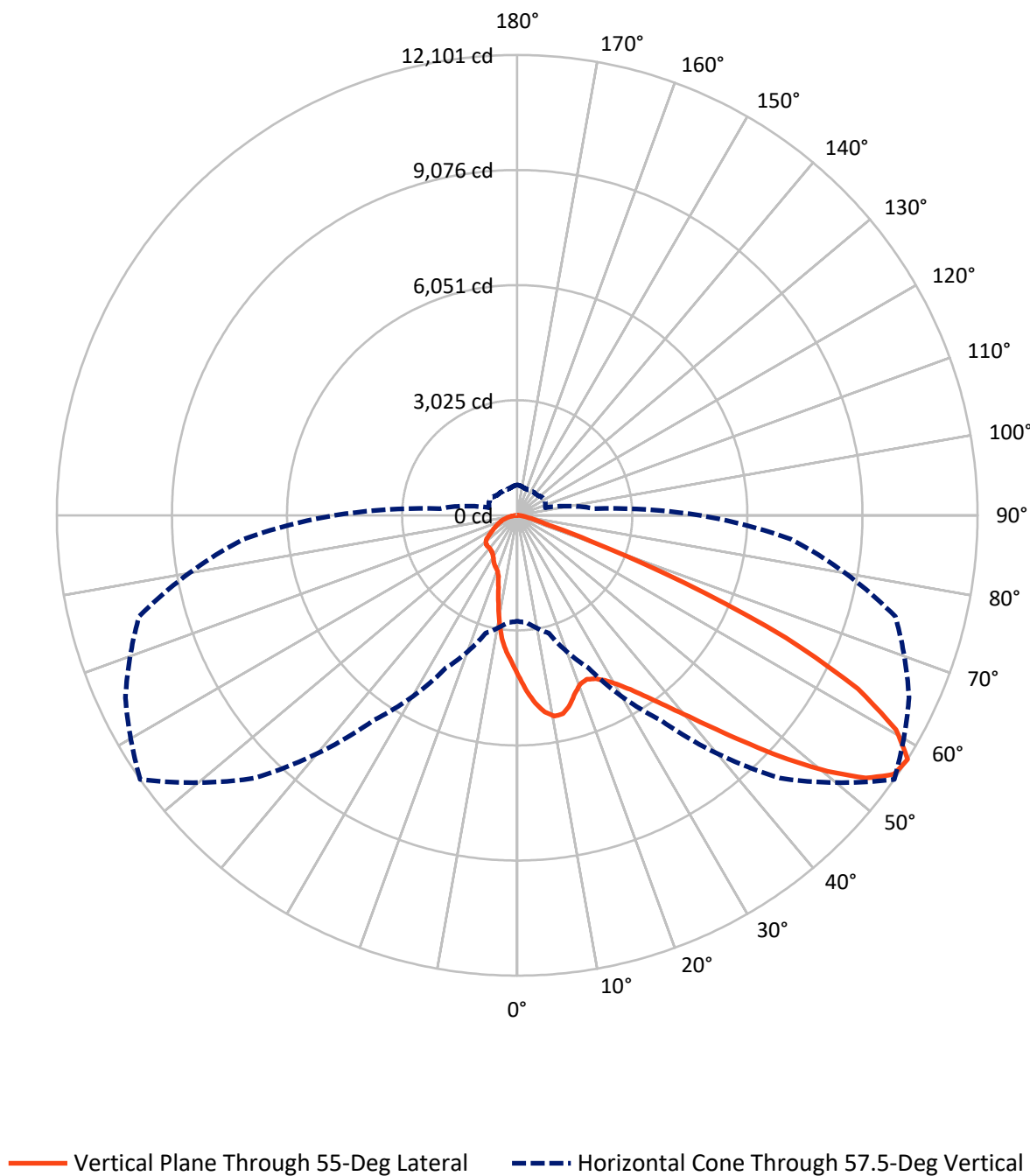
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.2 fc
Type II - Short - N/A

REPORT NUMBER: P965763
CATALOG NUMBER: NAV-SB4A-830-U-AFL

Luminous Intensity Polar Plot



REPORT NUMBER: P965763

CATALOG NUMBER: NAV-SB4A-830-U-AFL

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3047.1	0.0	3047.1
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	13792.7	0.0	13792.7
	% Fixture	81.9	0.0	81.9
Total	Lumens	16839.7	0.0	16839.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	391.5	2.3
10°-20°	988.3	5.9
20°-30°	1577.0	9.4
30°-40°	2496.8	14.8
40°-50°	3821.6	22.7
50°-60°	4093.3	24.3
60°-70°	2575.1	15.3
70°-80°	761.5	4.5
80°-90°	134.6	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°	16839.7	100.0
0°-180°	16839.7	100.0

Coefficient of Utilization



REPORT NUMBER: P965763

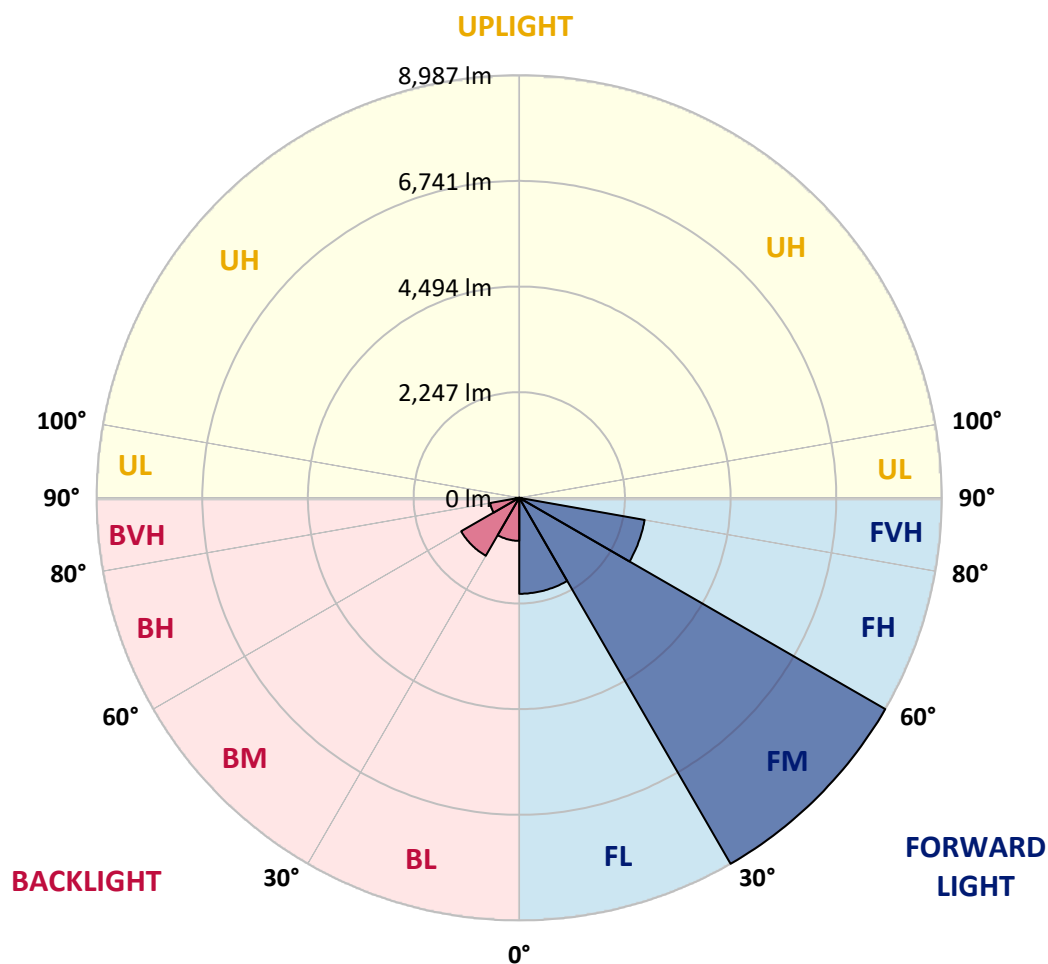
CATALOG NUMBER: NAV-SB4A-830-U-AFL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2041.0	12.1			
FM	(30°-60°)	8987.5	53.4			
FH	(60°-80°)	2707.3	16.1			G2/5000
FVH	(80°-90°)	56.9	0.3			G1/100
BL	(0°-30°)	915.9	5.4	B2/1000		
BM	(30°-60°)	1424.2	8.5	B2/2500		
BH	(60°-80°)	629.3	3.7	B2/1000		G2/1000
BVH	(80°-90°)	77.8	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short



REPORT NUMBER: P965763

CATALOG NUMBER: NAV-SB4A-830-U-AFL

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4219.5	4219.5	4219.5	4219.5	4219.5	4219.5	4219.5	4219.5	4219.5	4219.5	4219.5
2.5°	4841.1	4837.6	4856.8	4791.5	4747.1	4687.0	4607.8	4506.7	4398.0	4283.1	4233.5
5°	5277.2	5246.8	5266.8	5218.0	5169.3	5078.7	4961.2	4796.7	4595.6	4366.6	4244.7
7.5°	5208.4	5187.5	5238.9	5282.4	5318.9	5307.7	5221.5	5049.2	4789.7	4457.1	4280.4
10°	4653.9	4630.3	4702.6	4853.3	5074.4	5266.8	5371.2	5264.1	4988.2	4556.4	4315.2
12.5°	4164.7	4153.3	4201.2	4323.0	4568.5	4937.6	5352.0	5452.2	5194.5	4673.9	4362.3
15°	3955.7	3941.7	3972.3	4034.1	4190.7	4534.6	5178.0	5581.0	5397.3	4809.7	4437.1
17.5°	3909.6	3893.9	3907.0	3939.2	4040.1	4302.2	4915.1	5644.6	5608.9	4961.2	4499.8
20°	3994.9	3981.8	3983.6	3981.8	4052.3	4260.4	4732.2	5620.2	5793.4	5100.5	4560.7
22.5°	4201.2	4179.4	4180.4	4134.1	4172.5	4333.5	4684.4	5554.9	5957.9	5222.4	4606.9
25°	4537.3	4498.1	4505.9	4388.3	4377.9	4497.2	4759.2	5504.4	6121.6	5319.9	4615.6
27.5°	4996.9	4952.5	4929.0	4754.0	4670.4	4729.7	4911.6	5521.8	6276.6	5404.3	4593.8
30°	5571.4	5517.5	5469.6	5221.5	5070.0	5048.2	5148.4	5636.7	6459.3	5493.1	4556.4
32.5°	6275.7	6213.0	6125.9	5796.9	5583.6	5469.6	5454.7	5841.3	6673.6	5606.2	4537.3
35°	7114.0	7032.2	6908.6	6482.9	6213.0	5979.7	5858.7	6136.4	6966.9	5776.9	4559.0
37.5°	7977.6	7885.3	7772.2	7265.5	6933.8	6589.9	6351.4	6536.8	7357.8	6008.4	4616.5
40°	8774.1	8670.6	8565.2	8114.3	7758.2	7343.8	6954.7	7043.5	7835.7	6285.3	4714.0
42.5°	9244.3	9167.6	9127.5	8883.8	8608.8	8188.2	7705.1	7644.1	8372.8	6603.9	4825.4
45°	9223.4	9192.0	9315.6	9416.6	9351.3	9118.0	8584.4	8308.4	8911.7	6879.8	4928.1
47.5°	8730.6	8751.4	9027.5	9595.0	9844.9	9966.8	9585.5	8960.4	9380.0	7086.1	4974.2
50°	7389.9	7407.4	8046.4	9270.3	9972.0	10658.9	10578.7	9596.8	9743.0	7212.4	4963.8
52.5°	6328.8	6340.1	6614.3	8307.5	9552.4	11007.1	11473.6	10196.6	10008.5	7247.3	4905.4
55°	4767.1	4806.2	5113.5	6517.7	8460.8	10731.1	12018.6	10814.7	10176.6	7250.6	4844.6
57.5°	2784.8	2827.5	3207.0	4424.1	6576.0	9769.2	12101.4	11363.2	10290.6	7222.9	4808.0
60°	1364.2	1382.4	1547.9	2325.2	4055.0	7915.8	11436.2	11628.6	10354.1	7208.0	4806.2
62.5°	919.3	916.7	923.6	1147.4	1997.9	5085.6	10050.3	11163.8	10320.2	7151.4	4788.8
65°	790.5	780.8	754.7	805.2	1035.0	2326.0	7765.2	9776.1	10061.6	7009.6	4669.6
67.5°	683.4	684.3	685.1	669.4	739.1	1073.4	4745.3	7700.7	9133.7	6337.5	4209.9
70°	565.8	573.7	577.2	577.2	602.4	704.3	2025.7	5278.0	7204.5	4969.0	3390.7
72.5°	515.4	498.9	500.5	491.9	491.9	536.3	815.7	2992.1	4539.0	2795.3	2069.3
75°	420.5	430.9	432.7	426.6	406.5	409.2	484.0	1255.3	1942.2	1159.6	1022.8
77.5°	363.1	363.1	366.5	362.1	346.4	306.5	323.0	486.7	660.7	475.3	511.0
80°	291.6	290.8	305.6	314.3	289.9	226.3	206.3	269.0	293.4	208.9	265.5
82.5°	141.9	150.6	209.8	239.4	220.3	163.7	126.2	167.2	156.7	92.2	119.3
85°	82.7	78.3	94.0	133.1	126.2	90.5	61.0	87.0	81.8	47.0	47.9
87.5°	26.1	24.4	19.2	45.3	36.6	25.2	16.5	25.2	22.7	10.5	10.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P965763

CATALOG NUMBER: NAV-SB4A-830-U-AFL

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4219.5	4219.5	4219.5	4219.5	4219.5	4219.5	4219.5	4219.5	4219.5	4219.5
2.5°	4171.6	4068.8	3967.1	3873.9	3817.3	3780.7	3744.2	3703.2	3687.5	3664.1
5°	4129.8	3931.4	3754.6	3602.3	3463.9	3355.0	3245.4	3156.6	3116.5	3143.5
7.5°	4105.4	3818.1	3545.7	3266.3	2997.3	2782.3	2595.1	2463.6	2404.4	2419.2
10°	4083.7	3690.2	3275.0	2833.6	2447.1	2180.7	1989.2	1889.1	1851.7	1859.5
12.5°	4063.6	3546.6	2948.5	2367.9	1956.9	1781.1	1726.3	1727.1	1734.1	1739.3
15°	4060.2	3373.4	2583.7	1960.4	1692.3	1681.0	1740.2	1777.7	1797.6	1803.8
17.5°	4055.0	3166.1	2212.1	1682.7	1627.9	1704.5	1759.3	1783.7	1799.4	1800.3
20°	4034.1	2903.2	1869.1	1550.4	1614.0	1680.2	1714.1	1733.3	1746.3	1750.6
22.5°	3969.6	2610.8	1601.8	1491.3	1558.3	1611.4	1651.4	1673.2	1681.0	1686.2
25°	3853.9	2283.4	1417.3	1434.7	1480.8	1547.9	1580.0	1584.3	1581.8	1589.6
27.5°	3702.4	1932.6	1302.4	1358.0	1417.3	1474.7	1492.1	1489.5	1484.3	1493.0
30°	3519.5	1617.4	1229.2	1271.8	1352.8	1405.1	1420.8	1414.6	1404.1	1413.8
32.5°	3326.3	1359.8	1169.1	1211.8	1299.7	1351.1	1366.7	1360.7	1352.8	1360.7
35°	3146.1	1179.6	1113.5	1171.8	1257.9	1308.4	1328.4	1329.3	1329.3	1338.9
37.5°	2980.7	1074.2	1067.2	1146.5	1229.2	1274.5	1303.2	1304.9	1267.5	1270.1
40°	2827.5	1029.8	1046.4	1130.0	1201.3	1244.9	1246.6	1149.1	1080.4	1078.6
42.5°	2702.1	1021.1	1052.5	1128.2	1181.3	1183.1	1060.4	984.6	965.4	966.3
45°	2584.6	1018.5	1066.4	1128.2	1151.7	1022.0	939.3	919.3	921.1	928.0
47.5°	2453.1	1008.1	1069.0	1112.5	1066.4	908.9	884.5	875.8	872.3	874.0
50°	2309.5	970.7	1036.0	1081.2	920.1	860.1	829.6	827.0	831.4	833.9
52.5°	2158.0	909.7	979.4	1024.6	853.1	817.4	783.5	789.6	808.7	814.8
55°	2058.8	838.3	904.5	911.4	806.2	777.4	748.7	762.6	798.3	809.6
57.5°	2032.7	762.6	819.2	811.4	746.1	742.6	725.2	737.4	782.6	799.2
60°	2024.9	694.6	735.6	729.5	687.7	704.3	699.9	706.0	721.7	726.9
62.5°	1963.9	640.7	660.7	652.0	635.5	664.2	674.7	661.6	673.8	679.9
65°	1809.0	597.2	587.6	581.5	588.5	614.6	635.5	609.4	620.7	638.1
67.5°	1553.1	538.0	511.9	518.9	540.6	554.5	581.5	552.0	561.5	591.1
70°	1256.1	463.1	439.6	459.6	480.5	509.2	513.6	493.6	516.2	549.3
72.5°	888.8	387.3	370.8	411.7	418.7	456.1	446.6	437.1	468.3	479.7
75°	616.3	312.5	303.0	334.3	359.6	391.8	384.8	396.1	462.3	467.5
77.5°	390.0	242.9	236.8	256.8	291.6	327.3	338.7	467.5	789.6	820.9
80°	226.3	181.1	174.1	189.7	220.3	253.3	326.5	573.7	520.6	514.4
82.5°	126.2	124.5	115.8	120.1	147.1	182.9	461.4	404.0	328.2	338.7
85°	59.2	73.1	62.6	60.1	82.7	214.1	308.2	230.7	153.2	149.8
87.5°	15.7	13.9	13.9	15.7	34.8	184.6	122.8	98.4	58.3	56.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)