

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: P963159

Luminaire Tested: **NAV-SB2D-835-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963159
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-SB2D-835-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19676.9 lumens
Efficiency: N/A
Efficacy: 133.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G2

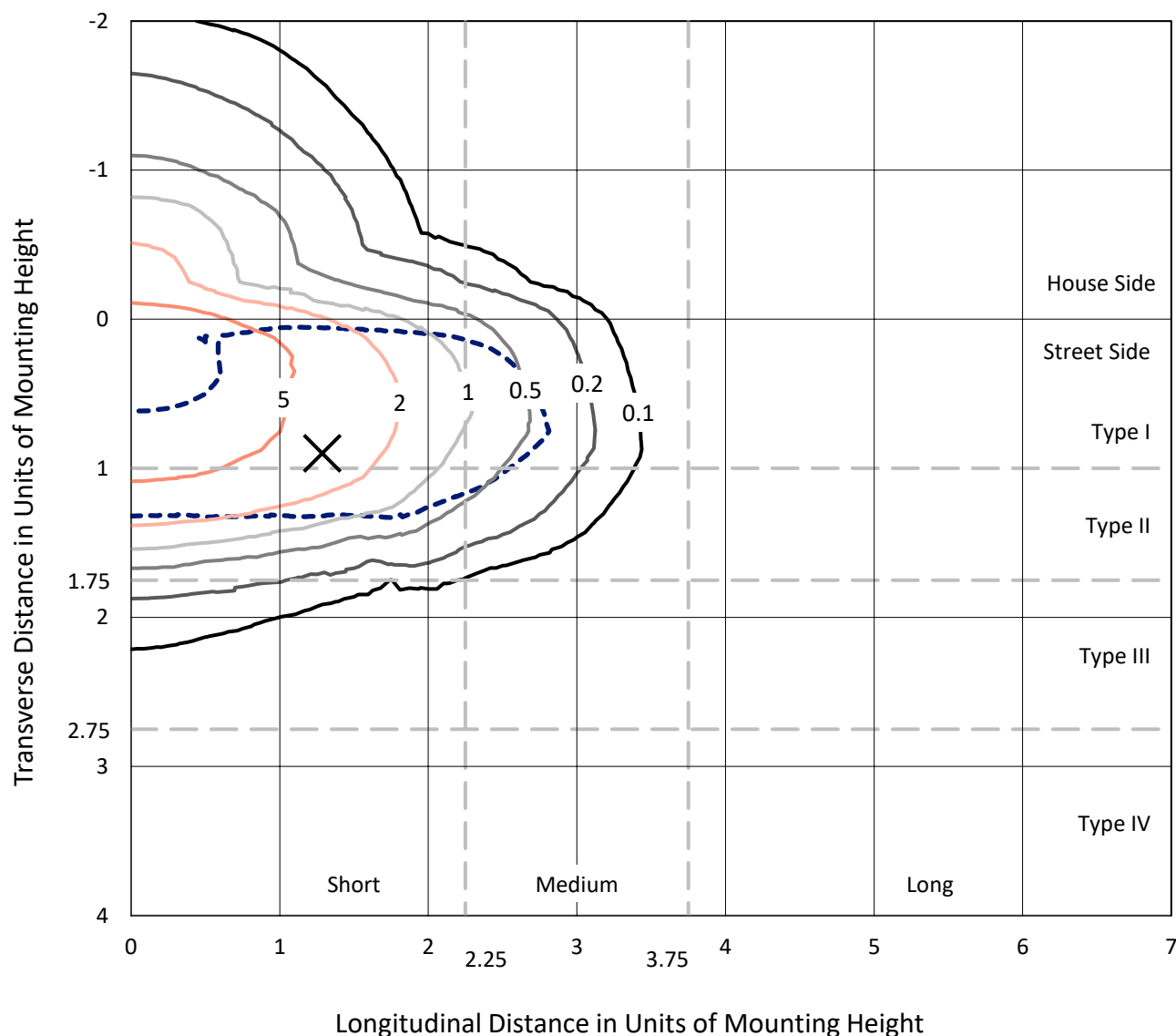
Input Watts (W): 147.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

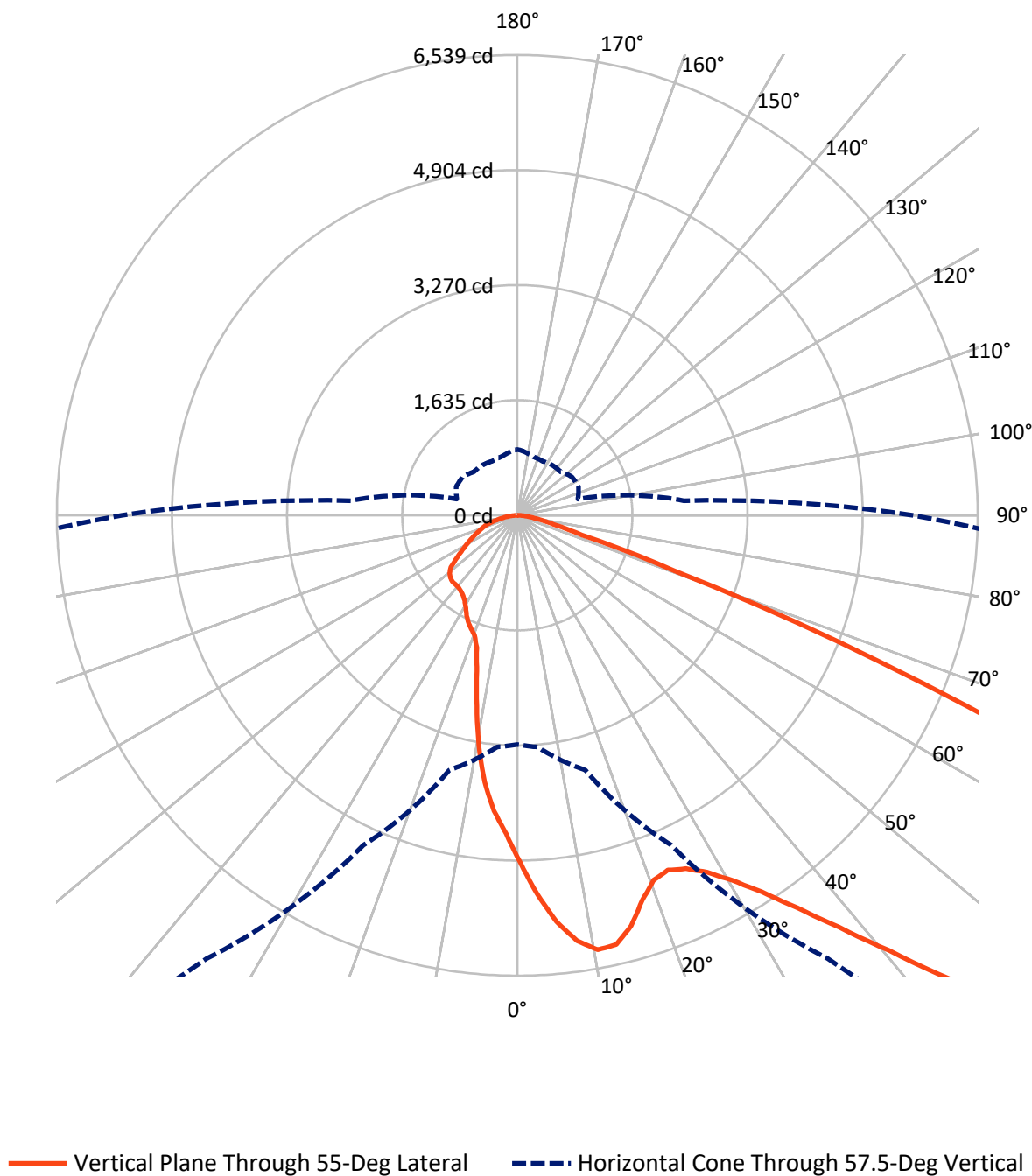


Based on 25 foot mounting height. Maximum calculated value = 9.5 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3560.4	0.0	3560.4
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	16116.5	0.0	16116.5
	% Fixture	81.9	0.0	81.9
Total	Lumens	19676.9	0.0	19676.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	457.5	2.3
10°-20°	1154.8	5.9
20°-30°	1842.7	9.4
30°-40°	2917.5	14.8
40°-50°	4465.5	22.7
50°-60°	4782.9	24.3
60°-70°	3009.0	15.3
70°-80°	889.8	4.5
80°-90°	157.3	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°	19676.9	100.0
0°-180°	19676.9	100.0

Coefficient of Utilization



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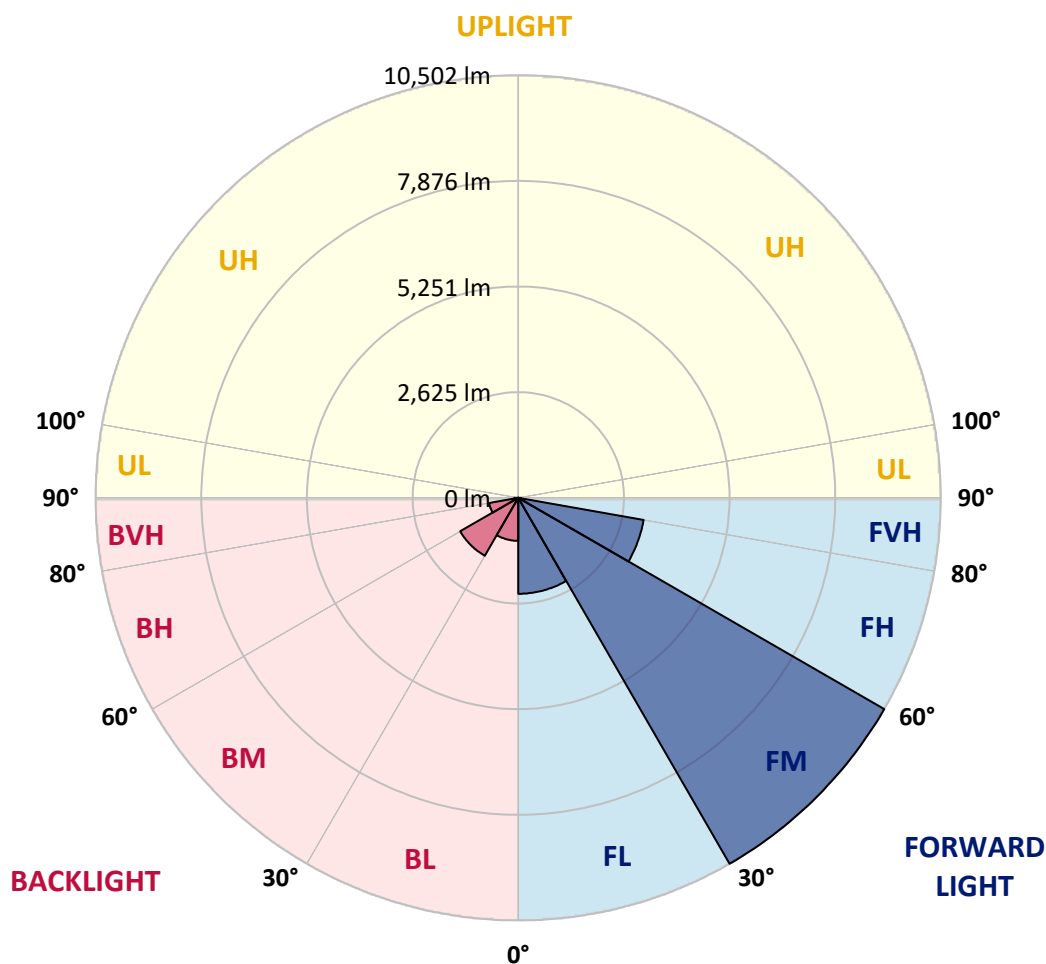
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2384.8	12.1			
FM	(30°-60°)	10501.7	53.4			
FH	(60°-80°)	3163.4	16.1			G2/5000
FVH	(80°-90°)	66.5	0.3			G1/100
BL	(0°-30°)	1070.1	5.4	B3/2500		
BM	(30°-60°)	1664.1	8.5	B2/2500		
BH	(60°-80°)	735.3	3.7	B2/1000		G2/1000
BVH	(80°-90°)	90.9	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°	4930.4	4930.4	4930.4	4930.4	4930.4	4930.4	4930.4	4930.4	4930.4	4930.4	4930.4
2.5°	5656.7	5652.6	5675.0	5598.7	5546.8	5476.7	5384.1	5266.0	5138.9	5004.7	4946.6
5°	6166.3	6130.7	6154.1	6097.1	6040.1	5934.3	5797.1	5604.8	5369.9	5102.3	4959.9
7.5°	6085.9	6061.5	6121.5	6172.4	6215.1	6201.9	6101.2	5899.8	5596.7	5208.1	5001.6
10°	5438.0	5410.6	5494.9	5670.9	5929.3	6154.1	6276.2	6151.0	5828.6	5324.1	5042.3
12.5°	4866.3	4853.1	4909.0	5051.4	5338.3	5769.6	6253.8	6370.8	6069.6	5461.4	5097.2
15°	4622.1	4605.9	4641.5	4713.8	4896.8	5298.6	6050.4	6521.4	6306.7	5620.1	5184.7
17.5°	4568.3	4550.0	4565.2	4602.9	4720.8	5027.0	5743.2	6595.6	6553.8	5797.1	5257.9
20°	4668.0	4652.7	4654.7	4652.7	4735.1	4978.2	5529.6	6567.1	6769.5	5959.9	5329.2
22.5°	4909.0	4883.6	4884.6	4830.7	4875.5	5063.6	5473.6	6490.8	6961.8	6102.2	5383.1
25°	5301.7	5255.9	5265.0	5127.8	5115.6	5254.9	5561.0	6431.8	7153.0	6216.1	5393.2
27.5°	5838.8	5786.8	5759.4	5555.0	5457.3	5526.5	5739.1	6452.2	7334.1	6314.8	5367.8
30°	6510.1	6447.0	6391.1	6101.2	5924.2	5898.8	6015.7	6586.4	7547.7	6418.5	5324.1
32.5°	7333.1	7259.8	7158.1	6773.6	6524.3	6391.1	6373.9	6825.5	7797.9	6550.8	5301.7
35°	8312.6	8217.0	8072.6	7575.2	7259.8	6987.2	6845.8	7170.3	8140.7	6750.1	5327.1
37.5°	9321.7	9213.8	9081.6	8489.6	8102.0	7700.2	7421.5	7638.2	8597.4	7020.7	5394.3
40°	10252.5	10131.4	10008.3	9481.4	9065.3	8581.2	8126.5	8230.2	9155.9	7344.2	5508.1
42.5°	10801.8	10712.2	10665.4	10380.6	10059.1	9567.9	9003.3	8932.1	9783.5	7716.5	5638.4
45°	10777.3	10740.7	10885.1	11003.2	10926.8	10654.3	10030.6	9708.2	10413.2	8039.0	5758.4
47.5°	10201.5	10226.0	10548.5	11211.7	11503.6	11645.9	11200.5	10470.1	10960.4	8280.1	5812.4
50°	8635.1	8655.4	9402.0	10832.2	11652.1	12454.7	12361.1	11213.7	11384.6	8427.6	5800.1
52.5°	7395.1	7408.3	7728.7	9707.2	11161.8	12861.6	13406.8	11914.5	11694.8	8468.2	5732.0
55°	5570.3	5616.0	5975.0	7615.9	9886.2	12539.1	14043.5	12636.7	11891.1	8472.3	5660.8
57.5°	3254.1	3303.9	3747.4	5169.5	7684.0	11415.1	14140.2	13277.5	12024.4	8439.7	5618.0
60°	1594.0	1615.3	1808.6	2717.0	4738.2	9249.5	13363.0	13587.8	12098.7	8422.4	5616.0
62.5°	1074.2	1071.1	1079.2	1340.7	2334.4	5942.5	11743.6	13044.7	12059.0	8356.3	5595.7
65°	923.6	912.5	881.9	941.0	1209.5	2718.0	9073.5	11423.2	11756.9	8190.6	5456.3
67.5°	798.5	799.5	800.5	782.3	863.6	1254.2	5544.8	8998.2	10672.5	7405.2	4919.2
70°	661.2	670.3	674.4	674.4	703.9	822.9	2367.0	6167.3	8418.4	5806.2	3962.0
72.5°	602.2	582.8	584.9	574.7	574.7	626.6	953.1	3496.2	5303.8	3266.3	2417.9
75°	491.3	503.5	505.5	498.5	475.0	478.1	565.6	1466.8	2269.4	1354.9	1195.3
77.5°	424.1	424.1	428.2	423.1	404.9	358.0	377.4	568.6	772.0	555.3	597.1
80°	340.8	339.8	357.0	367.3	338.8	264.4	241.1	314.4	342.8	244.2	310.3
82.5°	165.8	176.0	245.2	279.7	257.4	191.3	147.5	195.3	183.1	107.8	139.4
85°	96.7	91.5	109.9	155.6	147.5	105.8	71.2	101.7	95.6	54.9	56.0
87.5°	30.5	28.5	22.3	52.9	42.7	29.5	19.4	29.5	26.4	12.2	12.2
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°	4930.4	4930.4	4930.4	4930.4	4930.4	4930.4	4930.4	4930.4	4930.4	4930.4
2.5°	4874.5	4754.5	4635.5	4526.6	4460.5	4417.8	4375.0	4327.2	4308.9	4281.4
5°	4825.6	4593.7	4387.2	4209.2	4047.4	3920.3	3792.2	3688.4	3641.6	3673.1
7.5°	4797.1	4461.5	4143.0	3816.6	3502.2	3251.0	3032.3	2878.7	2809.5	2826.8
10°	4771.7	4312.0	3826.7	3311.1	2859.3	2548.1	2324.3	2207.3	2163.6	2172.8
12.5°	4748.3	4144.1	3445.2	2766.8	2286.7	2081.2	2017.1	2018.1	2026.3	2032.4
15°	4744.2	3941.6	3019.0	2290.8	1977.4	1964.2	2033.4	2077.2	2100.5	2107.6
17.5°	4738.2	3699.5	2584.7	1966.3	1902.2	1991.7	2055.7	2084.2	2102.6	2103.6
20°	4713.8	3392.3	2184.0	1811.7	1885.9	1963.2	2002.8	2025.3	2040.5	2045.6
22.5°	4638.4	3050.6	1871.6	1742.5	1820.8	1882.8	1929.7	1955.1	1964.2	1970.4
25°	4503.1	2668.2	1656.0	1676.4	1730.3	1808.6	1846.2	1851.4	1848.3	1857.4
27.5°	4326.2	2258.2	1521.7	1586.8	1656.0	1723.1	1743.5	1740.4	1734.3	1744.6
30°	4112.6	1890.0	1436.3	1486.1	1580.8	1641.7	1660.1	1652.9	1640.7	1652.0
32.5°	3886.7	1588.9	1366.1	1415.9	1518.6	1578.7	1597.1	1589.9	1580.8	1589.9
35°	3676.2	1378.3	1301.0	1369.2	1469.8	1528.9	1552.3	1553.3	1553.3	1564.5
37.5°	3483.0	1255.2	1247.1	1339.7	1436.3	1489.2	1522.7	1524.8	1481.0	1484.1
40°	3303.9	1203.4	1222.7	1320.3	1403.7	1454.6	1456.6	1342.7	1262.4	1260.3
42.5°	3157.4	1193.2	1229.8	1318.3	1380.4	1382.4	1238.9	1150.5	1128.1	1129.1
45°	3020.1	1190.1	1246.1	1318.3	1345.7	1194.2	1097.6	1074.2	1076.2	1084.3
47.5°	2866.5	1177.9	1249.2	1300.0	1246.1	1062.0	1033.5	1023.4	1019.3	1021.3
50°	2698.6	1134.2	1210.5	1263.4	1075.2	1005.0	969.4	966.4	971.4	974.5
52.5°	2521.7	1063.0	1144.3	1197.3	996.8	955.2	915.5	922.6	944.9	952.1
55°	2405.7	979.6	1056.9	1065.0	942.0	908.4	874.8	891.0	932.7	946.0
57.5°	2375.1	891.0	957.1	948.0	871.8	867.7	847.4	861.6	914.5	933.8
60°	2366.0	811.7	859.6	852.4	803.6	822.9	817.8	824.9	843.3	849.4
62.5°	2294.8	748.7	772.0	761.9	742.5	776.1	788.3	773.1	787.3	794.5
65°	2113.8	697.8	686.6	679.5	687.7	718.1	742.5	712.1	725.3	745.6
67.5°	1814.7	628.6	598.1	606.3	631.7	648.0	679.5	644.9	656.1	690.6
70°	1467.8	541.2	513.7	537.1	561.5	595.1	600.1	576.8	603.2	641.9
72.5°	1038.5	452.6	433.4	481.1	489.2	533.0	521.8	510.7	547.2	560.5
75°	720.2	365.2	354.0	390.6	420.1	457.8	449.6	462.8	540.2	546.2
77.5°	455.7	283.8	276.6	300.1	340.8	382.4	395.6	546.2	922.6	959.2
80°	264.4	211.6	203.5	221.7	257.4	296.0	381.4	670.3	608.3	601.2
82.5°	147.5	145.4	135.3	140.4	171.9	213.6	539.2	472.0	383.5	395.6
85°	69.2	85.5	73.3	70.2	96.7	250.2	360.1	269.6	179.1	175.0
87.5°	18.3	16.3	16.3	18.3	40.7	215.7	143.4	114.9	68.2	66.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)