

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: P966321

Luminaire Tested: **NAV-SB4B-835-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966321
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-SB4B-835-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21821.2 lumens
Efficiency: N/A
Efficacy: 148.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G2

Input Watts (W): 147
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

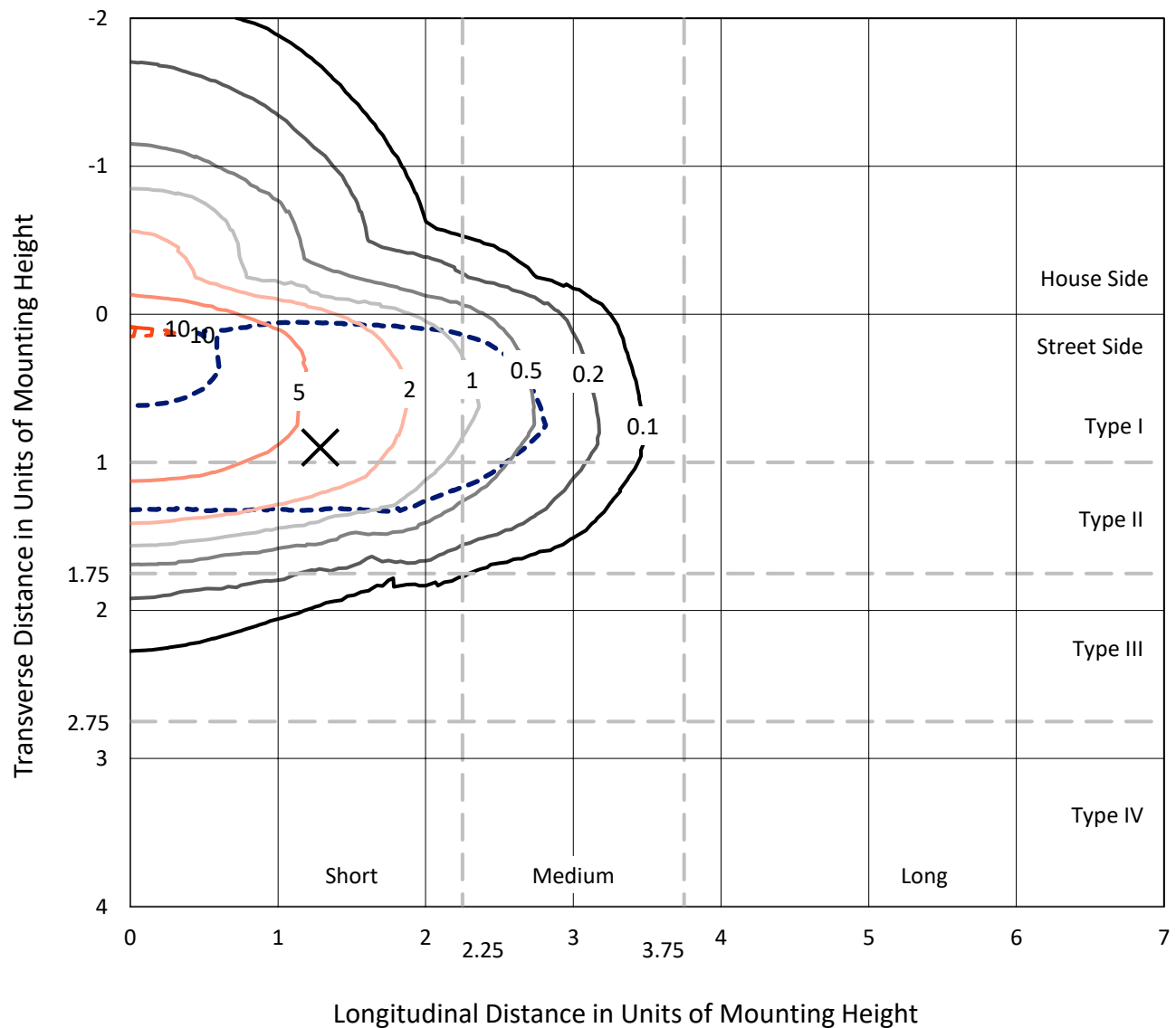


REPORT NUMBER: P966321

CATALOG NUMBER: NAV-SB4B-835-U-AFL

Iso-Footcandle Lines of Horizontal Illumination

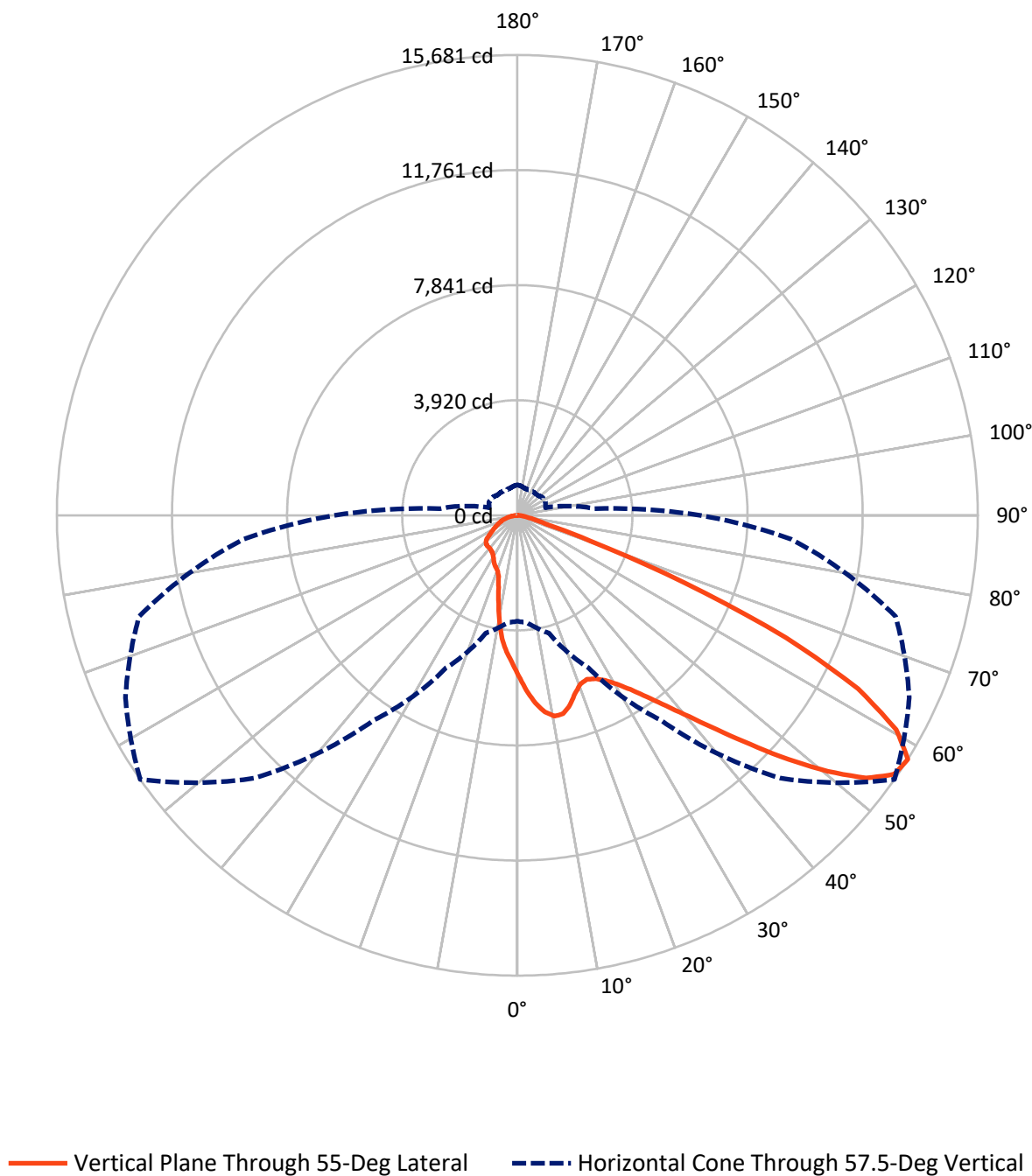
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.6 fc
Type II - Short - N/A

REPORT NUMBER: P966321
CATALOG NUMBER: NAV-SB4B-835-U-AFL

Luminous Intensity Polar Plot



REPORT NUMBER: P966321

CATALOG NUMBER: NAV-SB4B-835-U-AFL

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3948.4	0.0	3948.4
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	17872.8	0.0	17872.8
	% Fixture	81.9	0.0	81.9
Total	Lumens	21821.2	0.0	21821.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	507.4	2.3
10°-20°	1280.6	5.9
20°-30°	2043.5	9.4
30°-40°	3235.4	14.8
40°-50°	4952.1	22.7
50°-60°	5304.2	24.3
60°-70°	3336.9	15.3
70°-80°	986.8	4.5
80°-90°	174.5	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°	21821.2	100.0
0°-180°	21821.2	100.0

Coefficient of Utilization



REPORT NUMBER: P966321

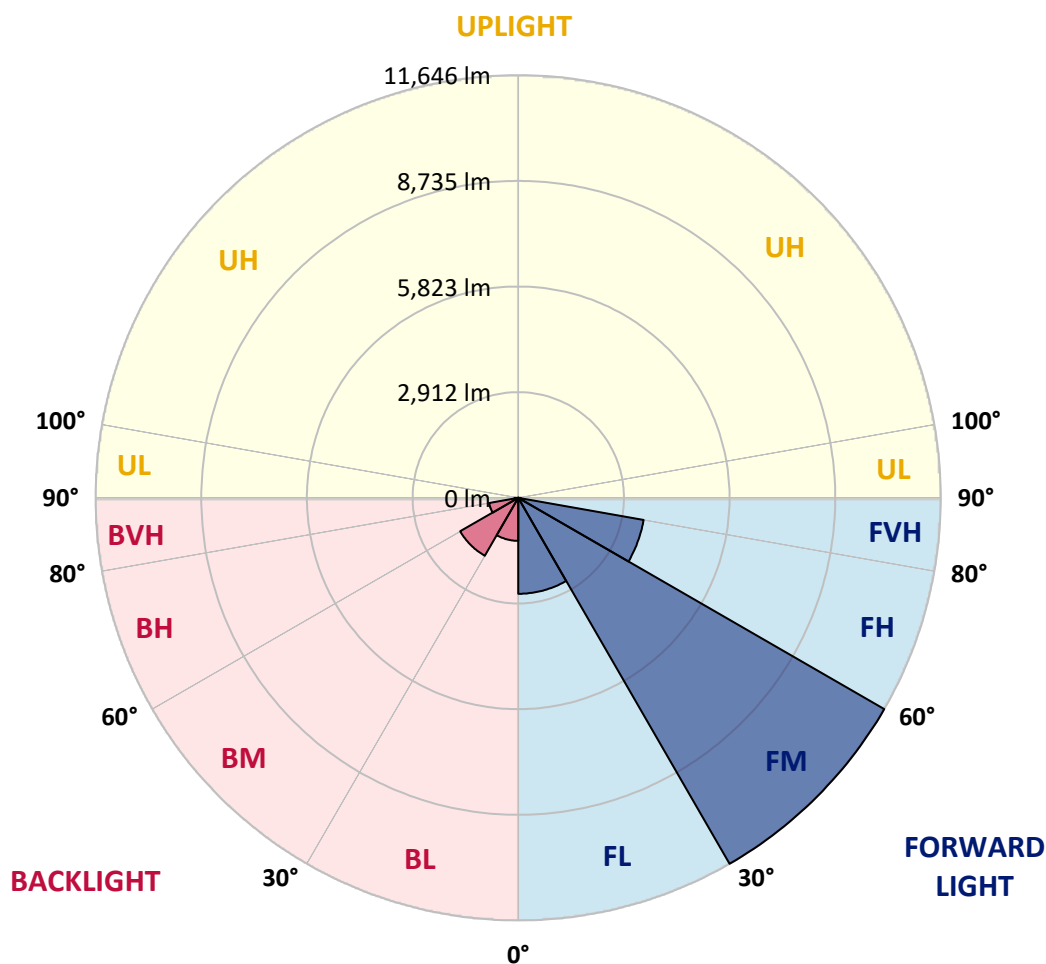
CATALOG NUMBER: NAV-SB4B-835-U-AFL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2644.7	12.1			
FM	(30°-60°)	11646.1	53.4			
FH	(60°-80°)	3508.2	16.1			G2/5000
FVH	(80°-90°)	73.7	0.3			G1/100
BL	(0°-30°)	1186.8	5.4	B3/2500		
BM	(30°-60°)	1845.5	8.5	B2/2500		
BH	(60°-80°)	815.4	3.7	B2/1000		G2/1000
BVH	(80°-90°)	100.8	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



REPORT NUMBER: P966321

CATALOG NUMBER: NAV-SB4B-835-U-AFL

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5467.7	5467.7	5467.7	5467.7	5467.7	5467.7	5467.7	5467.7	5467.7	5467.7	5467.7
2.5°	6273.1	6268.6	6293.4	6208.8	6151.3	6073.4	5970.8	5839.9	5698.9	5550.1	5485.7
5°	6838.3	6798.8	6824.8	6761.6	6698.4	6581.1	6428.8	6215.6	5955.0	5658.3	5500.4
7.5°	6749.1	6722.1	6788.7	6845.1	6892.4	6877.7	6766.1	6542.7	6206.6	5775.7	5546.7
10°	6030.6	6000.1	6093.7	6288.9	6575.5	6824.8	6960.2	6821.4	6463.8	5904.2	5591.8
12.5°	5396.6	5382.0	5444.0	5601.9	5920.1	6398.4	6935.3	7065.0	6731.1	6056.5	5652.7
15°	5125.9	5107.9	5147.3	5227.4	5430.4	5876.0	6709.6	7232.0	6994.0	6232.5	5749.7
17.5°	5066.1	5045.8	5062.7	5104.5	5235.3	5574.9	6369.0	7314.3	7268.1	6428.8	5830.9
20°	5176.7	5159.7	5162.0	5159.7	5251.1	5520.8	6132.2	7282.7	7507.2	6609.3	5909.8
22.5°	5444.0	5415.8	5416.9	5357.2	5406.8	5615.5	6070.0	7198.2	7720.4	6767.3	5969.7
25°	5879.4	5828.7	5838.8	5686.5	5673.0	5827.5	6167.1	7132.7	7932.5	6893.5	5981.0
27.5°	6475.0	6417.5	6387.1	6160.4	6052.0	6128.8	6364.5	7155.2	8133.3	7003.0	5952.8
30°	7219.6	7149.6	7087.6	6766.1	6569.8	6541.5	6671.3	7304.2	8370.2	7118.0	5904.2
32.5°	8132.1	8051.0	7938.1	7511.7	7235.4	7087.6	7068.4	7569.2	8647.7	7264.7	5879.4
35°	9218.4	9112.5	8952.2	8400.6	8051.0	7748.6	7591.9	7951.6	9027.8	7485.8	5907.6
37.5°	10337.5	10217.9	10071.2	9414.7	8984.9	8539.4	8230.3	8470.6	9534.3	7785.8	5982.1
40°	11369.7	11235.4	11098.9	10514.7	10053.2	9516.3	9012.0	9127.1	10153.6	8144.5	6108.4
42.5°	11978.9	11879.5	11827.7	11511.8	11155.4	10610.5	9984.4	9905.5	10849.6	8557.4	6252.8
45°	11951.8	11911.1	12071.3	12202.2	12117.6	11815.3	11123.8	10766.2	11548.0	8915.0	6386.0
47.5°	11313.2	11340.4	11697.9	12433.5	12757.2	12915.1	12421.1	11611.1	12154.9	9182.4	6445.7
50°	9576.1	9598.6	10426.6	12012.7	12921.9	13811.9	13708.1	12435.7	12625.2	9345.9	6432.2
52.5°	8200.9	8215.7	8570.9	10765.1	12378.2	14263.2	14867.8	13213.0	12969.2	9391.0	6356.6
55°	6177.3	6228.0	6626.2	8445.8	10963.6	13905.6	15574.0	14013.8	13186.9	9395.6	6277.6
57.5°	3608.6	3664.0	4155.8	5732.8	8521.3	12659.1	15681.1	14724.5	13334.7	9359.5	6230.3
60°	1767.7	1791.4	2005.7	3013.1	5254.5	10257.4	14819.2	15068.6	13417.1	9340.3	6228.0
62.5°	1191.3	1187.9	1196.9	1486.8	2588.8	6590.1	13023.4	14466.2	13373.1	9267.0	6205.5
65°	1024.3	1011.9	978.1	1043.4	1341.2	3014.2	10062.2	12668.1	13038.1	9083.1	6050.9
67.5°	885.5	886.6	887.8	867.5	957.8	1390.9	6149.1	9978.8	11835.6	8212.3	5455.3
70°	733.3	743.4	747.9	747.9	780.6	912.6	2625.0	6839.4	9335.8	6438.9	4393.8
72.5°	667.8	646.4	648.6	637.3	637.3	694.8	1057.0	3877.2	5881.7	3622.1	2681.4
75°	544.9	558.4	560.7	552.8	526.8	530.2	627.2	1626.7	2516.7	1502.5	1325.4
77.5°	470.4	470.4	474.9	469.2	449.0	397.1	418.5	630.6	856.2	615.9	662.2
80°	377.9	376.8	396.0	407.2	375.7	293.3	267.3	348.6	380.2	270.7	344.1
82.5°	183.9	195.2	271.8	310.2	285.4	212.1	163.6	216.6	203.1	119.6	154.6
85°	107.2	101.5	121.9	172.6	163.6	117.4	78.9	112.9	106.1	60.9	62.0
87.5°	33.8	31.6	24.8	58.6	47.4	32.7	21.4	32.7	29.3	13.5	13.5
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: P966321

CATALOG NUMBER: NAV-SB4B-835-U-AFL

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5467.7	5467.7	5467.7	5467.7	5467.7	5467.7	5467.7	5467.7	5467.7	5467.7
2.5°	5405.6	5272.5	5140.6	5019.8	4946.5	4899.2	4851.7	4798.7	4778.4	4748.0
5°	5351.5	5094.4	4865.3	4667.8	4488.6	4347.5	4205.4	4090.4	4038.4	4073.5
7.5°	5320.0	4947.7	4594.6	4232.4	3883.9	3605.2	3362.7	3192.4	3115.7	3134.9
10°	5291.7	4781.8	4243.7	3671.9	3170.9	2825.8	2577.6	2447.9	2399.4	2409.6
12.5°	5265.7	4595.7	3820.7	3068.3	2535.8	2308.0	2237.0	2238.1	2247.1	2253.9
15°	5261.2	4371.2	3348.1	2540.4	2193.0	2178.2	2255.0	2303.5	2329.4	2337.3
17.5°	5254.5	4102.8	2866.4	2180.5	2109.4	2208.8	2279.8	2311.4	2331.7	2332.8
20°	5227.4	3762.1	2422.0	2009.1	2091.4	2177.1	2221.2	2246.0	2262.9	2268.5
22.5°	5144.0	3383.0	2075.6	1932.3	2019.2	2088.0	2139.9	2168.1	2178.2	2185.1
25°	4993.9	2958.9	1836.5	1859.0	1918.8	2005.7	2047.4	2053.1	2049.7	2059.8
27.5°	4797.6	2504.3	1687.6	1759.7	1836.5	1910.9	1933.5	1930.1	1923.3	1934.6
30°	4560.7	2095.9	1592.8	1648.1	1753.0	1820.7	1841.0	1833.1	1819.6	1832.0
32.5°	4310.3	1762.0	1514.9	1570.3	1684.2	1750.7	1771.1	1763.1	1753.0	1763.1
35°	4076.8	1528.5	1442.8	1518.3	1630.1	1695.5	1721.4	1722.5	1722.5	1734.9
37.5°	3862.5	1392.1	1383.0	1485.6	1592.8	1651.5	1688.7	1690.9	1642.5	1645.8
40°	3664.0	1334.4	1356.0	1464.2	1556.7	1613.1	1615.4	1489.0	1399.9	1397.7
42.5°	3501.5	1323.2	1363.9	1462.0	1530.7	1533.0	1374.0	1275.8	1251.0	1252.1
45°	3349.2	1319.8	1381.9	1462.0	1492.4	1324.3	1217.2	1191.3	1193.5	1202.5
47.5°	3178.8	1306.3	1385.3	1441.7	1381.9	1177.7	1146.2	1134.8	1130.3	1132.5
50°	2992.7	1257.8	1342.3	1401.1	1192.4	1114.5	1075.0	1071.6	1077.3	1080.7
52.5°	2796.4	1178.9	1269.1	1327.7	1105.5	1059.2	1015.3	1023.2	1048.0	1055.9
55°	2667.9	1086.3	1172.1	1181.1	1044.6	1007.4	970.2	988.2	1034.4	1049.1
57.5°	2634.0	988.2	1061.5	1051.3	966.8	962.3	939.7	955.5	1014.1	1035.6
60°	2623.9	900.2	953.2	945.4	891.1	912.6	906.9	914.8	935.2	942.0
62.5°	2544.9	830.2	856.2	844.9	823.5	860.7	874.2	857.3	873.1	881.0
65°	2344.1	773.9	761.5	753.6	762.6	796.4	823.5	789.7	804.3	826.9
67.5°	2012.5	697.1	663.3	672.3	700.5	718.5	753.6	715.1	727.6	766.0
70°	1627.8	600.1	569.7	595.6	622.7	659.9	665.5	639.6	668.9	711.8
72.5°	1151.8	501.9	480.5	533.6	542.6	591.1	578.7	566.3	606.9	621.6
75°	798.7	405.0	392.6	433.2	465.9	507.6	498.6	513.2	599.0	605.8
77.5°	505.3	314.8	306.8	332.8	377.9	424.1	438.8	605.8	1023.2	1063.7
80°	293.3	234.6	225.6	245.9	285.4	328.3	423.0	743.4	674.6	666.7
82.5°	163.6	161.3	150.1	155.7	190.6	236.9	597.9	523.5	425.3	438.8
85°	76.7	94.7	81.2	77.8	107.2	277.5	399.3	298.9	198.5	194.0
87.5°	20.3	18.0	18.0	20.3	45.1	239.1	159.1	127.5	75.5	73.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)