

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: P966259

Luminaire Tested: **NAV-SB4B-827-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966259
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-827-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 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: 20456.9 lumens
Efficiency: N/A
Efficacy: 139.2 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



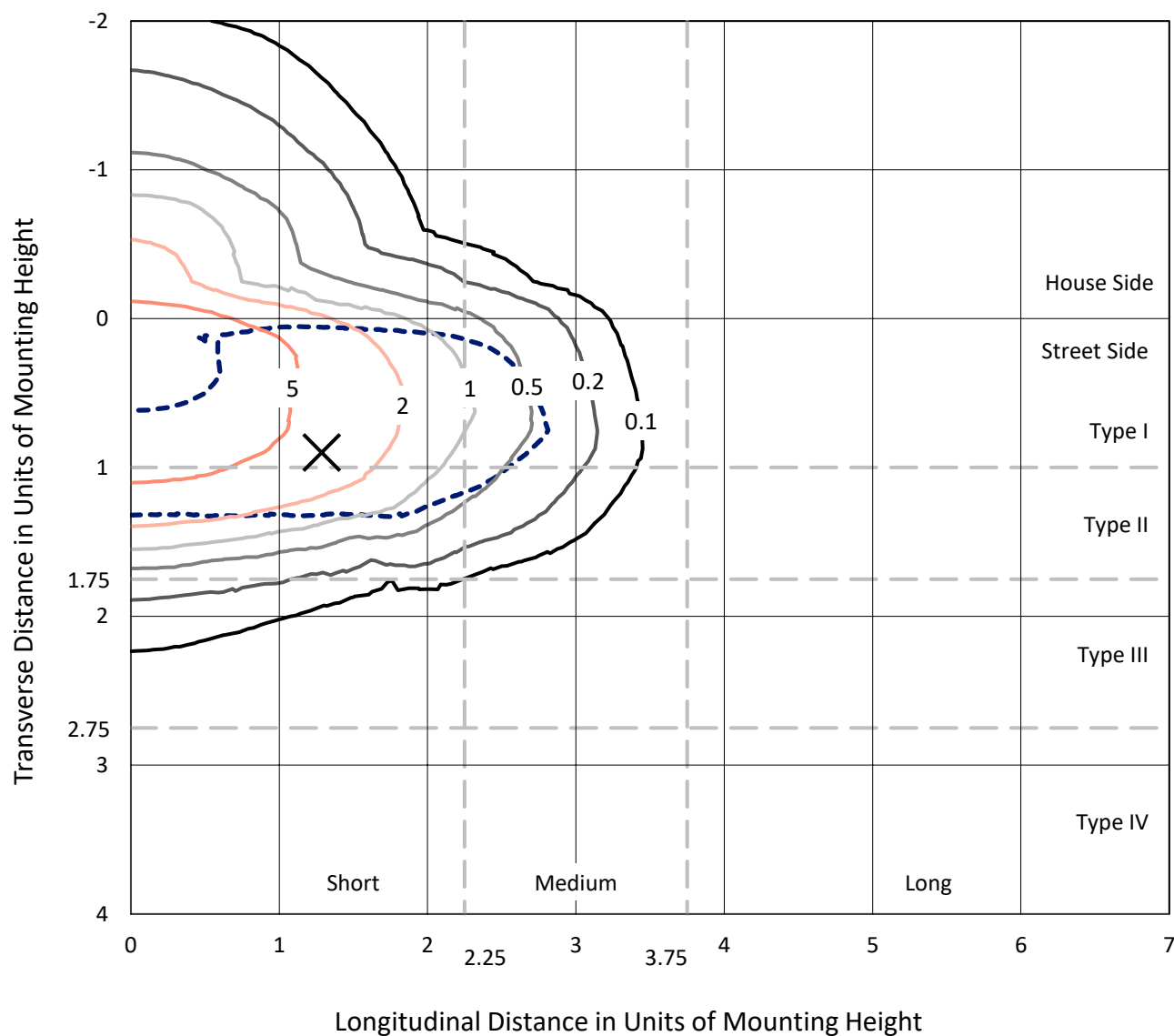
REPORT NUMBER: P966259

CATALOG NUMBER: NAV-SB4B-827-U-AFL

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

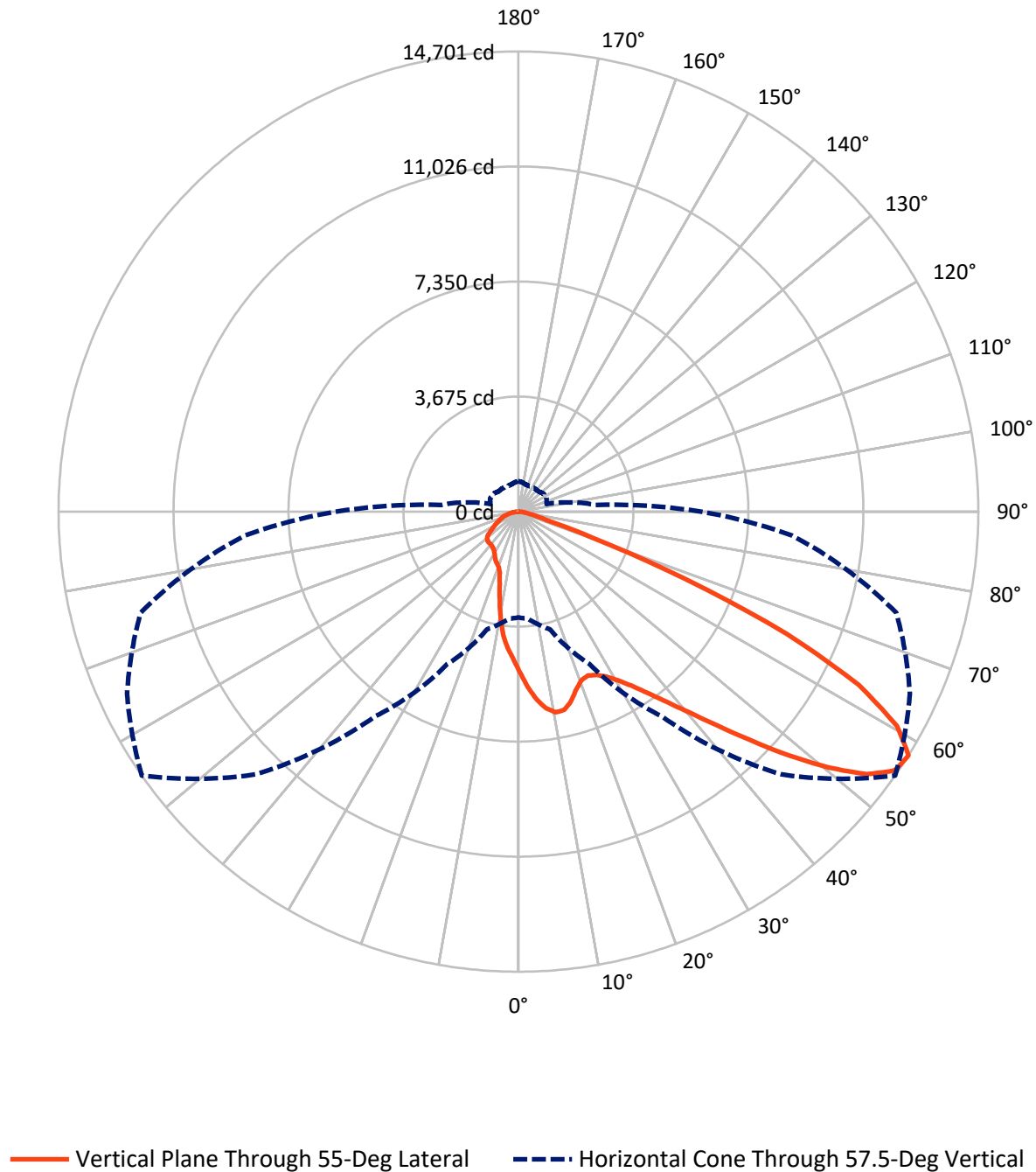


Based on 25 foot mounting height. Maximum calculated value = 9.9 fc

Type II - Short - N/A

REPORT NUMBER: P966259
CATALOG NUMBER: NAV-SB4B-827-U-AFL

Luminous Intensity Polar Plot



REPORT NUMBER: P966259

CATALOG NUMBER: NAV-SB4B-827-U-AFL

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3701.6	0.0	3701.6
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	16755.4	0.0	16755.4
	% Fixture	81.9	0.0	81.9
Total	Lumens	20456.9	0.0	20456.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	475.6	2.3
10°-20°	1200.6	5.9
20°-30°	1915.8	9.4
30°-40°	3033.1	14.8
40°-50°	4642.5	22.7
50°-60°	4972.5	24.3
60°-70°	3128.2	15.3
70°-80°	925.1	4.5
80°-90°	163.6	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°	20456.9	100.0
0°-180°	20456.9	100.0

Coefficient of Utilization



REPORT NUMBER: P966259

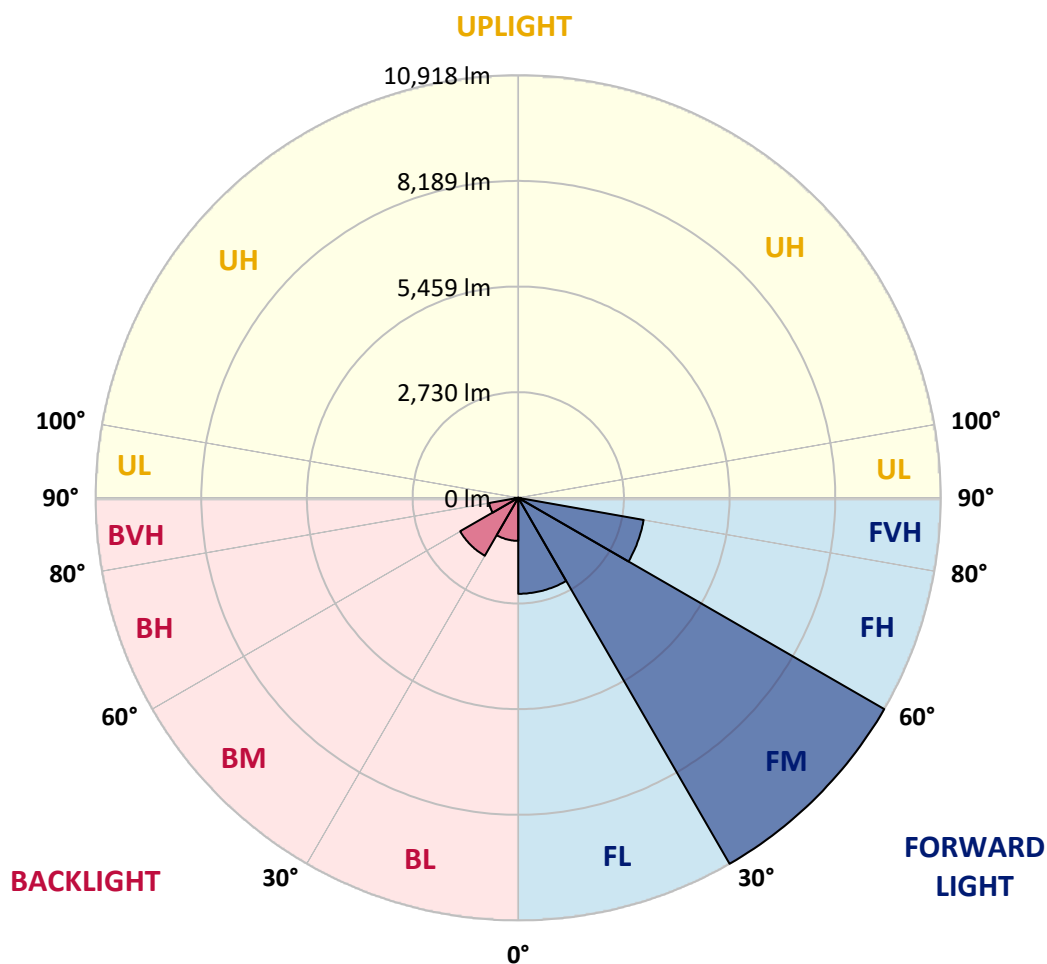
CATALOG NUMBER: NAV-SB4B-827-U-AFL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2479.4	12.1			
FM	(30°-60°)	10918.0	53.4			
FH	(60°-80°)	3288.9	16.1			G2/5000
FVH	(80°-90°)	69.1	0.3			G1/100
BL	(0°-30°)	1112.6	5.4	B3/2500		
BM	(30°-60°)	1730.1	8.5	B2/2500		
BH	(60°-80°)	764.5	3.7	B2/1000		G2/1000
BVH	(80°-90°)	94.5	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



REPORT NUMBER: P966259

CATALOG NUMBER: NAV-SB4B-827-U-AFL

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5125.8	5125.8	5125.8	5125.8	5125.8	5125.8	5125.8	5125.8	5125.8	5125.8	5125.8
2.5°	5880.9	5876.7	5900.0	5820.7	5766.8	5693.8	5597.5	5474.8	5342.6	5203.0	5142.7
5°	6410.8	6373.8	6398.0	6338.8	6279.7	6169.7	6026.9	5827.0	5582.7	5304.6	5156.5
7.5°	6327.2	6301.8	6364.2	6417.1	6461.5	6447.8	6343.1	6133.7	5818.5	5414.6	5199.8
10°	5653.6	5625.0	5712.7	5895.7	6164.3	6398.0	6524.9	6394.9	6059.7	5535.1	5242.2
12.5°	5059.2	5045.5	5103.7	5251.7	5550.0	5998.3	6501.7	6623.3	6310.3	5677.9	5299.2
15°	4805.4	4788.5	4825.5	4900.6	5091.0	5508.7	6290.2	6779.9	6556.7	5842.8	5390.3
17.5°	4749.3	4730.4	4746.2	4785.3	4908.0	5226.3	5970.8	6857.0	6813.7	6026.9	5466.3
20°	4853.0	4837.2	4839.2	4837.2	4922.8	5175.5	5748.7	6827.4	7037.9	6196.0	5540.4
22.5°	5103.7	5077.2	5078.3	5022.2	5068.7	5264.4	5690.6	6748.1	7237.7	6344.1	5596.4
25°	5511.8	5464.3	5473.8	5331.0	5318.3	5463.2	5781.5	6686.8	7436.6	6462.5	5607.1
27.5°	6070.3	6016.2	5987.7	5775.2	5673.7	5745.5	5966.6	6707.9	7624.8	6565.1	5580.6
30°	6768.2	6702.6	6644.5	6343.1	6159.0	6132.6	6254.2	6847.5	7846.9	6673.1	5535.1
32.5°	7623.7	7547.6	7441.8	7042.1	6783.0	6644.5	6626.5	7096.1	8107.0	6810.5	5511.8
35°	8642.2	8542.8	8392.6	7875.4	7547.6	7264.2	7117.2	7454.5	8463.4	7017.8	5538.3
37.5°	9691.2	9579.1	9441.6	8826.2	8423.2	8005.5	7715.7	7941.0	8938.2	7299.0	5608.1
40°	10658.9	10533.0	10405.1	9857.2	9424.7	8921.3	8448.6	8556.5	9518.9	7635.3	5726.6
42.5°	11229.9	11136.8	11088.2	10792.1	10457.9	9947.1	9360.2	9286.2	10171.3	8022.5	5861.9
45°	11204.5	11166.5	11316.6	11439.3	11360.0	11076.6	10428.3	10093.1	10825.9	8357.6	5986.7
47.5°	10606.0	10631.3	10966.6	11656.1	11959.6	12107.7	11644.5	10885.2	11394.9	8608.3	6042.7
50°	8977.4	8998.5	9774.7	11261.7	12114.0	12948.4	12851.1	11658.2	11835.9	8761.6	6030.1
52.5°	7688.2	7702.0	8035.1	10092.0	11604.2	13371.4	13938.3	12386.8	12158.4	8803.9	5959.1
55°	5791.0	5838.6	6211.9	7917.7	10278.1	13036.2	14600.3	13137.7	12362.5	8808.1	5885.1
57.5°	3383.0	3434.9	3895.9	5374.4	7988.5	11867.6	14700.8	13804.0	12501.1	8774.3	5840.8
60°	1657.1	1679.4	1880.3	2824.7	4925.9	9616.1	13892.7	14126.4	12578.3	8756.4	5838.6
62.5°	1116.7	1113.6	1122.1	1393.8	2427.0	6178.1	12209.2	13561.8	12537.0	8687.6	5817.5
65°	960.2	948.6	916.9	978.3	1257.4	2825.7	9433.2	11876.1	12222.9	8515.2	5672.6
67.5°	830.1	831.2	832.3	813.2	897.8	1303.9	5764.6	9354.9	11095.6	7698.8	5114.2
70°	687.4	696.9	701.1	701.1	731.8	855.6	2460.9	6411.8	8752.2	6036.4	4119.1
72.5°	626.1	606.0	608.0	597.5	597.5	651.4	990.9	3634.8	5514.0	3395.7	2513.7
75°	510.8	523.5	525.6	518.2	493.8	497.0	587.9	1525.0	2359.3	1408.7	1242.6
77.5°	441.0	441.0	445.3	439.9	420.9	372.3	392.4	591.1	802.7	577.4	620.7
80°	354.2	353.2	371.2	381.8	352.2	275.0	250.6	326.8	356.4	253.8	322.6
82.5°	172.4	183.0	254.8	290.8	267.5	198.8	153.3	203.1	190.3	112.1	144.8
85°	100.4	95.2	114.2	161.8	153.3	110.0	74.0	105.8	99.4	57.1	58.1
87.5°	31.8	29.6	23.3	55.0	44.4	30.6	20.1	30.6	27.5	12.7	12.7
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: P966259

CATALOG NUMBER: NAV-SB4B-827-U-AFL

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5125.8	5125.8	5125.8	5125.8	5125.8	5125.8	5125.8	5125.8	5125.8	5125.8
2.5°	5067.7	4942.9	4819.1	4706.0	4637.3	4592.8	4548.4	4498.7	4479.7	4451.2
5°	5017.0	4775.8	4561.1	4376.0	4207.9	4075.7	3942.5	3834.6	3785.9	3818.7
7.5°	4987.3	4638.3	4307.4	3967.9	3641.1	3379.8	3152.5	2992.8	2920.9	2938.9
10°	4960.9	4482.8	3978.4	3442.3	2972.7	2649.1	2416.4	2294.9	2249.4	2258.9
12.5°	4936.5	4308.4	3581.9	2876.5	2377.3	2163.7	2097.0	2098.2	2106.6	2112.9
15°	4932.3	4098.0	3138.8	2381.6	2055.8	2042.1	2114.0	2159.5	2183.8	2191.2
17.5°	4925.9	3846.2	2687.1	2044.2	1977.5	2070.6	2137.2	2166.8	2185.9	2186.9
20°	4900.6	3526.8	2270.5	1883.4	1960.6	2041.1	2082.3	2105.6	2121.4	2126.7
22.5°	4822.3	3171.6	1945.9	1811.6	1893.0	1957.4	2006.1	2032.6	2042.1	2048.5
25°	4681.7	2773.9	1721.7	1742.8	1798.9	1880.3	1919.4	1924.7	1921.6	1931.1
27.5°	4497.7	2347.8	1582.1	1649.7	1721.7	1791.5	1812.6	1809.4	1803.1	1813.6
30°	4275.6	1964.9	1493.2	1545.1	1643.4	1706.8	1725.9	1718.5	1705.8	1717.4
32.5°	4040.9	1651.9	1420.2	1472.1	1578.9	1641.3	1660.3	1652.9	1643.4	1652.9
35°	3821.9	1432.9	1352.6	1423.4	1528.2	1589.5	1613.8	1614.9	1614.9	1626.5
37.5°	3621.0	1305.0	1296.5	1392.8	1493.2	1548.3	1583.1	1585.3	1539.8	1542.9
40°	3434.9	1251.0	1271.1	1372.7	1459.4	1512.3	1514.3	1395.9	1312.4	1310.3
42.5°	3282.6	1240.5	1278.6	1370.5	1435.1	1437.2	1288.1	1196.1	1172.8	1173.8
45°	3139.8	1237.3	1295.5	1370.5	1399.1	1241.6	1141.0	1116.7	1118.9	1127.3
47.5°	2980.1	1224.7	1298.7	1351.6	1295.5	1104.0	1074.4	1063.8	1059.6	1061.8
50°	2805.6	1179.2	1258.5	1313.4	1117.8	1044.9	1007.8	1004.6	1009.9	1013.1
52.5°	2621.6	1105.2	1189.7	1244.8	1036.4	993.0	951.8	959.2	982.5	989.8
55°	2501.1	1018.4	1098.8	1107.2	979.3	944.3	909.5	926.4	969.8	983.5
57.5°	2469.3	926.4	995.2	985.6	906.3	902.1	880.9	895.7	950.7	970.8
60°	2459.8	843.9	893.6	886.2	835.5	855.6	850.2	857.6	876.7	883.0
62.5°	2385.8	778.4	802.7	792.1	772.0	806.9	819.6	803.7	818.6	825.9
65°	2197.5	725.5	713.8	706.4	714.9	746.6	772.0	740.3	754.0	775.2
67.5°	1886.6	653.5	621.9	630.3	656.7	673.6	706.4	670.5	682.1	718.0
70°	1526.0	562.6	534.0	558.4	583.7	618.7	623.9	599.6	627.1	667.3
72.5°	1079.7	470.6	450.5	500.2	508.7	554.1	542.5	530.8	569.0	582.7
75°	748.8	379.7	368.0	406.1	436.8	475.9	467.4	481.1	561.6	567.8
77.5°	473.8	295.1	287.6	312.0	354.2	397.6	411.3	567.8	959.2	997.2
80°	275.0	220.0	211.5	230.5	267.5	307.7	396.6	696.9	632.4	625.0
82.5°	153.3	151.2	140.6	146.0	178.8	222.1	560.5	490.7	398.7	411.3
85°	72.0	88.9	76.2	73.0	100.4	260.1	374.3	280.2	186.1	181.9
87.5°	19.1	16.9	16.9	19.1	42.3	224.2	149.1	119.5	70.8	68.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)