

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: P961423

Luminaire Tested: **NAV-SB2A-740-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961423
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-SB2A-740-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9893.3 lumens
Efficiency: N/A
Efficacy: 172.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G1

Input Watts (W): 57.3
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

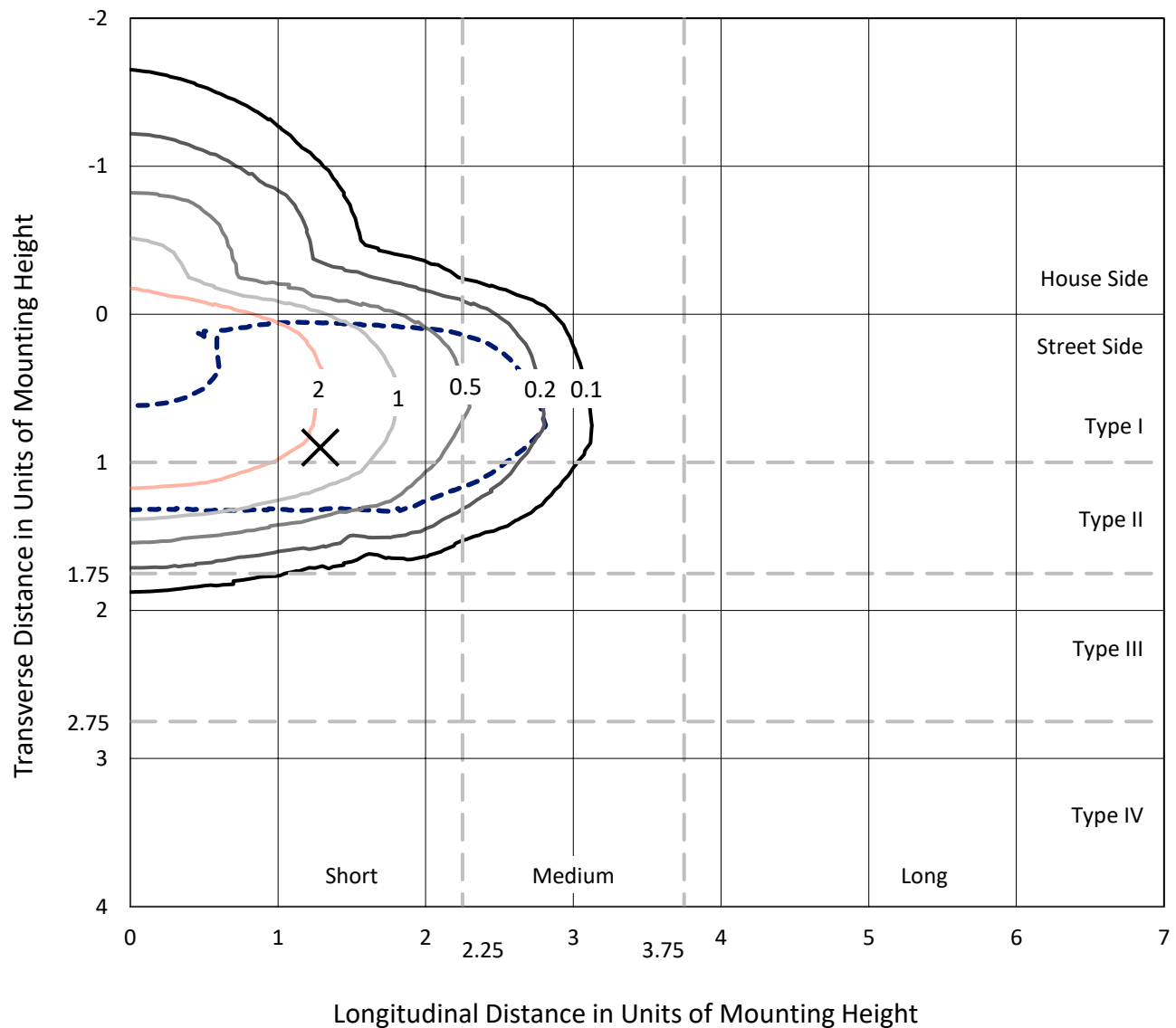


REPORT NUMBER: P961423

CATALOG NUMBER: NAV-SB2A-740-U-AFL

Iso-Footcandle Lines of Horizontal Illumination

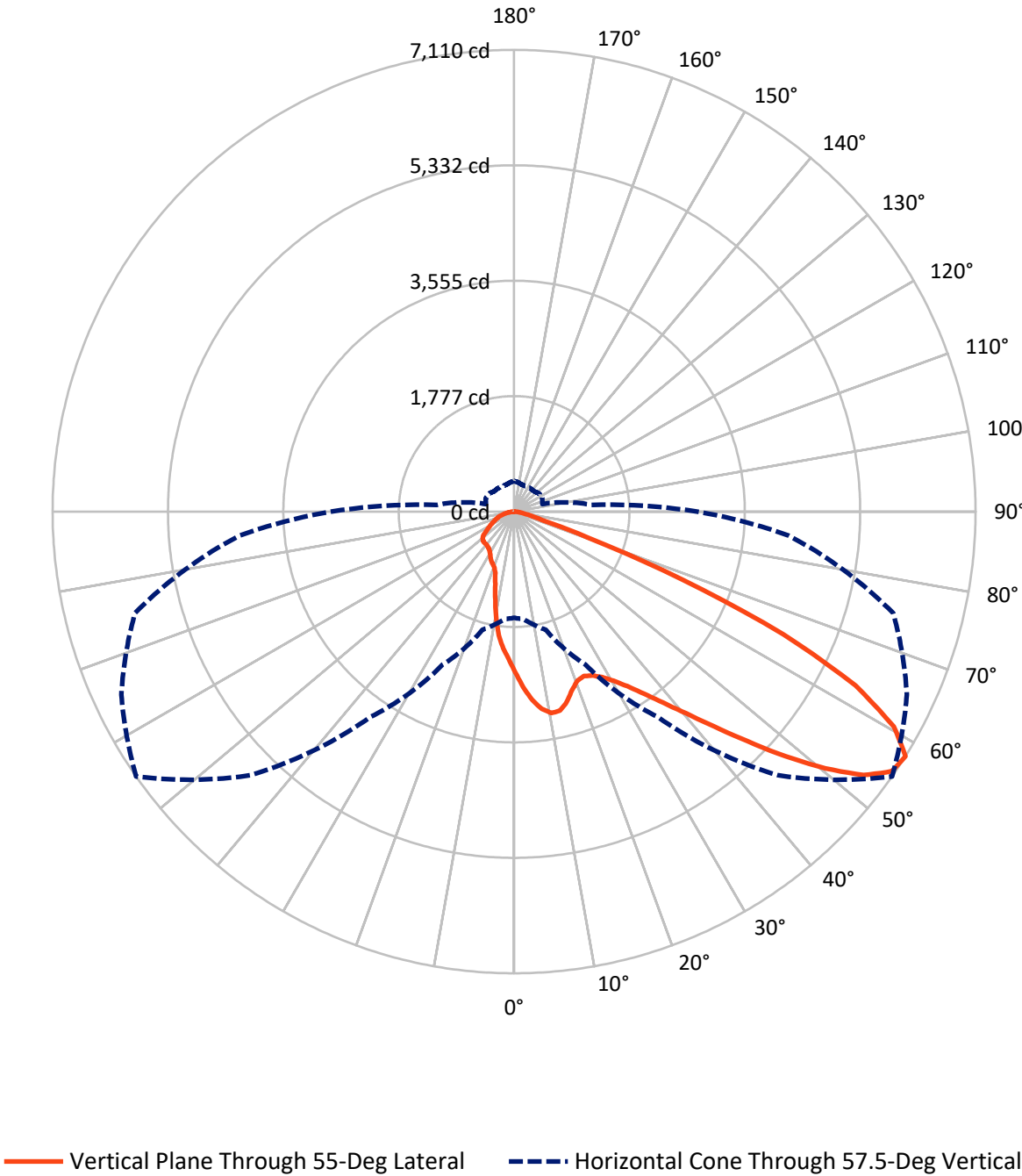
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 fc
Type II - Short - N/A

REPORT NUMBER: P961423
CATALOG NUMBER: NAV-SB2A-740-U-AFL

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1790.1	0.0	1790.1
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	8103.2	0.0	8103.2
	% Fixture	81.9	0.0	81.9
Total	Lumens	9893.3	0.0	9893.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	230.0	2.3
10°-20°	580.6	5.9
20°-30°	926.5	9.4
30°-40°	1466.9	14.8
40°-50°	2245.2	22.7
50°-60°	2404.8	24.3
60°-70°	1512.9	15.3
70°-80°	447.4	4.5
80°-90°	79.1	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°	9893.3	100.0
0°-180°	9893.3	100.0

Coefficient of Utilization



REPORT NUMBER: P961423

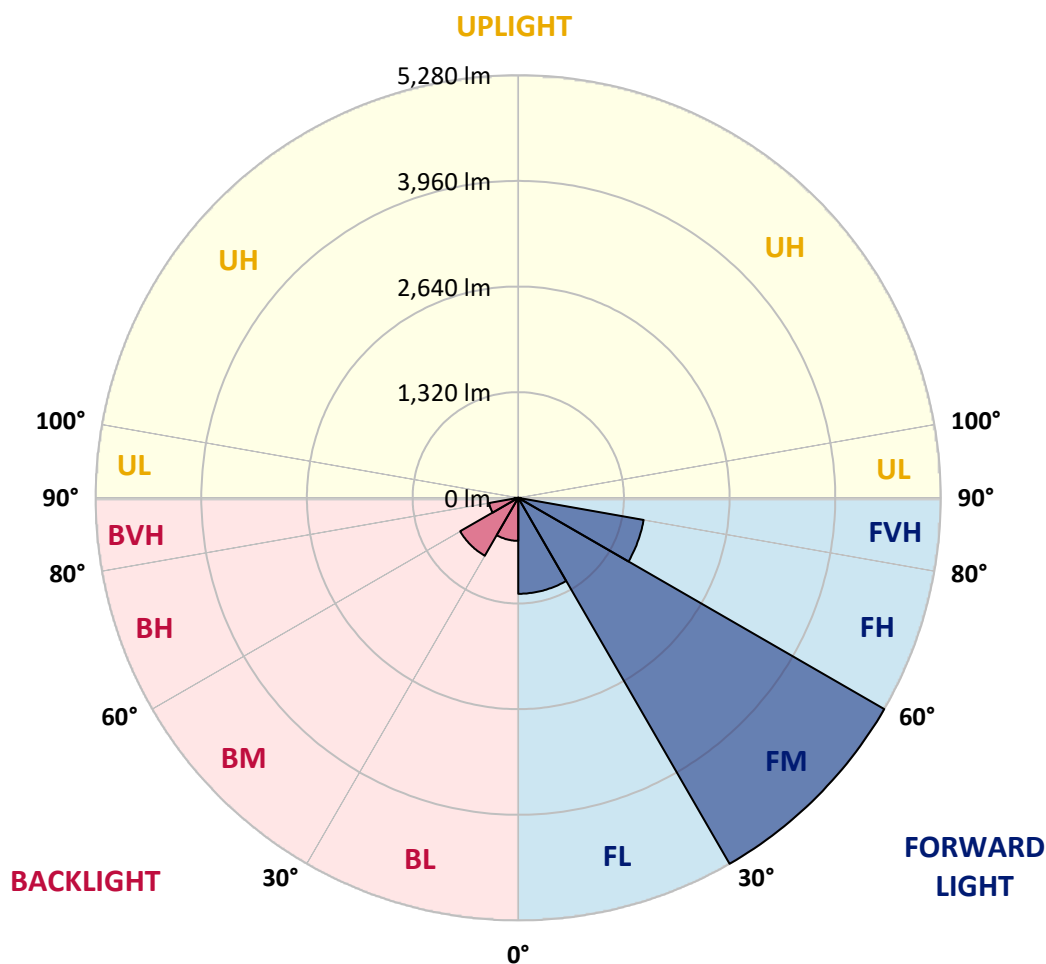
CATALOG NUMBER: NAV-SB2A-740-U-AFL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1199.1	12.1			
FM	(30°-60°)	5280.1	53.4			
FH	(60°-80°)	1590.5	16.1			G1/1800
FVH	(80°-90°)	33.4	0.3			G1/100
BL	(0°-30°)	538.1	5.4	B2/1000		
BM	(30°-60°)	836.7	8.5	B1/1000		
BH	(60°-80°)	369.7	3.7	B1/500		G1/500
BVH	(80°-90°)	45.7	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-G1

Type II Short



REPORT NUMBER: P961423

CATALOG NUMBER: NAV-SB2A-740-U-AFL

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2479.0	2479.0	2479.0	2479.0	2479.0	2479.0	2479.0	2479.0	2479.0	2479.0	2479.0
2.5°	2844.1	2842.0	2853.3	2815.0	2788.9	2753.6	2707.0	2647.7	2583.8	2516.3	2487.2
5°	3100.3	3082.5	3094.2	3065.6	3036.9	2983.8	2914.7	2818.0	2699.8	2565.4	2493.7
7.5°	3059.9	3047.6	3077.9	3103.4	3124.9	3118.3	3067.6	2966.4	2813.9	2618.6	2514.7
10°	2734.2	2720.4	2762.8	2851.2	2981.2	3094.2	3155.6	3092.6	2930.6	2676.9	2535.2
12.5°	2446.7	2440.1	2468.2	2539.8	2684.1	2900.9	3144.3	3203.1	3051.7	2745.9	2562.8
15°	2324.0	2315.8	2333.7	2370.0	2462.0	2664.1	3042.0	3278.9	3170.9	2825.7	2606.8
17.5°	2296.8	2287.7	2295.3	2314.2	2373.6	2527.5	2887.6	3316.2	3295.2	2914.7	2643.6
20°	2346.9	2339.4	2340.4	2339.4	2380.8	2502.9	2780.2	3301.8	3403.6	2996.5	2679.5
22.5°	2468.2	2455.4	2455.9	2428.8	2451.3	2545.9	2752.0	3263.5	3500.3	3068.1	2706.5
25°	2665.6	2642.6	2647.2	2578.2	2572.0	2642.0	2796.0	3233.8	3596.4	3125.4	2711.6
27.5°	2935.7	2909.6	2895.7	2792.9	2743.8	2778.7	2885.6	3244.0	3687.4	3175.0	2698.8
30°	3273.2	3241.5	3213.4	3067.6	2978.6	2965.8	3024.7	3311.6	3794.9	3227.2	2676.9
32.5°	3686.9	3650.1	3599.0	3405.7	3280.4	3213.4	3204.7	3431.7	3920.7	3293.6	2665.6
35°	4179.4	4131.4	4058.8	3808.7	3650.1	3513.1	3442.0	3605.1	4093.0	3393.9	2678.4
37.5°	4686.8	4632.6	4566.1	4268.5	4073.6	3871.6	3731.4	3840.4	4322.6	3529.9	2712.1
40°	5154.8	5093.9	5032.0	4767.1	4558.0	4314.5	4085.9	4138.0	4603.5	3692.6	2769.4
42.5°	5431.0	5386.0	5362.4	5219.2	5057.7	4810.6	4526.7	4490.9	4919.0	3879.7	2834.9
45°	5418.7	5400.3	5472.9	5532.2	5493.9	5356.8	5043.3	4881.2	5235.6	4041.9	2895.2
47.5°	5129.2	5141.5	5303.7	5637.1	5783.9	5855.4	5631.5	5264.2	5510.7	4163.1	2922.4
50°	4341.6	4351.8	4727.2	5446.3	5858.5	6262.0	6215.0	5638.1	5724.0	4237.2	2916.2
52.5°	3718.2	3724.8	3885.9	4880.6	5612.0	6466.6	6740.7	5990.5	5880.0	4257.7	2882.0
55°	2800.6	2823.7	3004.2	3829.1	4970.6	6304.5	7060.9	6353.6	5978.7	4259.8	2846.1
57.5°	1636.1	1661.1	1884.2	2599.1	3863.4	5739.4	7109.5	6675.8	6045.8	4243.4	2824.7
60°	801.4	812.2	909.4	1366.0	2382.3	4650.5	6718.8	6831.8	6083.1	4234.7	2823.7
62.5°	540.1	538.5	542.6	674.0	1173.7	2987.8	5904.5	6558.7	6063.1	4201.5	2813.4
65°	464.4	458.8	443.4	473.0	608.1	1366.5	4562.1	5743.5	5911.2	4118.1	2743.3
67.5°	401.5	402.0	402.5	393.3	434.2	630.6	2787.9	4524.1	5366.0	3723.3	2473.3
70°	332.4	337.0	339.1	339.1	353.9	413.8	1190.1	3100.8	4232.6	2919.3	1992.1
72.5°	302.8	293.0	294.1	288.9	288.9	315.1	479.2	1757.8	2666.6	1642.3	1215.6
75°	247.0	253.2	254.2	250.6	238.8	240.4	284.3	737.5	1141.0	681.2	601.0
77.5°	213.3	213.3	215.4	212.8	203.6	180.0	189.7	285.9	388.2	279.2	300.2
80°	171.4	170.9	179.5	184.6	170.4	132.9	121.3	158.1	172.4	122.8	156.0
82.5°	83.3	88.5	123.3	140.6	129.4	96.1	74.1	98.2	92.0	54.2	70.1
85°	48.6	46.0	55.2	78.2	74.1	53.2	35.8	51.1	48.1	27.6	28.1
87.5°	15.4	14.3	11.3	26.5	21.5	14.9	9.7	14.9	13.3	6.1	6.1
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: P961423

CATALOG NUMBER: NAV-SB2A-740-U-AFL

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2479.0	2479.0	2479.0	2479.0	2479.0	2479.0	2479.0	2479.0	2479.0	2479.0
2.5°	2450.8	2390.5	2330.6	2275.9	2242.7	2221.2	2199.6	2175.7	2166.4	2152.6
5°	2426.3	2309.6	2205.8	2116.3	2035.0	1971.1	1906.6	1854.4	1831.0	1846.8
7.5°	2411.9	2243.2	2083.1	1918.9	1760.8	1634.6	1524.6	1447.4	1412.6	1421.3
10°	2399.1	2168.0	1924.0	1664.7	1437.7	1281.1	1168.6	1109.9	1087.8	1092.4
12.5°	2387.4	2083.6	1732.2	1391.1	1149.7	1046.4	1014.1	1014.6	1018.7	1021.8
15°	2385.4	1981.8	1517.9	1151.8	994.2	987.6	1022.3	1044.4	1056.2	1059.7
17.5°	2382.3	1860.1	1299.6	988.6	956.4	1001.4	1033.6	1048.0	1057.2	1057.7
20°	2370.0	1705.6	1098.1	910.9	948.2	987.1	1007.1	1018.2	1025.9	1028.5
22.5°	2332.2	1533.8	941.1	876.1	915.4	946.7	970.2	983.0	987.6	990.7
25°	2264.1	1341.5	832.6	842.9	869.9	909.4	928.2	930.8	929.3	933.9
27.5°	2175.2	1135.4	765.1	797.9	832.6	866.3	876.6	875.0	872.0	877.1
30°	2067.7	950.3	722.1	747.2	794.8	825.4	834.7	831.1	824.9	830.6
32.5°	1954.2	798.9	686.9	712.0	763.6	793.8	803.0	799.4	794.8	799.4
35°	1848.4	693.0	654.2	688.4	739.0	768.6	780.4	780.9	780.9	786.6
37.5°	1751.2	631.1	627.0	673.5	722.1	748.8	765.6	766.6	744.7	746.2
40°	1661.1	605.1	614.8	663.9	705.8	731.3	732.4	675.1	634.7	633.7
42.5°	1587.5	599.9	618.3	662.9	694.0	695.1	622.9	578.4	567.2	567.6
45°	1518.4	598.4	626.5	662.9	676.6	600.4	551.9	540.1	541.1	545.2
47.5°	1441.3	592.2	628.0	653.6	626.5	533.9	519.6	514.6	512.5	513.5
50°	1356.9	570.2	608.6	635.2	540.6	505.3	487.4	485.8	488.4	489.9
52.5°	1267.8	534.4	575.3	602.0	501.2	480.2	460.3	463.9	475.1	478.7
55°	1209.5	492.5	531.4	535.5	473.6	456.7	439.8	448.0	468.9	475.6
57.5°	1194.2	448.0	481.2	476.6	438.3	436.2	426.0	433.2	459.8	469.4
60°	1189.6	408.2	432.1	428.6	404.1	413.8	411.2	414.8	423.9	427.0
62.5°	1153.8	376.4	388.2	383.0	373.3	390.2	396.4	388.7	395.9	399.4
65°	1062.7	350.9	345.2	341.6	345.7	361.1	373.3	358.0	364.7	374.8
67.5°	912.5	316.1	300.7	304.8	317.6	325.7	341.6	324.2	329.8	347.3
70°	738.0	272.0	258.3	270.1	282.3	299.2	301.8	290.0	303.3	322.7
72.5°	522.1	227.6	217.9	241.9	246.0	268.0	262.4	256.8	275.1	281.8
75°	362.1	183.6	177.9	196.4	211.3	230.1	226.0	232.7	271.5	274.6
77.5°	229.1	142.7	139.1	150.9	171.4	192.3	199.0	274.6	463.9	482.3
80°	132.9	106.4	102.3	111.5	129.4	148.8	191.8	337.0	305.9	302.3
82.5°	74.1	73.2	68.1	70.6	86.4	107.4	271.1	237.3	192.8	199.0
85°	34.7	42.9	36.8	35.3	48.6	125.8	181.0	135.5	90.0	87.9
87.5°	9.2	8.2	8.2	9.2	20.5	108.4	72.2	57.8	34.2	33.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)