

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: P967234

Luminaire Tested: **NAV-SB4D-740-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967234
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-740-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37445.3 lumens
Efficiency: N/A
Efficacy: 127.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G4

Input Watts (W): 293.6
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

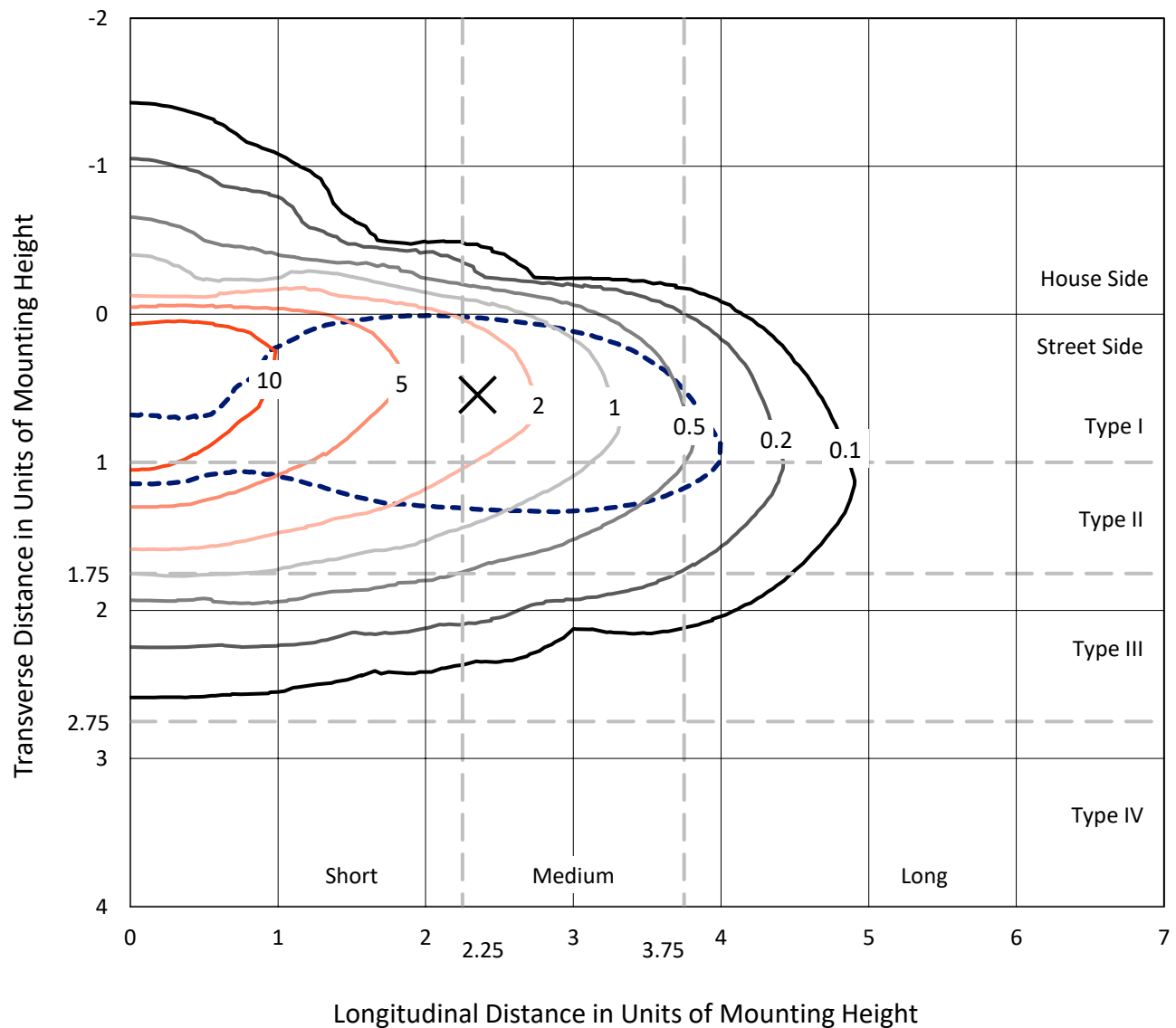


REPORT NUMBER: P967234

CATALOG NUMBER: NAV-SB4D-740-U-T2R-HSS

Iso-Footcandle Lines of Horizontal Illumination

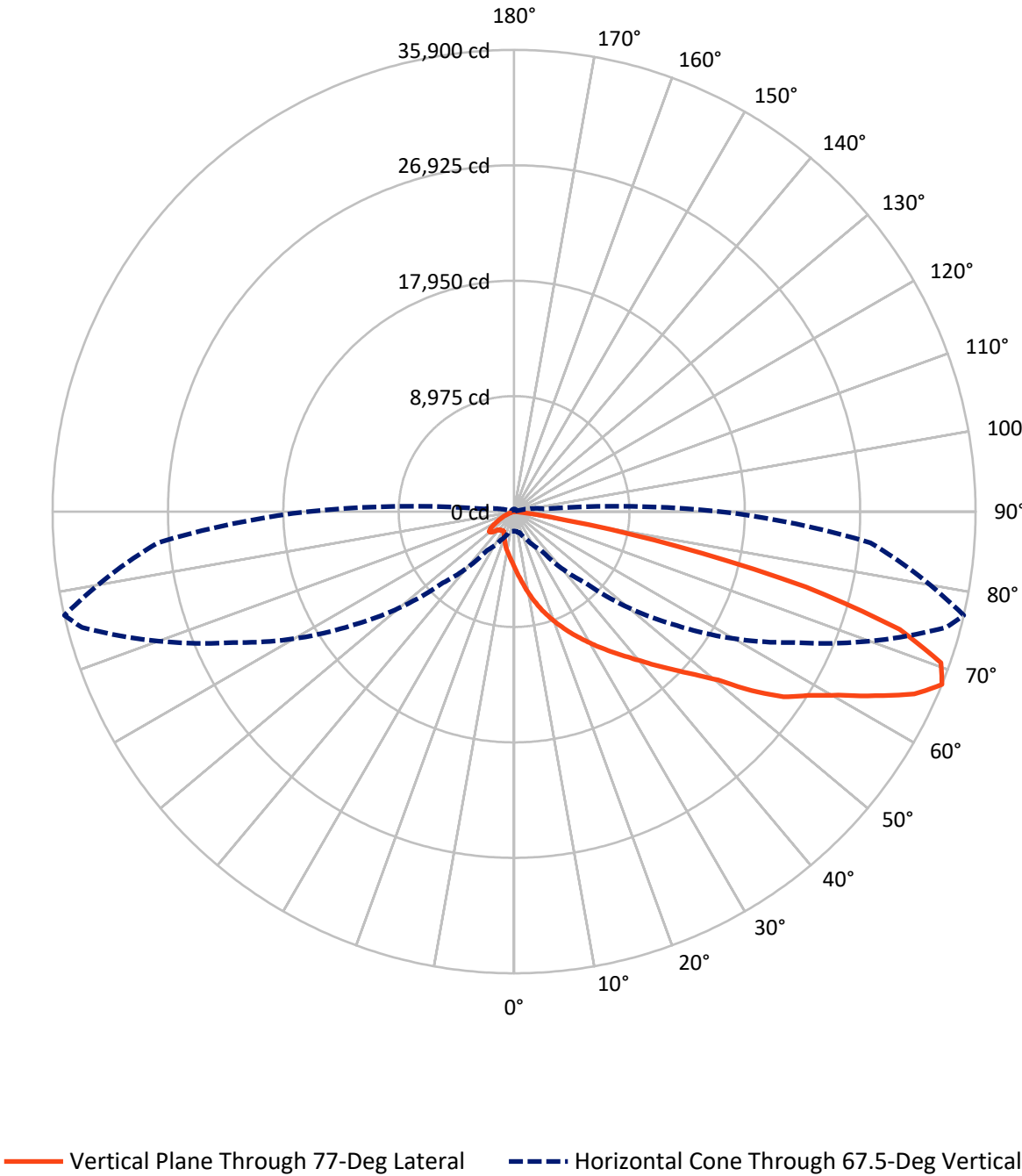
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 16.2 fc
Type II - Medium - N/A

REPORT NUMBER: P967234
CATALOG NUMBER: NAV-SB4D-740-U-T2R-HSS

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2754.9	0.0	2754.9
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	34690.4	0.0	34690.4
	% Fixture	92.6	0.0	92.6
Total	Lumens	37445.3	0.0	37445.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	440.7	1.2
10°-20°	1543.4	4.1
20°-30°	2978.3	8.0
30°-40°	5170.4	13.8
40°-50°	7507.2	20.0
50°-60°	8621.0	23.0
60°-70°	7484.7	20.0
70°-80°	3525.4	9.4
80°-90°	174.3	0.5
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°	37445.3	100.0
0°-180°	37445.3	100.0

Coefficient of Utilization



REPORT NUMBER: P967234

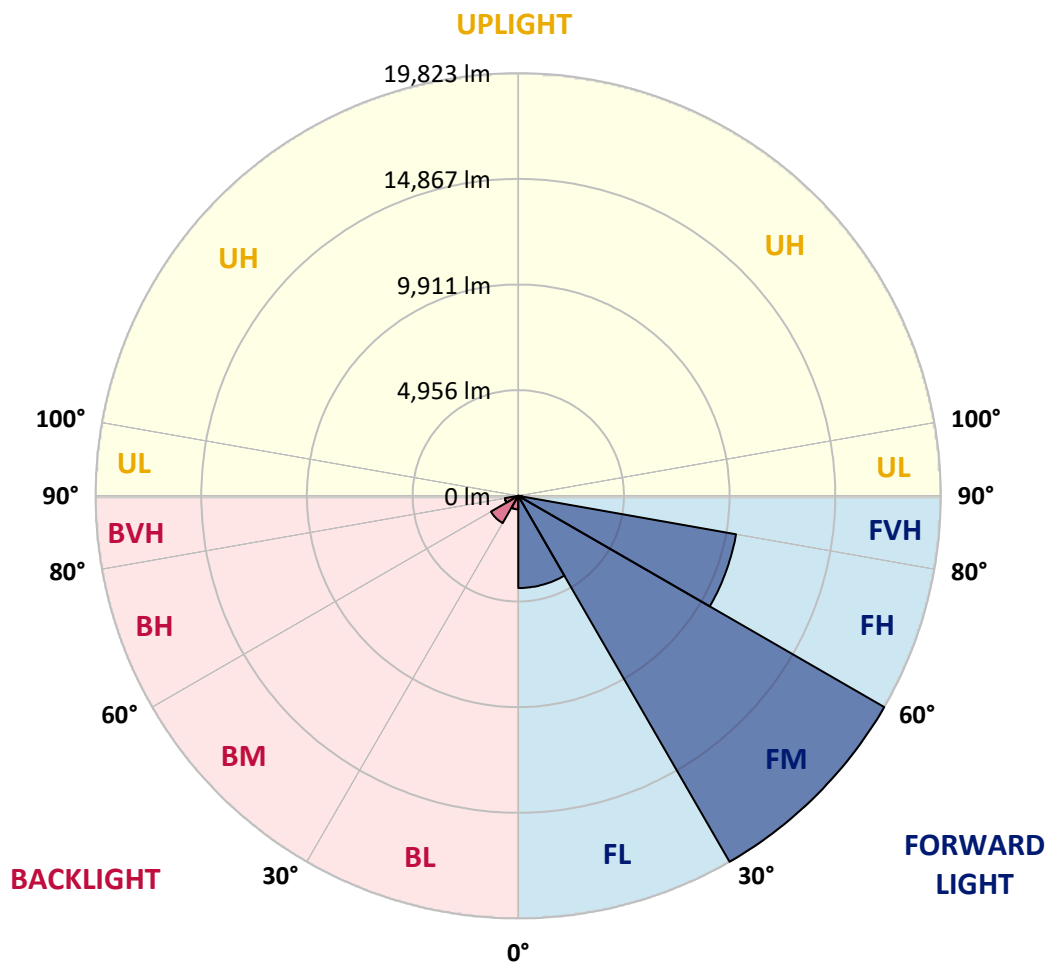
CATALOG NUMBER: NAV-SB4D-740-U-T2R-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4324.5	11.5			
FM	(30°-60°)	19822.5	52.9			
FH	(60°-80°)	10372.2	27.7			G4/12000
FVH	(80°-90°)	171.1	0.5			G2/225
BL	(0°-30°)	637.8	1.7	B2/1000		
BM	(30°-60°)	1476.1	3.9	B2/2500		
BH	(60°-80°)	637.8	1.7	B2/1000		G2/1000
BVH	(80°-90°)	3.2	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type II Medium



REPORT NUMBER: P967234

CATALOG NUMBER: NAV-SB4D-740-U-T2R-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	4318.0	4318.0	4318.0	4318.0	4318.0	4318.0	4318.0	4318.0	4318.0	4318.0	4318.0
2.5°	5978.2	6015.4	5961.9	5859.6	5706.2	5606.1	5362.1	5131.9	4876.0	4794.6	4538.9
5°	7287.3	7319.9	7259.5	7147.8	6943.2	6747.9	6427.0	5945.7	5445.7	5285.3	4831.8
7.5°	8257.0	8275.5	8252.3	8150.0	7954.7	7733.8	7375.7	6806.0	6064.2	5887.5	5192.2
10°	8954.5	9015.0	9008.0	8968.5	8838.3	8659.2	8277.9	7629.2	6757.2	6529.4	5599.2
12.5°	9417.3	9484.7	9524.2	9612.6	9605.6	9491.7	9156.8	8470.9	7447.8	7180.3	6057.2
15°	9552.2	9624.2	9775.3	9980.0	10161.3	10219.5	9984.6	9296.3	8208.1	7866.4	6527.0
17.5°	9475.4	9587.0	9768.4	10091.6	10489.2	10751.9	10726.4	10093.9	8898.7	8508.1	6987.4
20°	9645.1	9752.2	9893.9	10166.1	10628.7	11105.4	11296.1	10856.6	9584.7	9175.5	7471.0
22.5°	10584.6	10565.9	10579.9	10624.1	10900.8	11372.8	11765.8	11549.5	10263.6	9845.1	7982.6
25°	12072.8	11989.0	11847.2	11607.6	11537.9	11765.8	12175.1	12163.4	10979.8	10531.1	8505.8
27.5°	13779.5	13765.4	13432.9	12856.4	12530.8	12442.5	12637.7	12760.9	11689.0	11210.0	9031.3
30°	15414.1	15451.3	15002.5	14360.8	13763.2	13416.7	13240.0	13328.4	12409.9	11942.5	9573.1
32.5°	16837.2	16876.7	16388.4	15637.3	14897.9	14479.4	14107.3	13888.7	13195.8	12686.5	10168.3
35°	18039.3	18078.8	17518.5	16688.3	15900.1	15521.1	15100.2	14502.6	13986.4	13512.1	10831.1
37.5°	19113.6	19101.9	18350.9	17513.8	16739.5	16439.6	16218.7	15258.4	14800.2	14342.1	11565.8
40°	19748.4	19797.2	19155.4	18232.3	17481.3	17262.6	17248.7	16195.4	15739.6	15295.5	12370.3
42.5°	19934.4	20020.4	19555.4	18797.4	18116.1	17878.9	18244.0	17209.2	16832.6	16400.0	13279.5
45°	19599.5	19683.3	19471.6	18946.2	18548.5	18395.1	19099.6	18260.2	17999.8	17571.9	14305.0
47.5°	18622.9	18727.6	18778.7	18667.1	18662.5	18818.3	19867.0	19367.1	19385.6	18948.5	15493.2
50°	16732.5	16909.2	17379.0	17774.2	18385.7	19153.1	20613.4	20566.8	20948.2	20571.5	17041.8
52.5°	13295.8	13546.9	15165.3	16246.6	17620.8	19090.3	21434.2	22492.2	23689.7	23138.6	19225.2
55°	10684.5	10684.5	12000.6	14023.6	16128.0	18676.4	21792.2	23743.1	25556.8	25426.7	20762.2
57.5°	8710.3	8815.0	9654.5	11442.6	13967.8	17690.5	22013.2	24529.1	27061.3	26965.9	22264.3
60°	5376.0	5601.5	7187.4	8952.2	11510.0	15935.0	21873.6	25324.4	28886.7	28963.3	24073.4
62.5°	3027.4	3111.2	3818.0	6441.0	8949.9	13574.8	20806.4	25768.4	31221.2	31546.7	25938.2
65°	2090.4	2132.3	2404.3	4008.8	6203.8	10807.8	18720.6	25491.7	33560.3	34218.4	27519.4
67.5°	1518.4	1539.3	1709.1	2448.5	3680.9	7836.1	15451.3	24096.6	34799.8	35899.6	27821.7
70°	1167.3	1181.2	1304.5	1609.0	2174.1	4836.6	11221.7	21322.6	33902.2	35215.9	26273.0
72.5°	948.7	962.7	1058.0	1190.5	1441.7	2860.1	6801.4	17316.1	29939.9	31358.3	22366.6
75°	799.9	818.5	904.6	990.6	1130.1	1836.9	3190.2	12058.7	22515.5	23445.5	15553.7
77.5°	444.1	409.3	734.8	820.8	953.4	1162.7	1492.8	7096.7	12609.9	12868.0	6901.3
80°	276.8	286.0	583.6	660.4	732.5	586.0	683.7	2732.1	4371.5	4152.9	1337.0
82.5°	16.3	37.2	448.7	476.7	502.2	251.1	258.1	927.7	1053.3	967.3	237.2
85°	0.0	0.0	204.6	165.1	174.4	72.1	74.4	216.3	141.9	153.4	46.5
87.5°	0.0	0.0	0.0	4.6	0.0	7.0	13.9	18.6	7.0	9.3	16.3
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: P967234

CATALOG NUMBER: NAV-SB4D-740-U-T2R-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4318.0	4318.0	4318.0	4318.0	4318.0	4318.0	4318.0	4318.0	4318.0	4318.0	4318.0
2.5°	4376.1	4213.4	3883.2	3559.9	3297.2	3053.1	2878.7	2713.6	2629.8	2625.2	2620.5
5°	4508.7	4166.8	3506.5	2922.9	2453.1	2076.4	1832.3	1657.9	1569.6	1539.3	1534.6
7.5°	4694.7	4180.8	3176.3	2364.8	1811.4	1488.2	1348.7	1292.8	1274.3	1253.3	1248.7
10°	4929.5	4213.4	2881.0	1904.3	1427.7	1265.0	1209.1	1185.9	1171.9	1157.9	1153.3
12.5°	5192.2	4243.6	2588.0	1581.2	1255.6	1171.9	1132.4	1104.5	1085.9	1069.6	1065.0
15°	5448.1	4262.2	2283.4	1355.7	1167.3	1099.8	1058.0	1027.8	1002.1	983.6	981.2
17.5°	5701.6	4287.8	1997.4	1220.8	1095.2	1027.8	985.9	948.7	927.7	906.8	904.6
20°	5982.9	4283.1	1727.6	1125.4	1023.2	955.7	911.5	876.6	855.7	832.4	830.1
22.5°	6243.3	4259.9	1490.5	1044.1	948.7	883.6	834.8	799.9	779.0	760.3	758.0
25°	6543.3	4241.2	1292.8	969.6	878.9	813.8	760.3	727.9	704.6	688.3	685.9
27.5°	6831.6	4213.4	1148.7	902.2	811.5	748.8	697.6	660.4	639.4	627.8	627.8
30°	7115.2	4206.4	1095.2	837.1	751.0	688.3	637.1	602.3	586.0	581.3	579.0
32.5°	7457.1	4224.9	1118.5	813.8	695.3	632.4	583.6	558.0	541.8	541.8	541.8
35°	7822.2	4220.3	1153.3	834.8	658.0	576.7	539.5	523.2	506.9	506.9	506.9
37.5°	8280.3	4227.3	1181.2	869.6	644.1	530.1	509.2	488.3	479.0	479.0	479.0
40°	8963.8	4457.5	1167.3	899.8	639.4	497.6	455.7	448.7	441.8	441.8	441.8
42.5°	9800.9	4957.4	1185.9	902.2	637.1	474.4	418.5	432.4	416.3	413.9	411.5
45°	10717.1	5503.8	1304.5	853.4	634.8	462.7	400.0	416.3	390.6	390.6	390.6
47.5°	11626.3	6045.7	1425.4	783.6	627.8	460.4	383.7	374.3	367.4	369.7	369.7
50°	12879.5	6487.4	1471.9	688.3	611.5	455.7	353.4	355.8	351.1	355.8	355.8
52.5°	14244.5	6580.5	1416.0	581.3	565.1	441.8	332.5	341.8	339.5	344.1	344.1
55°	15095.6	6480.5	1169.6	483.7	492.9	386.0	311.6	330.2	330.2	330.2	330.2
57.5°	15974.5	6055.0	830.1	393.0	409.3	316.2	292.9	318.6	316.2	314.0	314.0
60°	16606.9	5366.7	546.4	323.2	325.5	260.5	272.0	299.9	297.7	286.0	286.0
62.5°	17079.0	4606.3	351.1	274.4	248.8	234.8	248.8	272.0	262.7	237.2	232.6
65°	17025.5	3553.0	269.8	234.8	204.6	204.6	216.3	237.2	209.3	167.4	162.8
67.5°	16032.6	2404.3	223.2	197.6	172.1	169.7	179.1	197.6	179.1	141.9	137.1
70°	14258.5	1571.8	179.1	153.4	137.1	125.6	144.1	169.7	151.2	114.0	109.3
72.5°	11572.8	958.0	134.9	111.6	99.9	81.4	114.0	139.5	121.0	83.7	79.0
75°	7487.3	488.3	93.0	72.1	53.5	48.8	83.7	104.7	83.7	51.1	44.2
77.5°	2864.7	204.6	51.1	32.6	27.9	23.3	46.5	62.8	34.8	11.6	9.3
80°	551.0	86.0	25.6	16.3	13.9	9.3	7.0	4.6	0.0	0.0	0.0
82.5°	95.3	27.9	9.3	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	32.6	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	11.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)