

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: P884456

Luminaire Tested: **NAV-SB5B-740-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884456
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-740-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22495 lumens
Efficiency: N/A
Efficacy: 123.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

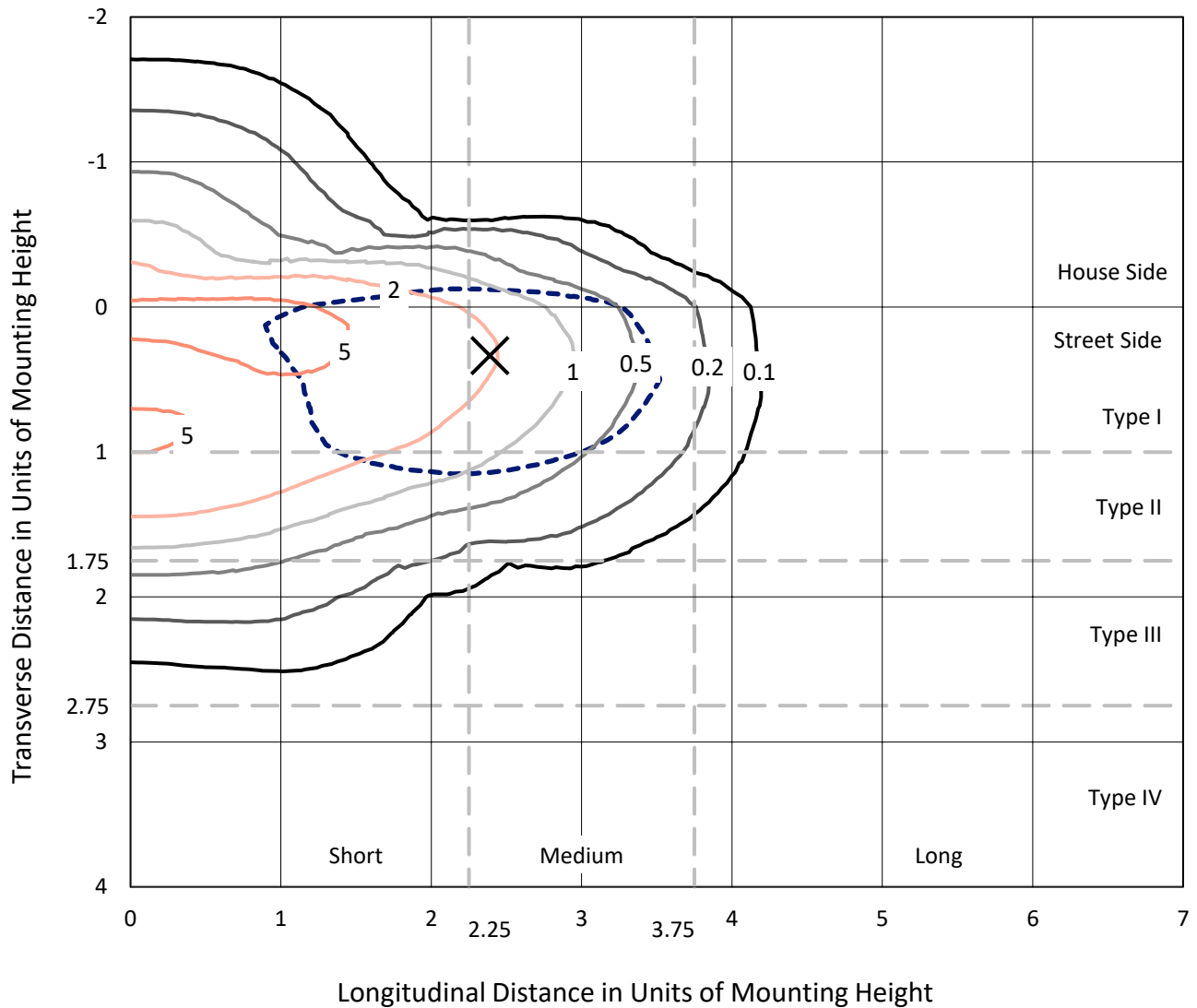
Input Watts (W): 182.7
Input Voltage (V): 120.0
Input Current (Ain): 1.547
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 11.125
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P884456
 CATALOG NUMBER: NAV-SB5B-740-U-T2-HSS

Iso-Footcandle Lines of Horizontal Illumination

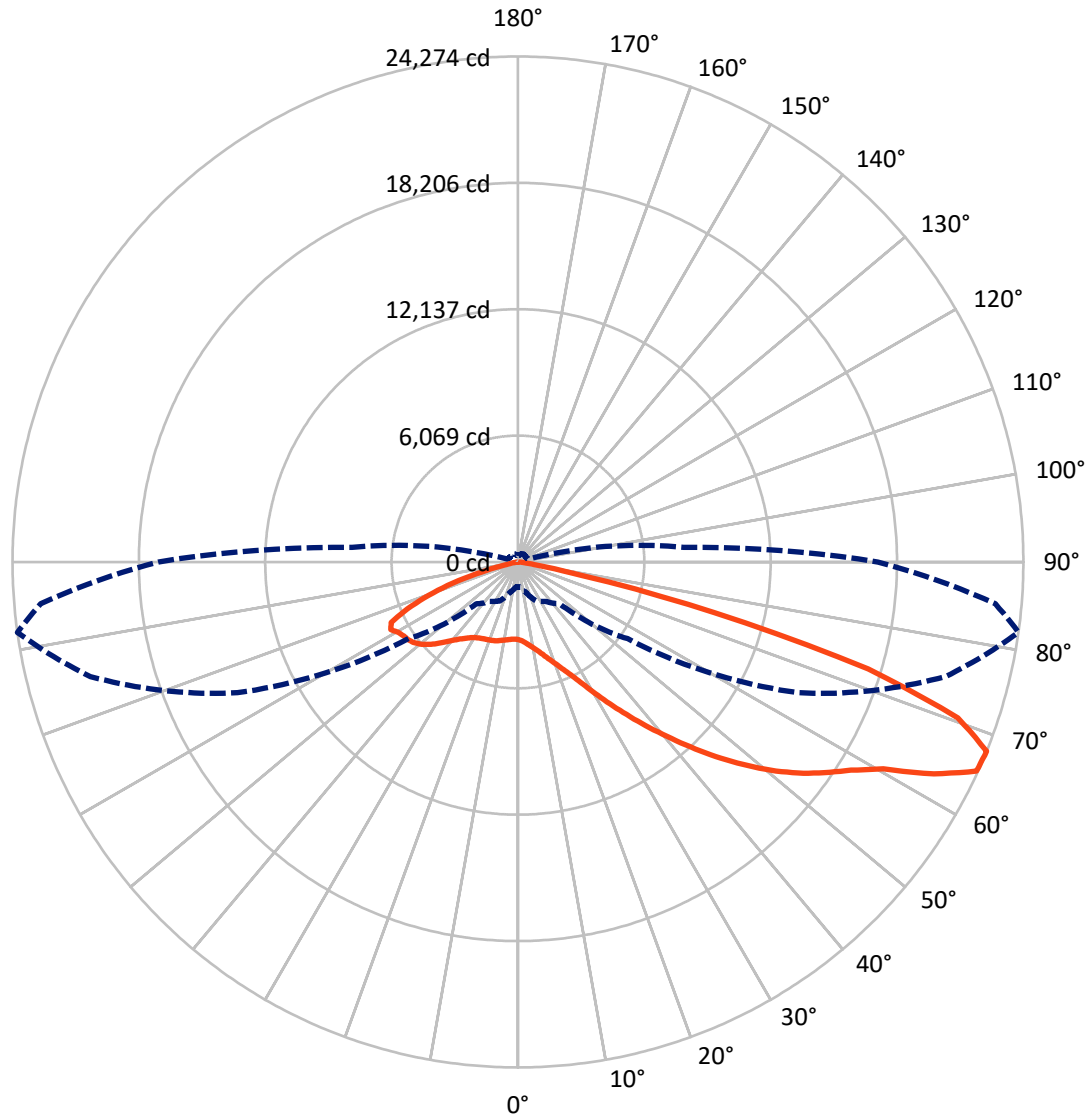
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.9 fc
 Type II - Medium - N/A

REPORT NUMBER: P884456
CATALOG NUMBER: NAV-SB5B-740-U-T2-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P884456

CATALOG NUMBER: NAV-SB5B-740-U-T2-HSS

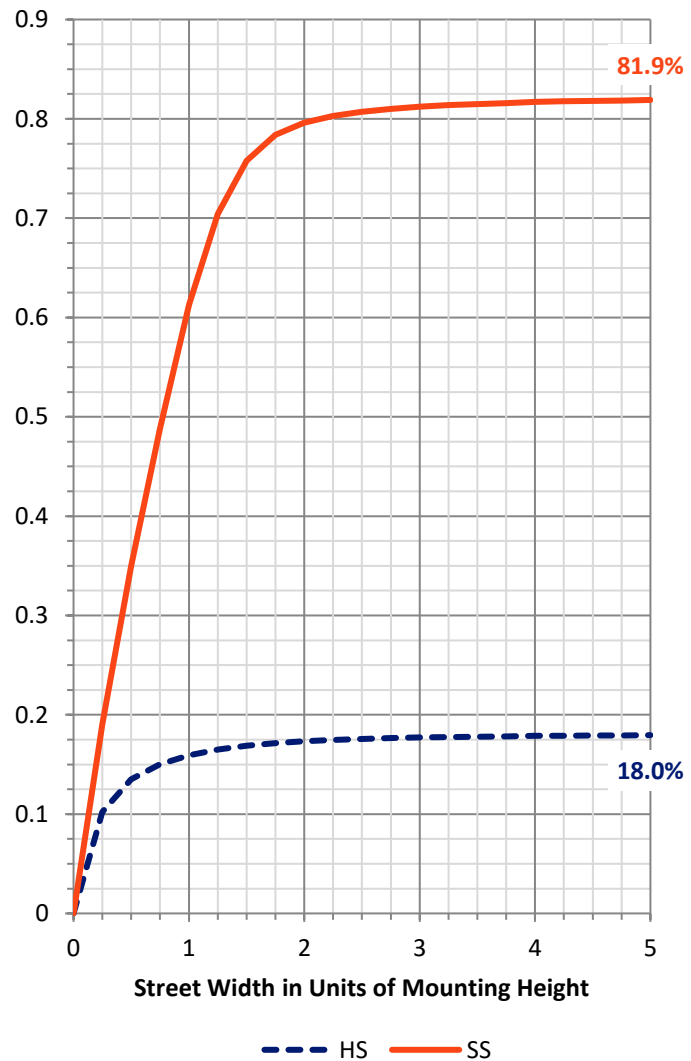
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4074.8	0.0	4074.8
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	18420.2	0.0	18420.2
	% Fixture	81.9	0.0	81.9
Total	Lumens	22495.0	0.0	22495.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	332.0	1.5
10°-20°	862.8	3.8
20°-30°	1381.9	6.1
30°-40°	2443.6	10.9
40°-50°	4281.5	19.0
50°-60°	5710.3	25.4
60°-70°	5316.0	23.6
70°-80°	2040.3	9.1
80°-90°	126.7	0.6
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°	22495.0	100.0
0°-180°	22495.0	100.0

Coefficient of Utilization



REPORT NUMBER: P884456

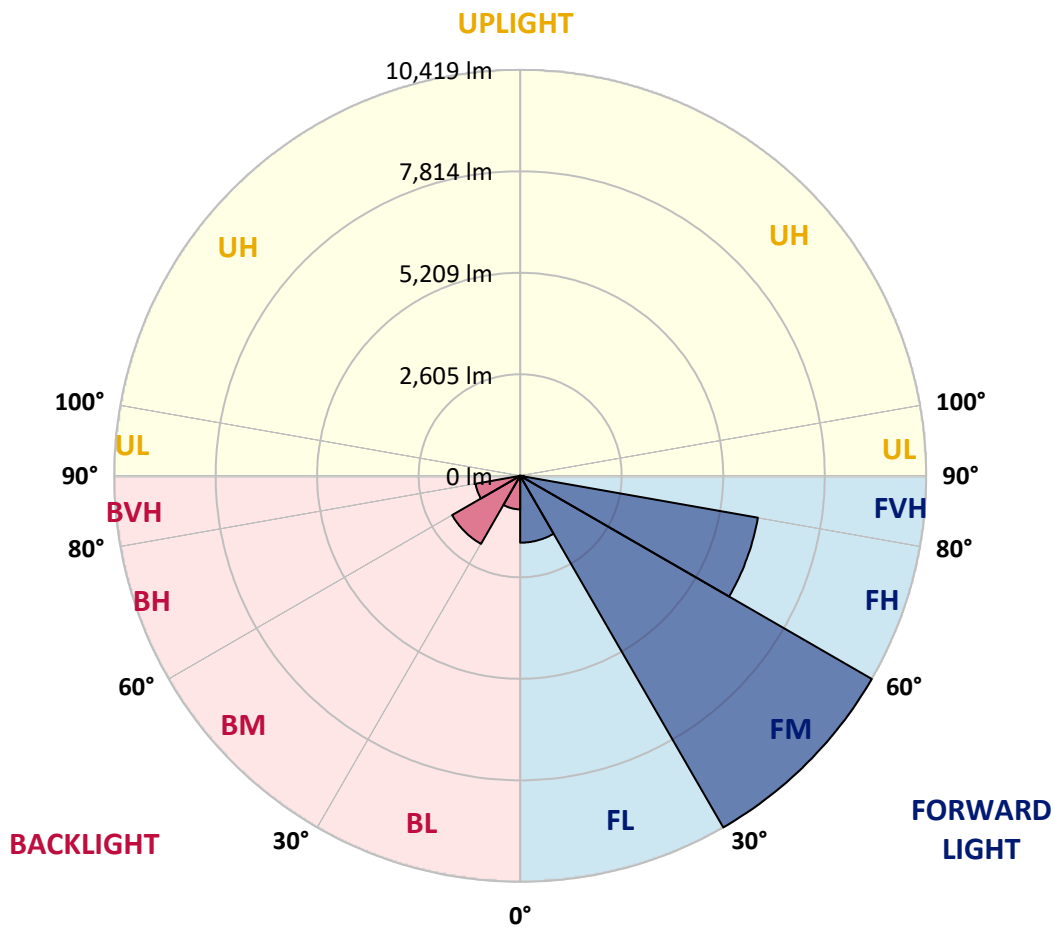
CATALOG NUMBER: NAV-SB5B-740-U-T2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1716.1	7.6			
FM (30°-60°)	10418.8	46.3			
FH (60°-80°)	6193.2	27.5			G3/7500
FVH (80°-90°)	92.1	0.4			G1/100
BL (0°-30°)	860.6	3.8	B2/1000		
BM (30°-60°)	2016.6	9.0	B2/2500		
BH (60°-80°)	1163.0	5.2	B3/2500		G3/2500
BVH (80°-90°)	34.6	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium



REPORT NUMBER: P884456

CATALOG NUMBER: NAV-SB5B-740-U-T2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	3726.7	3726.7	3726.7	3726.7	3726.7	3726.7	3726.7	3726.7	3726.7	3726.7	3726.7
2.5°	3938.8	3961.5	3948.5	3942.1	3930.7	3914.5	3901.6	3861.1	3819.0	3791.4	3781.7
5°	4018.2	4040.9	4039.2	4045.7	4053.8	4058.7	4055.4	4010.1	3950.2	3903.2	3875.7
7.5°	3950.2	3976.1	3997.1	4029.5	4086.2	4146.1	4175.3	4165.6	4104.0	4039.2	4005.2
10°	3757.4	3785.0	3835.2	3911.3	4031.1	4160.7	4269.2	4319.4	4280.6	4209.3	4162.3
12.5°	3404.4	3431.9	3530.7	3695.9	3896.7	4121.8	4329.1	4463.6	4473.3	4402.0	4347.0
15°	3007.6	3035.1	3140.4	3347.7	3653.8	4014.9	4361.5	4615.8	4701.6	4640.1	4573.7
17.5°	2761.4	2785.7	2865.0	3031.9	3350.9	3801.2	4350.2	4777.8	4973.7	4925.2	4845.8
20°	2686.9	2707.9	2745.2	2861.8	3127.4	3579.3	4275.7	4930.0	5266.9	5239.4	5150.3
22.5°	2766.2	2785.7	2797.0	2848.8	3015.7	3433.5	4181.8	5085.5	5607.0	5610.2	5501.7
25°	2949.3	2968.7	2955.7	2988.1	3061.0	3388.2	4146.1	5268.5	6034.6	6070.2	5947.1
27.5°	3250.5	3252.1	3221.4	3219.7	3231.1	3456.2	4183.4	5464.5	6573.9	6640.3	6488.0
30°	3854.6	3830.3	3712.1	3584.1	3525.8	3660.3	4287.0	5696.1	7210.4	7328.6	7137.5
32.5°	4785.9	4750.2	4533.2	4227.1	3919.4	3989.0	4473.3	5960.1	7903.6	8117.3	7884.1
35°	5796.5	5786.8	5560.0	5104.9	4567.2	4457.1	4776.1	6306.7	8659.9	9000.0	8723.1
37.5°	6735.8	6731.0	6601.4	6065.3	5411.0	5109.8	5262.0	6760.1	9469.7	9962.1	9634.9
40°	7594.2	7608.8	7479.2	6999.8	6340.7	5947.1	5922.8	7320.5	10370.2	11009.9	10621.2
42.5°	8336.0	8352.2	8221.0	7866.3	7259.0	6873.5	6734.2	8007.2	11249.6	12135.5	11675.6
45°	8839.7	8940.1	8920.7	8637.2	8201.6	7801.5	7709.2	8868.8	12252.1	13329.2	12789.8
47.5°	8982.2	9074.5	9220.3	9259.2	8993.5	8600.0	8710.1	9907.0	13266.0	14524.4	13910.6
50°	8630.8	8716.6	9019.5	9422.7	9607.4	9485.9	9683.5	11019.6	14304.2	15716.4	15010.3
52.5°	7937.6	8025.0	8407.3	9045.4	9798.5	10180.7	10660.1	12116.1	15309.9	16845.3	16051.7
55°	6935.1	7027.4	7518.1	8240.4	9434.1	10467.4	11474.7	13210.9	16231.5	17860.8	16991.0
57.5°	5571.4	5639.4	6149.6	7160.2	8517.4	10182.3	12075.6	14406.2	17099.6	18858.4	17922.3
60°	3631.1	3691.0	4283.8	5411.0	6998.2	9230.0	12195.5	15739.1	18252.7	20155.7	19177.5
62.5°	2414.8	2455.3	2806.7	3634.3	4928.4	7401.5	11494.2	16803.2	19943.5	22413.4	21329.9
65°	1656.8	1697.3	2048.8	2625.3	3184.1	4896.0	9477.8	16662.3	21475.7	24206.3	22925.2
67.5°	1182.3	1216.3	1514.3	2058.5	2304.7	2844.0	6424.9	14861.3	21255.4	24274.3	23011.0
70°	847.0	866.5	1112.7	1603.4	1831.7	1708.7	3572.8	11366.2	18610.6	22415.0	21258.6
72.5°	592.8	599.2	772.5	1221.2	1475.4	1247.1	1700.6	7578.0	14075.8	17593.5	16480.9
75°	401.7	409.8	519.9	895.6	1183.9	952.3	900.5	4063.5	8263.1	9738.6	8729.6
77.5°	246.2	249.4	335.3	612.2	885.9	725.6	579.8	1721.6	3197.1	3138.8	2675.6
80°	139.3	139.3	213.8	380.6	604.1	468.1	406.5	732.1	1012.2	889.2	783.9
82.5°	77.7	79.4	155.5	236.5	400.0	276.9	223.5	338.5	437.3	387.1	336.9
85°	32.4	35.6	95.6	111.8	191.1	137.7	90.7	142.5	162.0	144.1	105.3
87.5°	3.2	4.9	29.2	21.1	22.7	27.5	13.0	27.5	22.7	22.7	16.2
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: P884456
 CATALOG NUMBER: NAV-SB5B-740-U-T2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3726.7	3726.7	3726.7	3726.7	3726.7	3726.7	3726.7	3726.7	3726.7	3726.7	3726.7
2.5°	3751.0	3726.7	3665.1	3593.9	3499.9	3454.6	3393.0	3350.9	3315.3	3318.5	3286.1
5°	3823.8	3762.3	3624.6	3453.0	3239.2	3086.9	2925.0	2813.2	2722.5	2703.1	2659.4
7.5°	3924.2	3827.1	3585.8	3276.4	2915.2	2641.5	2397.0	2239.9	2128.1	2092.5	2056.9
10°	4053.8	3912.9	3535.5	3054.5	2534.6	2186.4	1924.1	1801.0	1724.9	1698.9	1679.5
12.5°	4204.4	4011.7	3469.1	2784.1	2142.7	1807.5	1640.6	1579.1	1554.8	1546.7	1541.8
15°	4393.9	4134.8	3368.7	2463.4	1810.7	1575.9	1504.6	1496.5	1499.7	1496.5	1494.9
17.5°	4619.1	4269.2	3205.2	2133.0	1587.2	1457.6	1431.7	1438.2	1446.3	1444.7	1441.4
20°	4865.2	4402.0	2996.2	1839.8	1435.0	1373.4	1358.8	1365.3	1371.8	1368.5	1366.9
22.5°	5145.4	4544.5	2764.6	1611.5	1332.9	1295.7	1279.5	1281.1	1281.1	1274.6	1271.4
25°	5480.7	4701.6	2521.7	1449.5	1255.2	1226.0	1206.6	1200.1	1190.4	1171.0	1167.7
27.5°	5880.7	4868.5	2288.5	1336.2	1193.6	1166.1	1143.4	1127.2	1102.9	1070.5	1067.3
30°	6330.9	5070.9	2090.9	1264.9	1145.0	1117.5	1091.6	1067.3	1031.7	991.2	987.9
32.5°	6860.6	5287.9	1946.7	1217.9	1101.3	1072.2	1041.4	1012.2	973.4	932.9	934.5
35°	7492.2	5550.3	1862.5	1185.5	1067.3	1028.4	994.4	962.0	932.9	897.2	894.0
37.5°	8177.3	5828.9	1836.6	1169.3	1044.6	984.7	945.8	923.2	919.9	898.9	897.2
40°	8927.1	6159.3	1856.0	1159.6	1020.3	942.6	900.5	895.6	903.7	866.5	868.1
42.5°	9720.7	6551.2	1888.4	1148.3	986.3	900.5	860.0	860.0	853.5	801.7	801.7
45°	10579.1	7003.1	1920.8	1120.8	945.8	858.4	827.6	816.3	788.7	738.5	736.9
47.5°	11444.0	7463.0	1945.1	1070.5	897.2	822.7	795.2	769.3	728.8	683.5	681.8
50°	12265.1	7876.0	1919.2	996.0	842.2	788.7	759.6	724.0	680.2	649.5	644.6
52.5°	12998.8	8234.0	1809.1	908.6	783.9	753.1	727.2	689.9	654.3	621.9	618.7
55°	13636.9	8523.9	1614.7	826.0	732.1	722.3	696.4	649.5	600.9	573.3	570.1
57.5°	14249.1	8744.1	1371.8	758.0	685.1	688.3	649.5	607.3	562.0	532.8	529.6
60°	15063.7	9038.9	1125.6	694.8	634.9	644.6	602.5	571.7	515.0	477.8	472.9
62.5°	16365.9	9497.2	894.0	617.1	576.6	579.8	562.0	524.7	456.7	413.0	409.8
65°	17399.2	9328.8	704.5	532.8	510.2	515.0	515.0	474.5	401.7	351.4	346.6
67.5°	17282.6	7987.8	562.0	450.2	447.0	450.2	461.6	427.6	356.3	315.8	309.3
70°	15920.5	6353.6	450.2	374.1	388.7	380.6	413.0	390.3	320.7	280.2	275.3
72.5°	12990.7	4576.9	343.4	309.3	298.0	311.0	372.5	351.4	267.2	221.9	217.0
75°	7591.0	2442.3	255.9	244.6	215.4	259.1	330.4	299.6	204.1	163.6	158.7
77.5°	2471.5	851.9	187.9	179.8	160.3	208.9	281.8	252.7	166.8	129.6	124.7
80°	662.4	257.5	127.9	118.2	103.7	155.5	223.5	200.8	119.8	84.2	82.6
82.5°	265.6	108.5	74.5	66.4	56.7	106.9	176.5	162.0	89.1	53.4	53.4
85°	85.8	35.6	27.5	21.1	25.9	66.4	105.3	110.1	63.2	27.5	21.1
87.5°	11.3	4.9	4.9	6.5	4.9	11.3	32.4	30.8	17.8	3.2	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)