

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: P884497

Luminaire Tested: **NAV-SB5B-830-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884497
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-830-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24773 lumens
Efficiency: N/A
Efficacy: 135.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

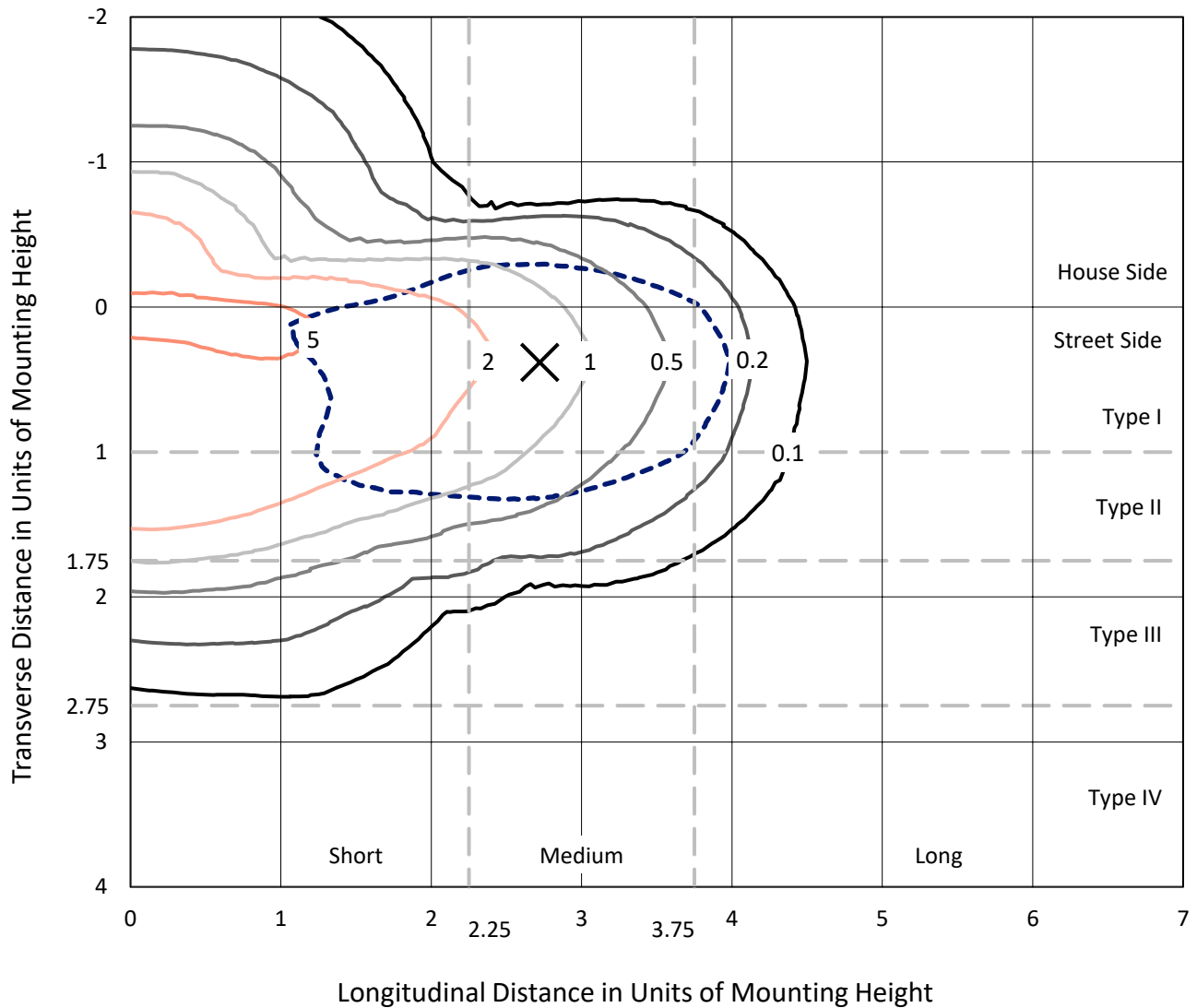
Input Watts (W): 182.7
Input Voltage (V): 120.0
Input Current (Ain): 1.547
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 11.125
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

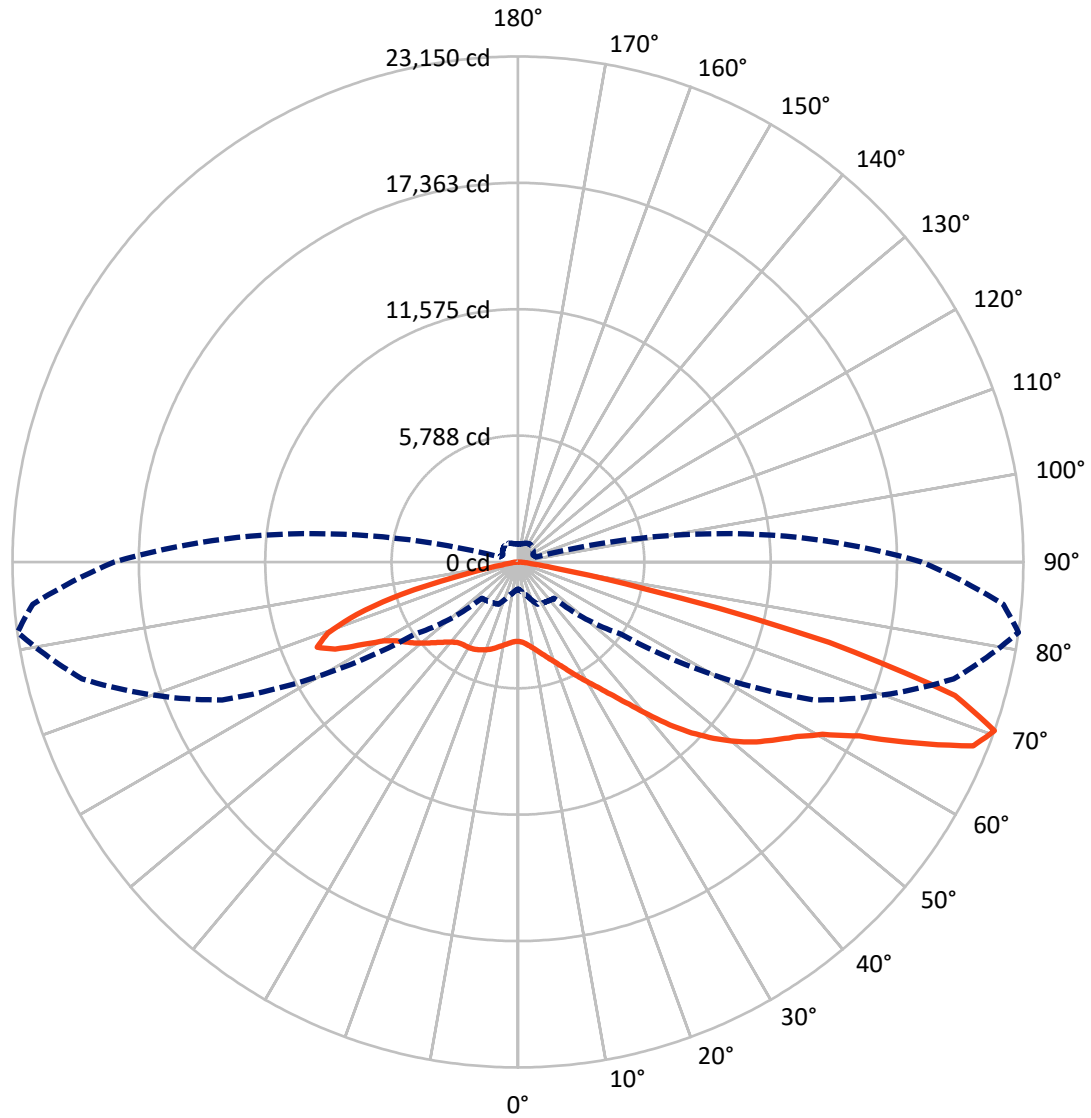
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.6 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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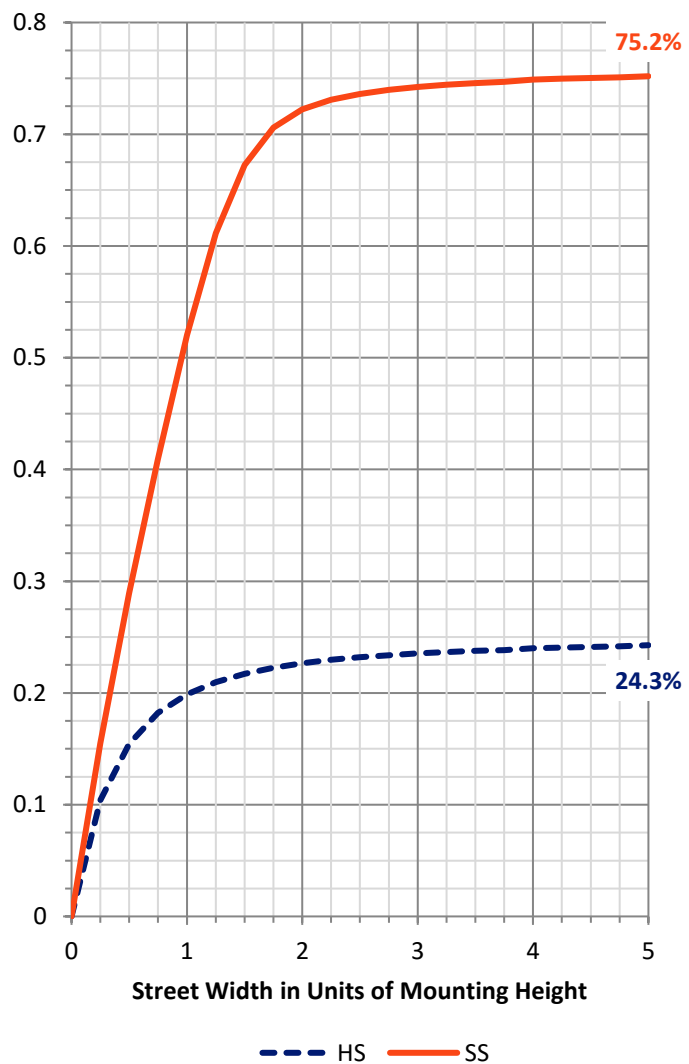
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6107.2	0.0	6107.2
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	18665.9	0.0	18665.9
	% Fixture	75.3	0.0	75.3
Total	Lumens	24773.0	0.0	24773.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	342.9	1.4
10°-20°	985.2	4.0
20°-30°	1648.2	6.7
30°-40°	2575.0	10.4
40°-50°	4100.9	16.6
50°-60°	5706.9	23.0
60°-70°	5969.7	24.1
70°-80°	3120.1	12.6
80°-90°	324.0	1.3
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°	24773.0	100.0
0°-180°	24773.0	100.0

Coefficient of Utilization



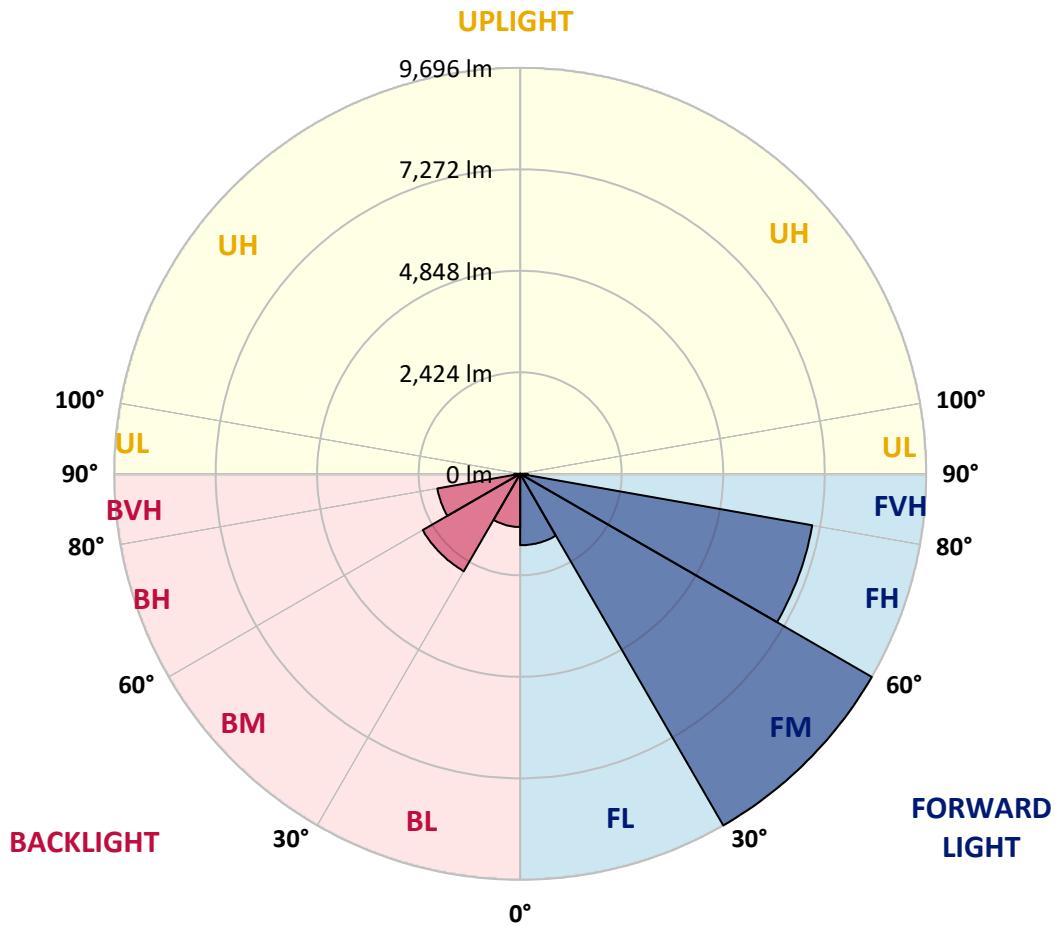
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1705.9	6.9			
FM (30°-60°)	9695.9	39.1			
FH (60°-80°)	7082.7	28.6			G3/7500
FVH (80°-90°)	181.4	0.7			G2/225
BL (0°-30°)	1270.5	5.1	B3/2500		
BM (30°-60°)	2686.9	10.8	B3/5000		
BH (60°-80°)	2007.1	8.1	B3/2500		G3/2500
BVH (80°-90°)	142.6	0.6			G2/225
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



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	3632.0	3632.0	3632.0	3632.0	3632.0	3632.0	3632.0	3632.0	3632.0	3632.0	3632.0
2.5°	3718.8	3739.8	3733.2	3726.7	3726.7	3717.5	3716.2	3703.0	3692.5	3675.4	3671.5
5°	3766.1	3788.5	3785.8	3791.1	3808.2	3812.1	3816.1	3808.2	3787.1	3766.1	3756.9
7.5°	3724.0	3749.0	3756.9	3788.5	3841.0	3888.4	3923.9	3938.3	3918.6	3888.4	3873.9
10°	3582.1	3609.7	3637.3	3712.2	3805.5	3917.3	4011.9	4068.5	4064.5	4035.6	4010.6
12.5°	3294.2	3323.1	3382.3	3528.2	3699.1	3896.3	4072.4	4190.7	4231.5	4210.4	4167.0
15°	3064.2	3089.1	3133.8	3283.7	3505.8	3805.5	4094.7	4324.8	4428.6	4416.8	4364.2
17.5°	3057.6	3068.1	3095.7	3166.7	3337.6	3663.6	4071.1	4456.2	4654.7	4653.4	4587.7
20°	3173.3	3177.2	3193.0	3207.4	3304.7	3555.8	4010.6	4565.3	4908.4	4908.4	4837.5
22.5°	3333.6	3331.0	3346.8	3333.6	3381.0	3546.6	3972.5	4661.3	5191.1	5212.1	5122.7
25°	3574.2	3561.0	3557.1	3526.9	3536.1	3632.0	4014.6	4770.4	5526.3	5569.6	5457.9
27.5°	3894.9	3873.9	3859.4	3789.8	3766.1	3808.2	4143.4	4901.9	5899.6	5974.5	5832.5
30°	4313.0	4274.8	4253.8	4132.9	4047.4	4054.0	4337.9	5076.7	6290.0	6410.9	6230.8
32.5°	4883.5	4824.3	4767.8	4569.3	4412.9	4361.6	4589.0	5318.6	6713.3	6906.5	6675.2
35°	5522.3	5475.0	5414.5	5108.2	4867.7	4749.4	4928.2	5656.4	7208.9	7515.1	7214.1
37.5°	6137.5	6096.8	6125.7	5712.9	5402.7	5230.5	5372.5	6109.9	7820.1	8272.3	7889.8
40°	6773.7	6742.2	6746.1	6351.8	5990.3	5797.1	5911.4	6679.1	8520.7	9172.8	8702.2
42.5°	7465.2	7441.5	7362.7	7013.0	6606.8	6426.7	6531.9	7336.4	9272.7	10198.1	9593.4
45°	8239.4	8225.0	8151.4	7750.4	7285.1	7082.7	7224.6	8062.0	10028.5	11162.9	10488.6
47.5°	8908.5	8920.4	8911.2	8573.3	8090.9	7793.8	7963.4	8819.1	10731.8	12070.0	11347.0
50°	9230.6	9292.4	9383.1	9277.9	8978.2	8675.9	8708.7	9550.0	11402.2	12920.5	12169.9
52.5°	9062.3	9179.3	9426.5	9594.7	9710.4	9647.3	9559.2	10275.6	12033.2	13688.1	12948.1
55°	8435.3	8599.6	9009.8	9415.9	10006.2	10464.9	10580.6	11080.1	12648.4	14363.8	13684.2
57.5°	7293.0	7559.8	7927.9	8749.5	9743.3	10860.6	11771.6	12196.2	13300.4	15085.5	14454.5
60°	5334.3	5691.9	6149.3	7371.9	8823.1	10649.0	12785.1	13910.3	14227.1	16020.1	15457.5
62.5°	3413.8	3634.7	4055.3	5206.8	6875.0	9564.5	13095.3	16053.0	15798.0	17552.8	16961.3
65°	2337.2	2479.2	2864.3	3511.1	4444.4	7119.5	12264.5	17659.3	18292.9	19982.1	19532.5
67.5°	1698.4	1806.2	2134.8	2701.3	2895.9	4213.1	9517.2	17585.7	20718.2	22484.9	21785.6
70°	1238.3	1314.5	1590.6	2134.8	2228.1	2343.8	5765.5	14948.8	20665.6	23150.1	22312.7
72.5°	917.5	970.1	1155.5	1656.3	1803.5	1582.7	2853.8	10864.5	17757.9	20939.1	20267.3
75°	663.8	703.3	840.0	1267.2	1443.3	1205.4	1423.6	6349.2	12386.8	14729.2	14847.6
77.5°	507.4	537.6	627.0	928.1	1155.5	904.4	883.4	2920.9	5873.3	5902.2	6233.5
80°	407.5	427.2	475.9	653.3	886.0	677.0	575.8	1179.1	1856.1	1570.9	1648.4
82.5°	299.7	332.6	402.2	458.8	633.6	466.7	351.0	595.5	705.9	607.3	612.6
85°	170.9	193.2	243.2	328.6	404.9	285.3	201.1	264.2	328.6	269.5	240.6
87.5°	60.5	78.9	85.4	128.8	176.1	118.3	77.6	76.2	107.8	80.2	67.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3632.0	3632.0	3632.0	3632.0	3632.0	3632.0	3632.0	3632.0	3632.0	3632.0	3632.0
2.5°	3658.3	3651.7	3625.5	3590.0	3553.2	3517.7	3505.8	3480.9	3463.8	3454.6	3465.1
5°	3731.9	3710.9	3649.1	3570.2	3487.4	3398.0	3334.9	3277.1	3235.0	3195.6	3211.4
7.5°	3837.1	3800.3	3693.8	3555.8	3408.6	3260.0	3149.6	3065.5	3008.9	2972.1	2980.0
10°	3959.3	3902.8	3739.8	3533.4	3306.0	3093.1	2962.9	2890.6	2855.1	2835.4	2840.7
12.5°	4100.0	4019.8	3787.1	3482.2	3149.6	2906.4	2817.0	2796.0	2797.3	2798.6	2801.3
15°	4273.5	4161.8	3825.3	3370.4	2945.8	2763.1	2747.4	2781.5	2817.0	2834.1	2832.8
17.5°	4469.4	4311.6	3831.8	3186.4	2746.0	2671.1	2721.1	2794.7	2848.6	2872.2	2877.5
20°	4679.7	4464.1	3784.5	2926.1	2581.7	2596.2	2685.6	2780.2	2839.4	2869.6	2877.5
22.5°	4920.3	4627.1	3671.5	2652.7	2447.6	2514.7	2619.8	2711.9	2773.6	2803.9	2811.8
25°	5195.0	4809.8	3494.0	2422.7	2332.0	2422.7	2527.8	2604.1	2654.0	2681.6	2689.5
27.5°	5500.0	5000.5	3257.4	2239.9	2230.7	2328.0	2414.8	2473.9	2500.2	2521.3	2529.1
30°	5806.3	5174.0	2970.8	2101.9	2142.7	2234.7	2296.5	2322.8	2330.7	2334.6	2343.8
32.5°	6137.5	5323.8	2669.8	1987.6	2058.5	2144.0	2180.8	2192.6	2155.8	2130.8	2138.7
35°	6538.4	5484.2	2375.3	1896.9	1975.7	2049.3	2061.2	2050.7	2007.3	1956.0	1958.6
37.5°	7034.0	5684.0	2140.0	1832.4	1898.2	1946.8	1932.4	1929.7	1933.7	1873.2	1877.1
40°	7641.3	5944.3	1967.8	1782.5	1835.1	1845.6	1804.8	1827.2	1846.9	1754.9	1757.5
42.5°	8315.7	6258.5	1858.7	1748.3	1782.5	1757.5	1694.4	1719.4	1716.8	1595.8	1594.5
45°	9003.2	6600.2	1820.6	1723.3	1733.9	1683.9	1614.2	1620.8	1565.6	1456.5	1460.4
47.5°	9686.7	6967.0	1844.3	1702.3	1673.4	1616.9	1563.0	1534.1	1452.5	1371.0	1371.0
50°	10357.1	7352.1	1931.0	1660.2	1590.6	1557.7	1518.3	1467.0	1380.3	1310.6	1305.3
52.5°	10978.9	7739.9	2028.3	1590.6	1486.7	1506.4	1481.5	1422.3	1336.9	1265.9	1267.2
55°	11567.8	8127.7	2066.4	1494.6	1389.5	1461.8	1447.3	1338.2	1235.7	1177.8	1172.6
57.5°	12209.3	8594.4	2024.4	1372.4	1310.6	1410.5	1355.3	1234.3	1175.2	1131.8	1127.9
60°	13097.9	9326.6	1933.7	1221.2	1235.7	1334.2	1239.6	1189.6	1125.2	1076.6	1074.0
62.5°	14574.1	10692.3	1787.8	1071.3	1147.6	1221.2	1184.4	1134.4	1068.7	1021.4	1021.4
65°	16756.2	12590.5	1513.0	954.3	1049.0	1110.8	1125.2	1075.3	1006.9	957.0	959.6
67.5°	18596.6	13781.5	1145.0	857.1	947.8	1021.4	1062.1	1013.5	941.2	892.6	893.9
70°	18495.4	12916.5	874.2	761.1	858.4	933.3	985.9	947.8	870.2	824.2	828.2
72.5°	16427.6	10805.4	707.2	663.8	767.7	841.3	904.4	875.5	796.6	751.9	751.9
75°	12068.7	7670.3	565.2	565.2	654.6	745.3	815.0	796.6	724.3	692.8	683.6
77.5°	5087.2	3218.0	443.0	469.3	544.2	640.2	726.9	733.5	670.4	709.8	644.1
80°	1352.6	887.3	337.8	369.4	427.2	528.4	632.3	629.7	561.3	524.5	487.7
82.5°	515.3	349.7	240.6	260.3	308.9	404.9	500.8	516.6	448.3	387.8	387.8
85°	198.5	149.9	148.5	156.4	180.1	268.2	378.6	391.7	337.8	286.6	295.8
87.5°	51.3	44.7	55.2	52.6	82.8	143.3	216.9	224.8	206.4	119.6	170.9
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)