

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: McGRAW-EDISON

Report Number: P591442

Luminaire Tested: **CTN-CA6-230-740-U-T4-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591442
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-10)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA6-230-740-U-T4-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (6) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21856 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

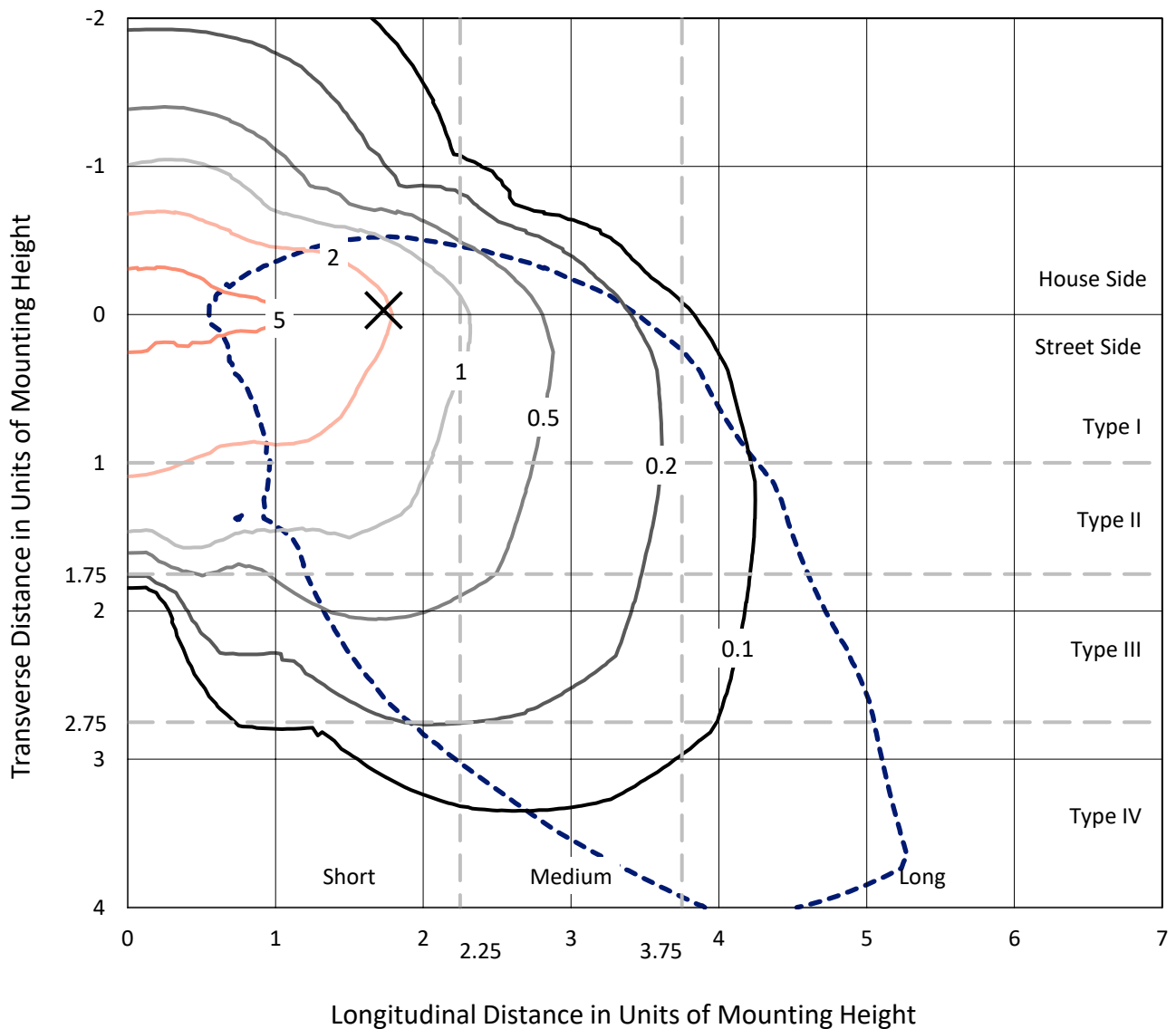
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

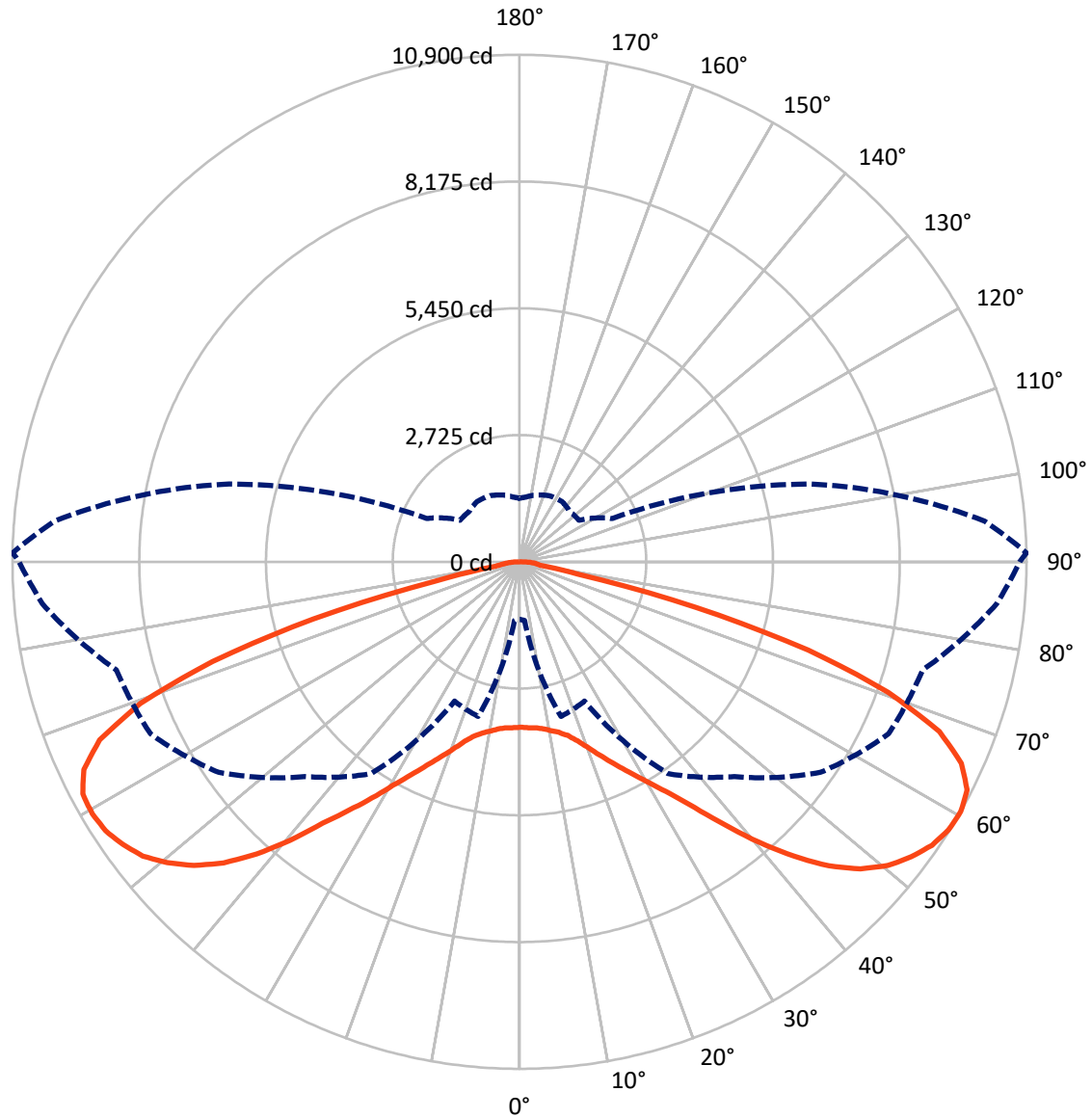
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 91-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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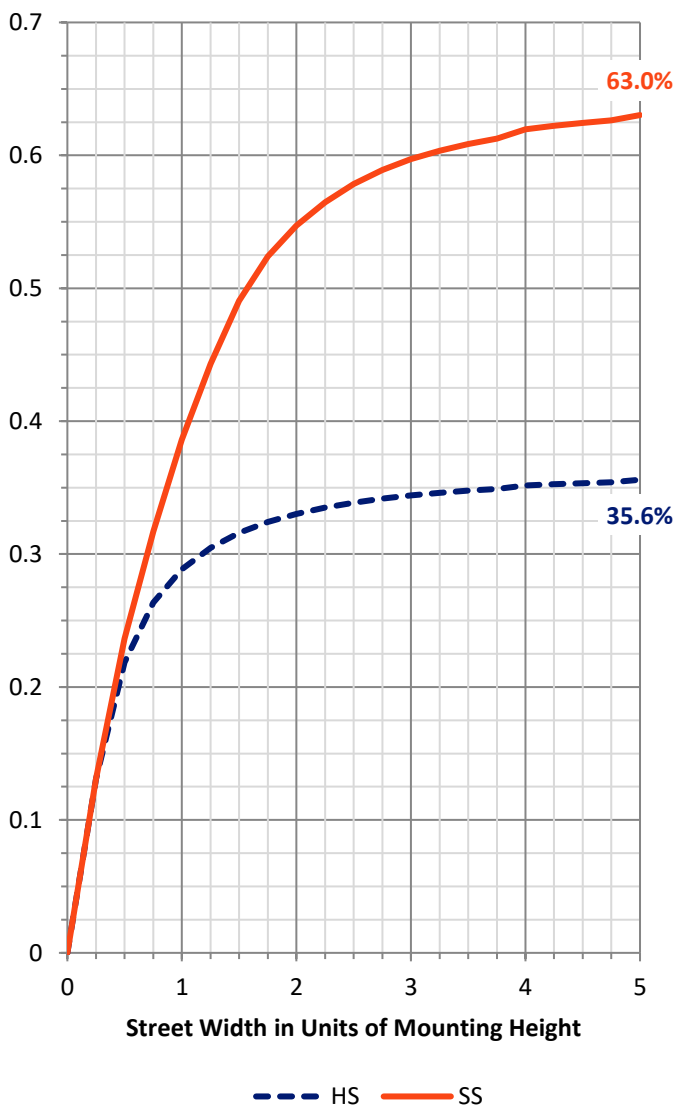
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7937.3	0.0	7937.3
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	13918.7	0.0	13918.7
	% Fixture	63.7	0.0	63.7
Total	Lumens	21856.0	0.0	21856.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	346.6	1.6
10°-20°	1062.9	4.9
20°-30°	1742.3	8.0
30°-40°	2460.7	11.3
40°-50°	3464.0	15.8
50°-60°	4358.7	19.9
60°-70°	4387.4	20.1
70°-80°	3227.7	14.8
80°-90°	805.7	3.7
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°	21856.0	100.0
0°-180°	21856.0	100.0

Coefficient of Utilization

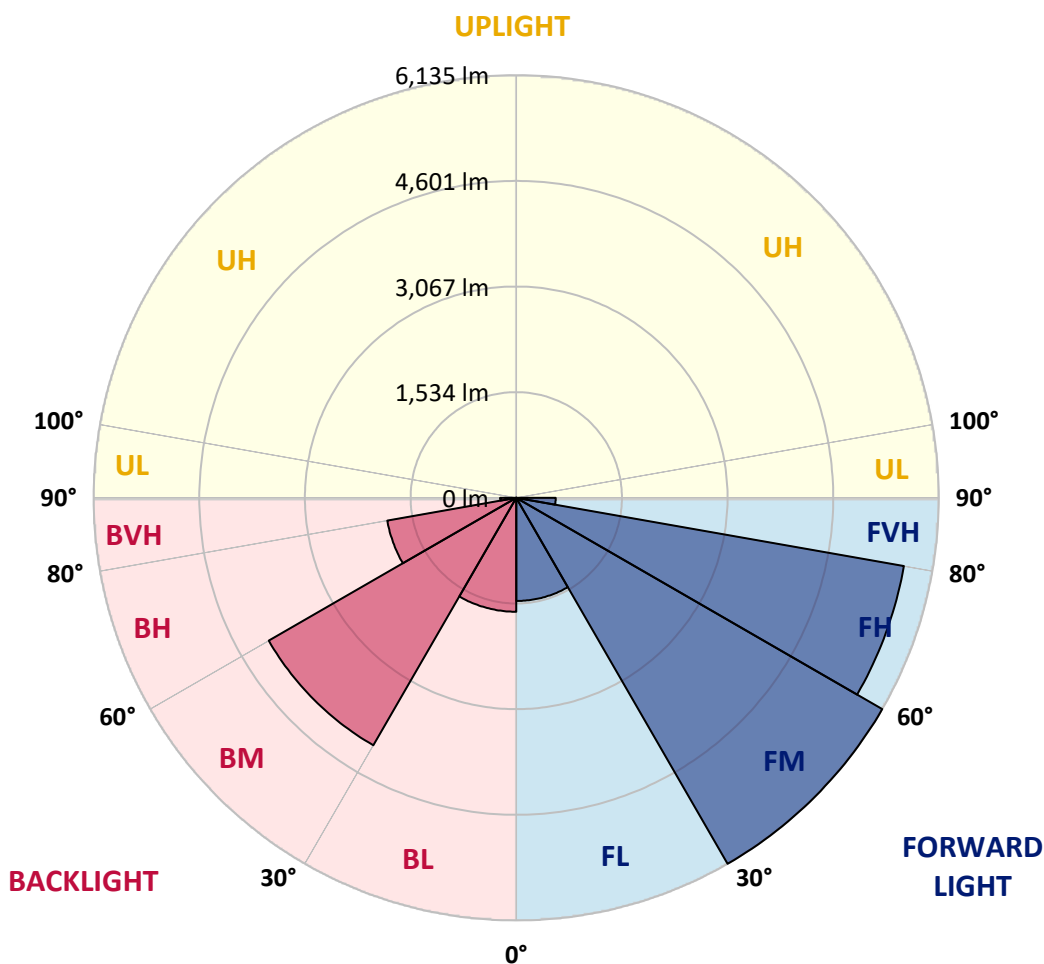


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1497.4	6.9			
FM (30°-60°)	6135.0	28.1			
FH (60°-80°)	5714.1	26.1			G3/7500
FVH (80°-90°)	572.3	2.6			G4/750
BL (0°-30°)	1654.4	7.6	B3/2500		
BM (30°-60°)	4148.4	19.0	B3/5000		
BH (60°-80°)	1901.0	8.7	B3/2500		G3/2500
BVH (80°-90°)	233.4	1.1			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3554.6	3554.6	3554.6	3554.6	3554.6	3554.6	3554.6	3554.6	3554.6	3554.6	3554.6
2.5°	3519.5	3497.1	3498.2	3531.2	3481.1	3513.1	3505.6	3556.7	3547.1	3565.3	3569.5
5°	3495.0	3476.9	3476.9	3516.3	3482.2	3509.9	3486.5	3531.2	3547.1	3573.8	3579.1
7.5°	3504.6	3485.4	3492.8	3526.9	3488.6	3517.3	3515.2	3554.6	3564.2	3608.9	3615.3
10°	3521.6	3504.6	3506.7	3535.4	3509.9	3563.1	3553.5	3610.0	3608.9	3679.2	3684.5
12.5°	3491.8	3479.0	3479.0	3517.3	3532.2	3588.7	3607.8	3666.4	3672.8	3751.6	3758.0
15°	3444.9	3423.6	3455.6	3513.1	3544.0	3632.3	3665.4	3758.0	3775.0	3849.6	3865.6
17.5°	3346.9	3356.5	3446.0	3405.5	3265.0	3395.9	3759.1	3877.3	3914.5	4002.9	4041.3
20°	3043.5	2925.3	2691.0	2754.9	3044.5	3418.3	3890.0	4028.5	4110.5	4214.8	4279.8
22.5°	2299.1	2373.6	2811.3	2857.1	2869.9	3119.1	4073.2	4213.8	4322.4	4454.4	4540.7
25°	2384.3	2376.8	2527.0	2996.6	3009.4	3152.1	3834.7	4455.5	4553.5	4736.6	4822.9
27.5°	2463.1	2463.1	2454.6	2829.4	3154.2	3294.8	3959.3	4277.7	4857.0	5056.1	5157.3
30°	2594.1	2598.3	2550.4	2549.3	3273.5	3425.8	4199.9	4357.5	5125.3	5502.3	5525.7
32.5°	2853.9	2839.0	2779.4	2687.8	2831.5	3578.0	4435.3	4646.1	4866.5	6003.9	5982.6
35°	3041.3	3029.6	2987.0	2923.1	2857.1	3647.2	4655.7	4948.5	5309.5	6151.9	6560.8
37.5°	3268.1	3249.0	3201.1	3125.5	3082.9	3148.9	4882.5	5290.4	5863.3	6327.6	7213.6
40°	3516.3	3510.9	3437.5	3339.5	3280.9	3329.9	5056.1	5716.3	6550.1	7074.1	7933.4
42.5°	3706.9	3702.6	3641.9	3585.5	3557.8	3656.8	4624.8	6280.7	7336.0	7752.4	8626.7
45°	3878.3	3871.9	3869.8	3850.6	3873.0	4113.7	5097.6	6628.9	8108.1	8336.0	9257.1
47.5°	4008.2	3989.1	3934.8	3940.1	4002.9	4408.6	5589.6	6103.9	8734.2	8850.3	9749.1
50°	4317.1	4297.9	4110.5	4116.9	4238.3	4775.0	6013.4	6712.0	8151.7	9295.4	10126.0
52.5°	4592.9	4434.2	4332.0	4336.2	4502.4	5164.7	6494.8	7341.4	8013.3	9647.9	10430.6
55°	3966.7	3864.5	4859.1	4720.7	4812.2	5589.6	6962.3	7886.6	8393.5	9917.3	10605.2
57.5°	2327.8	2315.1	5347.9	5468.2	5361.7	6048.6	7435.1	8340.2	8726.8	10168.6	10722.4
60°	1235.3	1265.1	3439.6	3305.4	5557.7	6527.8	7893.0	8752.3	8973.8	10298.6	10754.3
62.5°	113.9	101.2	2260.8	2568.5	4981.6	7153.9	8436.1	9171.9	9141.0	10367.8	10697.9
65°	22.4	29.8	2218.2	2537.6	5535.3	8192.2	9323.1	9494.6	9231.5	10284.7	10401.8
67.5°	17.0	25.6	2095.7	2509.9	5875.0	8591.5	10344.3	9608.5	9236.9	10019.6	9750.1
70°	17.0	26.6	1849.7	2346.0	6035.8	8608.6	10586.1	9563.8	9117.6	9419.0	8522.3
72.5°	17.0	26.6	1553.7	2032.9	5762.1	8239.1	10162.2	9315.7	8673.5	8110.2	6647.0
75°	17.0	24.5	1219.3	1651.6	4980.5	7669.3	9434.9	8235.9	7300.9	5934.6	4264.9
77.5°	17.0	23.4	898.8	1292.8	4156.3	6764.2	8205.0	6769.5	5503.4	3107.3	1569.6
80°	16.0	23.4	547.4	911.5	3202.1	5456.5	6447.9	5001.8	2892.2	781.6	453.6
82.5°	16.0	22.4	260.9	583.6	2250.1	3898.6	4207.4	2142.6	615.5	361.0	361.0
85°	13.8	20.2	139.5	317.3	1470.6	2555.7	2029.7	363.1	240.7	243.9	277.9
87.5°	8.5	10.6	66.0	142.7	847.7	1366.3	781.6	133.1	100.1	105.4	157.6
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):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3554.6	3554.6	3554.6	3554.6	3554.6	3554.6	3554.6	3554.6	3554.6	3554.6	3554.6
2.5°	3572.7	3567.4	3579.1	3616.4	3610.0	3636.6	3615.3	3652.6	3660.0	3649.4	3666.4
5°	3584.4	3591.9	3631.3	3666.4	3647.2	3689.8	3701.6	3753.7	3752.7	3743.1	3764.4
7.5°	3622.8	3643.0	3682.4	3726.1	3735.6	3769.7	3765.5	3831.5	3824.0	3819.8	3841.1
10°	3688.8	3719.7	3756.9	3829.3	3805.9	3863.4	3824.0	3868.7	3864.5	3853.8	3873.0
12.5°	3762.3	3804.9	3849.6	3915.6	3906.0	3905.0	3869.8	3883.7	3871.9	3846.4	3862.4
15°	3873.0	3925.2	3986.9	4029.5	3973.1	3951.8	3896.4	3866.6	3826.1	3766.5	3776.1
17.5°	4045.5	4107.3	4173.3	4180.8	4093.4	4038.1	3903.9	3797.4	3692.0	3612.1	3619.6
20°	4277.7	4334.1	4383.1	4347.9	4229.7	4106.2	3903.9	3735.6	3538.6	3391.7	3381.0
22.5°	4549.2	4566.2	4613.1	4526.8	4323.5	4150.9	3893.2	3643.0	3322.5	3126.5	3103.1
25°	4842.1	4839.9	4819.7	4640.8	4382.0	4126.4	3812.3	3484.3	3075.4	2870.9	2853.9
27.5°	5160.5	5133.8	4995.4	4736.6	4357.5	4038.1	3659.0	3217.0	2850.7	2675.0	2669.7
30°	5519.3	5449.0	5169.0	4746.2	4265.9	3863.4	3409.8	2947.6	2650.5	2494.0	2479.1
32.5°	5937.8	5800.5	5307.4	4715.3	4100.9	3597.2	3106.3	2735.7	2486.5	2315.1	2282.1
35°	6484.1	6243.5	5435.2	4614.2	3856.0	3280.9	2826.2	2547.2	2334.2	2158.5	2123.4
37.5°	7171.0	6817.4	5627.9	4466.1	3575.9	2998.7	2632.4	2422.6	2228.8	2021.2	1978.6
40°	7933.4	7492.6	5853.7	4322.4	3309.7	2788.9	2505.7	2364.1	2160.7	1932.8	1892.3
42.5°	8655.4	8172.0	6192.3	4136.0	3056.2	2620.7	2459.9	2347.0	2128.7	1894.4	1850.8
45°	9322.0	8769.4	6541.6	3948.6	2798.5	2483.3	2421.6	2297.0	2079.7	1849.7	1799.7
47.5°	9866.2	9240.1	6850.4	3754.8	2571.7	2375.8	2348.1	2201.1	1993.5	1777.3	1730.4
50°	10261.3	9601.0	7031.5	3574.8	2353.4	2268.2	2219.2	2064.8	1872.1	1692.1	1658.0
52.5°	10541.3	9913.1	7122.0	3554.6	2155.3	2123.4	2069.1	1924.3	1769.8	1630.3	1589.9
55°	10757.5	10083.4	7044.2	3436.4	1967.9	1941.3	1884.9	1795.4	1702.8	1572.8	1546.2
57.5°	10874.7	10161.2	6866.4	2898.6	1768.8	1723.0	1715.5	1696.4	1615.4	1486.6	1466.4
60°	10900.2	10037.7	6463.9	2204.3	1560.1	1530.2	1586.7	1562.2	1489.8	1393.9	1365.2
62.5°	10800.1	9773.6	5700.4	1648.4	1386.5	1435.5	1493.0	1455.7	1371.6	1277.9	1259.8
65°	10439.1	9167.6	4593.9	1283.2	1306.6	1390.7	1441.9	1397.1	1294.9	1188.4	1176.7
67.5°	9733.1	8224.1	3024.3	1154.3	1269.3	1353.5	1411.0	1339.6	1236.3	1121.3	1107.5
70°	8409.4	6501.2	1440.8	1076.6	1198.0	1281.1	1326.9	1245.9	1145.8	1032.9	1018.0
72.5°	6494.8	4418.2	795.5	991.4	1109.6	1186.3	1219.3	1123.5	1030.8	984.0	979.7
75°	3909.2	1898.7	718.8	907.3	995.7	1067.0	1125.6	1053.2	972.2	880.7	857.2
77.5°	1290.6	551.6	676.2	807.2	907.3	993.5	1021.2	950.9	849.8	772.0	765.7
80°	452.6	462.2	630.4	671.9	790.1	862.6	893.4	812.5	764.6	683.7	667.7
82.5°	368.5	414.2	509.0	506.9	624.0	709.2	756.1	735.8	673.0	608.1	601.7
85°	301.4	379.1	322.7	354.6	447.3	539.9	629.4	631.5	583.6	517.5	473.9
87.5°	178.9	193.8	160.8	181.0	236.4	303.5	351.4	335.4	274.7	232.1	226.8
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)