

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: P591441

Luminaire Tested: **CTN-CA6-230-740-U-T4-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591441
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-12)
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-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D 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: 15148 lumens
Efficiency: N/A
Efficacy: 66.5 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

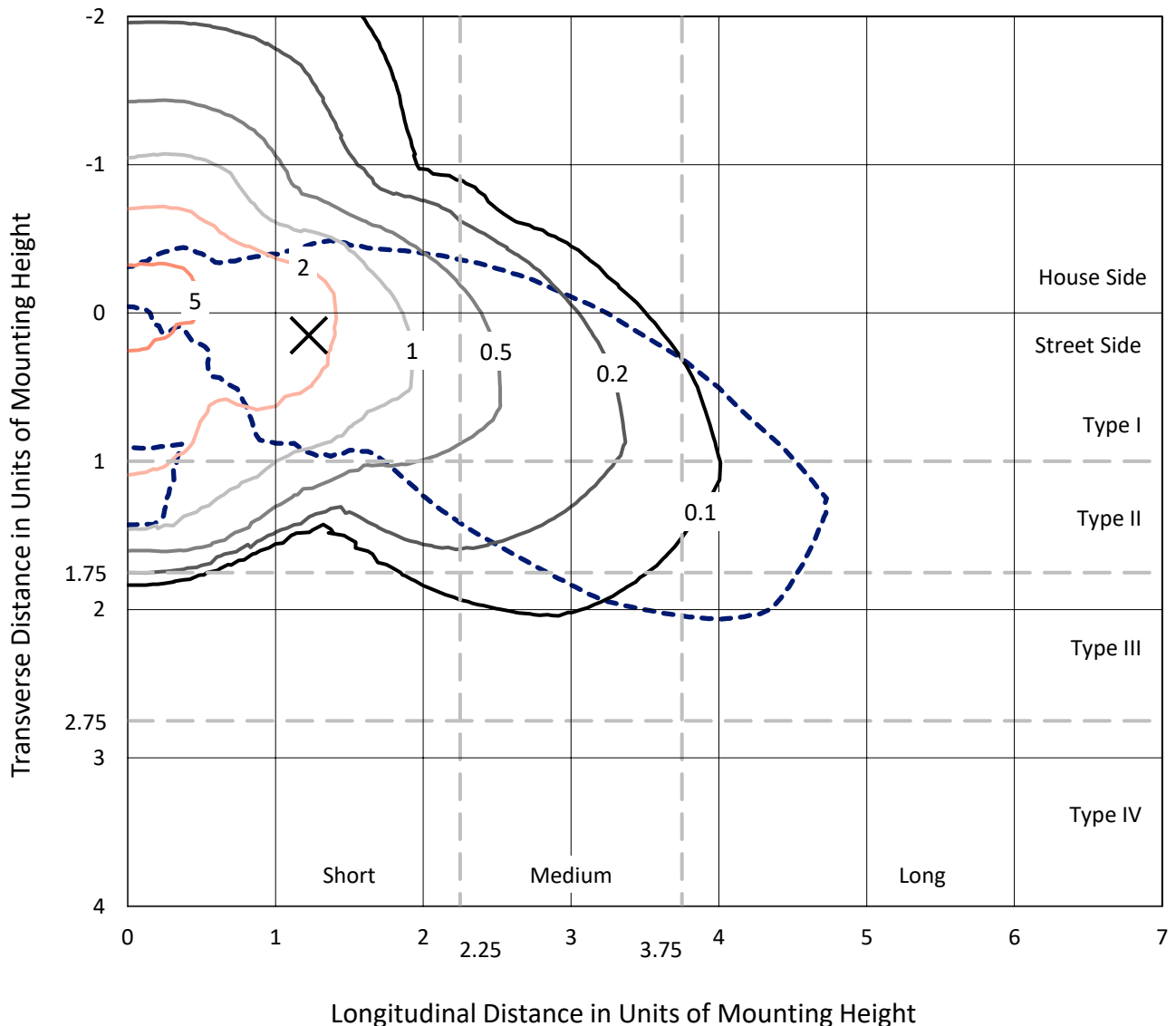
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

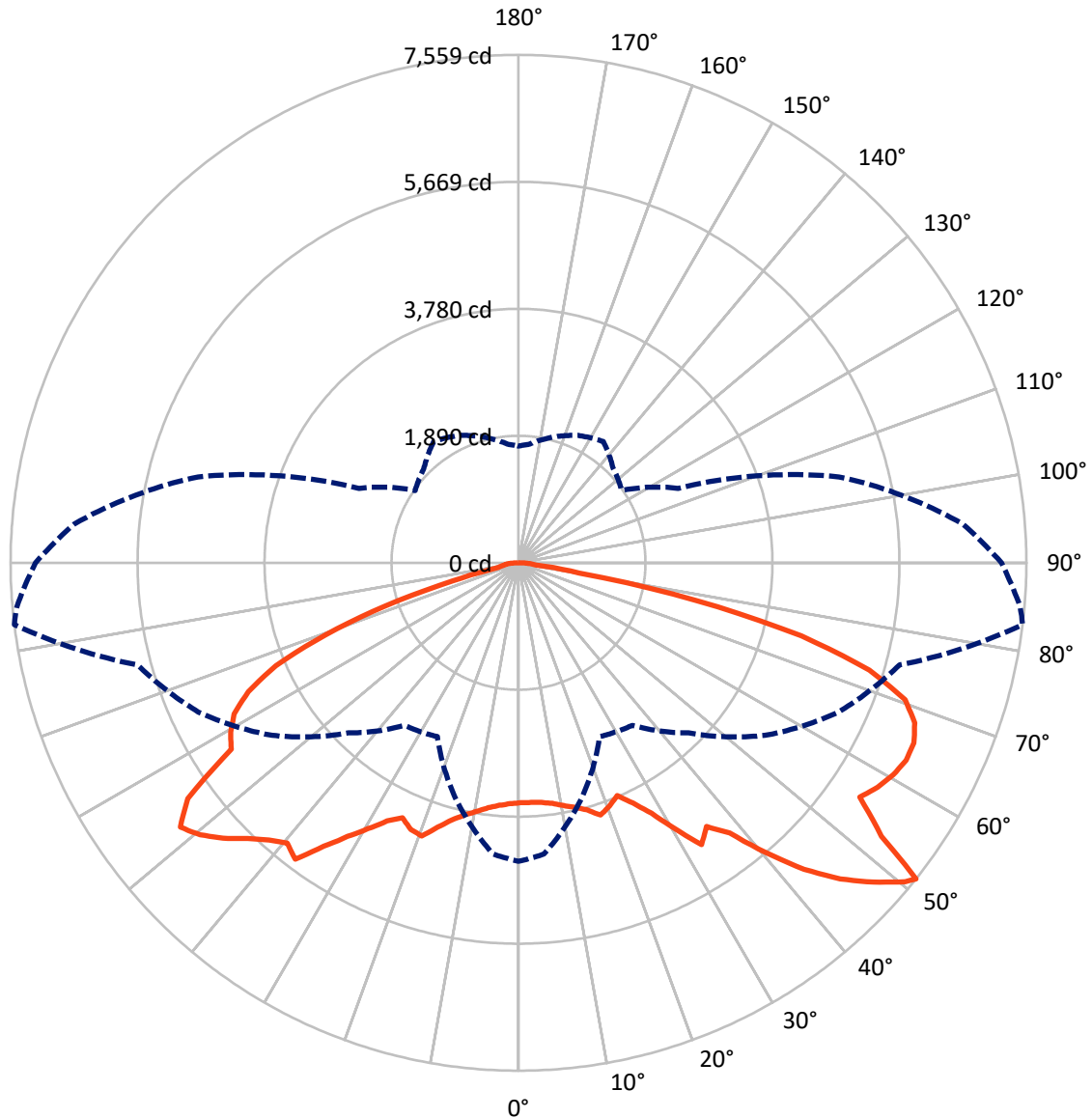
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.1 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 83-Deg Lateral - - - Horizontal Cone Through 51-Deg Vertical

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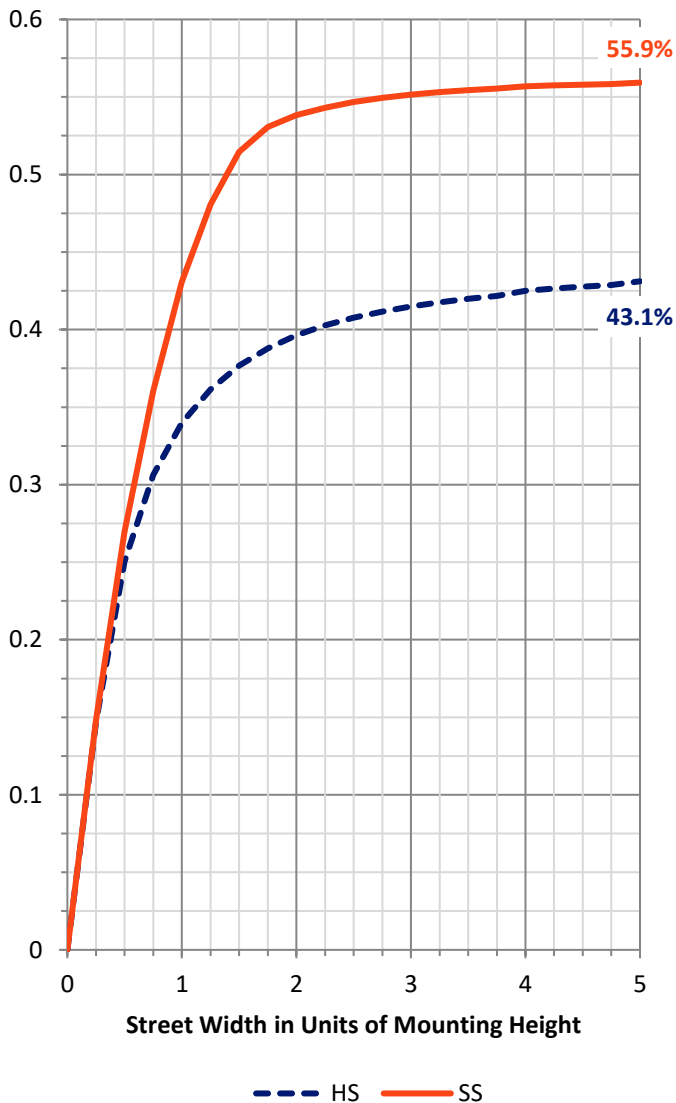
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6676.6	0.0	6676.6
	% Fixture	44.1	0.0	44.1
Street Side	Lumens	8471.4	0.0	8471.4
	% Fixture	55.9	0.0	55.9
Total	Lumens	15148.0	0.0	15148.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	348.8	2.3
10°-20°	1061.5	7.0
20°-30°	1648.9	10.9
30°-40°	2206.3	14.6
40°-50°	2862.4	18.9
50°-60°	3048.5	20.1
60°-70°	2123.6	14.0
70°-80°	1481.6	9.8
80°-90°	366.6	2.4
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°	15148.0	100.0
0°-180°	15148.0	100.0



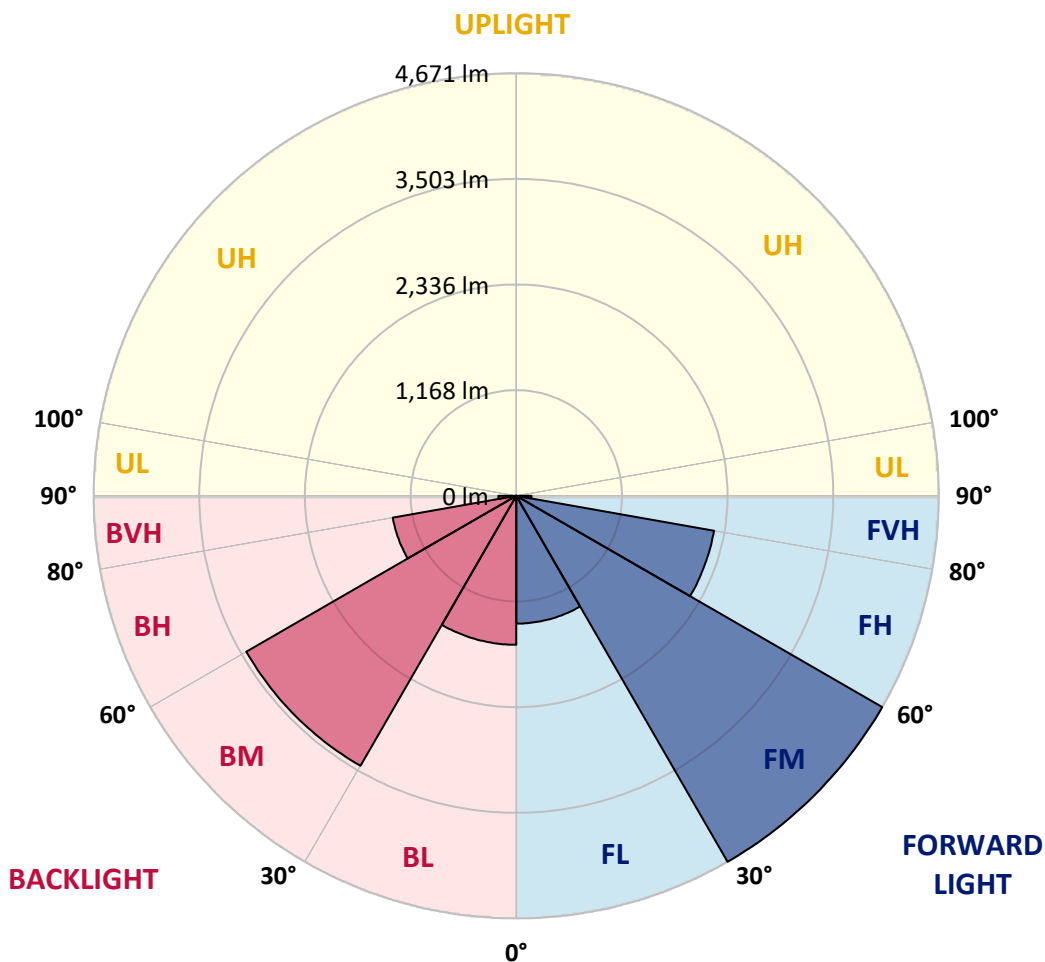
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1412.4	9.3			
FM (30°-60°)	4671.2	30.8			
FH (60°-80°)	2219.5	14.7			G2/5000
FVH (80°-90°)	168.3	1.1			G2/225
BL (0°-30°)	1646.7	10.9	B3/2500		
BM (30°-60°)	3445.9	22.7	B3/5000		
BH (60°-80°)	1385.7	9.1	B3/2500		G3/2500
BVH (80°-90°)	198.3	1.3			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 Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	83°	85°
0°	3570.4	3570.4	3570.4	3570.4	3570.4	3570.4	3570.4	3570.4	3570.4	3570.4	3570.4
2.5°	3527.8	3503.3	3505.5	3538.5	3494.8	3523.6	3519.3	3570.4	3560.8	3571.5	3578.9
5°	3497.0	3477.8	3477.8	3521.4	3490.6	3521.4	3500.1	3544.9	3559.8	3583.2	3591.7
7.5°	3503.3	3483.1	3491.6	3530.0	3495.9	3527.8	3526.8	3569.4	3574.7	3616.2	3630.1
10°	3521.4	3499.1	3503.3	3534.2	3515.1	3570.4	3560.8	3619.4	3619.4	3674.8	3696.1
12.5°	3484.2	3469.3	3477.8	3519.3	3536.4	3593.9	3606.6	3666.3	3674.8	3734.4	3761.0
15°	3443.7	3422.4	3450.1	3509.7	3538.5	3621.5	3649.2	3740.8	3753.6	3815.3	3845.2
17.5°	3247.8	3233.9	3285.0	3333.0	3348.9	3429.9	3484.2	3636.4	3819.6	3948.4	3983.6
20°	2858.0	2855.9	2761.1	2740.9	2989.0	3285.0	3322.3	3452.2	3664.1	3865.4	3936.7
22.5°	2386.3	2450.2	2757.9	2855.9	2849.5	2966.7	3443.7	3566.2	3659.9	3762.1	3804.7
25°	2386.3	2381.0	2563.1	2984.8	2985.8	3035.9	3142.4	3755.7	3845.2	3962.3	3996.4
27.5°	2461.9	2467.2	2455.5	2763.3	3132.8	3179.6	3225.4	3542.7	4091.1	4221.0	4277.5
30°	2589.7	2598.2	2551.4	2552.4	3181.8	3322.3	3409.6	3534.2	4262.6	4595.9	4621.4
32.5°	2842.1	2838.9	2780.3	2704.7	2792.0	3461.8	3589.6	3751.5	3992.1	5000.5	5060.1
35°	3043.3	3029.5	2989.0	2936.8	2821.8	3422.4	3761.0	3984.7	4291.3	4820.6	5135.7
37.5°	3266.9	3246.7	3200.9	3137.0	3032.7	2388.4	3930.3	4250.9	4726.8	5102.7	5123.0
40°	3519.3	3497.0	3434.1	3340.4	3207.3	2447.0	4005.9	4579.9	5294.4	5672.4	5669.2
42.5°	3713.1	3690.8	3657.7	3558.7	2819.7	2699.4	3493.8	5042.0	5908.8	6236.8	6209.1
45°	3877.1	3857.9	3861.1	3756.8	2645.1	3009.3	3892.0	5283.8	6488.1	6711.7	6675.5
47.5°	4004.9	3975.1	3894.1	3160.5	2713.2	3223.3	4215.7	4608.7	6976.9	7103.6	7063.1
50°	4315.8	4265.8	3784.5	2805.9	2885.7	3485.2	4523.5	5083.6	6355.0	7460.3	7389.0
51°	4442.5	4352.0	3626.9	2854.9	2953.9	3580.0	4477.7	5256.1	5870.5	7559.3	7495.4
52.5°	4575.6	4396.7	3194.5	2929.4	3036.9	3711.0	3803.6	5521.2	6005.7	6765.0	7141.9
55°	3860.1	3930.3	3298.9	3202.0	3194.5	3207.3	3884.6	5916.3	6287.9	6160.1	6085.6
57.5°	2270.3	2311.8	3351.1	3585.3	2764.3	2547.1	4098.6	6214.4	6531.8	6301.8	6218.7
60°	1141.5	1194.8	1220.3	1112.8	1490.8	2323.5	3452.2	4504.3	6680.8	6408.2	6308.1
62.5°	50.0	83.1	33.0	36.2	60.7	810.3	2536.5	4626.8	6806.5	6473.2	6341.2
65°	4.3	4.3	5.3	10.6	26.6	850.8	2822.9	4796.1	6857.6	6466.8	6290.0
67.5°	1.1	1.1	2.1	7.5	19.2	921.1	3159.4	4865.3	6859.7	6358.2	6142.0
70°	0.0	1.1	2.1	6.4	17.0	963.7	3232.9	4851.4	6772.4	6102.6	5805.5
72.5°	0.0	0.0	1.1	5.3	14.9	909.4	3147.7	4823.7	6474.3	5459.5	5037.8
75°	0.0	0.0	1.1	4.3	12.8	925.4	3156.2	4512.8	5653.3	4346.7	3834.5
77.5°	0.0	0.0	1.1	4.3	11.7	854.0	2890.0	3908.0	4468.1	2705.8	2145.7
80°	0.0	0.0	1.1	4.3	10.6	732.6	2376.7	3050.8	2500.3	917.9	592.1
82.5°	0.0	0.0	1.1	4.3	8.5	496.2	1579.2	1524.9	503.7	263.0	236.4
85°	0.0	0.0	1.1	3.2	6.4	296.0	791.2	207.6	194.9	167.2	151.2
87.5°	0.0	0.0	1.1	2.1	4.3	125.7	243.8	63.9	80.9	68.2	60.7
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°	3570.4	3570.4	3570.4	3570.4	3570.4	3570.4	3570.4	3570.4	3570.4	3570.4	3570.4
2.5°	3585.3	3585.3	3597.0	3636.4	3632.2	3664.1	3646.0	3685.4	3688.6	3681.2	3699.3
5°	3599.2	3612.0	3651.4	3692.9	3675.8	3722.7	3745.1	3797.2	3795.1	3788.7	3810.0
7.5°	3638.6	3665.2	3704.6	3754.6	3772.7	3811.1	3813.2	3884.6	3880.3	3877.1	3898.4
10°	3704.6	3739.7	3783.4	3859.0	3848.4	3903.7	3880.3	3932.5	3931.4	3929.3	3950.6
12.5°	3772.7	3823.9	3877.1	3950.6	3949.5	3951.6	3931.4	3958.0	3952.7	3937.8	3953.8
15°	3868.6	3936.7	4010.2	4063.4	4016.6	4007.0	3962.3	3946.3	3915.4	3872.8	3885.6
17.5°	4027.2	4094.3	4188.0	4216.8	4140.1	4096.5	3975.1	3886.7	3790.8	3725.9	3739.7
20°	4169.9	4294.5	4384.0	4381.8	4283.9	4168.9	3980.4	3831.3	3646.0	3520.4	3509.7
22.5°	3992.1	4201.9	4591.6	4545.8	4374.4	4211.5	3974.0	3742.9	3435.2	3240.3	3232.9
25°	4094.3	4098.6	4447.9	4637.4	4414.8	4193.4	3897.3	3588.5	3194.5	2992.2	2980.5
27.5°	4355.2	4331.8	4234.9	4539.4	4377.6	4100.7	3742.9	3325.5	2975.2	2799.5	2791.0
30°	4665.1	4592.7	4364.8	4064.5	4224.2	3920.8	3505.5	3056.1	2777.1	2617.4	2604.6
32.5°	5035.7	4883.4	4483.0	4012.3	3721.6	3649.2	3198.8	2843.1	2613.1	2447.0	2414.0
35°	5475.4	5247.6	4596.9	3924.0	3329.8	3246.7	2910.2	2651.5	2458.7	2290.5	2257.5
37.5°	5474.4	5711.8	4765.2	3802.6	3087.0	2795.2	2700.4	2523.7	2351.2	2147.8	2110.5
40°	5514.8	5522.3	4950.5	3684.4	2860.2	2563.1	2575.9	2460.9	2283.0	2059.4	2021.1
42.5°	6006.8	5644.7	5177.3	3525.7	2646.1	2391.6	2522.6	2438.5	2246.8	2017.9	1975.3
45°	6434.9	6017.4	4680.0	3352.1	2421.5	2258.5	2480.0	2386.3	2195.7	1967.8	1919.9
47.5°	6807.6	6313.5	4806.7	3048.7	2202.1	2149.9	2398.0	2286.2	2104.1	1892.2	1849.6
50°	7090.8	6558.4	4917.5	2640.8	1989.1	2041.3	2264.9	2151.0	1975.3	1803.8	1767.6
51°	7187.7	6637.2	4939.8	2622.7	1876.3	1990.2	2202.1	2091.4	1933.8	1769.8	1736.8
52.5°	7292.1	6739.4	4972.8	2663.2	1716.5	1906.1	2099.9	2003.0	1872.0	1731.4	1694.2
55°	6063.2	6332.6	4888.7	2578.0	1531.2	1738.9	1912.5	1868.8	1796.4	1671.8	1645.2
57.5°	5841.7	5358.3	4054.9	2182.9	1368.3	1539.8	1730.4	1759.1	1703.8	1577.0	1557.9
60°	5889.7	5309.3	3610.9	1628.1	1206.5	1361.9	1594.1	1619.6	1571.7	1475.9	1449.3
62.5°	5881.1	5183.7	3220.1	1146.8	1065.9	1269.3	1496.1	1506.8	1440.7	1360.9	1336.4
65°	5740.6	4895.1	2686.6	867.8	988.2	1218.2	1438.6	1443.9	1361.9	1259.7	1246.9
67.5°	5427.5	4438.3	1868.8	762.4	944.5	1178.8	1400.3	1376.8	1298.0	1190.5	1171.3
70°	4828.0	3616.2	873.2	701.7	878.5	1106.4	1306.6	1278.9	1192.6	1092.5	1075.5
72.5°	3870.7	2513.0	414.2	642.1	809.3	1015.9	1191.6	1147.9	1076.6	1039.3	1029.7
75°	2533.3	1179.8	346.1	578.2	717.7	906.2	1092.5	1076.6	1010.5	936.0	899.8
77.5°	1027.6	310.9	313.1	513.3	644.2	834.8	987.1	974.3	887.0	819.9	805.0
80°	258.8	233.2	286.4	423.8	561.2	727.3	865.7	829.5	797.6	725.2	701.7
82.5°	197.0	187.4	224.7	328.0	461.1	599.5	739.0	753.9	700.7	645.3	633.6
85°	137.4	170.4	136.3	233.2	341.8	472.8	619.7	646.4	610.2	547.3	504.7
87.5°	75.6	89.4	56.4	122.5	181.0	258.8	355.7	358.9	297.1	272.6	256.6
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)