

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: P591393

Luminaire Tested: **CTN-CA10-210-740-U-T4-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591393
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-CA10-210-740-U-T4-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15345 lumens
Efficiency: N/A
Efficacy: 72.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

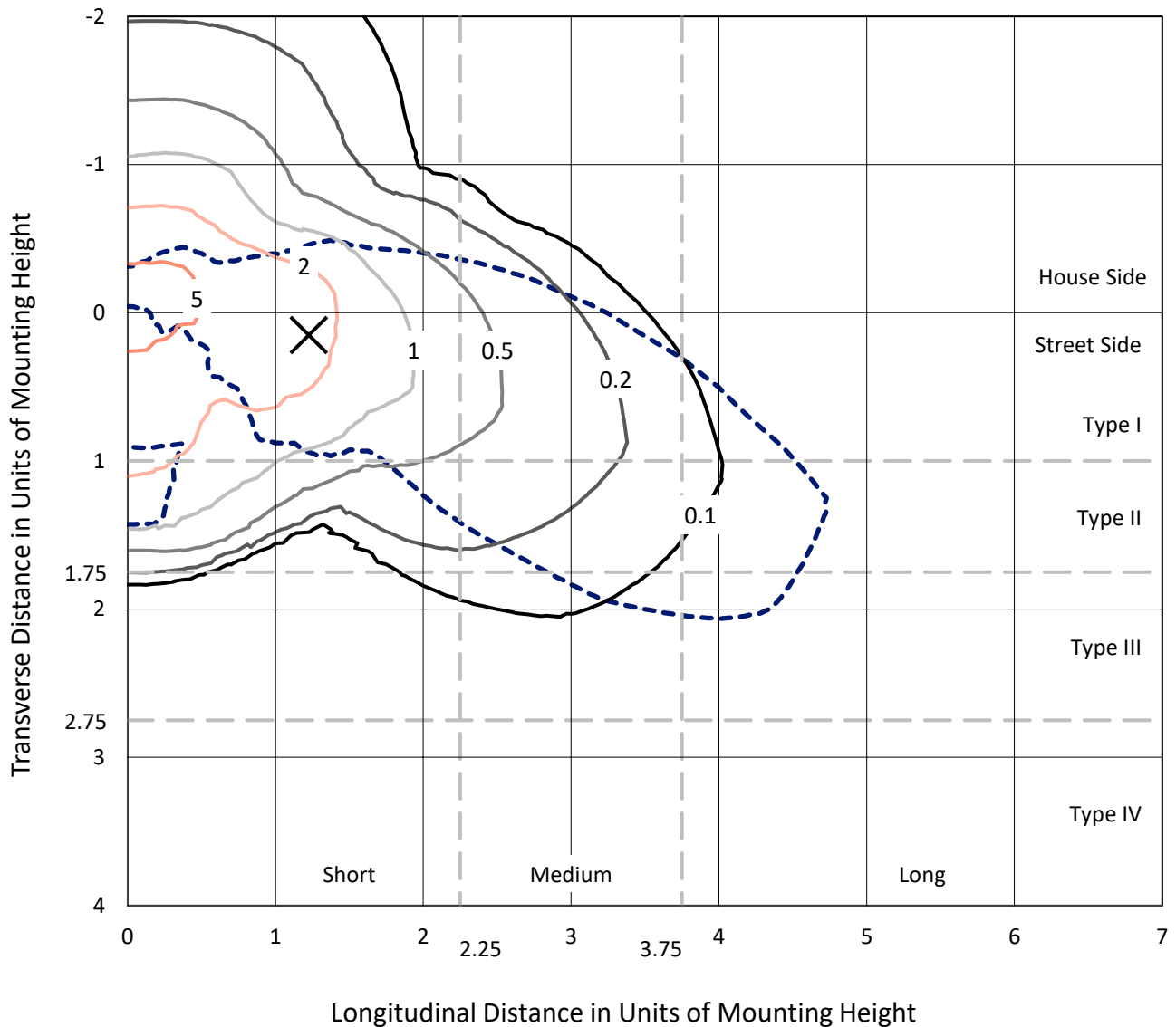
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

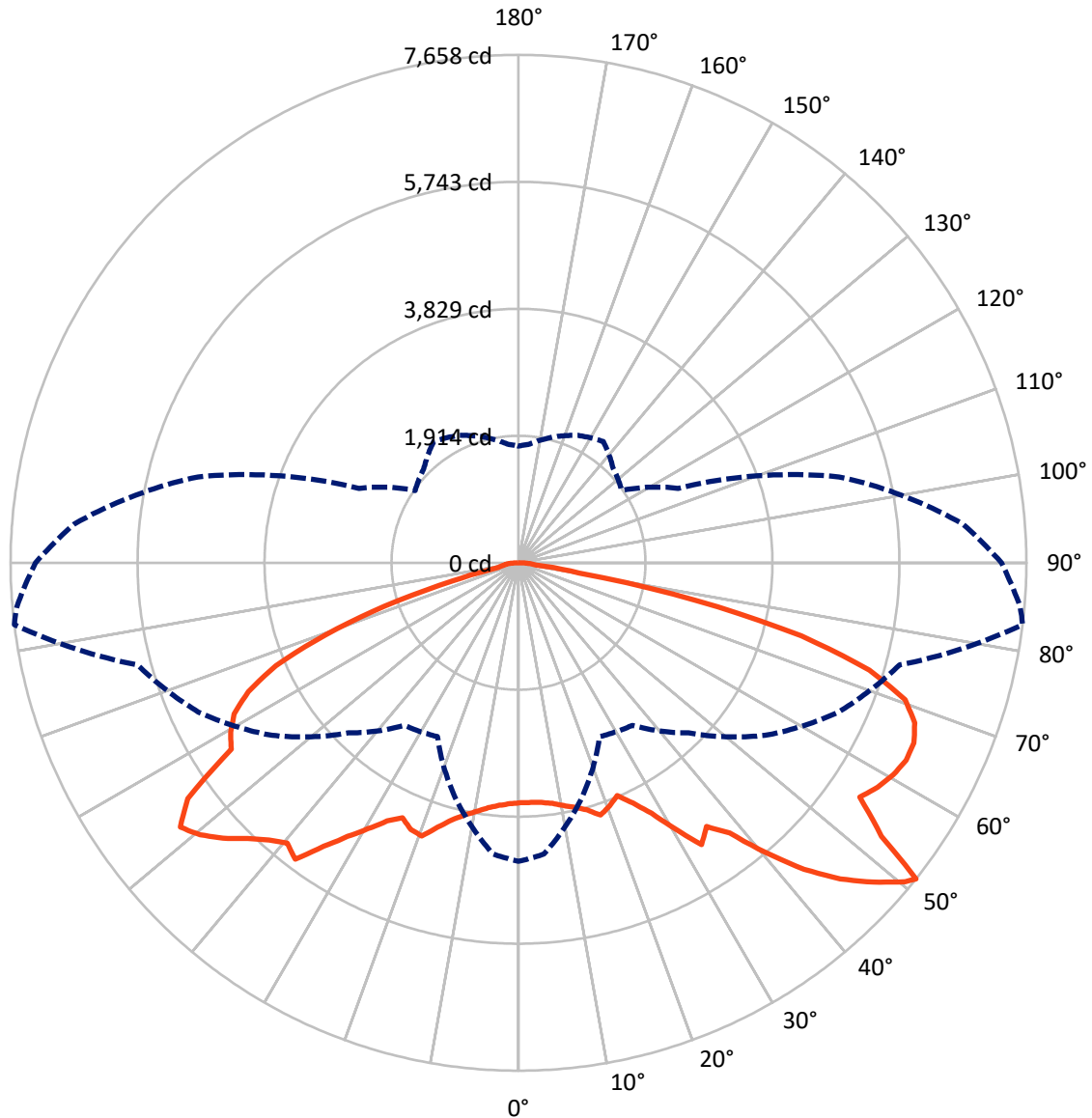
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.2 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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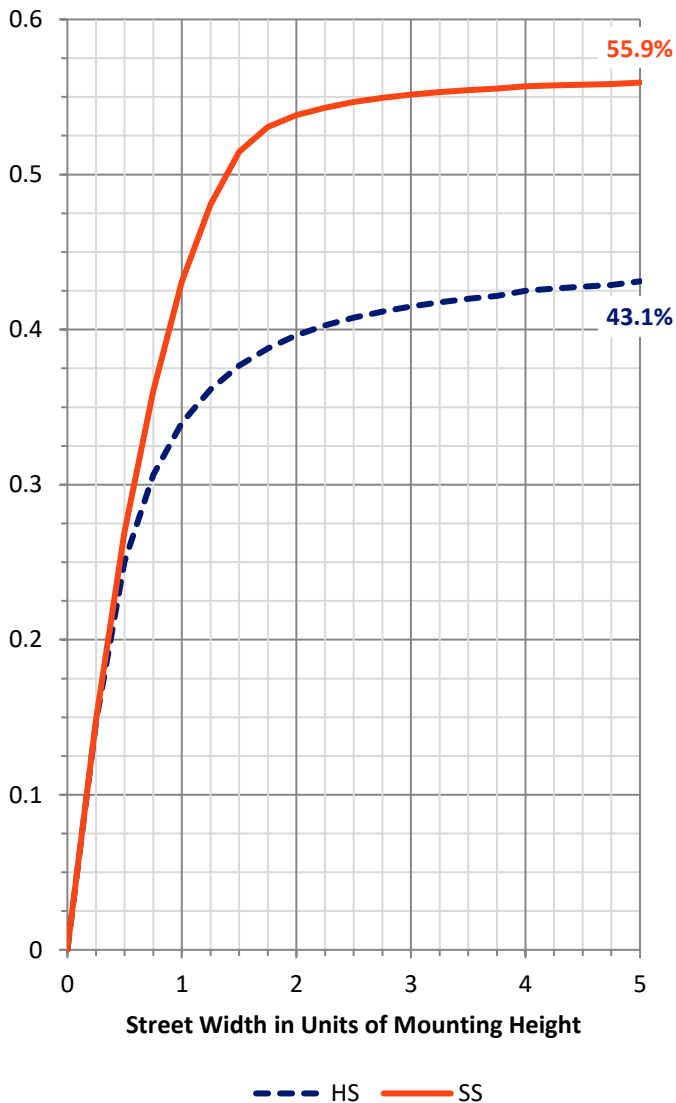
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6763.4	0.0	6763.4
	% Fixture	44.1	0.0	44.1
Street Side	Lumens	8581.6	0.0	8581.6
	% Fixture	55.9	0.0	55.9
Total	Lumens	15345.0	0.0	15345.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	353.3	2.3
10°-20°	1075.3	7.0
20°-30°	1670.3	10.9
30°-40°	2235.0	14.6
40°-50°	2899.6	18.9
50°-60°	3088.1	20.1
60°-70°	2151.2	14.0
70°-80°	1500.8	9.8
80°-90°	371.3	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°	15345.0	100.0
0°-180°	15345.0	100.0



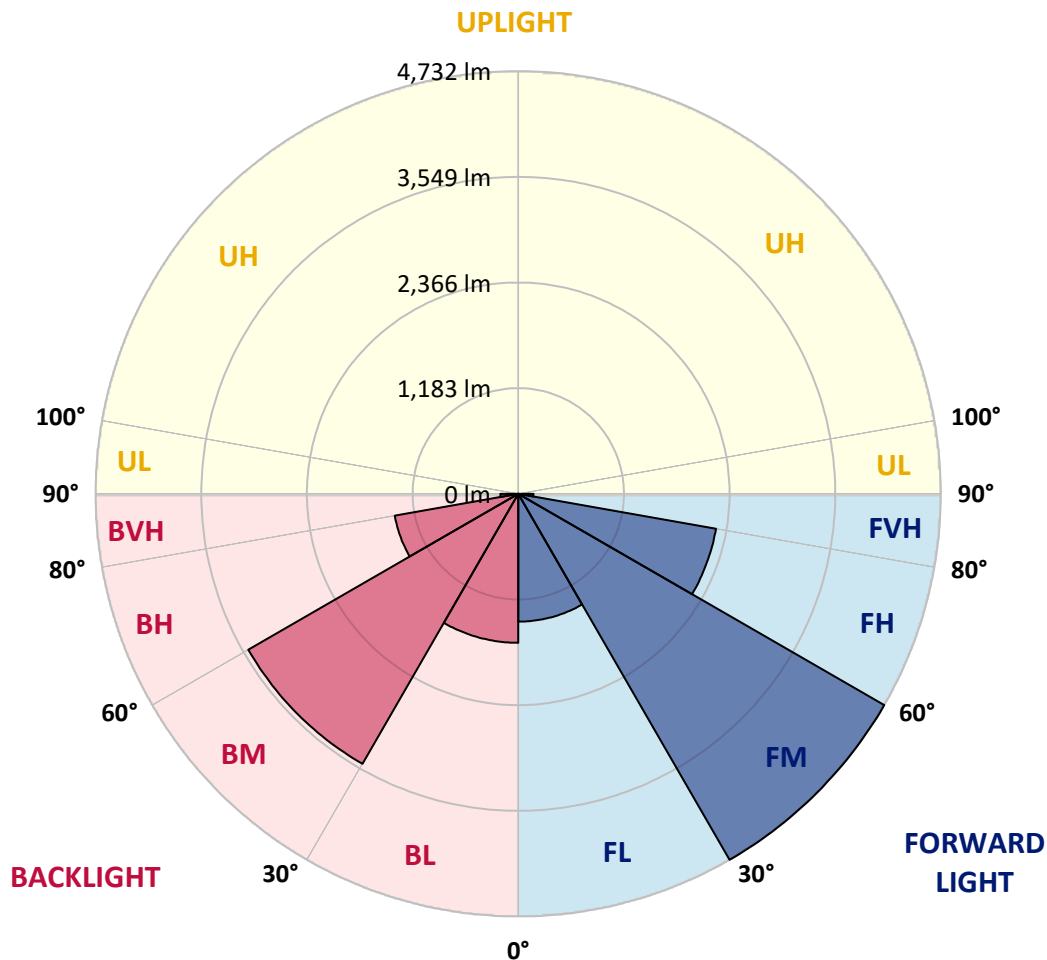
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1430.8	9.3			
FM (30°-60°)	4731.9	30.8			
FH (60°-80°)	2248.4	14.7			G2/5000
FVH (80°-90°)	170.5	1.1			G2/225
BL (0°-30°)	1668.1	10.9	B3/2500		
BM (30°-60°)	3490.8	22.7	B3/5000		
BH (60°-80°)	1403.7	9.1	B3/2500		G3/2500
BVH (80°-90°)	200.8	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°	3616.9	3616.9	3616.9	3616.9	3616.9	3616.9	3616.9	3616.9	3616.9	3616.9	3616.9
2.5°	3573.7	3548.9	3551.1	3584.5	3540.3	3569.4	3565.1	3616.9	3607.2	3617.9	3625.5
5°	3542.4	3523.0	3523.0	3567.2	3536.0	3567.2	3545.7	3591.0	3606.1	3629.8	3638.4
7.5°	3548.9	3528.4	3537.0	3575.9	3541.4	3573.7	3572.6	3615.8	3621.2	3663.2	3677.3
10°	3567.2	3544.6	3548.9	3580.2	3560.8	3616.9	3607.2	3666.5	3666.5	3722.6	3744.1
12.5°	3529.5	3514.4	3523.0	3565.1	3582.3	3640.6	3653.5	3713.9	3722.6	3783.0	3809.9
15°	3488.5	3466.9	3495.0	3555.4	3584.5	3668.6	3696.7	3789.5	3802.4	3865.0	3895.2
17.5°	3290.0	3276.0	3327.8	3376.3	3392.5	3474.5	3529.5	3683.7	3869.3	3999.8	4035.4
20°	2895.2	2893.1	2797.1	2776.6	3027.9	3327.8	3365.5	3497.1	3711.8	3915.7	3987.9
22.5°	2417.4	2482.1	2793.8	2893.1	2886.6	3005.2	3488.5	3612.5	3707.5	3811.0	3854.2
25°	2417.4	2412.0	2596.4	3023.6	3024.7	3075.4	3183.2	3804.6	3895.2	4013.8	4048.3
27.5°	2493.9	2499.3	2487.5	2799.2	3173.5	3221.0	3267.4	3588.8	4144.3	4275.9	4333.1
30°	2623.4	2632.0	2584.6	2585.6	3223.1	3365.5	3454.0	3580.2	4318.0	4655.6	4681.5
32.5°	2879.0	2875.8	2816.5	2739.9	2828.3	3506.8	3636.3	3800.2	4044.0	5065.5	5126.0
35°	3082.9	3068.9	3027.9	2975.0	2858.5	3466.9	3809.9	4036.5	4347.1	4883.2	5202.5
37.5°	3309.4	3288.9	3242.6	3177.8	3072.1	2419.5	3981.5	4306.1	4788.3	5169.1	5189.6
40°	3565.1	3542.4	3478.8	3383.9	3249.0	2478.8	4058.0	4639.5	5363.3	5746.2	5743.0
42.5°	3761.4	3738.8	3705.3	3605.0	2856.4	2734.5	3539.2	5107.6	5985.7	6317.9	6289.9
45°	3927.5	3908.1	3911.3	3805.6	2679.5	3048.4	3942.6	5352.5	6572.5	6799.0	6762.3
47.5°	4057.0	4026.8	3944.8	3201.6	2748.5	3265.2	4270.5	4668.6	7067.6	7196.0	7155.0
50°	4371.9	4321.2	3833.7	2842.4	2923.3	3530.6	4582.3	5149.7	6437.6	7557.3	7485.1
51°	4500.3	4408.6	3674.0	2892.0	2992.3	3626.6	4535.9	5324.4	5946.8	7657.6	7592.9
52.5°	4635.1	4453.9	3236.1	2967.5	3076.4	3759.2	3853.1	5593.0	6083.8	6852.9	7234.8
55°	3910.3	3981.5	3341.8	3243.6	3236.1	3249.0	3935.1	5993.2	6369.7	6240.2	6164.7
57.5°	2299.8	2341.8	3394.6	3632.0	2800.3	2580.2	4151.9	6295.3	6616.7	6383.7	6299.6
60°	1156.4	1210.3	1236.2	1127.2	1510.2	2353.7	3497.1	4562.9	6767.7	6491.6	6390.2
62.5°	50.7	84.1	33.4	36.7	61.5	820.9	2569.4	4686.9	6895.0	6557.4	6423.6
65°	4.3	4.3	5.4	10.8	27.0	861.9	2859.6	4858.4	6946.8	6550.9	6371.8
67.5°	1.1	1.1	2.2	7.6	19.4	933.1	3200.5	4928.6	6948.9	6440.9	6221.9
70°	0.0	1.1	2.2	6.5	17.3	976.2	3274.9	4914.5	6860.5	6182.0	5881.0
72.5°	0.0	0.0	1.1	5.4	15.1	921.2	3188.6	4886.5	6558.5	5530.5	5103.3
75°	0.0	0.0	1.1	4.3	12.9	937.4	3197.2	4571.5	5726.8	4403.2	3884.4
77.5°	0.0	0.0	1.1	4.3	11.9	865.1	2927.6	3958.8	4526.2	2741.0	2173.6
80°	0.0	0.0	1.1	4.3	10.8	742.1	2407.6	3090.5	2532.8	929.8	599.8
82.5°	0.0	0.0	1.1	4.3	8.6	502.7	1599.7	1544.7	510.2	266.4	239.5
85°	0.0	0.0	1.1	3.2	6.5	299.9	801.5	210.3	197.4	169.4	153.2
87.5°	0.0	0.0	1.1	2.2	4.3	127.3	247.0	64.7	82.0	69.0	61.5
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°	3616.9	3616.9	3616.9	3616.9	3616.9	3616.9	3616.9	3616.9	3616.9	3616.9	3616.9
2.5°	3632.0	3632.0	3643.8	3683.7	3679.4	3711.8	3693.4	3733.4	3736.6	3729.0	3747.4
5°	3646.0	3658.9	3698.8	3740.9	3723.7	3771.1	3793.8	3846.6	3844.5	3838.0	3859.6
7.5°	3685.9	3712.9	3752.8	3803.5	3821.8	3860.6	3862.8	3935.1	3930.8	3927.5	3949.1
10°	3752.8	3788.4	3832.6	3909.2	3898.4	3954.5	3930.8	3983.6	3982.5	3980.4	4002.0
12.5°	3821.8	3873.6	3927.5	4002.0	4000.9	4003.0	3982.5	4009.5	4004.1	3989.0	4005.2
15°	3918.9	3987.9	4062.4	4116.3	4068.8	4059.1	4013.8	3997.6	3966.4	3923.2	3936.2
17.5°	4079.6	4147.6	4242.5	4271.6	4194.0	4149.7	4026.8	3937.2	3840.1	3774.3	3788.4
20°	4224.2	4350.4	4441.0	4438.8	4339.6	4223.1	4032.2	3881.1	3693.4	3566.2	3555.4
22.5°	4044.0	4256.5	4651.3	4604.9	4431.3	4266.2	4025.7	3791.6	3479.9	3282.5	3274.9
25°	4147.6	4151.9	4505.7	4697.7	4472.3	4247.9	3948.0	3635.2	3236.1	3031.1	3019.3
27.5°	4411.9	4388.1	4290.0	4598.5	4434.5	4154.0	3791.6	3368.8	3013.9	2835.9	2827.3
30°	4725.8	4652.4	4421.6	4117.4	4279.2	3971.8	3551.1	3095.9	2813.2	2651.4	2638.5
32.5°	5101.1	4946.9	4541.3	4064.5	3770.0	3696.7	3240.4	2880.1	2647.1	2478.8	2445.4
35°	5546.6	5315.8	4656.7	3975.0	3373.1	3288.9	2948.1	2685.9	2490.7	2320.3	2286.8
37.5°	5545.6	5786.1	4827.2	3852.0	3127.1	2831.6	2735.6	2556.5	2381.8	2175.7	2138.0
40°	5586.6	5594.1	5014.8	3732.3	2897.4	2596.4	2609.4	2492.9	2312.7	2086.2	2047.4
42.5°	6084.9	5718.2	5244.6	3571.6	2680.6	2422.7	2555.4	2470.2	2276.0	2044.1	2001.0
45°	6518.5	6095.7	4740.9	3395.7	2452.9	2287.9	2512.3	2417.4	2224.3	1993.4	1944.9
47.5°	6896.1	6395.6	4869.2	3088.3	2230.7	2177.9	2429.2	2316.0	2131.5	1916.8	1873.7
50°	7183.0	6643.7	4981.4	2675.2	2015.0	2067.9	2294.4	2179.0	2001.0	1827.3	1790.6
51°	7281.2	6723.5	5004.1	2656.8	1900.7	2016.1	2230.7	2118.6	1958.9	1792.8	1759.3
52.5°	7386.9	6827.1	5037.5	2697.8	1738.9	1930.9	2127.2	2029.0	1896.3	1754.0	1716.2
55°	6142.1	6415.0	4952.3	2611.5	1551.2	1761.5	1937.3	1893.1	1819.8	1693.5	1666.6
57.5°	5917.7	5428.0	4107.7	2211.3	1386.1	1559.8	1752.9	1782.0	1725.9	1597.5	1578.1
60°	5966.3	5378.4	3657.9	1649.3	1222.2	1379.6	1614.8	1640.7	1592.2	1495.1	1468.1
62.5°	5957.6	5251.1	3262.0	1161.8	1079.8	1285.8	1515.6	1526.4	1459.5	1378.6	1353.8
65°	5815.2	4958.8	2721.5	879.1	1001.0	1234.0	1457.3	1462.7	1379.6	1276.1	1263.2
67.5°	5498.1	4496.0	1893.1	772.3	956.8	1194.1	1418.5	1394.8	1314.9	1206.0	1186.6
70°	4890.8	3663.2	884.5	710.9	889.9	1120.8	1323.6	1295.5	1208.1	1106.7	1089.5
72.5°	3921.1	2545.7	419.6	650.5	819.8	1029.1	1207.1	1162.8	1090.6	1052.8	1043.1
75°	2566.2	1195.2	350.6	585.7	727.0	918.0	1106.7	1090.6	1023.7	948.2	911.5
77.5°	1040.9	315.0	317.1	519.9	652.6	845.7	999.9	987.0	898.6	830.6	815.5
80°	262.1	236.2	290.2	429.3	568.5	736.7	877.0	840.3	807.9	734.6	710.9
82.5°	199.6	189.9	227.6	332.2	467.1	607.3	748.6	763.7	709.8	653.7	641.8
85°	139.2	172.6	138.1	236.2	346.3	478.9	627.8	654.8	618.1	554.4	511.3
87.5°	76.6	90.6	57.2	124.0	183.4	262.1	360.3	363.5	301.0	276.1	260.0
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)