

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: P591195

Luminaire Tested: **CTN-CA10-210-727-U-T2-SSS-HM-EX180**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591195  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-6)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-210-727-U-T2-SSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16220 lumens  
Efficiency: N/A  
Efficacy: 76.2 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

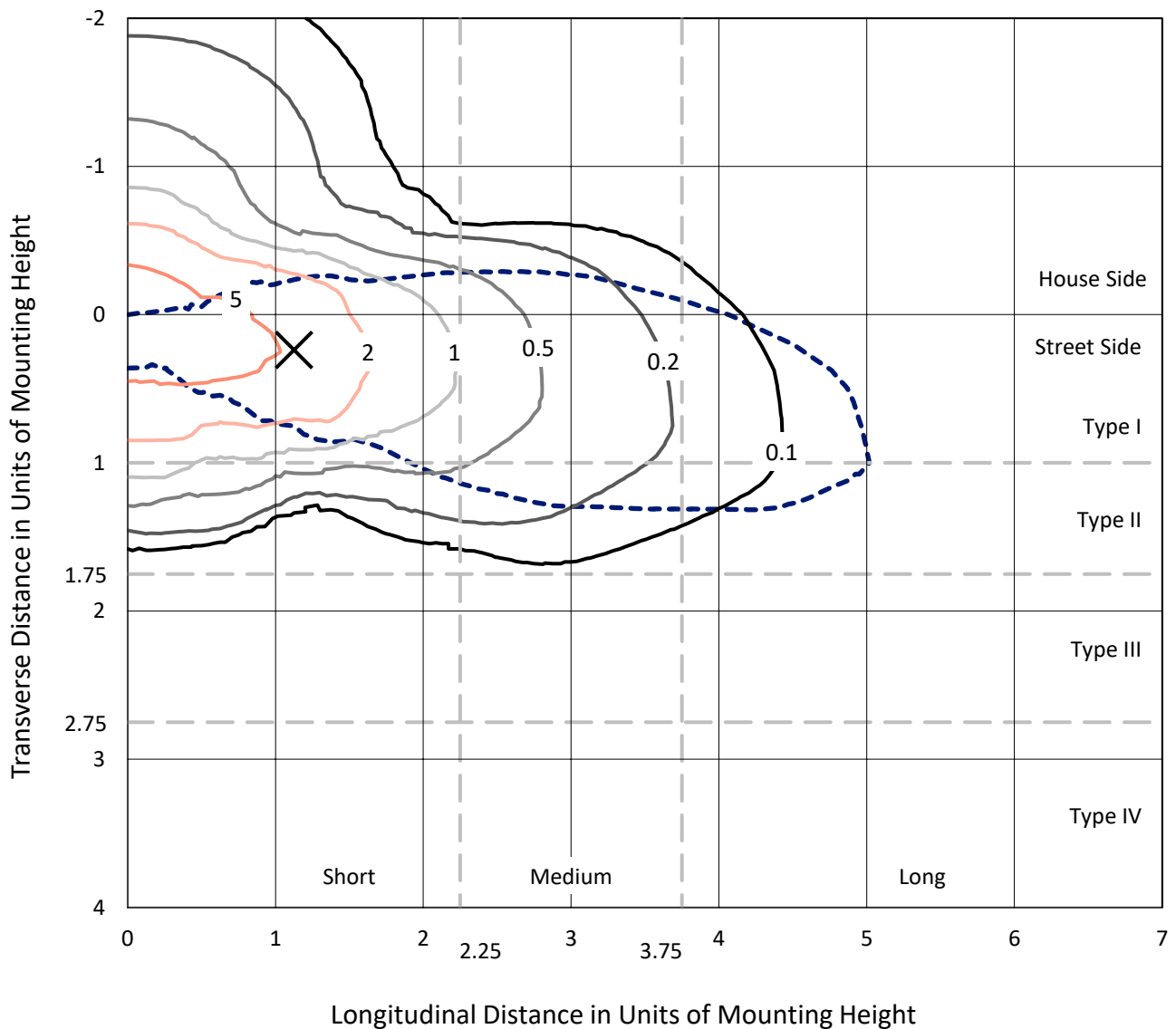
Input Watts (W): 212.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

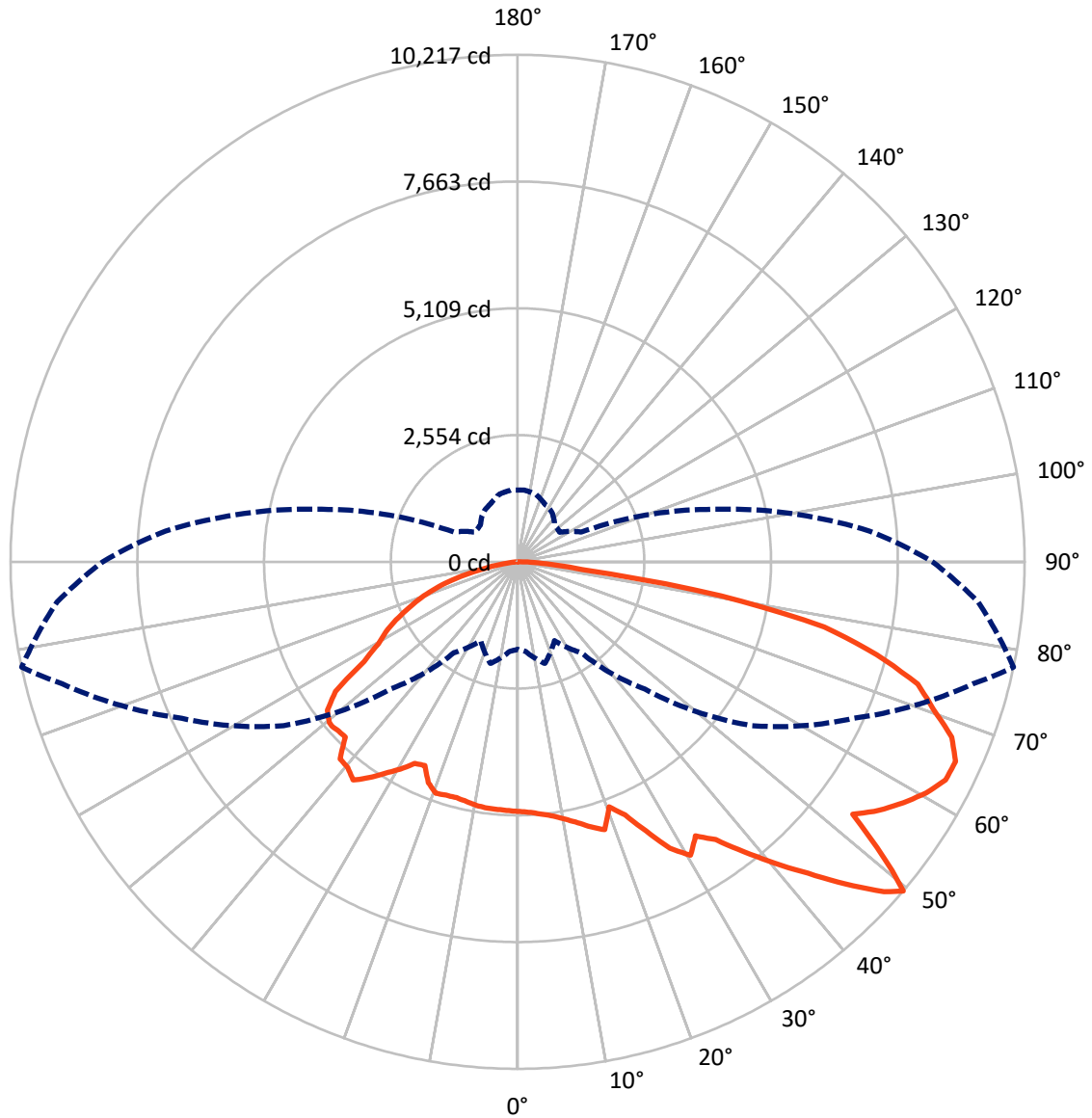
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.3 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral      - - - Horizontal Cone Through 49-Deg Vertical

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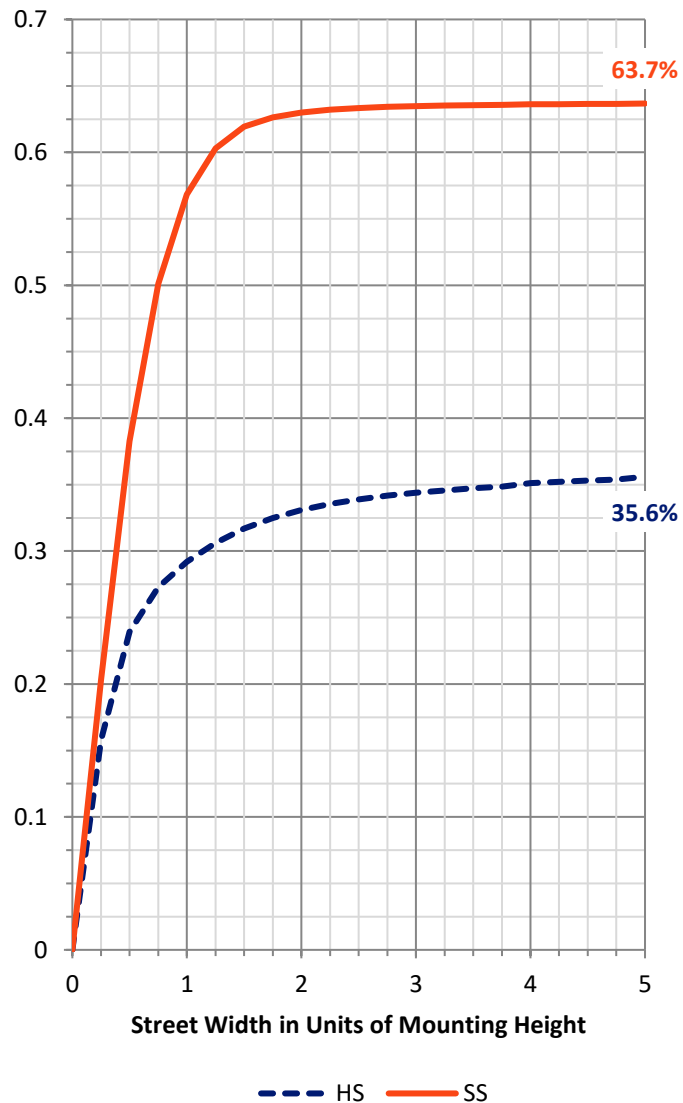
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5925.4	0.0	5925.4
	% Fixture	36.5	0.0	36.5
<b>Street Side</b>	Lumens	10294.6	0.0	10294.6
	% Fixture	63.5	0.0	63.5
<b>Total</b>	Lumens	16220.0	0.0	16220.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	487.5	3.0
10°-20°	1433.7	8.8
20°-30°	2018.6	12.4
30°-40°	2530.4	15.6
40°-50°	2856.1	17.6
50°-60°	2744.3	16.9
60°-70°	2241.9	13.8
70°-80°	1572.8	9.7
80°-90°	334.8	2.1
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°	16220.0	100.0
0°-180°	16220.0	100.0

**Coefficient of Utilization**

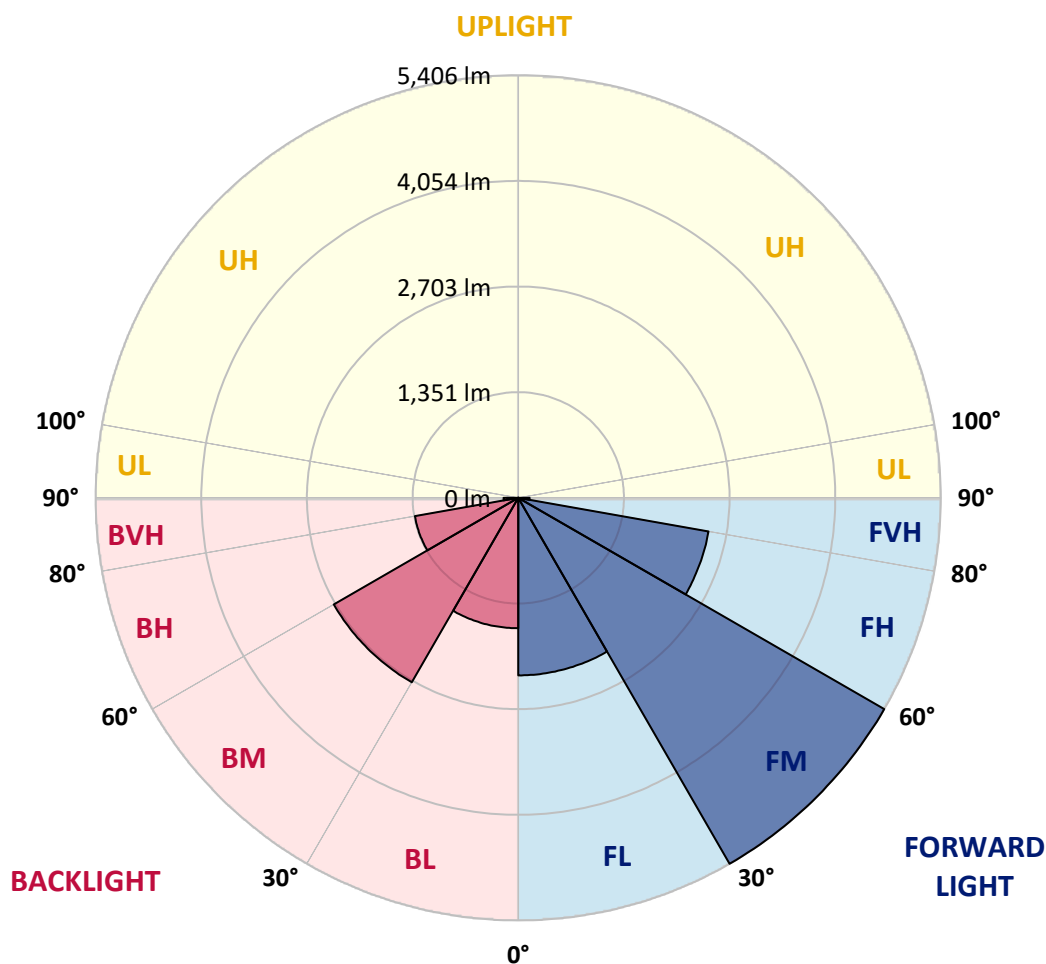


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2271.3	14.0			
FM (30°-60°)	5405.9	33.3			
FH (60°-80°)	2471.6	15.2			G2/5000
FVH (80°-90°)	145.8	0.9			G2/225
BL (0°-30°)	1668.5	10.3	B3/2500		
BM (30°-60°)	2724.8	16.8	B3/5000		
BH (60°-80°)	1343.1	8.3	B3/2500		G3/2500
BVH (80°-90°)	189.0	1.2			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°	78°	85°
0°	5031.1	5031.1	5031.1	5031.1	5031.1	5031.1	5031.1	5031.1	5031.1	5031.1	5031.1
2.5°	5238.4	5190.0	5201.0	5226.5	5127.9	5155.3	5111.4	5130.6	5078.6	5056.6	5065.8
5°	5612.0	5555.4	5568.1	5580.9	5435.7	5373.6	5251.2	5222.9	5143.4	5106.9	5102.3
7.5°	5790.1	5731.6	5745.3	5745.3	5634.8	5644.9	5520.6	5389.1	5230.2	5172.6	5147.1
10°	6076.0	6010.2	6000.2	5982.8	5838.5	5774.6	5671.4	5594.6	5353.5	5271.3	5201.0
12.5°	6285.2	6234.0	6234.9	6215.8	6053.2	6006.6	5824.8	5734.4	5496.0	5396.4	5283.2
15°	6371.9	6335.4	6359.2	6301.6	6192.9	6123.5	6037.6	5892.4	5645.8	5543.5	5403.7
17.5°	5967.3	5901.5	5727.1	5757.2	5749.9	5770.9	5686.9	5772.7	5733.5	5677.8	5585.5
20°	5053.0	5122.4	5244.8	5136.1	5127.9	5401.0	5596.5	5570.0	5350.8	5269.5	5361.7
22.5°	4293.9	4209.0	4467.5	4853.9	4962.6	5241.1	5573.6	5889.7	5642.1	5538.0	5258.5
25°	3612.5	3698.4	4100.3	4684.9	5026.5	5108.7	5489.6	6084.2	6123.5	6010.2	5647.6
27.5°	3504.8	3503.8	3775.1	4341.4	5118.7	5376.3	5493.2	5987.4	6610.3	6532.7	6116.2
30°	3480.1	3467.3	3570.5	4144.1	4867.6	5616.6	5844.0	6017.5	6606.7	6866.1	6651.5
32.5°	3374.1	3364.1	3470.0	3739.5	4525.9	5845.8	6180.1	6408.5	6442.3	6583.9	7194.9
35°	3204.2	3228.0	3366.8	3664.6	4245.5	5394.6	6520.8	6878.0	6959.3	6876.1	6880.7
37.5°	3041.7	3059.9	3202.4	3531.2	4040.9	4388.0	6754.7	7329.2	7510.1	7415.1	6971.1
40°	2830.7	2856.2	3025.2	3389.7	3906.7	3787.0	6415.8	7859.0	8110.2	7988.7	7485.4
42.5°	2593.2	2605.0	2805.1	3156.7	2801.4	3807.1	5936.3	8344.9	8696.6	8576.0	7968.6
45°	2390.4	2397.7	2561.2	2785.0	2525.6	3775.1	5604.7	8114.7	9381.6	9261.1	8480.1
47.5°	2105.4	2157.5	2334.7	1925.5	2345.6	3696.6	5716.1	7195.8	10023.8	9934.2	8977.0
49°	1763.8	1810.4	2121.9	1753.7	2234.2	3626.2	5754.5	7464.4	9503.1	10217.4	9317.7
50°	1621.3	1655.1	1625.9	1692.5	2152.9	3555.0	5693.3	7680.9	8734.0	9785.4	9536.9
52.5°	1409.4	1311.7	1117.1	1519.9	1965.7	3277.3	4691.3	8262.7	8653.6	8456.3	8935.9
55°	595.5	848.6	988.3	1246.8	1776.6	1989.4	4344.2	8896.6	9041.8	8842.7	8029.8
57.5°	465.8	475.0	543.5	928.0	982.8	1540.9	4202.6	9168.8	9335.0	9162.4	8341.3
60°	68.5	67.6	89.5	106.9	243.9	708.8	2746.6	6526.3	9009.9	9460.2	8626.2
62.5°	24.7	25.6	25.6	30.1	44.8	310.6	1996.7	6088.8	9227.3	9678.5	8864.6
65°	1.8	2.7	4.6	10.0	23.7	293.2	1771.1	6196.6	9156.9	9699.5	8980.6
67.5°	0.0	0.9	2.7	7.3	19.2	288.6	1646.9	6014.8	8861.9	9432.8	8726.7
70°	0.0	0.0	1.8	6.4	17.4	277.7	1430.4	5398.3	8334.0	8885.7	8264.5
72.5°	0.0	0.0	1.8	6.4	15.5	264.9	1175.6	4752.5	7853.5	8430.8	7594.1
75°	0.0	0.0	1.8	5.5	13.7	241.1	859.5	3444.5	7035.1	7476.3	6642.3
77.5°	0.0	0.0	1.8	5.5	12.8	208.3	580.9	1973.9	5788.3	6321.7	5580.9
80°	0.0	0.0	1.8	4.6	11.9	158.0	328.8	985.6	3025.2	4155.1	3988.9
82.5°	0.0	0.0	1.8	4.6	9.1	84.0	153.5	430.2	1115.3	1316.2	1536.4
85°	0.0	0.0	1.8	3.7	7.3	21.0	52.1	204.6	609.2	676.8	660.4
87.5°	0.0	0.0	1.8	3.7	5.5	8.2	17.4	58.5	225.6	252.1	215.6
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5031.1	5031.1	5031.1	5031.1	5031.1	5031.1	5031.1	5031.1	5031.1	5031.1	5031.1
2.5°	5063.9	5035.6	5009.1	5012.8	4949.8	4936.1	4876.7	4913.2	4888.6	4857.5	4877.6
5°	5074.9	5038.4	4991.8	4939.7	4801.8	4752.5	4670.3	4694.0	4661.1	4624.6	4643.8
7.5°	5098.7	5055.7	4979.0	4843.8	4683.1	4596.3	4501.3	4582.6	4572.5	4551.5	4572.5
10°	5108.7	5071.3	4940.6	4783.5	4560.7	4501.3	4429.1	4415.4	4418.2	4422.7	4453.8
12.5°	5135.2	5079.5	4878.5	4692.2	4489.4	4371.6	4300.3	4342.4	4255.6	4217.2	4233.7
15°	5200.0	5094.1	4830.1	4565.2	4363.4	4270.2	4094.8	4094.8	4072.9	4035.4	4046.4
17.5°	5330.7	5152.5	4817.3	4481.2	4222.7	4061.9	3901.2	3816.2	3792.5	3804.4	3811.7
20°	5401.0	5260.3	4810.9	4370.7	4064.7	3878.3	3634.5	3574.2	3494.7	3505.7	3518.5
22.5°	4978.1	4794.5	4800.9	4235.5	3869.2	3632.6	3365.9	3260.9	3212.5	3203.3	3228.0
25°	5279.5	4909.6	4338.7	4161.5	3654.6	3353.1	3082.8	2938.4	2864.5	2859.9	2875.4
27.5°	5679.6	5226.5	4274.8	3814.4	3426.2	3014.3	2715.6	2612.4	2539.3	2535.6	2538.4
30°	6145.4	5649.4	4433.7	3386.9	3116.6	2623.3	2385.8	2312.8	2246.1	2216.8	2217.8
32.5°	6663.3	6032.2	4587.1	3304.7	2498.2	2282.6	2098.1	2041.5	1950.1	1908.1	1896.2
35°	7148.3	6438.6	4779.0	3166.8	2167.5	1979.4	1849.7	1773.8	1702.6	1667.0	1655.1
37.5°	6720.9	6813.1	4948.9	3053.5	1915.4	1640.5	1604.9	1554.6	1518.1	1490.7	1486.1
40°	6818.6	6137.2	5049.3	2839.8	1655.1	1433.1	1375.6	1400.3	1437.7	1414.9	1414.0
42.5°	7144.7	6242.2	4958.0	2543.8	1448.7	1235.8	1252.3	1344.5	1423.1	1408.5	1410.3
45°	7611.4	6570.2	4254.7	2190.4	1248.6	1113.4	1220.3	1328.1	1426.7	1431.3	1431.3
47.5°	8094.6	6939.2	4124.0	1719.0	1101.6	1065.9	1214.8	1308.0	1421.3	1450.5	1446.8
49°	8362.3	7118.2	4087.5	1414.9	1035.8	1055.9	1213.9	1288.8	1410.3	1451.4	1446.8
50°	8518.5	7240.6	4019.0	1293.4	997.4	1054.1	1214.8	1276.9	1399.3	1445.0	1443.2
52.5°	8846.4	7395.9	3779.7	1065.0	904.3	1047.7	1229.4	1266.0	1365.5	1414.0	1432.2
55°	7310.0	7133.7	3377.8	956.3	862.3	1034.9	1229.4	1272.4	1336.3	1364.6	1382.0
57.5°	7400.4	6099.8	2656.2	902.4	833.9	1021.2	1210.3	1271.5	1320.8	1325.4	1319.9
60°	7676.3	6241.3	1980.3	847.6	801.1	1003.8	1169.2	1242.2	1279.7	1279.7	1263.2
62.5°	7841.6	6308.0	1583.9	787.4	766.4	968.2	1108.0	1185.6	1213.9	1198.4	1195.7
65°	7882.7	6361.9	1149.1	722.5	727.1	929.9	1044.9	1112.5	1151.8	1125.3	1130.8
67.5°	7741.1	5977.4	839.4	655.8	682.3	877.8	982.8	1043.1	1071.4	1057.7	1060.5
70°	7217.8	5559.0	591.0	541.7	610.2	797.4	904.3	973.7	988.3	964.6	968.2
72.5°	6376.5	4913.2	372.7	423.8	537.1	723.4	812.0	855.9	858.6	887.8	903.4
75°	5553.5	3942.3	269.5	334.3	426.6	618.4	741.7	782.8	812.9	959.1	982.8
77.5°	4451.0	2494.5	229.3	264.0	335.2	513.3	661.3	724.3	995.6	1067.8	1049.5
80°	2697.3	1549.1	172.6	208.3	279.5	394.6	566.3	746.3	1007.5	939.9	901.5
82.5°	1245.0	673.2	116.9	169.9	222.0	294.1	446.7	871.4	863.2	719.8	712.5
85°	447.6	199.1	63.9	121.5	155.3	202.8	343.4	863.2	676.8	604.7	566.3
87.5°	114.2	35.6	26.5	59.4	78.6	107.8	187.2	456.7	351.7	309.6	298.7
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)