

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: P591254

Luminaire Tested: **CTN-CA8-230-727-U-T2-SSS-HM-EX120**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591254
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-5)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-230-727-U-T2-SSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18591 lumens
Efficiency: N/A
Efficacy: 81.4 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

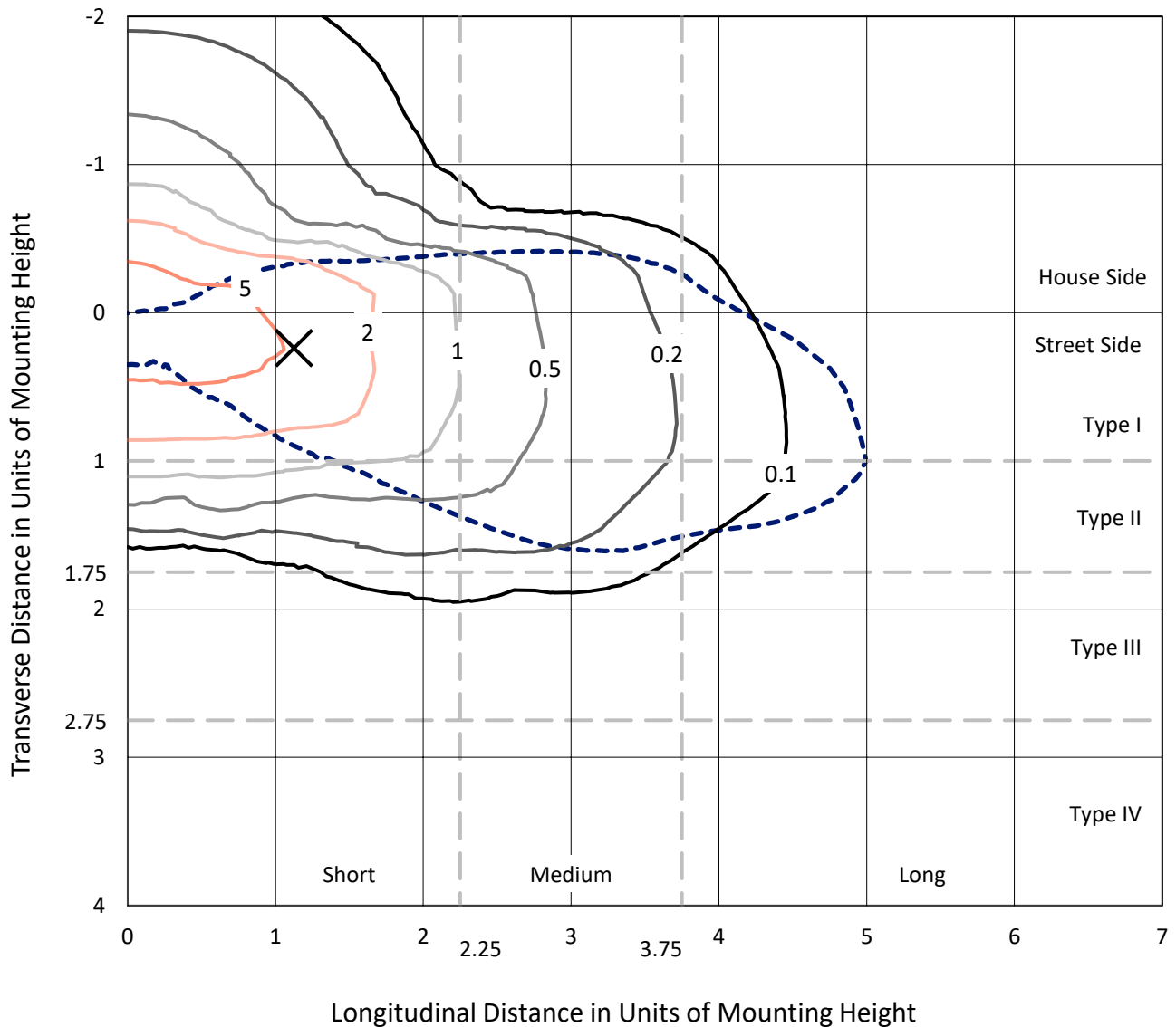
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

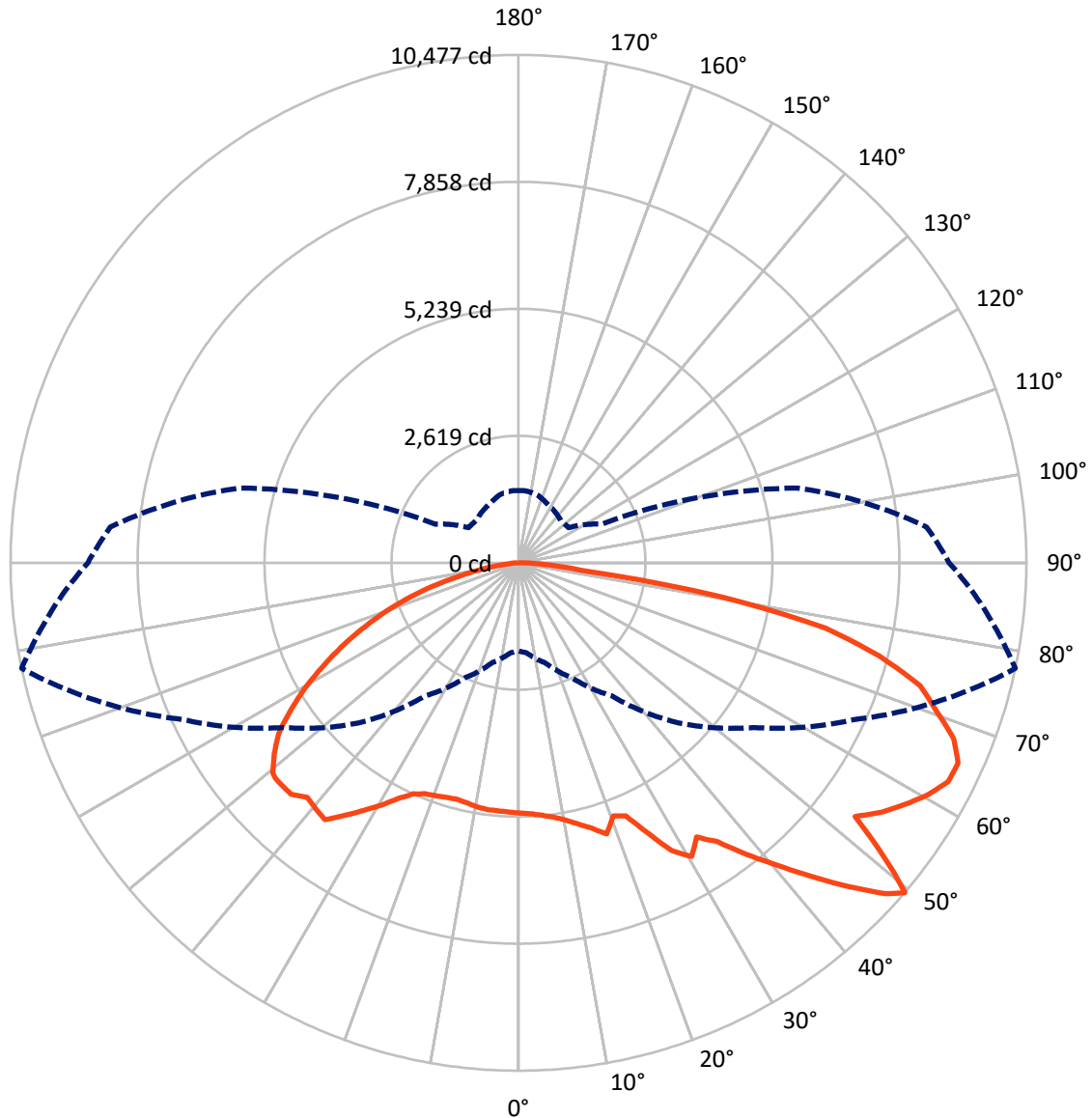
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.4 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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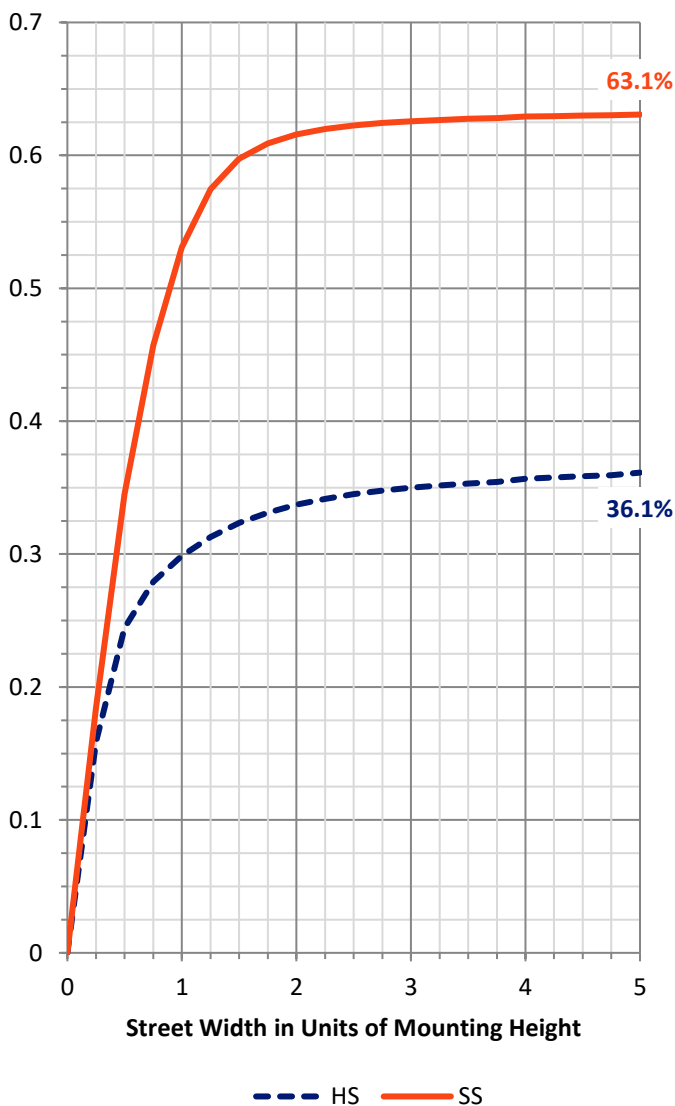
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6883.6	0.0	6883.6
	% Fixture	37.0	0.0	37.0
Street Side	Lumens	11707.4	0.0	11707.4
	% Fixture	63.0	0.0	63.0
Total	Lumens	18591.0	0.0	18591.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	500.4	2.7
10°-20°	1472.7	7.9
20°-30°	2102.2	11.3
30°-40°	2706.3	14.6
40°-50°	3174.5	17.1
50°-60°	3274.9	17.6
60°-70°	2973.5	16.0
70°-80°	1974.8	10.6
80°-90°	411.8	2.2
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°	18591.0	100.0
0°-180°	18591.0	100.0

Coefficient of Utilization

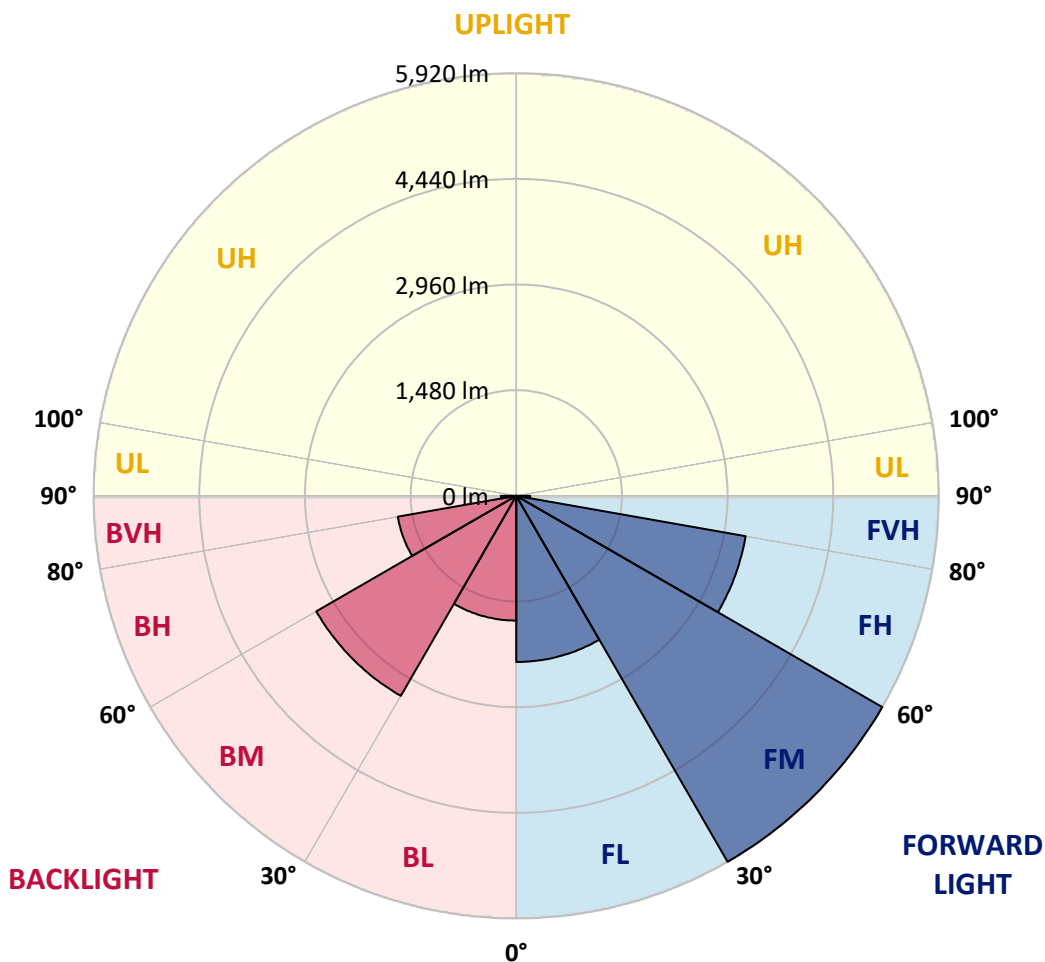


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2327.8	12.5			
FM (30°-60°)	5919.9	31.8			
FH (60°-80°)	3263.4	17.6			G2/5000
FVH (80°-90°)	196.3	1.1			G2/225
BL (0°-30°)	1747.5	9.4	B3/2500		
BM (30°-60°)	3235.7	17.4	B3/5000		
BH (60°-80°)	1684.9	9.1	B3/2500		G3/2500
BVH (80°-90°)	215.5	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°	5162.5	5162.5	5162.5	5162.5	5162.5	5162.5	5162.5	5162.5	5162.5	5162.5	5162.5
2.5°	5373.6	5332.3	5345.5	5368.0	5265.7	5288.2	5244.1	5262.0	5207.6	5186.9	5196.3
5°	5753.6	5709.5	5725.4	5732.9	5584.7	5524.6	5386.7	5357.7	5272.3	5234.8	5231.0
7.5°	5941.2	5893.3	5897.1	5901.8	5783.6	5792.0	5667.2	5518.1	5359.5	5302.3	5277.0
10°	6249.8	6183.2	6160.7	6151.3	5991.8	5925.2	5816.4	5734.8	5487.1	5400.8	5336.1
12.5°	6440.3	6391.5	6391.5	6382.1	6213.2	6161.6	5967.4	5881.1	5637.2	5535.0	5423.3
15°	6475.0	6442.1	6484.4	6475.9	6365.2	6305.2	6218.9	6038.7	5789.2	5683.2	5551.9
17.5°	6082.8	5995.6	5828.6	5853.9	5854.9	5976.8	5917.7	6041.6	5968.4	5882.1	5740.4
20°	4995.5	5025.6	5292.9	5228.2	5203.8	5462.7	5727.3	5734.8	5589.4	5575.3	5766.7
22.5°	4352.0	4245.0	4542.4	4974.9	5002.1	5348.3	5656.9	6028.4	5795.8	5671.0	5524.6
25°	3706.6	3746.0	4194.4	4754.4	5150.3	5227.3	5581.9	6174.8	6274.2	6158.8	5853.0
27.5°	3594.9	3593.0	3788.2	4409.2	5221.6	5510.6	5627.8	6092.2	6785.5	6720.8	6334.3
30°	3570.5	3555.5	3657.8	4173.7	4890.5	5765.7	5989.0	6155.1	6745.2	7033.2	6872.7
32.5°	3463.6	3450.4	3559.3	3829.4	4625.0	5952.4	6333.3	6581.0	6608.2	6744.2	7441.2
35°	3295.7	3306.0	3457.0	3750.6	4241.3	5504.0	6686.1	7060.4	7158.9	7065.1	7161.7
37.5°	3124.0	3135.2	3283.5	3616.5	4174.7	5316.4	6914.0	7523.8	7728.3	7627.9	7181.4
40°	2911.0	2928.8	3100.5	3474.8	4097.8	4893.3	6445.9	8050.1	8327.8	8196.4	7699.2
42.5°	2669.0	2676.5	2871.6	3259.1	4000.2	4918.6	5962.8	8536.0	8909.4	8837.2	8209.6
45°	2458.8	2458.8	2636.1	2981.4	3777.9	4870.8	5758.2	8173.9	9623.3	9521.1	8720.9
47.5°	2172.7	2198.0	2406.3	2748.7	3516.1	4760.1	5875.5	7360.6	10288.5	10203.1	9234.0
49°	1820.0	1863.1	2138.0	2621.1	3348.2	4668.1	5922.4	7647.6	9829.7	10477.0	9567.1
50°	1675.5	1698.0	1700.8	2530.1	3223.4	4584.6	5944.0	7868.1	9055.8	10035.2	9800.6
52.5°	1450.3	1308.7	1163.3	2277.8	2972.9	4276.0	5957.1	8466.6	8870.0	8694.6	9618.7
55°	612.6	802.1	1019.7	1863.1	2702.8	3894.2	5914.0	9124.3	9278.1	9084.9	8247.1
57.5°	463.4	493.5	547.9	1445.7	1936.3	3458.9	5768.6	9540.8	9622.4	9402.9	8582.0
60°	67.5	69.4	97.6	586.3	1108.9	2469.2	5245.1	9528.6	9878.5	9709.6	8871.0
62.5°	28.1	29.1	37.5	480.3	854.6	1900.7	4788.2	9369.1	10127.1	9946.1	9142.1
65°	4.7	5.6	15.9	425.0	706.4	1775.9	4287.3	9401.0	10038.9	9963.9	9247.2
67.5°	3.8	4.7	15.0	381.8	582.6	1625.8	3792.9	8893.5	9717.2	9684.3	8966.6
70°	3.8	4.7	15.9	345.2	503.8	1432.5	3182.1	8190.8	9127.1	9140.2	8495.7
72.5°	4.7	4.7	15.9	308.6	438.1	1224.3	2517.9	7252.7	8591.4	8663.6	7825.9
75°	4.7	4.7	15.0	268.3	376.2	1020.7	1813.4	5333.3	7704.9	7683.3	6863.4
77.5°	4.7	4.7	15.0	213.0	312.4	839.6	1181.1	3003.9	6380.2	6471.2	5738.5
80°	4.7	4.7	15.0	155.7	244.9	629.5	715.8	1537.6	3406.4	4216.9	3947.7
82.5°	4.7	4.7	15.0	105.1	167.9	363.1	412.8	778.6	1223.3	1340.6	1568.6
85°	3.8	3.8	11.3	62.9	86.3	128.5	198.9	414.7	668.9	698.9	682.0
87.5°	1.9	1.9	5.6	22.5	37.5	46.9	89.1	167.0	245.8	251.4	218.6
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°	5162.5	5162.5	5162.5	5162.5	5162.5	5162.5	5162.5	5162.5	5162.5	5162.5	5162.5
2.5°	5196.3	5166.3	5139.1	5143.8	5085.6	5068.7	5004.0	5037.8	5004.9	4975.8	5003.0
5°	5204.7	5168.2	5118.4	5070.6	4937.4	4875.5	4797.6	4817.3	4773.2	4738.5	4768.5
7.5°	5229.1	5184.1	5107.2	4971.2	4812.6	4714.1	4625.9	4712.2	4701.9	4675.6	4706.6
10°	5240.4	5201.9	5069.7	4910.2	4688.8	4626.9	4547.1	4546.2	4549.0	4553.7	4584.6
12.5°	5270.4	5212.3	5003.0	4817.3	4611.8	4486.1	4428.0	4474.9	4390.4	4340.7	4362.3
15°	5341.7	5235.7	4958.0	4686.9	4492.7	4388.6	4202.8	4218.8	4200.9	4152.2	4173.7
17.5°	5482.4	5301.4	4956.1	4604.3	4340.7	4170.9	4008.6	3931.7	3907.3	3911.1	3929.8
20°	5655.0	5417.7	4959.9	4498.3	4182.2	3985.2	3734.7	3681.2	3600.5	3602.4	3607.1
22.5°	5545.3	5551.9	4961.8	4377.3	3984.2	3737.5	3472.0	3366.9	3305.0	3289.1	3312.5
25°	5842.7	5812.7	4990.9	4312.6	3776.0	3444.8	3167.1	3033.0	2940.1	2932.6	2958.9
27.5°	6238.6	6184.2	5141.0	4172.8	3555.5	3094.0	2792.8	2691.5	2611.8	2583.6	2602.4
30°	6719.8	6656.0	5348.3	4064.0	3258.1	2716.8	2458.8	2389.4	2310.6	2259.0	2263.7
32.5°	7222.7	7086.6	5561.2	3972.0	2953.2	2386.6	2166.1	2104.2	2011.4	1944.7	1960.7
35°	7729.3	7536.0	5798.6	3809.7	2580.8	2095.8	1917.5	1834.0	1758.1	1698.0	1687.7
37.5°	7328.7	8061.4	6028.4	3658.7	2289.0	1874.4	1672.7	1613.6	1568.6	1521.6	1520.7
40°	7361.5	7529.4	6164.5	3391.3	1963.5	1647.4	1444.7	1465.4	1484.1	1448.5	1448.5
42.5°	7687.0	7447.8	6110.0	3036.7	1721.5	1420.3	1327.5	1410.9	1470.1	1444.7	1443.8
45°	8145.8	7835.3	6202.9	2637.1	1486.0	1280.5	1294.6	1396.9	1473.8	1469.1	1467.2
47.5°	8632.7	8276.2	6024.7	2162.4	1323.7	1237.4	1294.6	1376.2	1468.2	1489.8	1485.1
49°	8883.2	8450.7	5953.4	1885.6	1259.0	1231.8	1296.5	1359.4	1457.9	1490.7	1486.0
50°	9036.1	8544.5	5861.4	1728.0	1224.3	1232.7	1300.2	1349.0	1448.5	1485.1	1482.2
52.5°	9380.4	8687.1	5405.5	1454.1	1168.0	1235.5	1324.6	1338.7	1413.8	1453.2	1473.8
55°	9029.5	9012.6	4823.9	1328.4	1138.0	1229.0	1335.0	1348.1	1384.7	1406.3	1422.2
57.5°	8975.1	9154.3	4091.2	1260.8	1111.7	1219.6	1322.8	1347.2	1368.7	1365.0	1358.4
60°	9147.7	9278.1	3336.0	1194.2	1081.7	1204.6	1282.4	1318.1	1324.6	1315.3	1300.2
62.5°	9174.9	9311.9	2563.9	1126.7	1048.8	1168.0	1223.3	1259.0	1259.0	1235.5	1229.9
65°	9048.3	9100.8	1889.4	1048.8	1009.4	1125.8	1153.9	1180.2	1192.4	1161.4	1163.3
67.5°	8685.2	8381.3	1434.4	956.0	961.6	1067.6	1087.3	1105.1	1107.9	1090.1	1088.2
70°	7955.3	7576.3	1025.4	815.2	874.3	975.7	1005.7	1032.9	1023.5	992.5	987.9
72.5°	6854.9	6518.1	697.0	652.9	769.3	887.5	906.2	907.2	888.4	910.9	926.9
75°	5897.1	5091.2	519.7	520.7	616.4	765.5	823.7	828.4	836.8	960.6	986.0
77.5°	4686.0	3317.2	442.8	410.9	472.8	637.0	728.9	762.7	1012.2	1097.6	1086.4
80°	2878.2	1991.7	343.4	325.5	384.6	489.7	626.7	779.6	1032.9	971.0	938.1
82.5°	1348.1	909.0	247.7	249.5	286.1	357.4	495.3	907.2	892.2	736.4	727.1
85°	521.6	314.3	150.1	169.8	192.3	242.0	379.9	895.0	693.3	623.9	577.9
87.5°	134.2	61.0	65.7	69.4	85.4	127.6	207.3	469.1	364.9	319.9	314.3
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)