

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: P591279

Luminaire Tested: **CTN-CA8-480-727-U-T2-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591279
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-CA8-480-727-U-T2-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D 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: 33028 lumens
Efficiency: N/A
Efficacy: 68.7 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

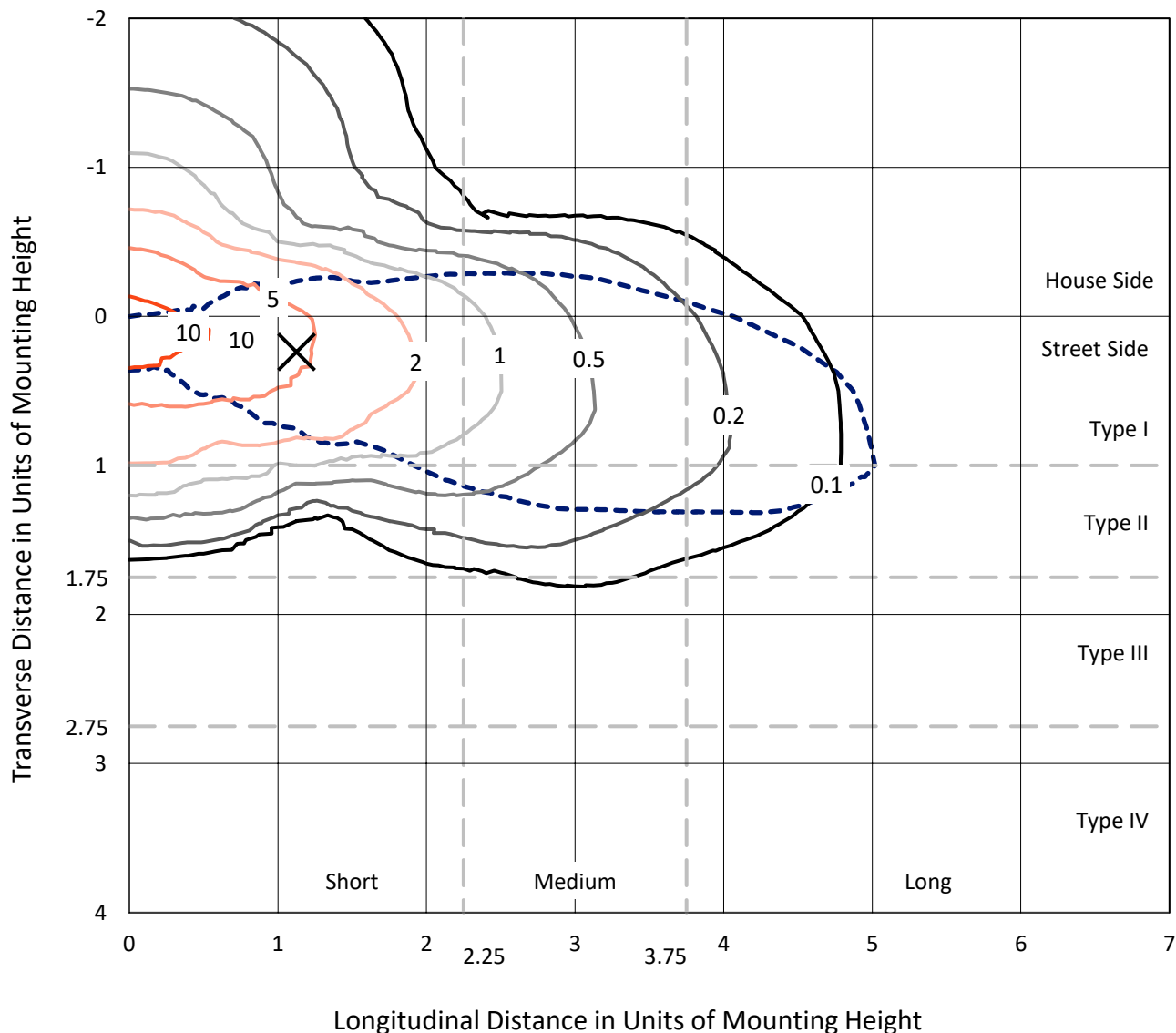
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

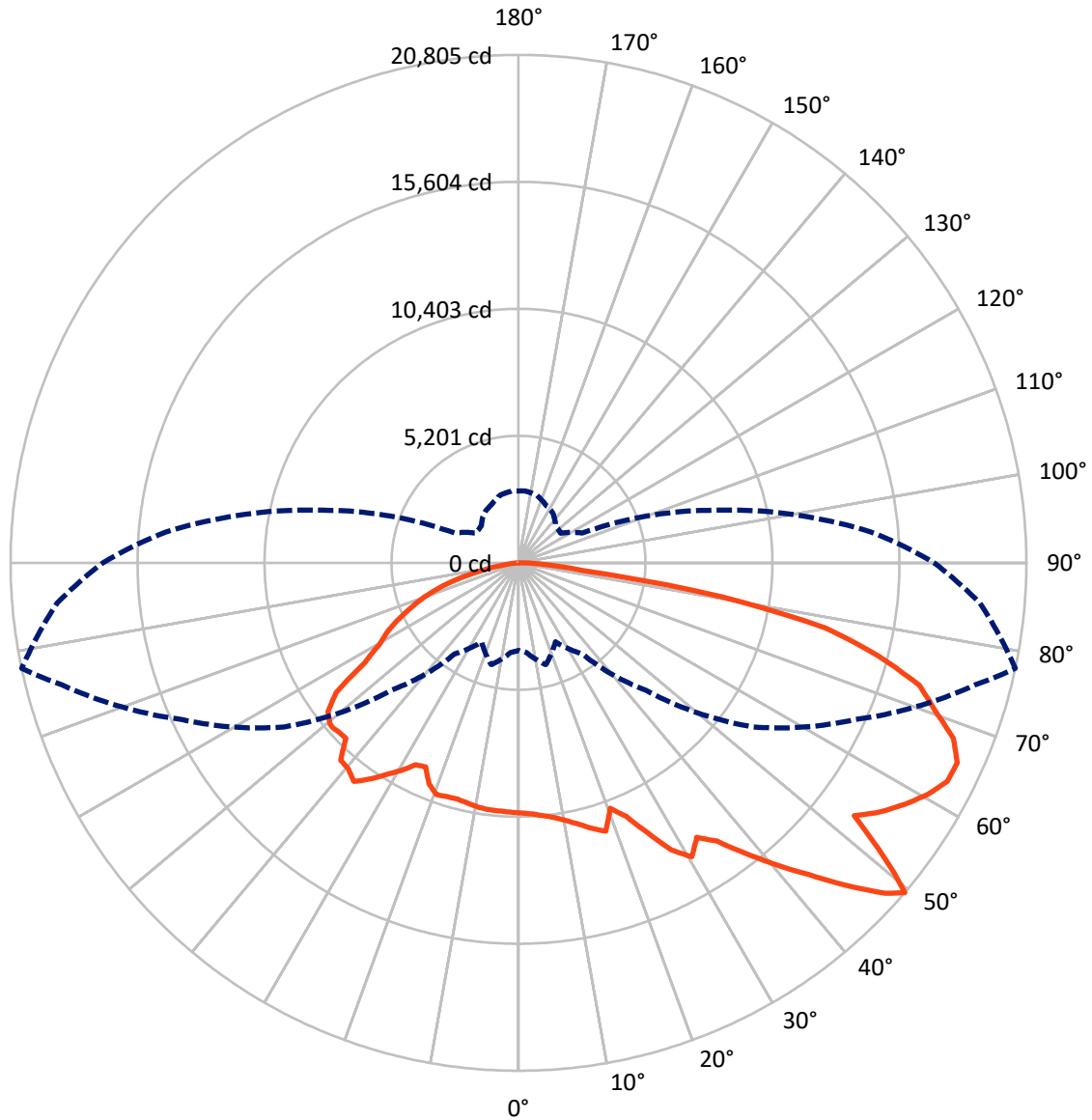
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 13.1 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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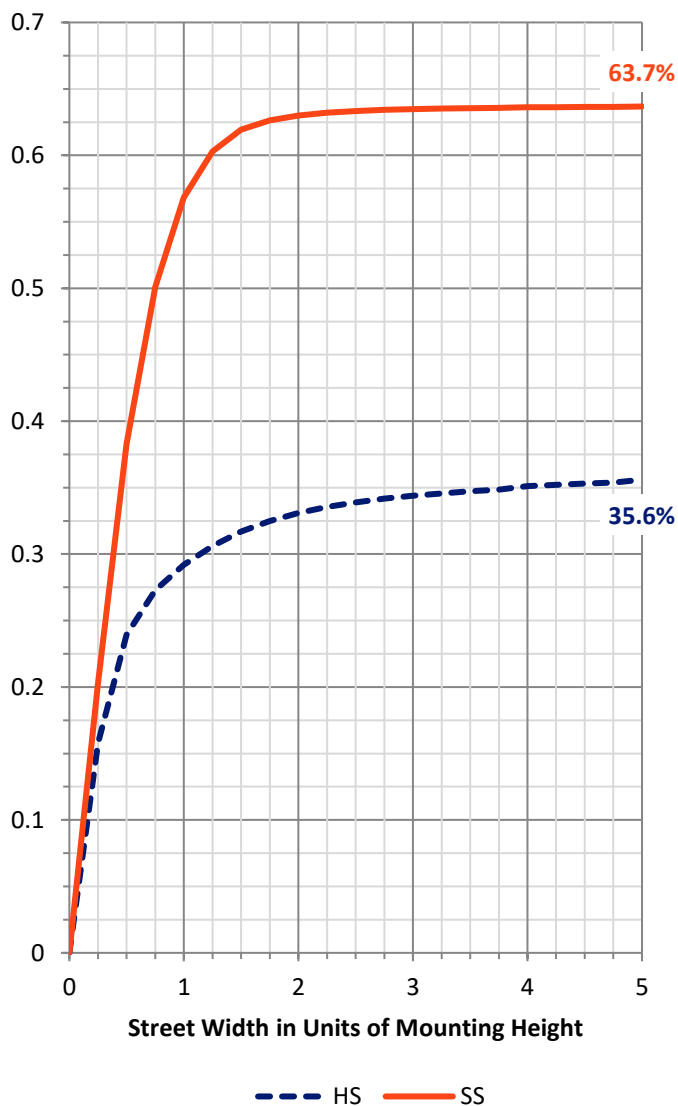
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12065.7	0.0	12065.7
	% Fixture	36.5	0.0	36.5
Street Side	Lumens	20962.4	0.0	20962.4
	% Fixture	63.5	0.0	63.5
Total	Lumens	33028.0	0.0	33028.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	992.6	3.0
10°-20°	2919.3	8.8
20°-30°	4110.3	12.4
30°-40°	5152.4	15.6
40°-50°	5815.7	17.6
50°-60°	5588.1	16.9
60°-70°	4565.1	13.8
70°-80°	3202.6	9.7
80°-90°	681.8	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°	33028.0	100.0
0°-180°	33028.0	100.0

Coefficient of Utilization

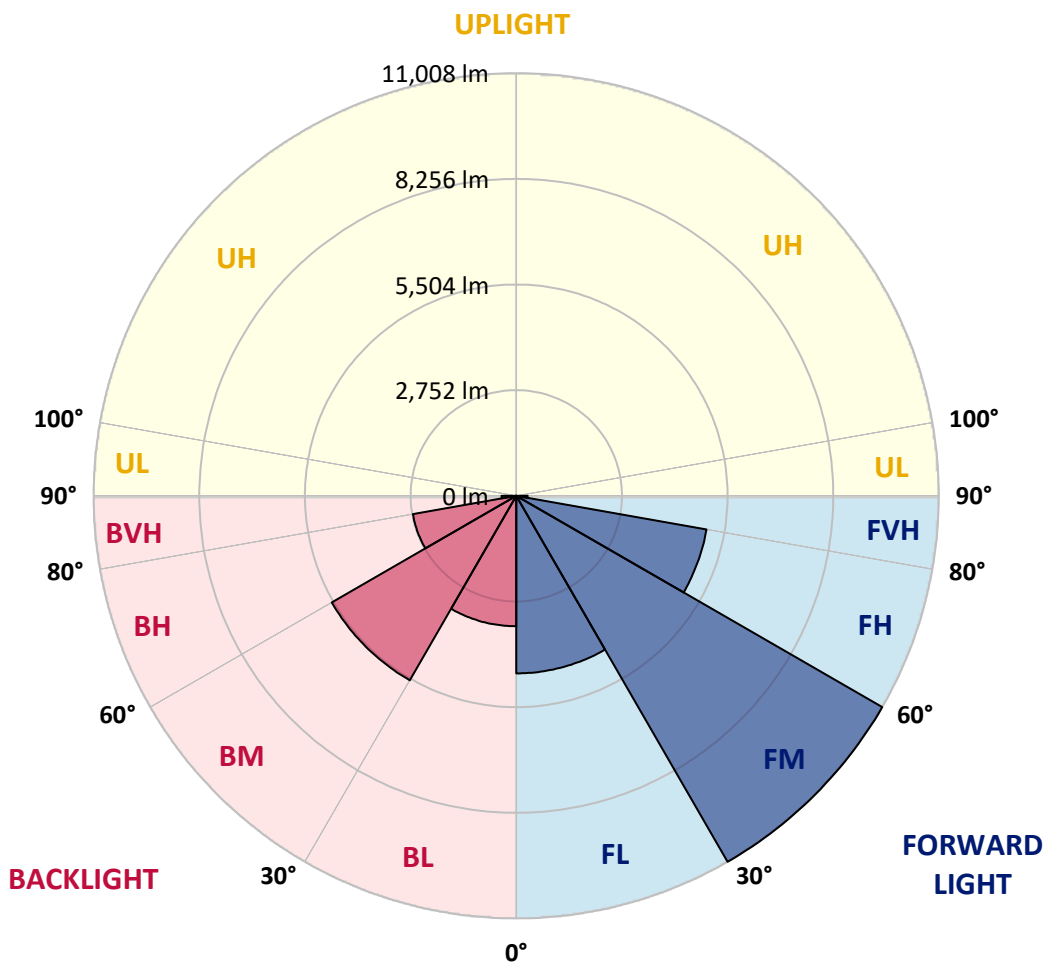


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4624.9	14.0			
FM (30°-60°)	11007.8	33.3			
FH (60°-80°)	5032.8	15.2			G3/7500
FVH (80°-90°)	296.9	0.9			G3/500
BL (0°-30°)	3397.5	10.3	B4/5000		
BM (30°-60°)	5548.4	16.8	B4/8500		
BH (60°-80°)	2734.9	8.3	B4/5000		G4/5000
BVH (80°-90°)	384.9	1.2			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	10244.5	10244.5	10244.5	10244.5	10244.5	10244.5	10244.5	10244.5	10244.5	10244.5	10244.5
2.5°	10666.7	10568.1	10590.5	10642.5	10441.7	10497.5	10408.2	10447.2	10341.2	10296.6	10315.2
5°	11427.4	11312.1	11338.1	11364.2	11068.5	10942.0	10692.7	10635.1	10473.3	10398.9	10389.6
7.5°	11790.1	11671.1	11699.0	11699.0	11473.9	11494.4	11241.4	10973.6	10650.0	10532.8	10480.7
10°	12372.3	12238.4	12217.9	12182.6	11888.7	11758.5	11548.3	11392.1	10901.1	10733.7	10590.5
12.5°	12798.2	12694.0	12695.9	12656.8	12325.8	12230.9	11860.8	11676.7	11191.2	10988.5	10757.8
15°	12974.9	12900.5	12948.8	12831.7	12610.3	12469.0	12294.2	11998.4	11496.2	11287.9	11003.4
17.5°	12150.9	12017.0	11661.8	11723.2	11708.3	11751.1	11579.9	11754.8	11674.8	11561.3	11373.5
20°	10289.1	10430.5	10679.7	10458.4	10441.7	10997.8	11395.8	11341.9	10895.5	10729.9	10917.8
22.5°	8743.5	8570.6	9096.9	9883.7	10105.0	10672.3	11349.3	11992.8	11488.8	11276.8	10707.6
25°	7356.0	7530.9	8349.2	9539.6	10235.2	10402.6	11178.2	12389.0	12469.0	12238.4	11500.0
27.5°	7136.6	7134.7	7687.1	8840.3	10423.1	10947.6	11185.6	12191.9	13460.3	13302.2	12454.1
30°	7086.3	7060.3	7270.5	8438.5	9911.6	11436.7	11899.8	12253.2	13452.9	13981.1	13544.0
32.5°	6870.6	6850.1	7065.9	7614.6	9216.0	11903.6	12584.3	13049.3	13118.1	13406.4	14650.7
35°	6524.6	6573.0	6855.7	7462.0	8645.0	10984.8	13278.1	14005.3	14170.8	14001.6	14010.9
37.5°	6193.6	6230.8	6520.9	7190.5	8228.3	8935.1	13754.2	14924.1	15292.4	15098.9	14195.0
40°	5763.9	5816.0	6160.1	6902.2	7954.9	7711.3	13064.2	16002.9	16514.3	16267.0	15242.1
42.5°	5280.3	5304.5	5711.9	6427.9	5704.4	7752.2	12087.7	16992.3	17708.4	17462.9	16226.0
45°	4867.4	4882.3	5215.2	5670.9	5142.7	7687.1	11412.5	16523.6	19103.4	18857.9	17267.6
47.5°	4287.1	4393.2	4754.0	3920.7	4776.3	7527.1	11639.5	14652.5	20410.9	20228.6	18279.4
49°	3591.5	3686.4	4320.6	3571.1	4549.4	7383.9	11717.6	15199.4	19350.7	20805.2	18973.2
50°	3301.4	3370.2	3310.7	3446.5	4383.9	7238.9	11593.0	15640.2	17784.7	19925.5	19419.6
52.5°	2869.9	2670.9	2274.7	3094.9	4002.6	6673.4	9552.6	16824.9	17621.0	17219.3	18195.7
55°	1212.7	1727.9	2012.4	2538.8	3617.6	4050.9	8845.8	18115.7	18411.5	18006.0	16350.7
57.5°	948.6	967.2	1106.7	1889.7	2001.3	3137.7	8557.5	18670.0	19008.5	18657.0	16984.9
60°	139.5	137.6	182.3	217.6	496.6	1443.3	5592.8	13289.2	18346.4	19263.3	17565.2
62.5°	50.2	52.1	52.1	61.4	91.1	632.4	4065.8	12398.3	18789.0	19707.8	18050.6
65°	3.7	5.6	9.3	20.5	48.4	597.0	3606.4	12617.8	18645.8	19750.6	18286.9
67.5°	0.0	1.9	5.6	14.9	39.1	587.7	3353.5	12247.7	18045.1	19207.5	17769.8
70°	0.0	0.0	3.7	13.0	35.3	565.4	2912.7	10992.2	16970.0	18093.4	16828.7
72.5°	0.0	0.0	3.7	13.0	31.6	539.4	2393.7	9677.2	15991.7	17167.2	15463.5
75°	0.0	0.0	3.7	11.2	27.9	491.0	1750.2	7013.8	14325.2	15223.5	13525.4
77.5°	0.0	0.0	3.7	11.2	26.0	424.1	1182.9	4019.3	11786.4	12872.6	11364.2
80°	0.0	0.0	3.7	9.3	24.2	321.8	669.6	2006.9	6160.1	8460.8	8122.3
82.5°	0.0	0.0	3.7	9.3	18.6	171.1	312.5	876.0	2271.0	2680.2	3128.4
85°	0.0	0.0	3.7	7.4	14.9	42.8	106.0	416.6	1240.6	1378.2	1344.7
87.5°	0.0	0.0	3.7	7.4	11.2	16.7	35.3	119.0	459.4	513.3	438.9
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°	10244.5	10244.5	10244.5	10244.5	10244.5	10244.5	10244.5	10244.5	10244.5	10244.5	10244.5
2.5°	10311.5	10253.8	10199.9	10207.3	10079.0	10051.1	9930.2	10004.6	9954.4	9891.1	9932.0
5°	10333.8	10259.4	10164.5	10058.5	9777.7	9677.2	9509.8	9558.2	9491.2	9416.8	9455.9
7.5°	10382.1	10294.7	10138.5	9863.2	9535.9	9359.2	9165.7	9331.3	9310.8	9268.0	9310.8
10°	10402.6	10326.3	10060.4	9740.5	9286.6	9165.7	9018.8	8990.9	8996.5	9005.8	9069.0
12.5°	10456.5	10343.1	9933.9	9554.5	9141.6	8901.6	8756.6	8842.1	8665.4	8587.3	8620.8
15°	10588.6	10372.8	9835.3	9295.9	8884.9	8695.2	8338.1	8338.1	8293.4	8217.2	8239.5
17.5°	10854.6	10491.9	9809.3	9124.8	8598.5	8271.1	7943.8	7770.8	7722.4	7746.6	7761.5
20°	10997.8	10711.3	9796.3	8899.8	8276.7	7897.3	7400.7	7277.9	7116.1	7138.4	7164.5
22.5°	10136.6	9762.8	9775.8	8624.5	7878.7	7396.9	6853.8	6640.0	6541.4	6522.8	6573.0
25°	10750.4	9997.1	8834.7	8473.9	7441.6	6827.8	6277.3	5983.4	5832.7	5823.4	5855.1
27.5°	11565.1	10642.5	8704.5	7767.1	6976.6	6137.8	5529.6	5319.4	5170.6	5163.2	5168.8
30°	12513.6	11503.7	9028.1	6896.6	6346.1	5341.7	4858.1	4709.3	4573.6	4514.1	4515.9
32.5°	13568.2	12283.0	9340.6	6729.2	5086.9	4648.0	4272.3	4156.9	3971.0	3885.4	3861.2
35°	14555.8	13110.7	9731.2	6448.4	4413.6	4030.5	3766.4	3612.0	3466.9	3394.4	3370.2
37.5°	13685.4	13873.2	10077.1	6217.8	3900.3	3340.4	3267.9	3165.6	3091.2	3035.4	3026.1
40°	13884.4	12496.9	10281.7	5782.5	3370.2	2918.2	2801.1	2851.3	2927.5	2881.0	2879.2
42.5°	14548.4	12710.8	10095.7	5179.9	2949.9	2516.5	2550.0	2737.8	2897.8	2868.0	2871.7
45°	15498.8	13378.5	8663.6	4460.1	2542.5	2267.3	2484.9	2704.3	2905.2	2914.5	2914.5
47.5°	16482.7	14129.9	8397.6	3500.4	2243.1	2170.5	2473.7	2663.4	2894.1	2953.6	2946.1
49°	17027.7	14494.5	8323.2	2881.0	2109.2	2150.1	2471.8	2624.4	2871.7	2955.4	2946.1
50°	17345.7	14743.7	8183.7	2633.7	2031.0	2146.4	2473.7	2600.2	2849.4	2942.4	2938.7
52.5°	18013.4	15059.9	7696.4	2168.7	1841.3	2133.3	2503.5	2577.9	2780.6	2879.2	2916.4
55°	14885.0	14526.1	6878.0	1947.3	1755.8	2107.3	2503.5	2590.9	2721.1	2778.7	2814.1
57.5°	15069.2	12420.6	5408.7	1837.6	1698.1	2079.4	2464.4	2589.0	2689.5	2698.8	2687.6
60°	15630.9	12708.9	4032.3	1726.0	1631.2	2044.1	2380.7	2529.5	2605.8	2605.8	2572.3
62.5°	15967.5	12844.7	3225.1	1603.3	1560.5	1971.5	2256.1	2414.2	2471.8	2440.2	2434.7
65°	16051.2	12954.4	2339.8	1471.2	1480.5	1893.4	2127.8	2265.4	2345.4	2291.4	2302.6
67.5°	15762.9	12171.4	1709.3	1335.4	1389.4	1787.4	2001.3	2124.0	2181.7	2153.8	2159.4
70°	14697.2	11319.5	1203.4	1102.9	1242.4	1623.7	1841.3	1982.7	2012.4	1964.1	1971.5
72.5°	12984.2	10004.6	758.9	863.0	1093.6	1473.1	1653.5	1742.8	1748.3	1807.9	1839.5
75°	11308.4	8027.5	548.7	680.7	868.6	1259.2	1510.3	1594.0	1655.3	1952.9	2001.3
77.5°	9063.4	5079.5	466.8	537.5	682.6	1045.3	1346.6	1474.9	2027.3	2174.3	2137.1
80°	5492.4	3154.4	351.5	424.1	569.1	803.5	1153.2	1519.6	2051.5	1913.9	1835.8
82.5°	2535.1	1370.8	238.1	345.9	452.0	598.9	909.5	1774.4	1757.6	1465.6	1450.7
85°	911.4	405.5	130.2	247.4	316.2	412.9	699.3	1757.6	1378.2	1231.3	1153.2
87.5°	232.5	72.5	53.9	120.9	160.0	219.5	381.3	930.0	716.1	630.5	608.2
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)