

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: STREETWORKS

Report Number: P510858

Luminaire Tested: **CST-CA8-480-750-U-T3-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510858
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-CA8-480-750-U-T3-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 5000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 67495 lumens
Efficiency: N/A
Efficacy: 140.4 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U0 - G5

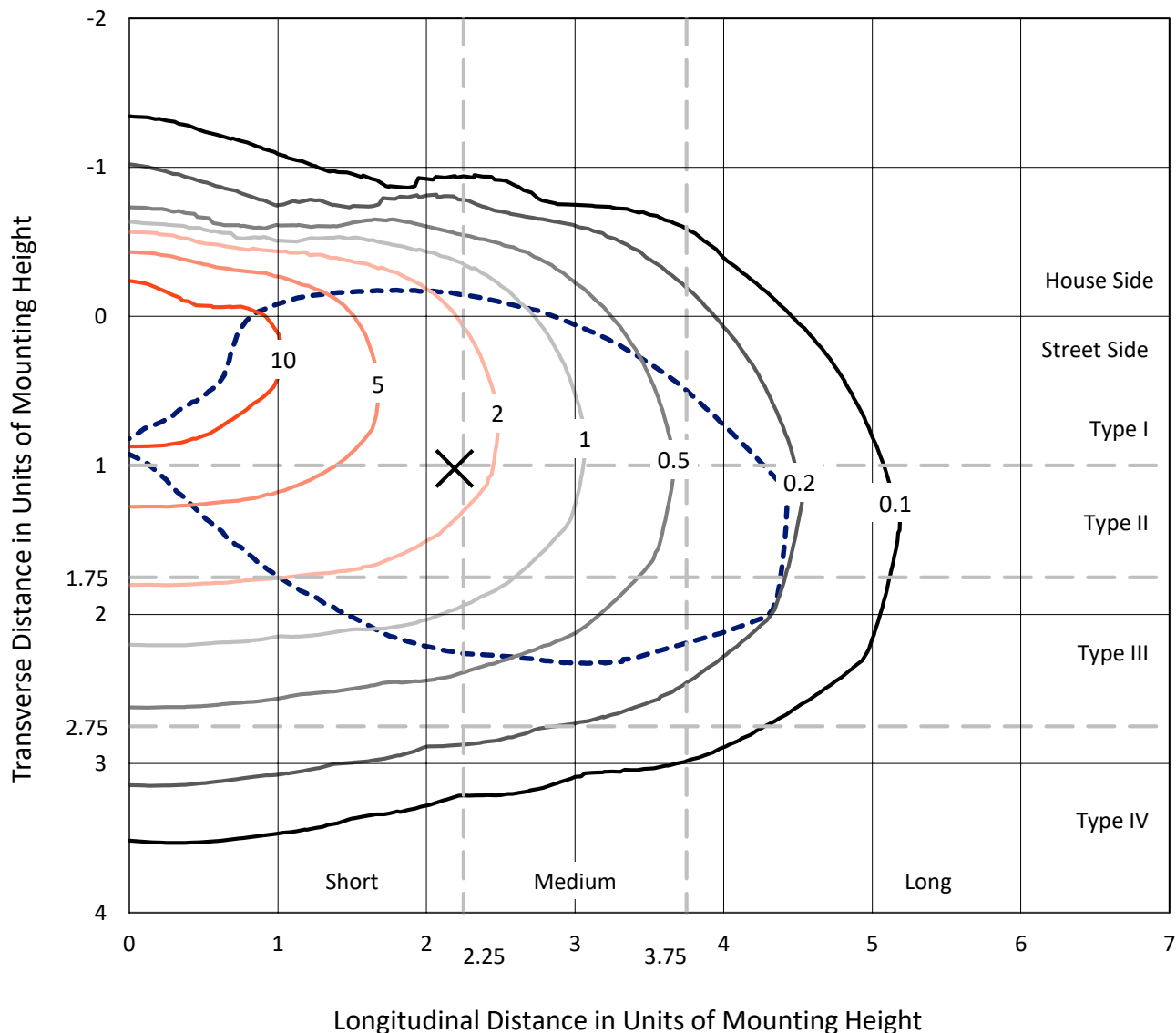
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

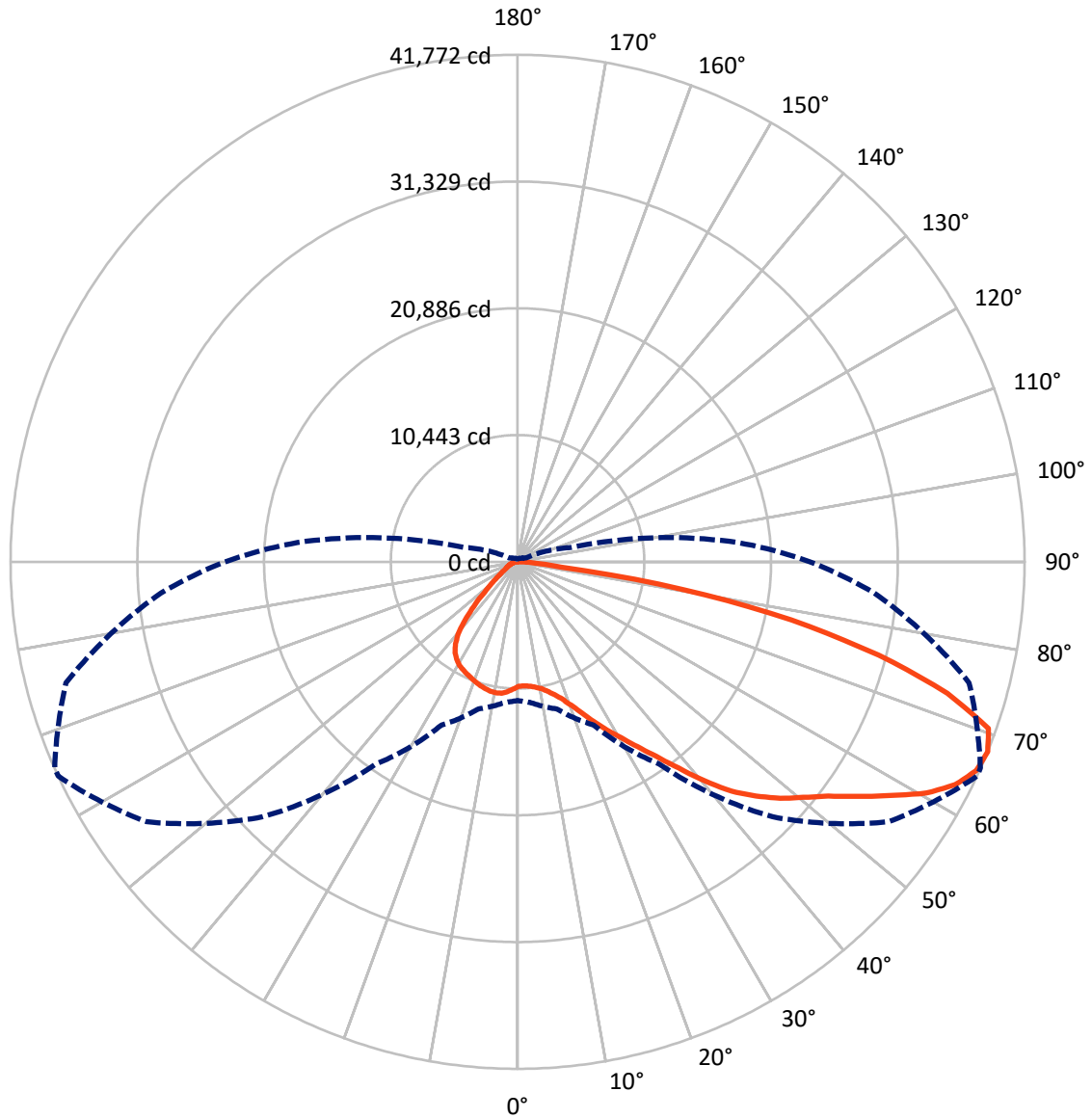
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 13.4 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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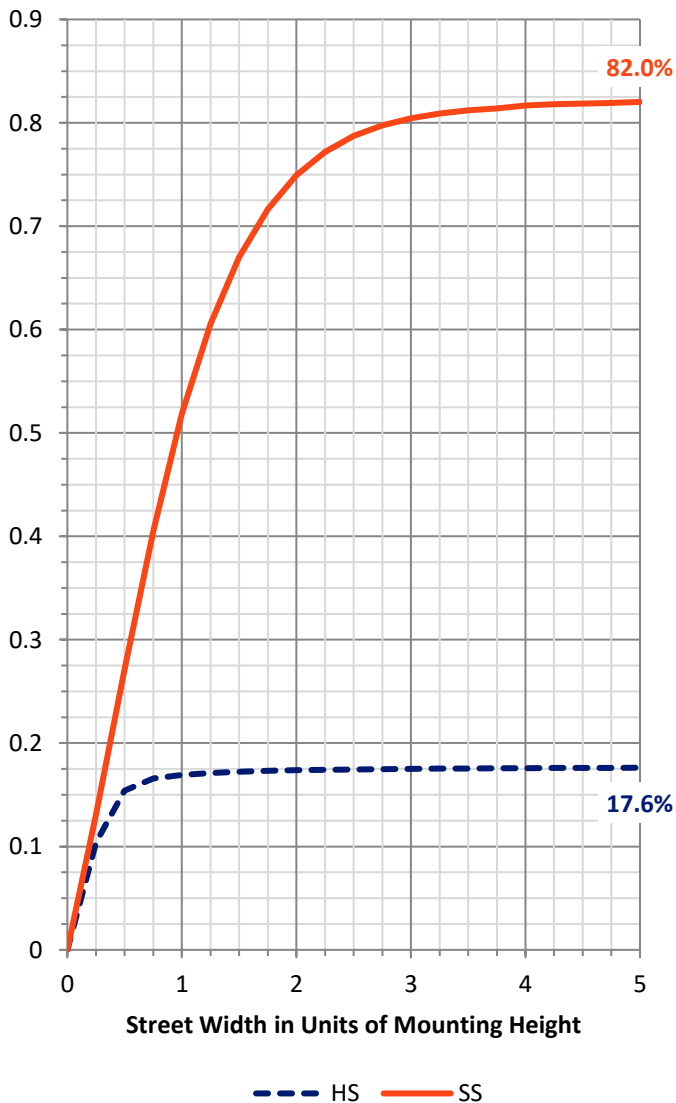
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12063.0	0.0	12063.0
	% Fixture	17.9	0.0	17.9
Street Side	Lumens	55432.0	0.0	55432.0
	% Fixture	82.1	0.0	82.1
Total	Lumens	67495.0	0.0	67495.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1014.7	1.5
10°-20°	3132.7	4.6
20°-30°	5434.6	8.1
30°-40°	8198.1	12.1
40°-50°	11367.2	16.8
50°-60°	14031.3	20.8
60°-70°	14950.1	22.1
70°-80°	8554.7	12.7
80°-90°	811.7	1.2
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°	67495.0	100.0
0°-180°	67495.0	100.0



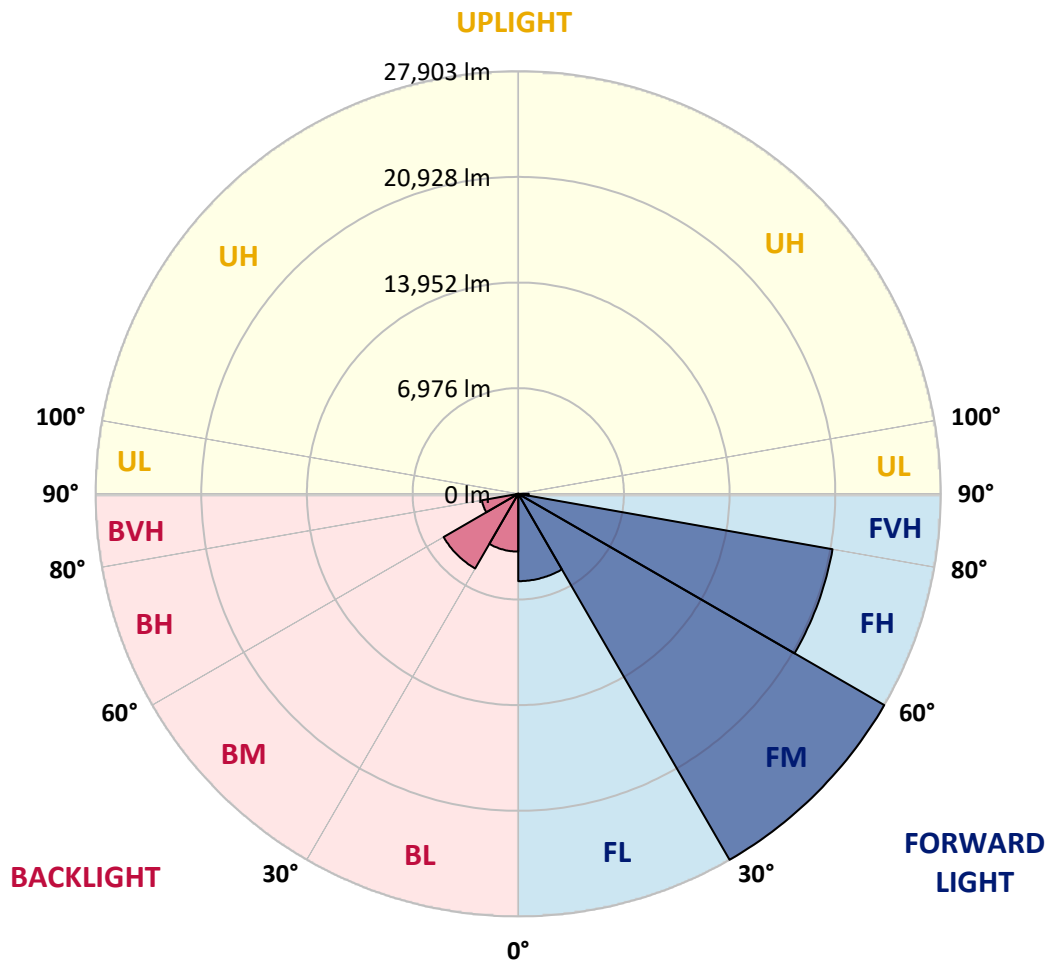
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	5765.0	8.5			
FM (30°-60°)	27903.4	41.3			
FH (60°-80°)	21070.1	31.2			G5
FVH (80°-90°)	693.5	1.0			G4/750
BL (0°-30°)	3817.1	5.7	B4/5000		
BM (30°-60°)	5693.1	8.4	B4/8500		
BH (60°-80°)	2434.7	3.6	B3/2500		G3/2500
BVH (80°-90°)	118.1	0.2			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	10256.3	10256.3	10256.3	10256.3	10256.3	10256.3	10256.3	10256.3	10256.3	10256.3	10256.3
2.5°	10157.2	10143.9	10132.1	10152.8	10164.6	10183.9	10212.0	10231.2	10237.1	10254.8	10277.0
5°	10319.9	10318.4	10302.1	10293.3	10268.1	10259.3	10265.2	10288.8	10290.3	10312.5	10382.0
7.5°	10639.2	10636.3	10596.4	10578.6	10525.4	10466.3	10421.9	10426.3	10424.9	10447.0	10540.2
10°	11121.2	11097.6	11041.4	10986.7	10883.2	10772.3	10691.0	10617.1	10617.1	10649.6	10753.1
12.5°	11665.3	11697.8	11621.0	11538.2	11365.2	11165.6	11023.6	10940.8	10932.0	10948.2	11022.2
15°	12341.0	12341.0	12289.2	12171.0	12018.7	11740.7	11448.0	11343.0	11328.2	11362.2	11357.8
17.5°	13102.4	13124.6	13027.0	12967.9	12734.3	12426.7	12060.1	11878.2	11878.2	11856.0	11754.0
20°	14073.8	13952.5	13962.9	13865.3	13693.8	13247.3	12874.7	12610.1	12607.1	12562.8	12275.9
22.5°	15129.4	15062.9	15005.2	14919.5	14682.9	14283.7	13766.2	13504.6	13498.6	13389.2	12963.4
25°	16170.3	16220.5	16157.0	16000.3	15827.3	15392.6	14821.9	14564.6	14563.2	14381.3	13778.1
27.5°	17240.7	17295.4	17274.7	17132.8	16902.1	16562.1	16022.4	15686.8	15666.1	15547.8	14789.4
30°	18423.5	18374.7	18438.3	18377.7	18262.3	17707.9	17220.0	16829.7	16880.0	16844.5	15938.2
32.5°	19284.0	19315.0	19523.5	19529.4	19408.2	18997.2	18401.3	18161.8	18241.6	18194.3	17350.1
35°	20061.7	20111.9	20381.0	20645.7	20734.4	20284.9	19678.7	19664.0	19767.5	20055.8	19295.8
37.5°	20729.9	20765.4	21142.4	21486.9	21773.8	21466.2	21025.6	21550.5	21702.8	22292.7	21303.6
40°	21130.6	21176.5	21664.4	22149.3	22660.9	22551.5	22510.1	23752.0	23895.4	24414.4	22768.8
42.5°	20904.4	20994.6	21807.8	22694.9	23447.4	23666.2	24232.5	25829.3	25993.4	26037.7	24208.8
45°	20500.8	20613.1	21522.4	22958.0	24185.2	24887.5	25965.3	27522.1	27612.3	27486.7	25402.0
47.5°	20066.1	20185.9	21201.6	22879.7	24778.1	26308.3	27513.3	29116.0	29179.5	28793.7	26604.0
50°	19572.3	19683.2	20775.8	22696.3	25224.6	27649.3	29104.1	30493.9	30732.0	29969.1	27538.4
52.5°	18972.0	19090.3	20249.4	22409.5	25616.4	28644.3	30507.2	32050.8	32067.0	31438.7	28591.1
55°	18194.3	18399.8	19588.6	21912.7	25821.9	29498.9	31729.9	34110.3	34215.3	33607.6	29472.3
57.5°	17329.4	17508.3	18793.1	21250.4	25637.1	30147.9	33696.3	36319.2	36305.9	35086.1	30242.6
60°	16186.5	16313.7	17756.7	20384.0	25041.2	30933.0	35744.0	38686.2	38662.6	36535.0	30737.9
62.5°	14719.9	14847.0	16204.3	19025.2	24166.0	31459.4	37133.8	40459.0	40390.9	37589.2	30890.2
65°	13019.6	13247.3	14425.7	17261.4	22618.0	31113.4	37805.1	41502.8	41393.4	38393.5	30526.4
67.5°	11425.8	11619.5	12552.4	14833.7	20333.7	29710.3	37331.9	41771.9	41739.3	38510.3	29498.9
70°	9169.6	9240.6	10095.1	12048.2	16918.4	26706.0	35696.7	41150.9	41165.7	37434.0	27434.9
72.5°	6276.2	6449.2	6829.2	8371.2	12311.4	21238.6	30767.4	37034.8	37037.7	33566.2	23902.8
75°	3375.4	3643.0	4086.6	4850.9	6882.4	13628.7	24708.6	30730.5	30788.1	27986.4	18998.6
77.5°	1673.7	1769.8	2027.0	2594.8	3155.1	6430.0	15890.8	23067.4	23204.9	21482.5	12957.5
80°	765.9	782.1	801.3	796.9	1207.9	2821.0	6821.8	13853.5	13894.9	12777.1	5915.5
82.5°	598.8	595.8	604.7	550.0	553.0	1088.2	2361.2	3628.2	3869.2	3045.7	1876.2
85°	362.2	360.8	388.8	301.6	371.1	588.4	1191.7	1447.4	1465.2	1191.7	971.4
87.5°	137.5	133.1	122.7	107.9	124.2	165.6	412.5	532.3	520.4	369.6	335.6
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°	10256.3	10256.3	10256.3	10256.3	10256.3	10256.3	10256.3	10256.3	10256.3	10256.3	10256.3
2.5°	10296.2	10343.5	10430.8	10497.3	10519.5	10590.4	10658.5	10670.3	10719.1	10738.3	10801.9
5°	10424.9	10504.7	10640.7	10730.9	10770.8	10889.1	10966.0	11004.4	10991.1	10998.5	11069.5
7.5°	10612.6	10688.0	10797.4	10906.8	10926.1	10946.8	10939.4	10933.5	10881.7	10837.4	10903.9
10°	10784.1	10855.1	10923.1	10939.4	10841.8	10787.1	10689.5	10614.1	10513.6	10467.7	10521.0
12.5°	11025.1	11039.9	10973.4	10884.7	10674.7	10479.6	10321.4	10183.9	10059.7	9973.9	10044.9
15°	11279.4	11221.8	11028.1	10769.3	10444.1	10164.6	9905.9	9676.7	9471.2	9421.0	9440.2
17.5°	11616.5	11459.8	11069.5	10634.8	10129.2	9694.5	9361.8	9072.0	8802.9	8690.6	8680.2
20°	12027.5	11774.7	11153.8	10464.8	9756.6	9178.5	8664.0	8230.8	7859.7	7555.1	7562.5
22.5°	12562.8	12196.1	11280.9	10287.4	9344.1	8573.8	7825.7	7089.4	6478.8	6215.6	6150.5
25°	13269.5	12722.4	11461.3	10126.2	8882.8	7805.0	6747.8	5708.5	5062.4	4806.6	4778.5
27.5°	14149.2	13429.2	11736.3	9947.3	8389.0	6892.7	5372.8	4354.2	3761.3	3492.2	3402.0
30°	15148.6	14300.0	12018.7	9761.0	7791.7	5720.3	4096.9	3098.9	2491.3	2250.3	2219.2
32.5°	16442.3	15402.9	12438.6	9468.3	6919.3	4496.1	2857.9	1933.9	1521.4	1417.9	1388.3
35°	18280.1	16894.7	12957.5	9098.6	5798.6	3140.3	1771.2	1132.5	912.2	860.5	850.1
37.5°	19993.7	18358.4	13480.9	8485.1	4403.0	1960.5	1012.8	725.9	677.1	678.6	681.6
40°	21352.4	19359.4	13903.7	7677.8	2896.4	1113.3	703.8	603.2	604.7	600.3	597.3
42.5°	22561.8	20157.8	14094.5	6484.7	1678.1	745.2	610.6	555.9	542.6	547.0	544.1
45°	23562.7	20972.4	13724.9	5143.7	989.1	668.3	576.6	516.0	501.2	524.9	527.8
47.5°	24615.4	21745.7	13158.6	3875.1	802.8	635.8	545.6	486.4	479.0	508.6	511.6
50°	25501.0	22306.0	12193.1	2920.0	765.9	600.3	517.5	456.9	455.4	482.0	482.0
52.5°	26241.8	22644.6	11047.3	2254.7	740.7	569.2	489.4	428.8	428.8	437.6	439.1
55°	26763.7	22576.6	10364.2	1774.2	714.1	539.6	459.8	402.2	384.4	378.5	381.5
57.5°	26858.3	22396.2	9571.8	1383.9	683.1	511.6	433.2	371.1	338.6	334.1	332.7
60°	26797.7	22000.0	8666.9	1156.2	647.6	484.9	406.6	338.6	306.0	295.7	298.7
62.5°	26544.9	21297.7	7621.6	1014.2	612.1	464.2	377.0	316.4	286.8	273.5	273.5
65°	25782.0	20292.3	6069.2	888.6	567.7	442.1	353.4	307.5	275.0	260.2	257.3
67.5°	24105.3	18206.2	4561.2	779.2	524.9	418.4	350.4	306.0	269.1	248.4	245.4
70°	21856.6	15639.5	3113.7	684.5	477.6	396.2	348.9	307.5	263.2	236.6	233.6
72.5°	18246.1	12329.2	1793.4	595.8	430.2	375.5	343.0	309.0	252.8	220.3	215.9
75°	13710.1	8647.7	1052.7	511.6	384.4	344.5	326.7	300.1	236.6	201.1	196.6
77.5°	8245.6	4037.8	792.5	424.3	329.7	303.1	291.3	275.0	215.9	186.3	181.9
80°	3025.0	1533.2	622.4	340.1	261.7	263.2	251.3	241.0	196.6	171.5	168.5
82.5°	1318.8	937.4	459.8	258.7	205.5	235.1	207.0	198.1	168.5	153.8	147.8
85°	799.9	558.9	295.7	175.9	141.9	159.7	144.9	152.3	130.1	121.2	116.8
87.5°	264.7	167.1	131.6	85.8	71.0	66.5	65.1	78.4	73.9	68.0	68.0
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)