

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: P510496

Luminaire Tested: **CST-CA10-310-750-U-T2-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510496
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-CA10-310-750-U-T2-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 5000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 44907 lumens
Efficiency: N/A
Efficacy: 143.7 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G5

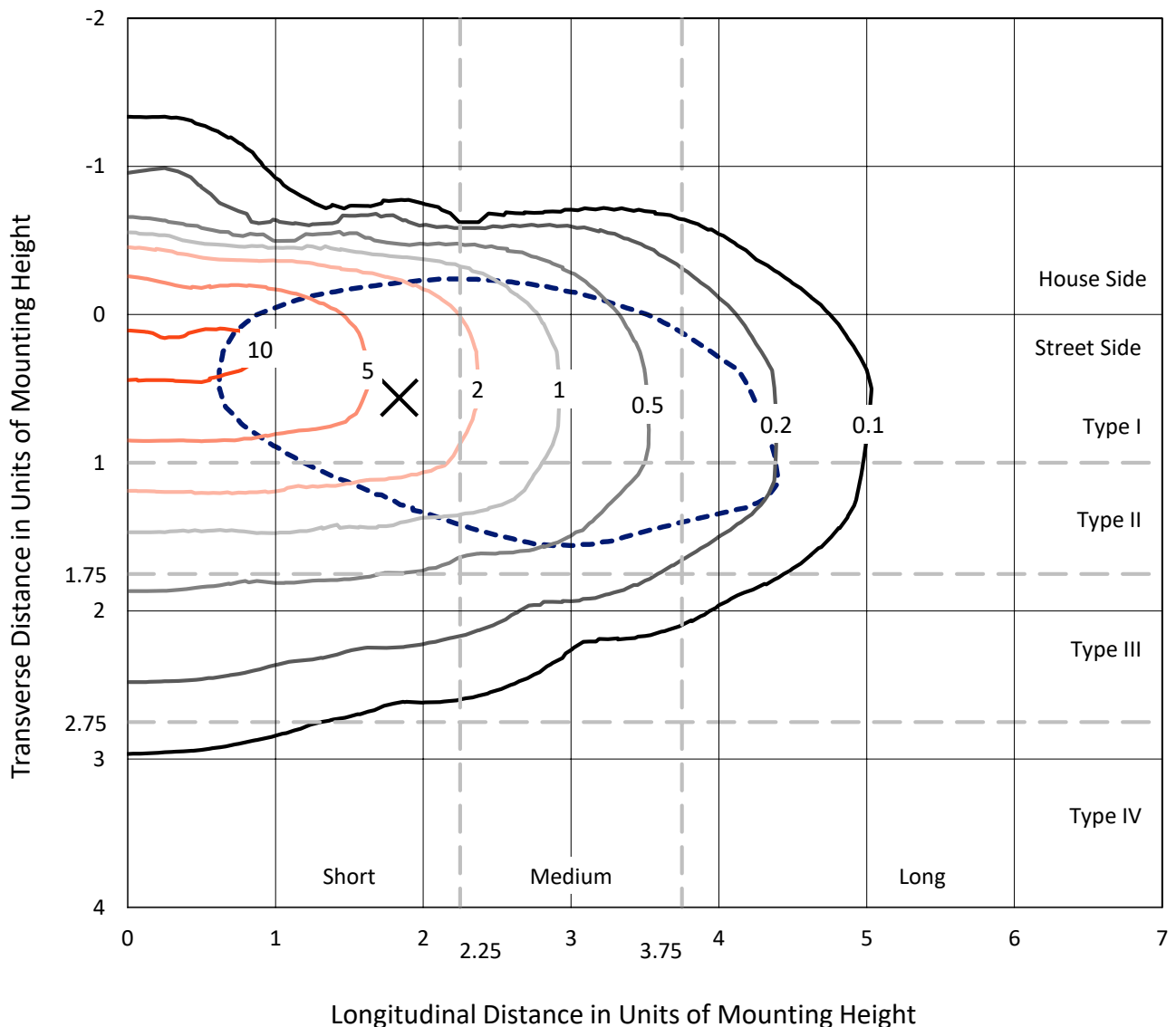
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

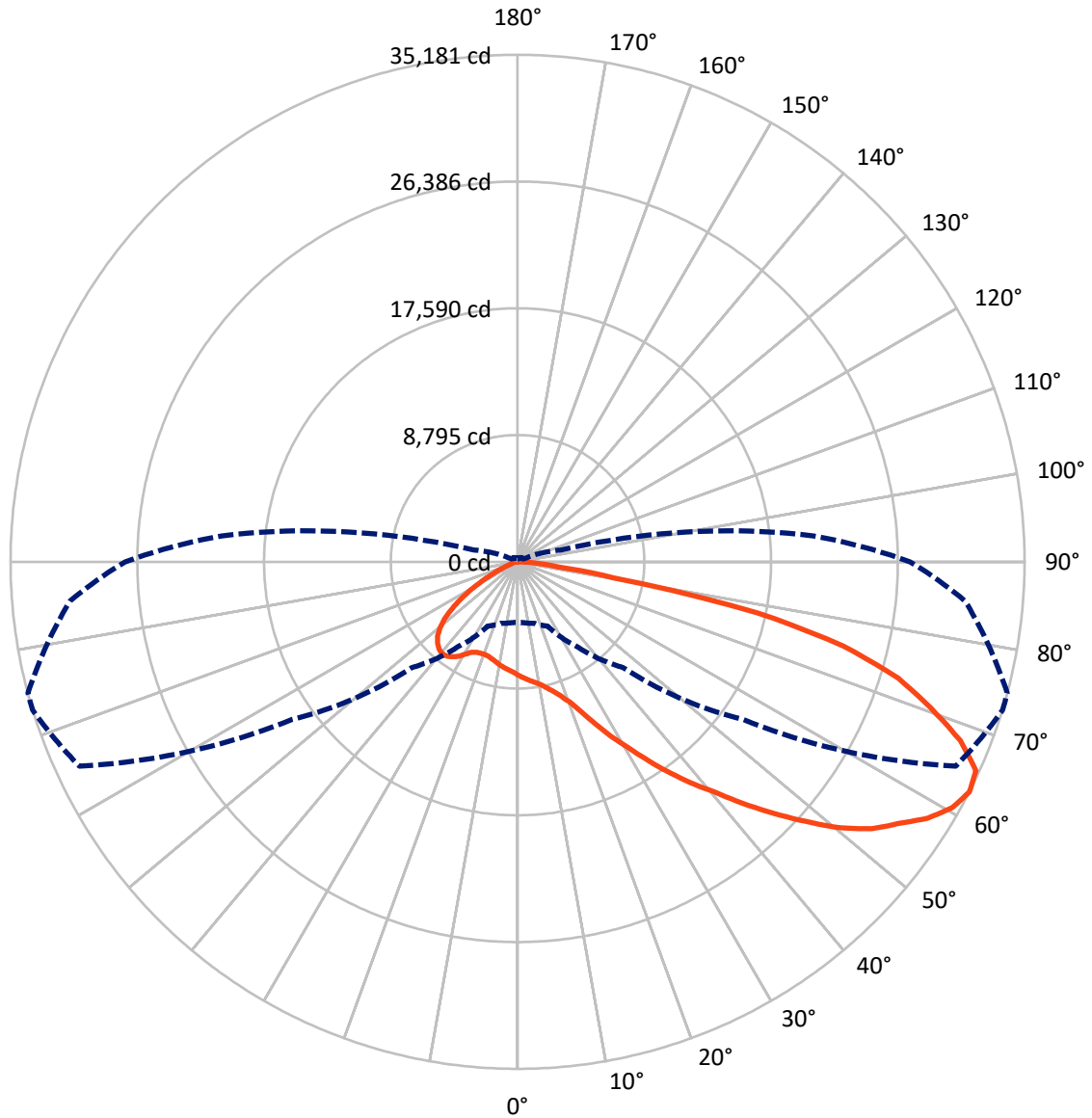
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.9 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 73-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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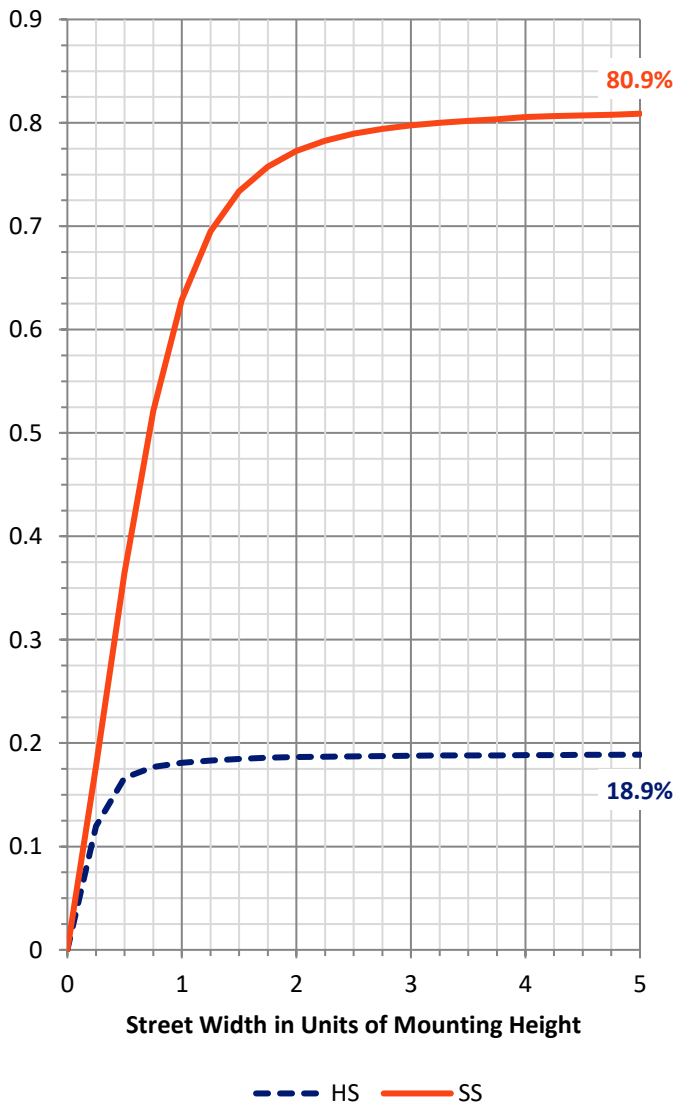
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8590.5	0.0	8590.5
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	36316.5	0.0	36316.5
	% Fixture	80.9	0.0	80.9
Total	Lumens	44907.0	0.0	44907.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	752.2	1.7
10°-20°	2262.5	5.0
20°-30°	3909.2	8.7
30°-40°	5878.5	13.1
40°-50°	7838.3	17.5
50°-60°	9231.2	20.6
60°-70°	9177.5	20.4
70°-80°	5269.0	11.7
80°-90°	588.6	1.3
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°	44907.0	100.0
0°-180°	44907.0	100.0

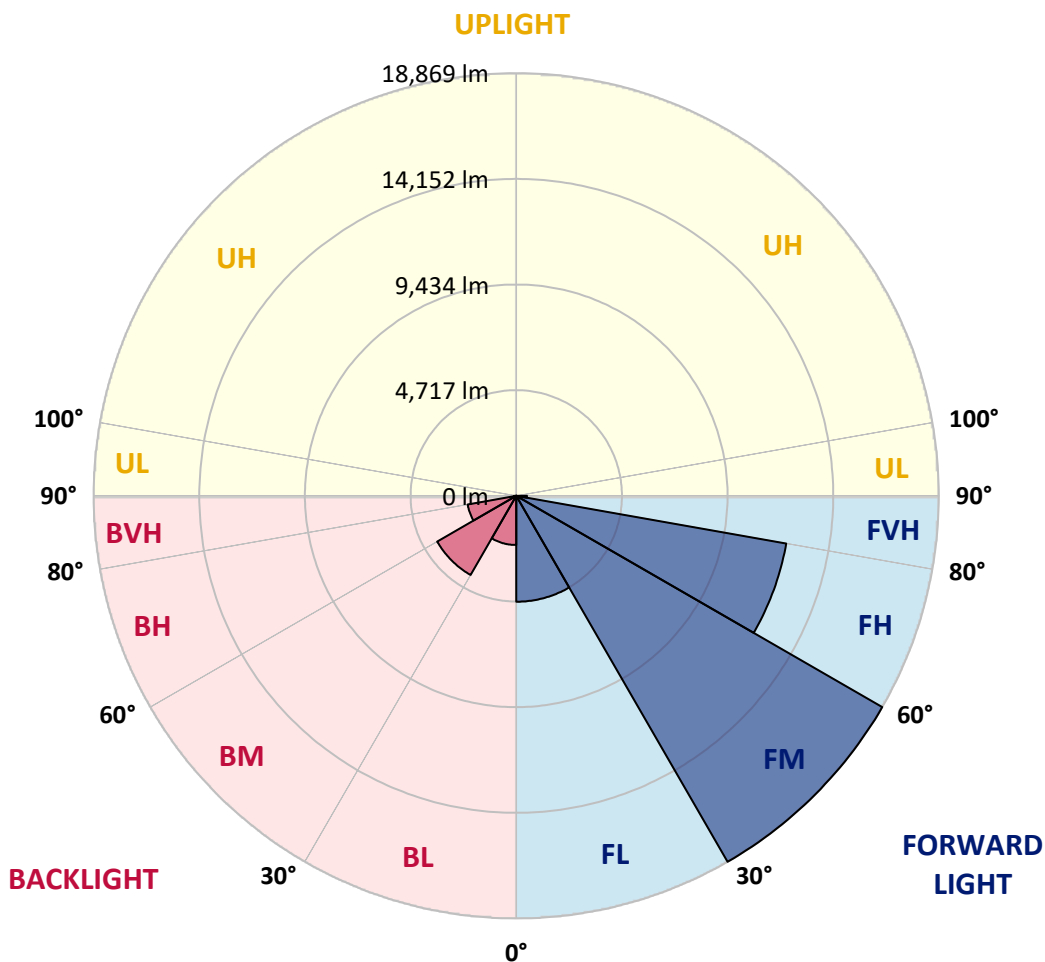


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4728.7	10.5			
FM (30°-60°)	18868.8	42.0			
FH (60°-80°)	12241.0	27.3			G5
FVH (80°-90°)	478.1	1.1			G3/500
BL (0°-30°)	2195.3	4.9	B3/2500		
BM (30°-60°)	4079.2	9.1	B3/5000		
BH (60°-80°)	2205.5	4.9	B3/2500		G3/2500
BVH (80°-90°)	110.5	0.2			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	73°	75°	85°
0°	7875.7	7875.7	7875.7	7875.7	7875.7	7875.7	7875.7	7875.7	7875.7	7875.7	7875.7
2.5°	8426.0	8447.2	8422.0	8410.9	8398.8	8320.2	8228.5	8134.7	8059.1	8047.0	7948.2
5°	9017.8	9028.8	8987.5	8940.1	8858.5	8728.5	8564.1	8401.9	8250.6	8210.3	8029.9
7.5°	9472.4	9451.2	9441.1	9400.8	9329.2	9186.1	8937.1	8671.0	8437.1	8380.7	8106.5
10°	9898.8	9889.7	9813.1	9762.7	9648.8	9516.7	9312.1	8974.4	8644.8	8554.1	8173.0
12.5°	10360.4	10340.3	10309.0	10200.2	10107.4	9884.7	9637.7	9330.2	8963.3	8842.4	8286.9
15°	10775.7	10721.3	10704.2	10590.3	10496.5	10326.2	10078.2	9721.4	9329.2	9225.4	8503.7
17.5°	11170.9	11145.7	11107.4	11029.8	10924.9	10793.9	10595.3	10213.3	9808.0	9656.8	8871.6
20°	11506.6	11475.3	11442.0	11463.2	11440.0	11356.4	11231.4	10905.8	10410.8	10264.7	9319.2
22.5°	11740.4	11739.4	11872.5	11950.1	11994.4	11991.4	11961.2	11776.7	11278.7	11130.6	9988.5
25°	11935.0	11950.1	12118.4	12413.8	12677.9	12702.1	12915.8	12828.1	12404.7	12250.5	10995.5
27.5°	11992.4	12022.7	12328.1	12792.8	13194.0	13579.0	13892.5	14052.8	13660.7	13476.2	12078.1
30°	12033.8	12045.8	12345.2	12901.7	13747.4	14357.2	14917.7	15188.9	14851.2	14716.1	13284.7
32.5°	11742.4	11746.5	12205.1	13047.8	14153.6	15211.0	15874.3	16385.4	16296.7	16118.3	14604.2
35°	11341.2	11415.8	11942.0	12906.7	14488.3	15995.3	16898.5	17660.5	17837.9	17709.9	15922.7
37.5°	10845.3	10903.8	11467.2	12697.0	14561.9	16534.6	17694.8	18956.8	19420.5	19399.4	17514.4
40°	10235.4	10307.0	10981.4	12245.4	14525.6	16926.7	18629.2	20392.3	20980.9	20914.4	19092.9
42.5°	9514.7	9619.5	10273.7	11664.8	14260.5	17166.6	19394.3	21853.9	22913.3	22870.0	20490.0
45°	8802.0	8858.5	9455.2	10856.4	13772.6	17244.2	20114.0	23867.9	24895.1	24846.7	22173.4
47.5°	8067.2	8116.6	8739.5	10004.6	12925.8	17088.0	20683.6	25597.7	26914.2	26865.8	23845.7
50°	6357.6	6544.1	7821.2	9255.6	11961.2	16645.4	21220.9	27752.8	29027.0	28821.3	25310.4
52.5°	5439.3	5506.8	6169.1	8500.6	10998.5	15890.4	21579.7	29749.7	30764.8	30468.4	26808.3
55°	5084.5	5129.8	5454.4	7108.6	10094.3	14748.4	22002.1	31751.6	32068.2	31992.6	28030.0
57.5°	4815.3	4865.7	5097.6	5937.2	9141.7	13147.6	21870.0	33159.8	33556.0	33314.1	29327.4
60°	4434.3	4495.8	4803.2	5330.4	8059.1	11522.7	20707.8	33736.4	34637.6	34365.4	30314.2
62.5°	4194.4	4234.7	4411.1	4922.2	7162.0	10379.6	19053.6	33551.0	35180.9	35170.8	31170.0
65°	3868.8	3928.3	4116.8	4531.1	6363.6	9493.5	17493.2	32634.7	34947.1	34956.1	31346.4
67.5°	3528.1	3552.3	3749.8	4082.5	5423.2	8682.1	15474.1	31067.2	33125.6	33333.2	30125.7
70°	3102.7	3090.6	3304.3	3547.2	4432.3	7371.7	12455.1	28279.0	30434.2	30519.8	27657.1
72.5°	2441.4	2452.5	2512.0	2680.3	3364.8	5801.2	9037.9	23892.1	27620.8	27773.0	24502.0
75°	1641.1	1659.2	1936.4	2100.7	2420.3	4169.2	5683.2	16127.3	23349.8	23779.2	20053.6
77.5°	1252.0	1263.0	1343.7	1523.1	1750.9	2971.6	3080.5	8787.9	16999.3	18018.4	15687.8
80°	887.1	891.1	811.5	721.7	932.4	2016.0	1819.5	3742.8	6773.9	8004.7	9214.3
82.5°	397.2	391.1	460.7	383.0	537.3	780.2	858.8	1816.5	2813.4	3024.1	3292.2
85°	184.5	206.6	236.9	198.6	319.5	301.4	334.7	774.2	1318.5	1455.6	1447.5
87.5°	45.4	49.4	62.5	79.6	115.9	102.8	100.8	227.8	294.3	293.3	450.6
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°	7875.7	7875.7	7875.7	7875.7	7875.7	7875.7	7875.7	7875.7	7875.7	7875.7	7875.7
2.5°	7880.7	7828.3	7704.3	7584.3	7470.4	7394.8	7310.2	7221.5	7168.0	7142.8	7197.3
5°	7920.0	7820.2	7583.3	7345.4	7143.8	6971.5	6850.5	6747.7	6692.2	6697.3	6700.3
7.5°	7953.3	7813.2	7481.5	7145.9	6831.4	6617.7	6459.4	6348.5	6285.0	6236.6	6272.9
10°	7982.5	7783.9	7362.6	6915.0	6573.3	6256.8	6042.1	5908.0	5791.1	5725.6	5777.0
12.5°	8013.8	7772.8	7229.5	6708.4	6265.9	5912.0	5617.7	5484.6	5369.7	5320.3	5351.6
15°	8149.8	7815.2	7105.5	6465.4	5962.4	5504.8	5187.3	5024.0	4933.3	4873.8	4886.9
17.5°	8383.7	7927.1	7025.9	6211.4	5623.7	5139.9	4728.6	4538.1	4387.9	4345.6	4334.5
20°	8716.4	8139.8	7025.9	5996.7	5239.7	4734.7	4260.9	3939.3	3705.5	3617.8	3685.3
22.5°	9274.8	8501.6	7095.5	5802.2	4909.1	4314.3	3749.8	3258.9	2943.4	2815.4	2890.0
25°	10056.0	9061.1	7208.4	5631.8	4607.7	3830.5	3101.7	2537.2	2189.4	2037.2	2035.2
27.5°	11076.1	9916.9	7436.2	5492.7	4246.8	3204.5	2425.3	1882.0	1555.4	1463.6	1476.8
30°	12207.1	10844.3	7866.6	5291.1	3808.3	2503.9	1766.1	1383.0	1153.2	1032.2	1034.2
32.5°	13297.8	11804.9	8377.7	5160.1	3238.8	1888.0	1259.0	986.9	843.7	772.1	783.2
35°	14467.1	12633.5	8757.7	4940.3	2570.5	1364.9	890.1	739.9	680.4	643.1	645.1
37.5°	15730.2	13544.8	9070.2	4646.0	1943.5	937.5	657.2	634.0	608.8	561.5	557.4
40°	17049.7	14600.2	9256.7	4170.2	1350.7	649.2	558.4	584.7	570.5	509.1	504.0
42.5°	18168.6	15414.7	9303.0	3540.2	874.0	526.2	506.0	546.3	549.4	486.9	478.8
45°	19243.1	16140.4	9212.3	2710.6	605.8	494.9	473.8	529.2	533.2	476.8	463.7
47.5°	20445.7	17133.3	9048.0	1808.4	501.0	467.7	462.7	501.0	515.1	468.7	452.6
50°	21906.3	17940.8	8561.1	1110.8	472.8	450.6	450.6	473.8	492.9	452.6	444.5
52.5°	23404.2	18644.3	7840.4	762.1	455.6	432.4	445.5	455.6	462.7	426.4	433.4
55°	24477.8	19268.3	6765.8	612.9	445.5	420.3	451.6	431.4	421.4	390.1	383.0
57.5°	25669.2	20010.2	5667.1	543.3	432.4	427.4	431.4	393.1	364.9	332.6	325.6
60°	26500.9	20409.4	4322.4	511.1	417.3	420.3	398.2	346.8	295.4	272.2	267.1
62.5°	27226.6	20637.2	3168.2	469.7	403.2	402.2	360.9	296.4	242.9	217.7	213.7
65°	27116.8	20281.4	2053.3	436.5	392.1	379.0	323.6	254.0	202.6	183.5	181.4
67.5°	25908.1	18706.8	1293.3	402.2	373.0	349.8	290.3	226.8	186.5	164.3	162.3
70°	23371.0	16532.5	791.3	357.8	331.6	309.5	257.0	212.7	176.4	150.2	145.2
72.5°	19864.1	14159.7	559.5	315.5	289.3	263.1	217.7	202.6	168.3	135.1	131.0
75°	16319.9	10430.0	468.7	275.2	247.0	211.7	185.5	188.5	158.3	123.0	120.0
77.5°	11492.4	6502.7	436.5	224.8	194.5	168.3	160.3	172.4	145.2	112.9	109.9
80°	6707.4	3652.1	360.9	177.4	146.2	130.0	134.1	146.2	127.0	101.8	97.8
82.5°	2707.5	1445.5	254.0	138.1	106.9	103.8	109.9	118.9	104.8	85.7	83.7
85°	966.7	451.6	144.1	90.7	68.5	71.6	70.6	84.7	75.6	62.5	61.5
87.5°	254.0	89.7	64.5	36.3	29.2	29.2	27.2	39.3	36.3	28.2	31.2
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)