

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: P510476

Luminaire Tested: **CST-CA10-310-730-U-T2-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510476
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-CA10-310-730-U-T2-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 43300 lumens
Efficiency: N/A
Efficacy: 138.6 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G4

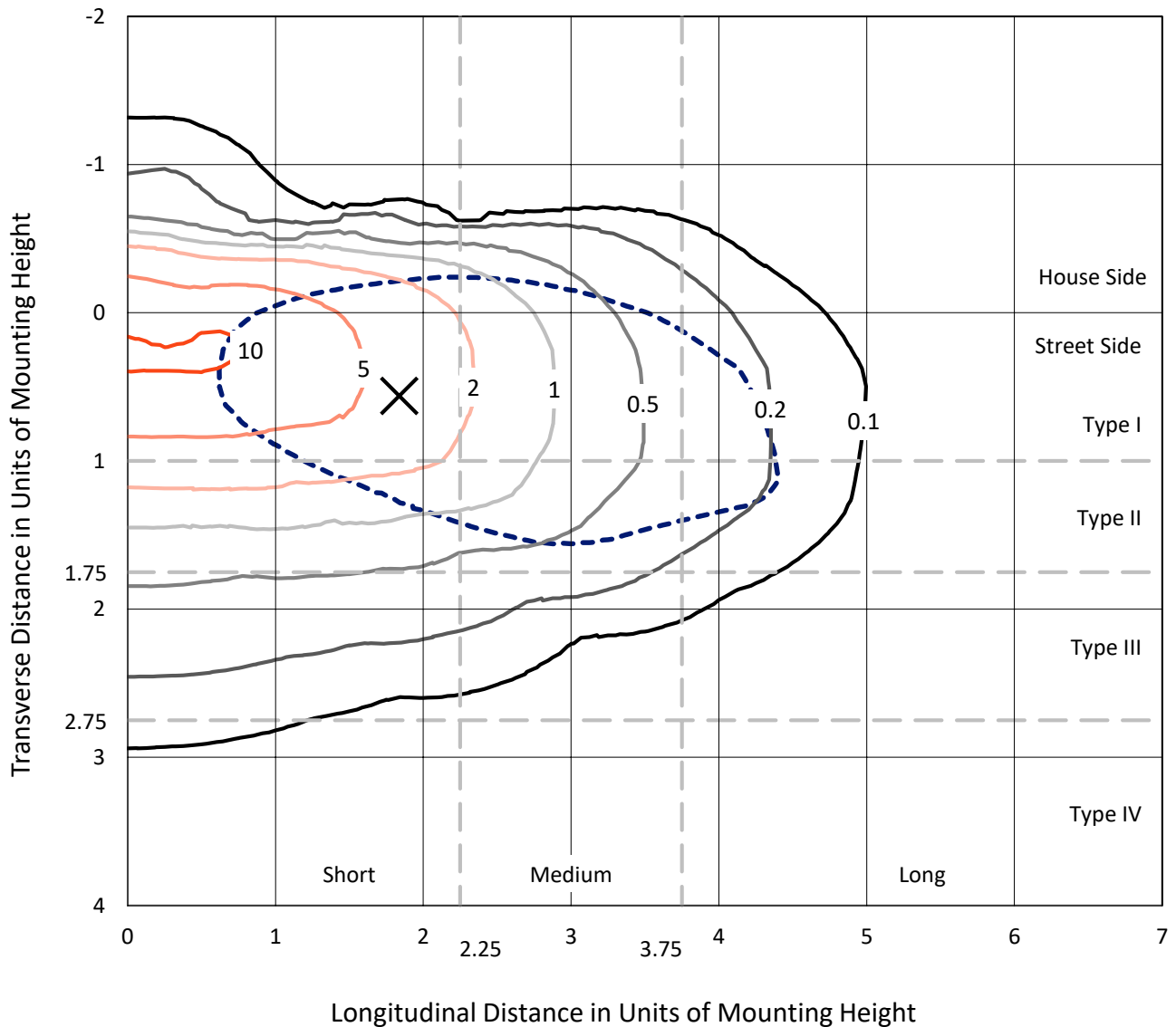
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

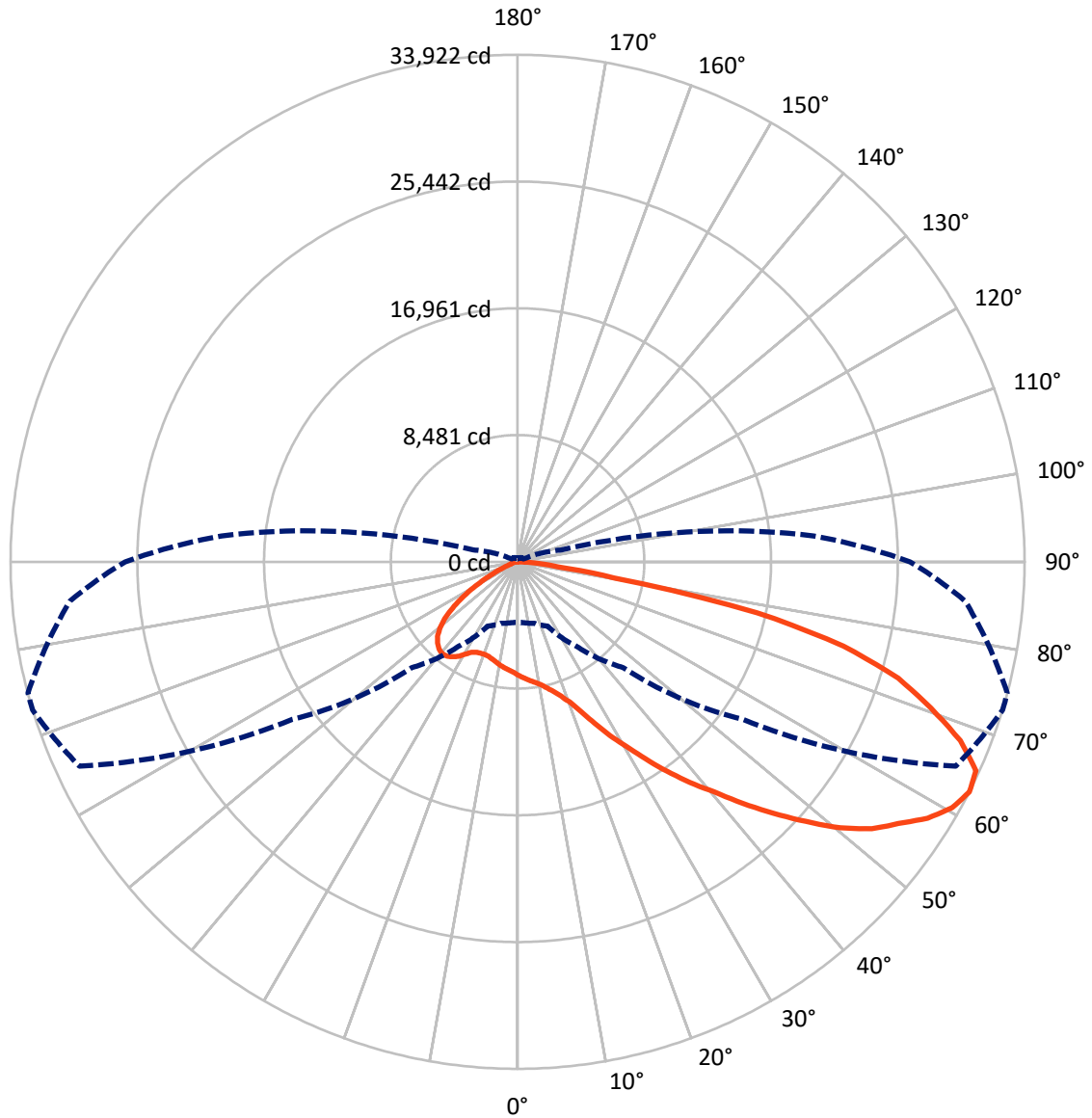
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.5 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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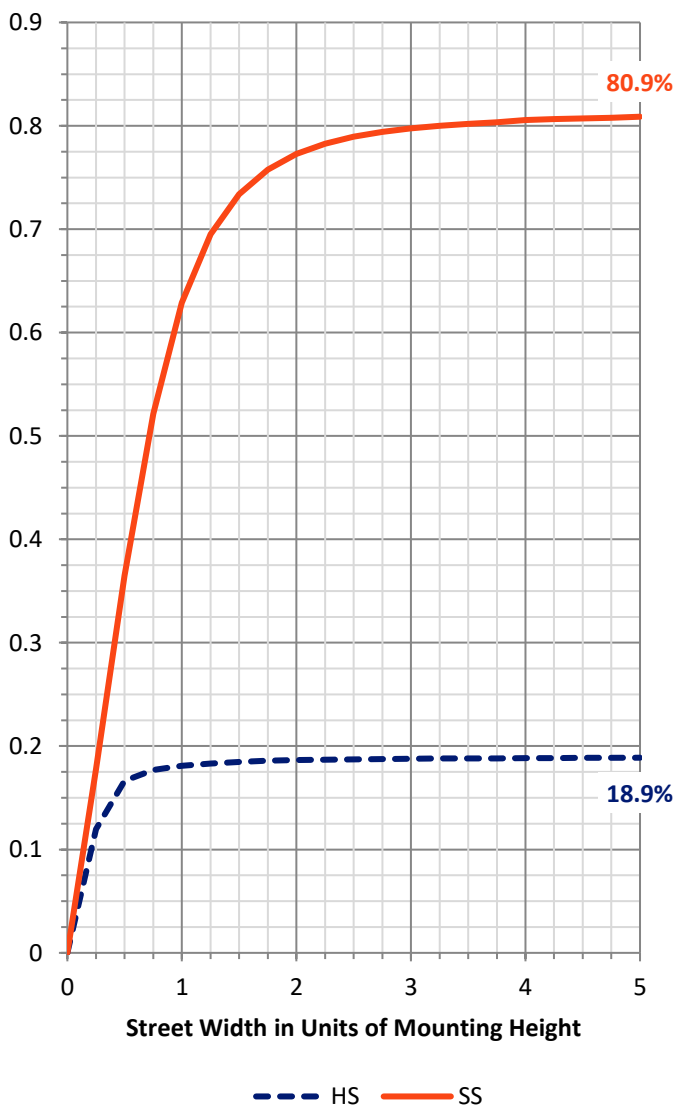
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8283.1	0.0	8283.1
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	35016.9	0.0	35016.9
	% Fixture	80.9	0.0	80.9
Total	Lumens	43300.0	0.0	43300.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	725.3	1.7
10°-20°	2181.6	5.0
20°-30°	3769.3	8.7
30°-40°	5668.1	13.1
40°-50°	7557.8	17.5
50°-60°	8900.9	20.6
60°-70°	8849.0	20.4
70°-80°	5080.4	11.7
80°-90°	567.5	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°	43300.0	100.0
0°-180°	43300.0	100.0

Coefficient of Utilization



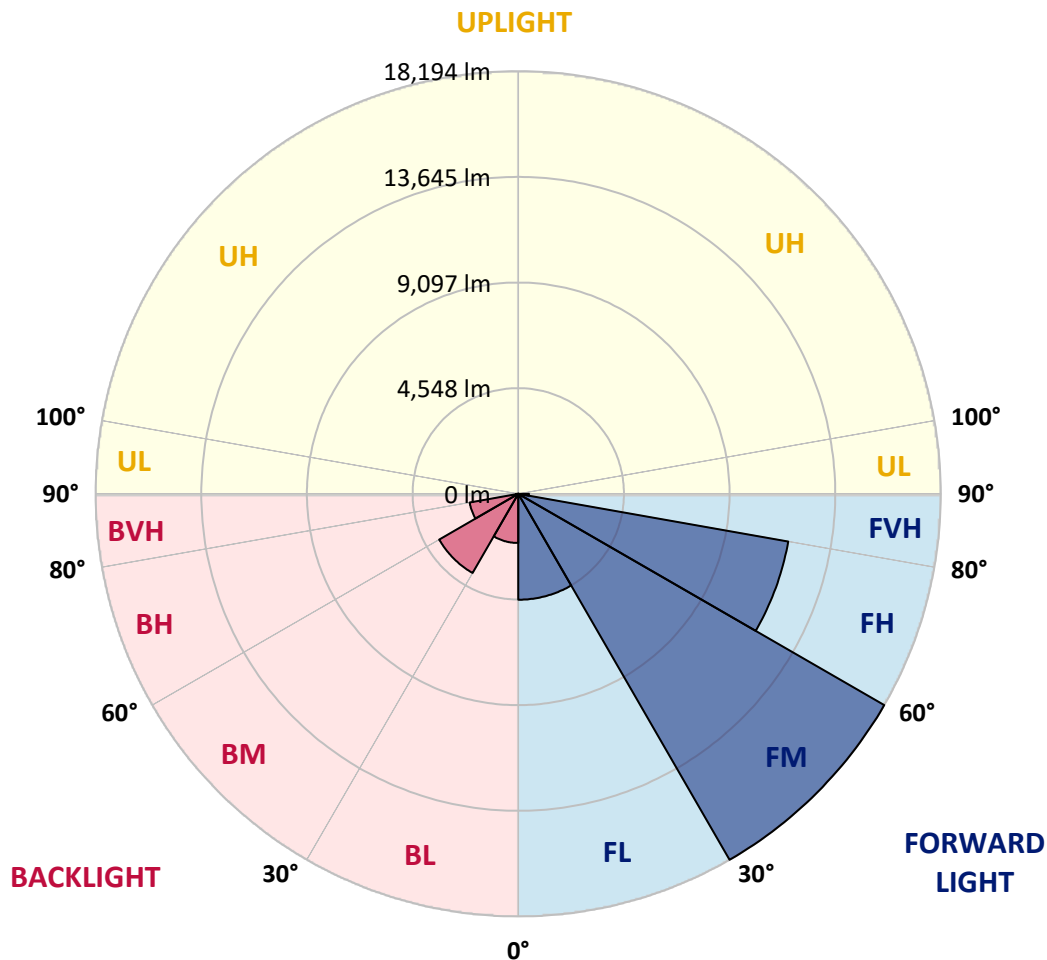
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4559.4	10.5			
FM (30°-60°)	18193.6	42.0			
FH (60°-80°)	11802.9	27.3			G4/12000
FVH (80°-90°)	460.9	1.1			G3/500
BL (0°-30°)	2116.7	4.9	B3/2500		
BM (30°-60°)	3933.2	9.1	B3/5000		
BH (60°-80°)	2126.6	4.9	B3/2500		G3/2500
BVH (80°-90°)	106.6	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-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	73°	75°	85°
0°	7593.8	7593.8	7593.8	7593.8	7593.8	7593.8	7593.8	7593.8	7593.8	7593.8	7593.8
2.5°	8124.5	8144.9	8120.6	8109.9	8098.3	8022.5	7934.0	7843.6	7770.7	7759.1	7663.8
5°	8695.1	8705.7	8665.9	8620.2	8541.5	8416.1	8257.7	8101.2	7955.4	7916.5	7742.5
7.5°	9133.4	9113.0	9103.3	9064.4	8995.4	8857.4	8617.3	8360.7	8135.2	8080.8	7816.4
10°	9544.5	9535.8	9461.9	9413.3	9303.5	9176.2	8978.9	8653.3	8335.4	8248.0	7880.6
12.5°	9989.7	9970.2	9940.1	9835.1	9745.7	9530.9	9292.8	8996.4	8642.6	8525.9	7990.4
15°	10390.1	10337.6	10321.1	10211.3	10120.9	9956.6	9717.5	9373.5	8995.4	8895.3	8199.4
17.5°	10771.1	10746.8	10709.9	10635.1	10534.0	10407.6	10216.2	9847.8	9457.1	9311.3	8554.1
20°	11094.8	11064.7	11032.6	11053.0	11030.6	10950.0	10829.5	10515.5	10038.3	9897.4	8985.7
22.5°	11320.3	11319.3	11447.6	11522.5	11565.2	11562.3	11533.1	11355.3	10875.1	10732.3	9631.0
25°	11507.9	11522.5	11684.8	11969.5	12224.2	12247.5	12453.6	12369.0	11960.8	11812.1	10602.0
27.5°	11563.3	11592.4	11886.9	12335.0	12721.8	13093.1	13395.4	13549.9	13171.8	12994.0	11645.9
30°	11603.1	11614.8	11903.5	12440.0	13255.4	13843.5	14383.9	14645.3	14319.7	14189.5	12809.3
32.5°	11322.2	11326.1	11768.4	12580.9	13647.1	14666.7	15306.2	15799.0	15713.5	15541.5	14081.6
35°	10935.4	11007.3	11514.7	12444.8	13969.8	15422.9	16293.7	17028.5	17199.6	17076.2	15352.9
37.5°	10457.2	10513.6	11056.9	12242.7	14040.8	15942.9	17061.6	18278.5	18725.6	18705.1	16887.6
40°	9869.2	9938.2	10588.4	11807.2	14005.8	16321.0	17962.6	19662.5	20230.1	20166.0	18409.7
42.5°	9174.2	9275.3	9906.1	11247.4	13750.2	16552.3	18700.3	21071.8	22093.4	22051.6	19756.8
45°	8487.1	8541.5	9116.9	10467.9	13279.7	16627.1	19394.3	23013.8	24004.2	23957.6	21380.0
47.5°	7778.5	7826.1	8426.8	9646.6	12463.3	16476.5	19943.4	24681.7	25951.0	25904.4	22992.4
50°	6130.1	6309.9	7541.3	8924.4	11533.1	16049.8	20461.5	26759.7	27988.2	27790.0	24404.7
52.5°	5244.6	5309.8	5948.3	8196.4	10604.9	15321.8	20807.5	28685.1	29663.9	29378.1	25849.0
55°	4902.5	4946.2	5259.2	6854.2	9733.1	14220.6	21214.7	30615.4	30920.6	30847.7	27027.0
57.5°	4643.0	4691.6	4915.1	5724.8	8814.6	12677.1	21087.4	31973.2	32355.2	32121.9	28277.9
60°	4275.6	4334.9	4631.3	5139.7	7770.7	11110.3	19966.7	32529.2	33398.1	33135.7	29229.4
62.5°	4044.3	4083.2	4253.2	4746.0	6905.7	10008.2	18371.8	32350.3	33922.0	33912.3	30054.6
65°	3730.3	3787.7	3969.4	4368.9	6135.9	9153.8	16867.2	31466.8	33696.5	33705.2	30224.7
67.5°	3401.8	3425.1	3615.6	3936.4	5229.1	8371.4	14920.4	29955.5	31940.2	32140.4	29047.7
70°	2991.7	2980.0	3186.0	3420.3	4273.7	7107.9	12009.4	27267.0	29345.1	29427.7	26667.4
72.5°	2354.1	2364.8	2422.1	2584.4	3244.4	5593.6	8714.5	23037.1	26632.4	26779.1	23625.2
75°	1582.3	1599.8	1867.1	2025.5	2333.6	4020.0	5479.8	15550.2	22514.2	22928.3	19335.9
77.5°	1207.2	1217.9	1295.6	1468.6	1688.3	2865.3	2970.3	8473.4	16390.9	17373.6	15126.4
80°	855.3	859.2	782.4	695.9	899.1	1943.9	1754.4	3608.8	6531.5	7718.2	8884.6
82.5°	382.9	377.1	444.2	369.3	518.0	752.3	828.1	1751.5	2712.7	2915.8	3174.4
85°	177.9	199.2	228.4	191.5	308.1	290.6	322.7	746.5	1271.3	1403.5	1395.7
87.5°	43.7	47.6	60.3	76.8	111.8	99.1	97.2	219.7	283.8	282.8	434.5
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°	7593.8	7593.8	7593.8	7593.8	7593.8	7593.8	7593.8	7593.8	7593.8	7593.8	7593.8
2.5°	7598.7	7548.2	7428.6	7312.9	7203.1	7130.2	7048.6	6963.0	6911.5	6887.2	6939.7
5°	7636.6	7540.4	7312.0	7082.6	6888.2	6722.0	6605.4	6506.2	6452.8	6457.6	6460.5
7.5°	7668.7	7533.6	7213.8	6890.1	6586.9	6380.8	6228.2	6121.3	6060.1	6013.4	6048.4
10°	7696.9	7505.4	7099.1	6667.6	6338.1	6032.9	5825.9	5696.6	5583.8	5520.7	5570.2
12.5°	7727.0	7494.7	6970.8	6468.3	6041.6	5700.5	5416.7	5288.4	5177.6	5129.9	5160.1
15°	7858.2	7535.5	6851.3	6234.1	5749.1	5307.8	5001.6	4844.2	4756.7	4699.4	4712.0
17.5°	8083.7	7643.4	6774.5	5989.1	5422.5	4956.0	4559.4	4375.7	4230.9	4190.1	4179.4
20°	8404.4	7848.5	6774.5	5782.1	5052.2	4565.2	4108.4	3798.4	3572.9	3488.3	3553.4
22.5°	8942.9	8197.4	6841.5	5594.5	4733.4	4159.9	3615.6	3142.3	2838.1	2714.7	2786.6
25°	9696.2	8736.8	6950.4	5430.3	4442.8	3693.4	2990.7	2446.4	2111.1	1964.3	1962.4
27.5°	10679.8	9562.0	7170.1	5296.1	4094.8	3089.8	2338.5	1814.6	1499.7	1411.3	1423.9
30°	11770.3	10456.2	7585.1	5101.8	3672.0	2414.3	1702.9	1333.5	1111.9	995.3	997.2
32.5°	12821.9	11382.5	8077.9	4975.4	3122.9	1820.5	1214.0	951.5	813.5	744.5	755.2
35°	13949.4	12181.4	8444.3	4763.5	2478.5	1316.0	858.2	713.4	656.1	620.1	622.0
37.5°	15167.3	13060.1	8745.6	4479.7	1873.9	903.9	633.7	611.4	587.1	541.4	537.5
40°	16439.5	14077.7	8925.4	4021.0	1302.4	625.9	538.5	563.7	550.1	490.8	486.0
42.5°	17518.4	14863.0	8970.1	3413.5	842.7	507.4	487.9	526.8	529.7	469.5	461.7
45°	18554.5	15562.8	8882.6	2613.6	584.1	477.2	456.8	510.3	514.2	459.7	447.1
47.5°	19714.0	16520.2	8724.2	1743.7	483.1	451.0	446.1	483.1	496.7	452.0	436.4
50°	21122.4	17298.7	8254.8	1071.1	455.8	434.5	434.5	456.8	475.3	436.4	428.6
52.5°	22566.7	17977.2	7559.8	734.8	439.3	417.0	429.6	439.3	446.1	411.1	417.9
55°	23601.8	18578.8	6523.7	590.9	429.6	405.3	435.4	416.0	406.3	376.1	369.3
57.5°	24750.7	19294.2	5464.3	523.9	417.0	412.1	416.0	379.1	351.8	320.7	313.9
60°	25552.5	19679.0	4167.7	492.8	402.4	405.3	383.9	334.4	284.8	262.4	257.6
62.5°	26252.3	19898.7	3054.8	452.9	388.8	387.8	348.0	285.8	234.2	209.9	206.1
65°	26146.4	19555.6	1979.9	420.9	378.1	365.5	312.0	244.9	195.4	176.9	175.0
67.5°	24981.0	18037.4	1247.0	387.8	359.6	337.3	279.9	218.7	179.8	158.4	156.5
70°	22534.6	15940.9	763.0	345.0	319.8	298.4	247.8	205.1	170.1	144.8	140.0
72.5°	19153.2	13653.0	539.4	304.2	278.9	253.7	209.9	195.4	162.3	130.2	126.4
75°	15735.8	10056.8	452.0	265.3	238.1	204.1	178.8	181.8	152.6	118.6	115.7
77.5°	11081.2	6270.0	420.9	216.7	187.6	162.3	154.5	166.2	140.0	108.9	105.9
80°	6467.3	3521.4	348.0	171.1	140.9	125.4	129.3	140.9	122.5	98.2	94.3
82.5°	2610.7	1393.8	244.9	133.2	103.0	100.1	105.9	114.7	101.1	82.6	80.7
85°	932.1	435.4	139.0	87.5	66.1	69.0	68.0	81.6	72.9	60.3	59.3
87.5°	244.9	86.5	62.2	35.0	28.2	28.2	26.2	37.9	35.0	27.2	30.1
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)