

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: P510728

Luminaire Tested: **CST-CA8-230-740-U-T3-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510728
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-CA8-230-740-U-T3-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 33431 lumens
Efficiency: N/A
Efficacy: 146.4 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

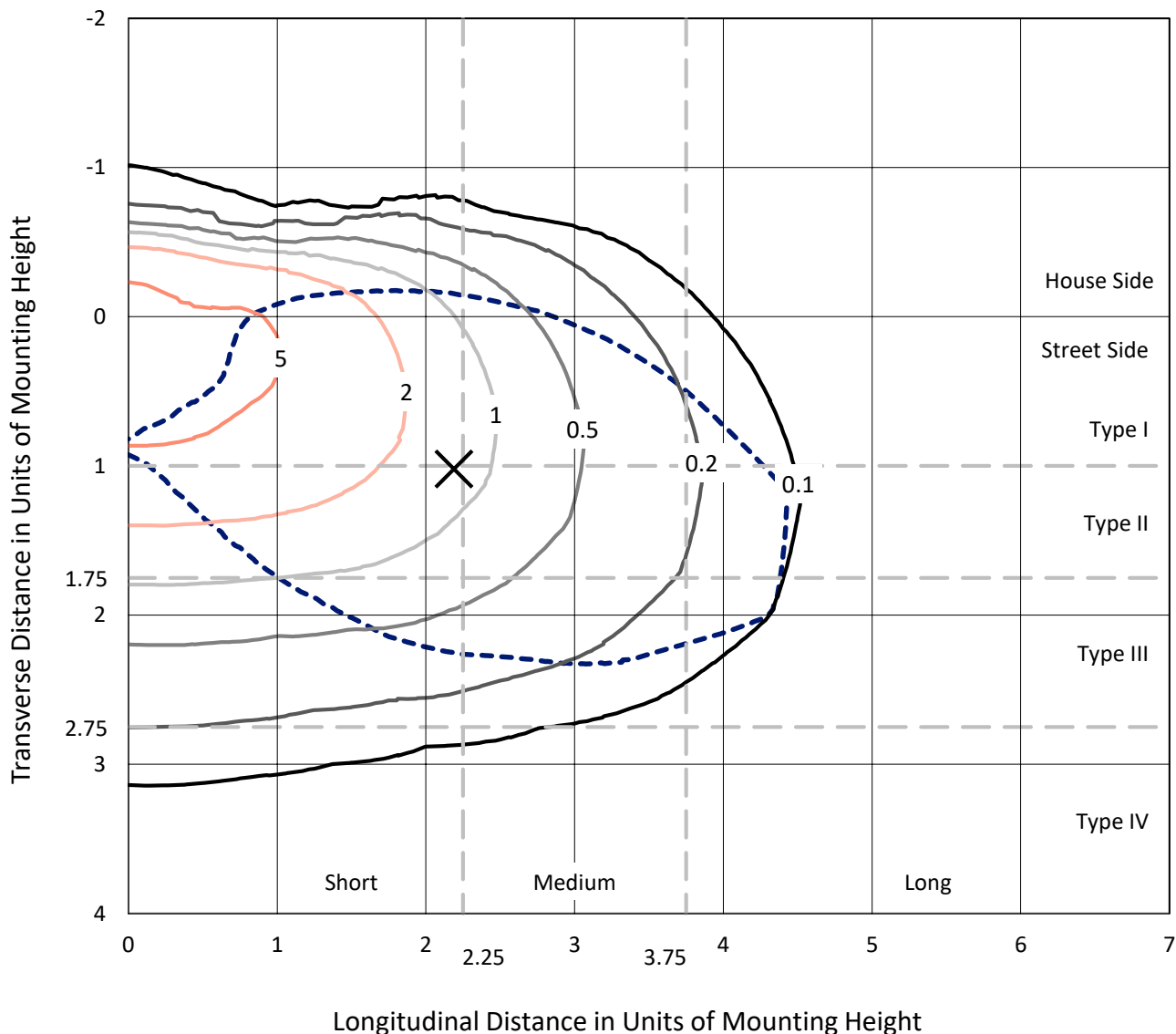
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

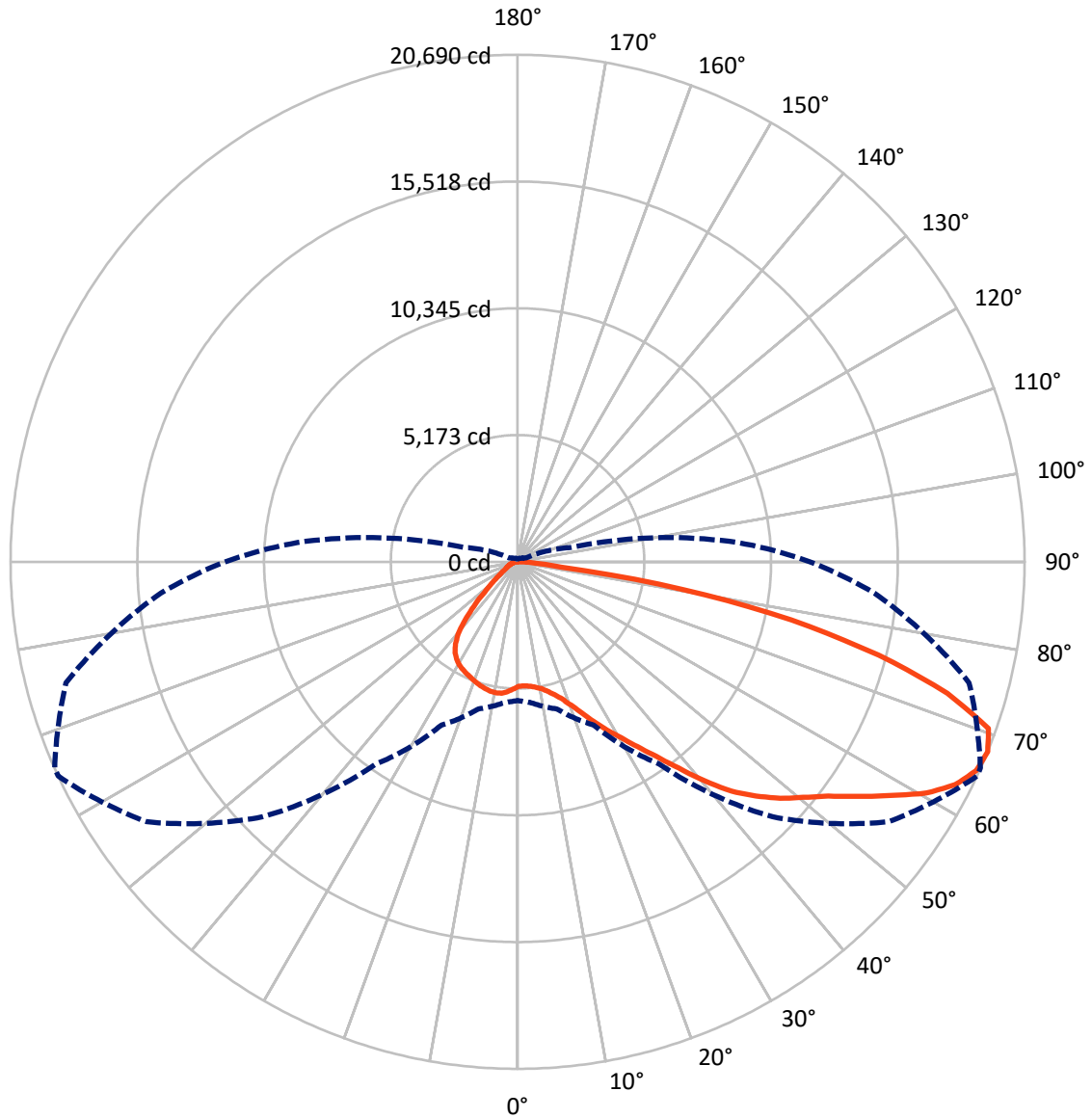
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.6 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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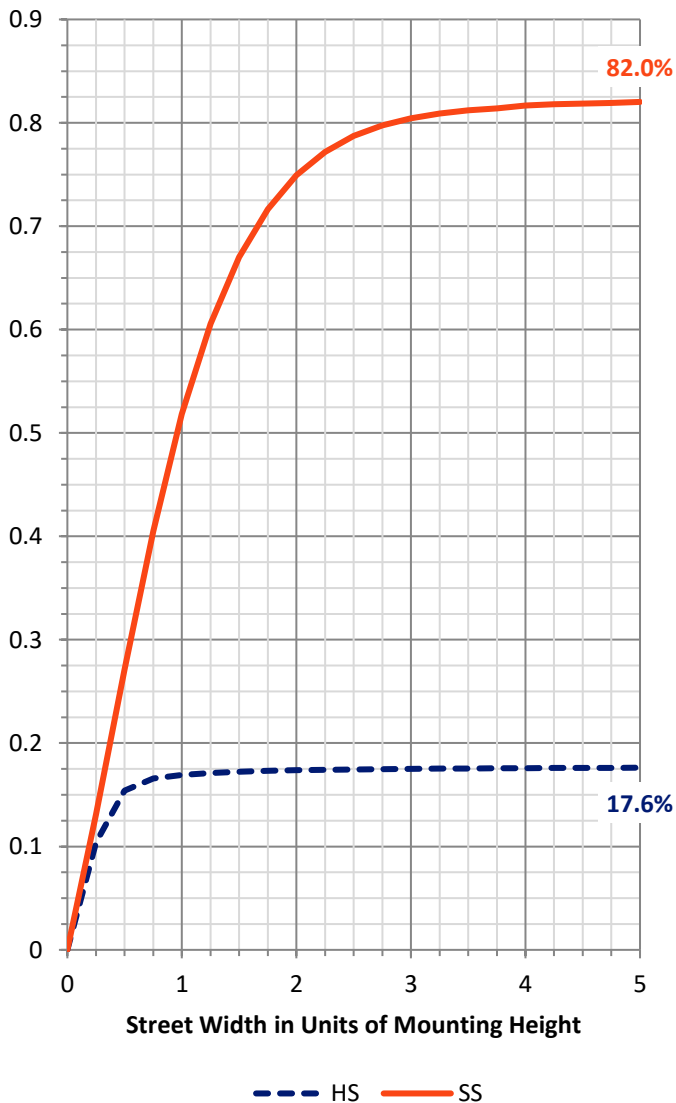
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5974.9	0.0	5974.9
	% Fixture	17.9	0.0	17.9
Street Side	Lumens	27456.1	0.0	27456.1
	% Fixture	82.1	0.0	82.1
Total	Lumens	33431.0	0.0	33431.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	502.6	1.5
10°-20°	1551.7	4.6
20°-30°	2691.8	8.1
30°-40°	4060.6	12.1
40°-50°	5630.3	16.8
50°-60°	6949.8	20.8
60°-70°	7405.0	22.1
70°-80°	4237.2	12.7
80°-90°	402.0	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°	33431.0	100.0
0°-180°	33431.0	100.0

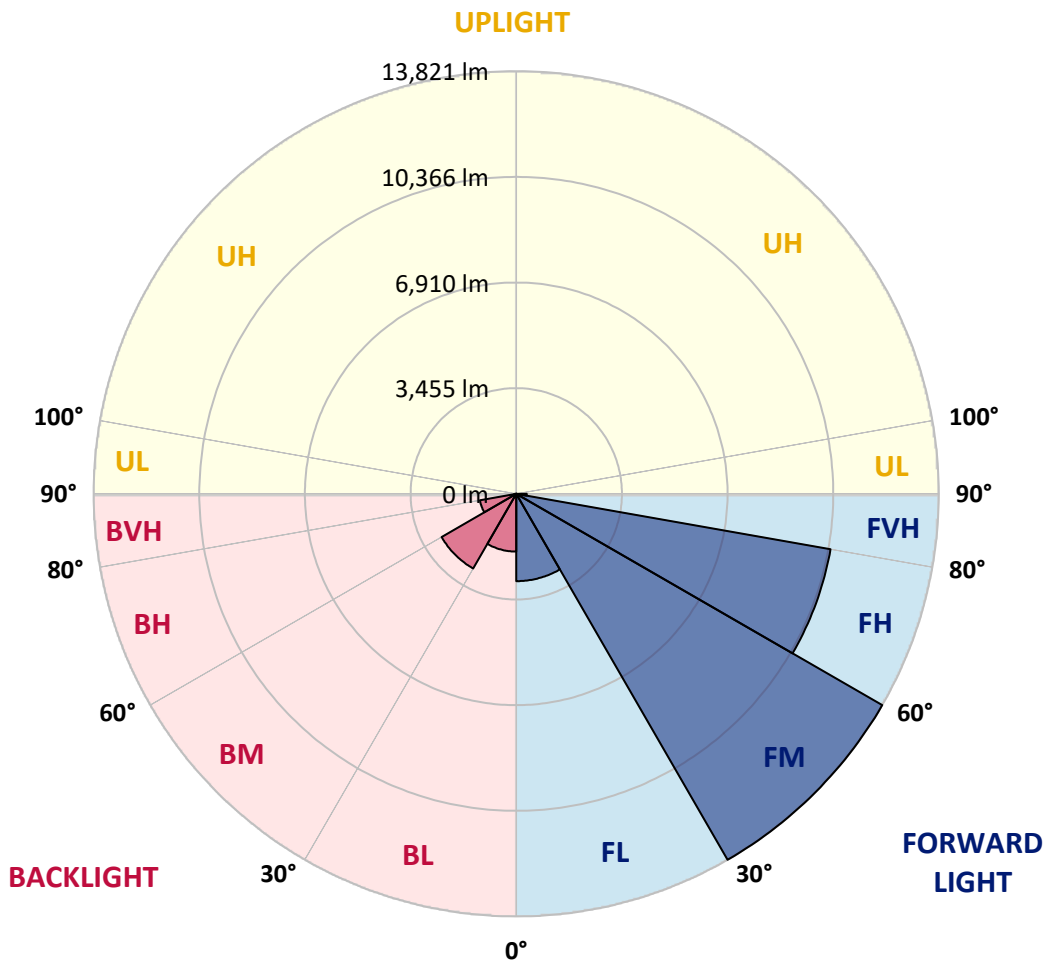


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2855.5	8.5			
FM (30°-60°)	13820.9	41.3			
FH (60°-80°)	10436.2	31.2			G4/12000
FVH (80°-90°)	343.5	1.0			G3/500
BL (0°-30°)	1890.6	5.7	B3/2500		
BM (30°-60°)	2819.9	8.4	B3/5000		
BH (60°-80°)	1205.9	3.6	B3/2500		G3/2500
BVH (80°-90°)	58.5	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4
 Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	5080.1	5080.1	5080.1	5080.1	5080.1	5080.1	5080.1	5080.1	5080.1	5080.1	5080.1
2.5°	5031.0	5024.4	5018.5	5028.8	5034.7	5044.2	5058.1	5067.6	5070.5	5079.3	5090.3
5°	5111.5	5110.8	5102.8	5098.4	5085.9	5081.5	5084.5	5096.2	5096.9	5107.9	5142.3
7.5°	5269.7	5268.3	5248.5	5239.7	5213.3	5184.0	5162.1	5164.3	5163.5	5174.5	5220.7
10°	5508.5	5496.7	5468.9	5441.8	5390.6	5335.6	5295.4	5258.7	5258.7	5274.9	5326.1
12.5°	5778.0	5794.1	5756.0	5715.0	5629.3	5530.4	5460.1	5419.1	5414.7	5422.8	5459.4
15°	6112.6	6112.6	6087.0	6028.4	5953.0	5815.3	5670.3	5618.3	5611.0	5627.8	5625.6
17.5°	6489.8	6500.7	6452.4	6423.1	6307.4	6155.1	5973.5	5883.4	5883.4	5872.4	5821.9
20°	6970.9	6910.8	6916.0	6867.6	6782.7	6561.5	6377.0	6245.9	6244.4	6222.5	6080.4
22.5°	7493.8	7460.8	7432.2	7389.8	7272.6	7074.9	6818.6	6689.0	6686.0	6631.8	6420.9
25°	8009.3	8034.2	8002.7	7925.1	7839.4	7624.1	7341.4	7214.0	7213.3	7123.2	6824.4
27.5°	8539.5	8566.6	8556.4	8486.0	8371.8	8203.4	7936.1	7769.8	7759.6	7701.0	7325.3
30°	9125.4	9101.2	9132.7	9102.7	9045.5	8770.9	8529.3	8335.9	8360.8	8343.2	7894.3
32.5°	9551.6	9566.9	9670.2	9673.1	9613.1	9409.5	9114.4	8995.7	9035.3	9011.8	8593.7
35°	9936.8	9961.7	10094.9	10226.0	10270.0	10047.3	9747.1	9739.8	9791.0	9933.8	9557.4
37.5°	10267.8	10285.3	10472.1	10642.7	10784.8	10632.5	10414.2	10674.2	10749.6	11041.8	10551.9
40°	10466.2	10488.9	10730.6	10970.8	11224.2	11170.0	11149.5	11764.6	11835.7	12092.7	11277.6
42.5°	10354.2	10398.9	10801.6	11241.0	11613.8	11722.1	12002.6	12793.5	12874.8	12896.8	11990.9
45°	10154.3	10209.9	10660.3	11371.4	11979.2	12327.0	12860.9	13632.0	13676.7	13614.4	12581.9
47.5°	9939.0	9998.3	10501.4	11332.6	12272.8	13030.8	13627.6	14421.4	14452.9	14261.8	13177.2
50°	9694.4	9749.3	10290.5	11241.7	12494.0	13695.0	14415.6	15104.0	15221.9	14844.0	13640.1
52.5°	9397.0	9455.6	10029.8	11099.7	12688.1	14187.8	15110.6	15875.1	15883.1	15571.9	14161.5
55°	9011.8	9113.6	9702.4	10853.6	12789.9	14611.1	15716.2	16895.2	16947.2	16646.2	14597.9
57.5°	8583.4	8672.1	9308.4	10525.5	12698.3	14932.6	16690.2	17989.3	17982.7	17378.5	14979.5
60°	8017.4	8080.3	8795.1	10096.4	12403.2	15321.5	17704.4	19161.7	19150.0	18096.2	15224.8
62.5°	7290.9	7353.9	8026.2	9423.4	11969.7	15582.2	18392.8	20039.8	20006.1	18618.3	15300.2
65°	6448.8	6561.5	7145.2	8549.8	11202.9	15410.8	18725.3	20556.8	20502.6	19016.7	15120.1
67.5°	5659.3	5755.3	6217.3	7347.3	10071.5	14715.8	18490.9	20690.1	20673.9	19074.6	14611.1
70°	4541.8	4577.0	5000.2	5967.6	8379.9	13227.8	17681.0	20382.5	20389.8	18541.4	13588.8
72.5°	3108.7	3194.4	3382.6	4146.4	6098.0	10519.7	15239.4	18343.7	18345.2	16625.7	11839.3
75°	1671.9	1804.4	2024.1	2402.7	3408.9	6750.5	12238.4	15221.1	15249.7	13862.0	9410.2
77.5°	829.0	876.6	1004.0	1285.2	1562.8	3184.8	7870.9	11425.6	11493.7	10640.5	6418.0
80°	379.3	387.4	396.9	394.7	598.3	1397.3	3378.9	6861.8	6882.3	6328.7	2930.0
82.5°	296.6	295.1	299.5	272.4	273.9	539.0	1169.5	1797.1	1916.5	1508.6	929.3
85°	179.4	178.7	192.6	149.4	183.8	291.5	590.2	716.9	725.7	590.2	481.1
87.5°	68.1	65.9	60.8	53.5	61.5	82.0	204.3	263.6	257.8	183.1	166.2
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°	5080.1	5080.1	5080.1	5080.1	5080.1	5080.1	5080.1	5080.1	5080.1	5080.1	5080.1
2.5°	5099.8	5123.3	5166.5	5199.4	5210.4	5245.6	5279.2	5285.1	5309.3	5318.8	5350.3
5°	5163.5	5203.1	5270.5	5315.1	5334.9	5393.5	5431.6	5450.6	5444.0	5447.7	5482.8
7.5°	5256.5	5293.9	5348.1	5402.3	5411.8	5422.0	5418.4	5415.5	5389.8	5367.9	5400.8
10°	5341.5	5376.6	5410.3	5418.4	5370.1	5343.0	5294.6	5257.3	5207.5	5184.8	5211.1
12.5°	5460.9	5468.2	5435.2	5391.3	5287.3	5190.6	5112.3	5044.2	4982.7	4940.2	4975.3
15°	5586.8	5558.3	5462.3	5334.2	5173.1	5034.7	4906.5	4793.0	4691.2	4666.3	4675.8
17.5°	5753.8	5676.2	5482.8	5267.5	5017.1	4801.8	4637.0	4493.5	4360.2	4304.5	4299.4
20°	5957.4	5832.1	5524.6	5183.3	4832.5	4546.2	4291.4	4076.8	3893.0	3742.1	3745.8
22.5°	6222.5	6040.9	5587.6	5095.4	4628.2	4246.7	3876.1	3511.4	3209.0	3078.6	3046.4
25°	6572.5	6301.6	5676.9	5015.6	4399.7	3865.9	3342.3	2827.5	2507.4	2380.8	2366.8
27.5°	7008.2	6651.6	5813.1	4927.0	4155.1	3414.0	2661.2	2156.7	1863.0	1729.7	1685.1
30°	7503.3	7082.9	5953.0	4834.7	3859.3	2833.3	2029.2	1534.9	1233.9	1114.6	1099.2
32.5°	8144.1	7629.2	6161.0	4689.7	3427.2	2227.0	1415.6	957.9	753.6	702.3	687.6
35°	9054.3	8368.1	6418.0	4506.7	2872.1	1555.4	877.3	561.0	451.8	426.2	421.1
37.5°	9903.1	9093.1	6677.2	4202.7	2180.8	971.0	501.6	359.6	335.4	336.1	337.6
40°	10576.1	9588.9	6886.7	3802.9	1434.6	551.4	348.6	298.8	299.5	297.3	295.9
42.5°	11175.1	9984.4	6981.1	3211.9	831.2	369.1	302.4	275.3	268.8	271.0	269.5
45°	11670.9	10387.9	6798.1	2547.7	489.9	331.0	285.6	255.6	248.3	260.0	261.4
47.5°	12192.3	10770.9	6517.6	1919.4	397.6	314.9	270.2	240.9	237.3	251.9	253.4
50°	12630.9	11048.4	6039.4	1446.3	379.3	297.3	256.3	226.3	225.6	238.7	238.7
52.5°	12997.8	11216.1	5471.8	1116.8	366.9	281.9	242.4	212.4	212.4	216.8	217.5
55°	13256.3	11182.4	5133.5	878.8	353.7	267.3	227.7	199.2	190.4	187.5	188.9
57.5°	13303.2	11093.1	4741.0	685.4	338.3	253.4	214.6	183.8	167.7	165.5	164.8
60°	13273.2	10896.8	4292.8	572.7	320.8	240.2	201.4	167.7	151.6	146.5	147.9
62.5°	13148.0	10549.0	3775.1	502.4	303.2	229.9	186.7	156.7	142.1	135.5	135.5
65°	12770.1	10051.0	3006.1	440.1	281.2	219.0	175.0	152.3	136.2	128.9	127.4
67.5°	11939.6	9017.7	2259.2	385.9	260.0	207.2	173.6	151.6	133.3	123.0	121.6
70°	10825.8	7746.4	1542.3	339.1	236.5	196.3	172.8	152.3	130.4	117.2	115.7
72.5°	9037.5	6106.8	888.3	295.1	213.1	186.0	169.9	153.1	125.2	109.1	106.9
75°	6790.7	4283.3	521.4	253.4	190.4	170.6	161.8	148.7	117.2	99.6	97.4
77.5°	4084.1	1999.9	392.5	210.2	163.3	150.1	144.3	136.2	106.9	92.3	90.1
80°	1498.3	759.4	308.3	168.4	129.6	130.4	124.5	119.4	97.4	84.9	83.5
82.5°	653.2	464.3	227.7	128.2	101.8	116.4	102.5	98.1	83.5	76.2	73.2
85°	396.2	276.8	146.5	87.1	70.3	79.1	71.8	75.4	64.4	60.0	57.9
87.5°	131.1	82.8	65.2	42.5	35.2	33.0	32.2	38.8	36.6	33.7	33.7
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)