

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: P510696

Luminaire Tested: **CST-CA8-230-722-U-T2-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510696
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-CA8-230-722-U-T2-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26589 lumens
Efficiency: N/A
Efficacy: 116.4 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

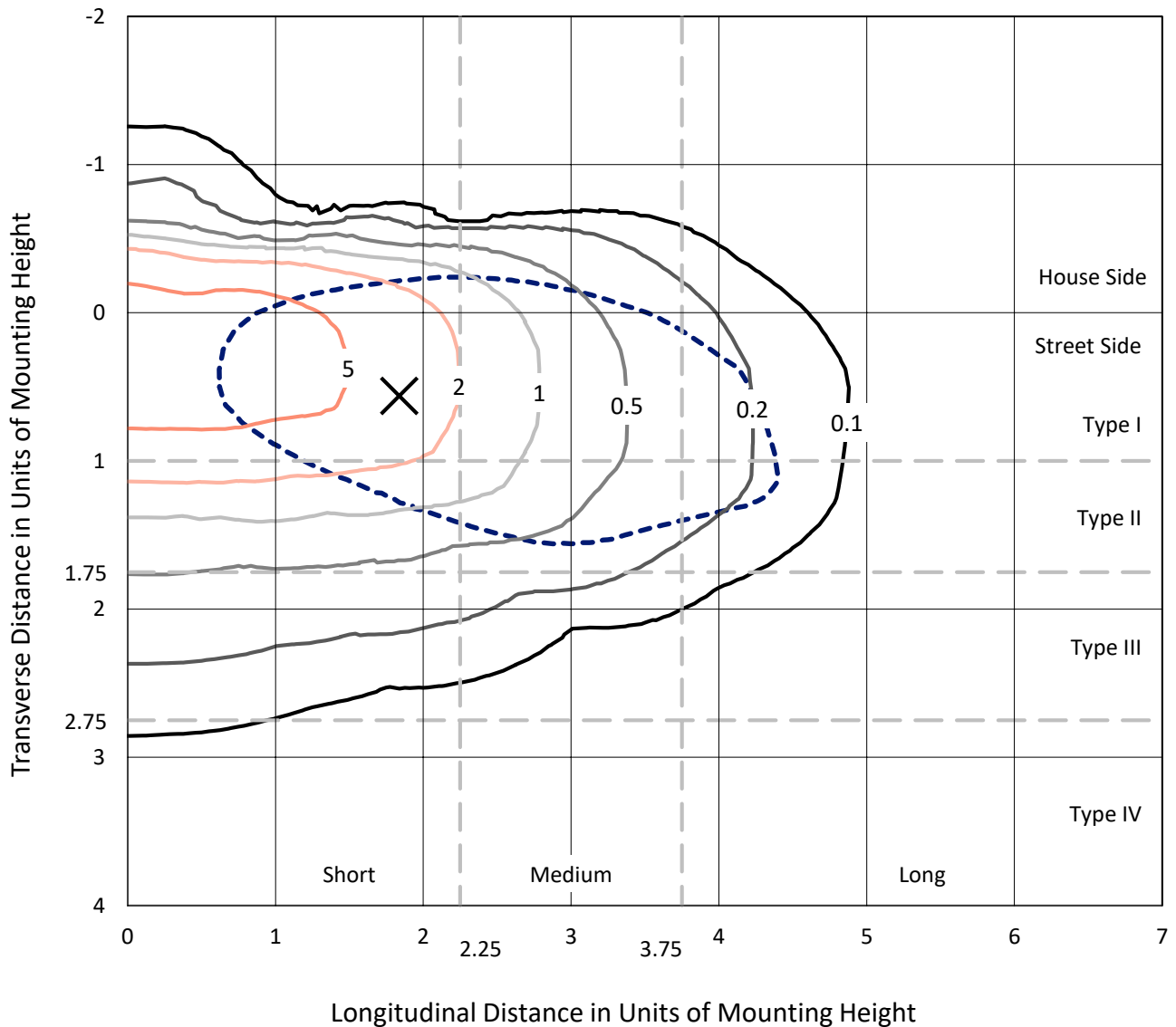
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

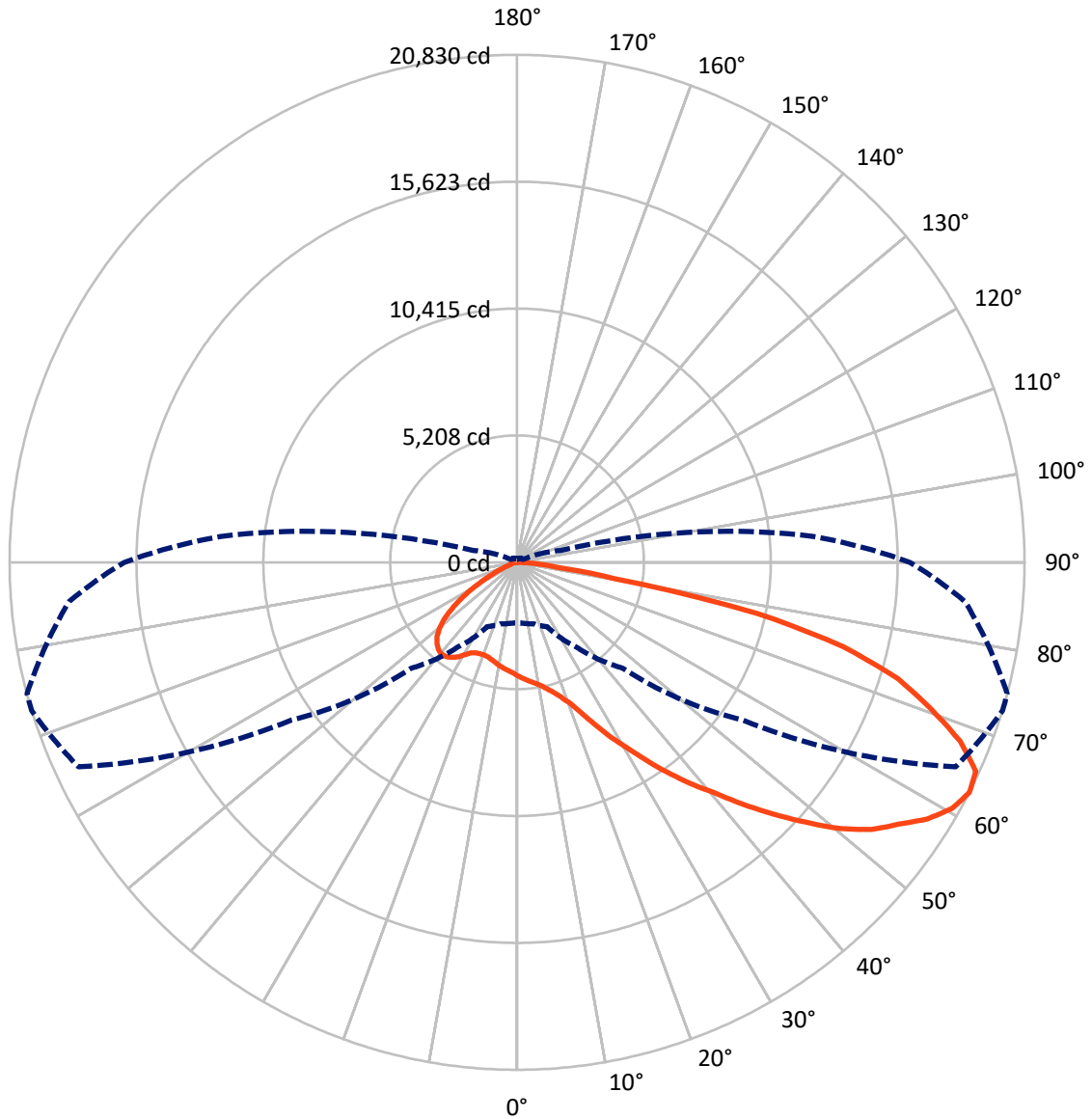
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.3 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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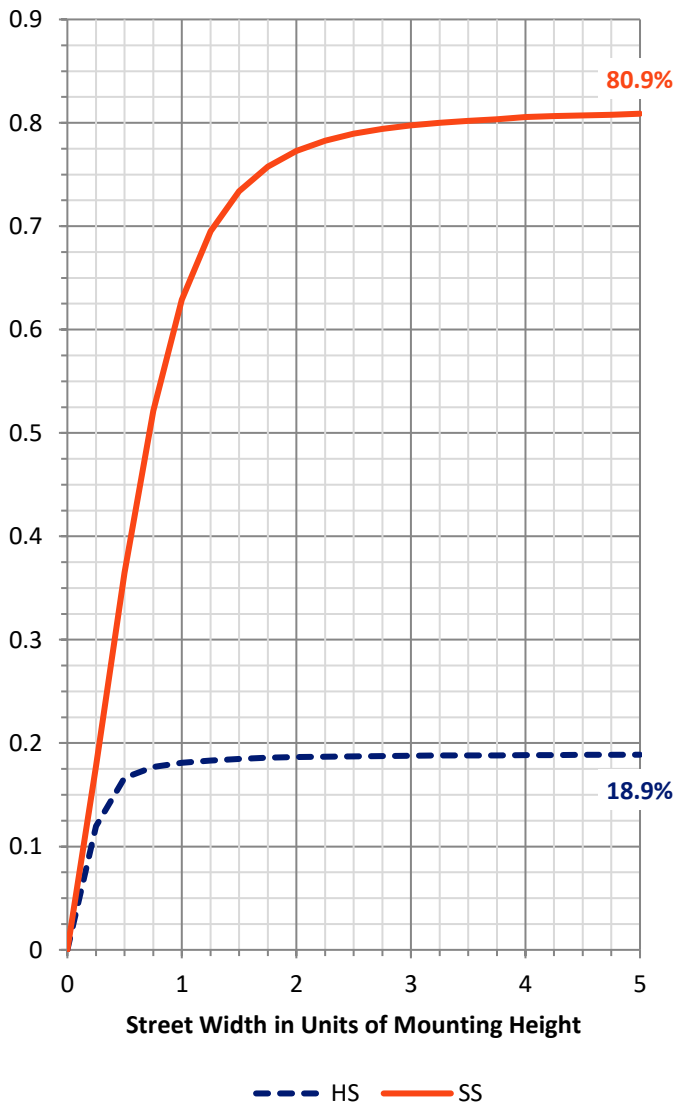
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5086.3	0.0	5086.3
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	21502.6	0.0	21502.6
	% Fixture	80.9	0.0	80.9
Total	Lumens	26589.0	0.0	26589.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	445.4	1.7
10°-20°	1339.6	5.0
20°-30°	2314.6	8.7
30°-40°	3480.6	13.1
40°-50°	4641.0	17.5
50°-60°	5465.7	20.6
60°-70°	5433.9	20.4
70°-80°	3119.7	11.7
80°-90°	348.5	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°	26589.0	100.0
0°-180°	26589.0	100.0



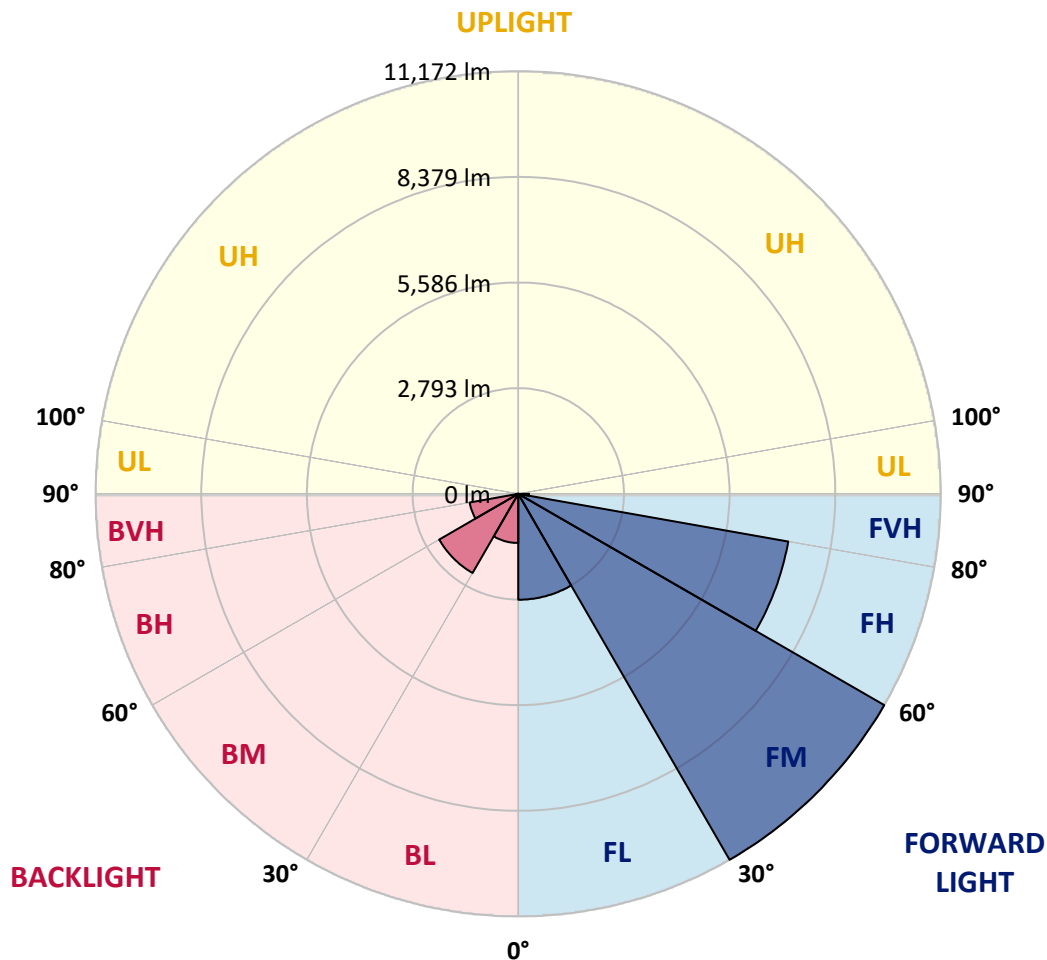
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2799.8	10.5			
FM (30°-60°)	11172.1	42.0			
FH (60°-80°)	7247.7	27.3			G3/7500
FVH (80°-90°)	283.1	1.1			G3/500
BL (0°-30°)	1299.8	4.9	B3/2500		
BM (30°-60°)	2415.2	9.1	B2/2500		
BH (60°-80°)	1305.9	4.9	B3/2500		G3/2500
BVH (80°-90°)	65.5	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-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	73°	75°	85°
0°	4663.1	4663.1	4663.1	4663.1	4663.1	4663.1	4663.1	4663.1	4663.1	4663.1	4663.1
2.5°	4989.0	5001.5	4986.6	4980.0	4972.9	4926.3	4872.0	4816.5	4771.7	4764.6	4706.1
5°	5339.3	5345.9	5321.4	5293.4	5245.0	5168.0	5070.7	4974.7	4885.1	4861.3	4754.4
7.5°	5608.5	5596.0	5590.0	5566.1	5523.7	5439.0	5291.6	5134.0	4995.5	4962.1	4799.8
10°	5861.0	5855.6	5810.2	5780.4	5712.9	5634.8	5513.6	5313.7	5118.5	5064.8	4839.2
12.5°	6134.3	6122.4	6103.9	6039.4	5984.5	5852.6	5706.4	5524.3	5307.1	5235.5	4906.6
15°	6380.2	6348.0	6337.8	6270.4	6214.9	6114.0	5967.2	5755.9	5523.7	5462.3	5034.9
17.5°	6614.2	6599.3	6576.6	6530.6	6468.5	6391.0	6273.4	6047.2	5807.2	5717.7	5252.8
20°	6812.9	6794.4	6774.7	6787.3	6773.5	6724.0	6650.0	6457.2	6164.2	6077.6	5517.8
22.5°	6951.4	6950.8	7029.6	7075.5	7101.8	7100.0	7082.1	6972.9	6678.0	6590.3	5914.1
25°	7066.6	7075.5	7175.2	7350.1	7506.4	7520.8	7647.3	7595.4	7344.7	7253.4	6510.3
27.5°	7100.6	7118.5	7299.3	7574.5	7812.0	8040.0	8225.6	8320.5	8088.4	7979.1	7151.3
30°	7125.1	7132.2	7309.5	7638.9	8139.7	8500.8	8832.6	8993.2	8793.2	8713.3	7865.7
32.5°	6952.6	6955.0	7226.5	7725.5	8380.2	9006.3	9399.0	9701.6	9649.1	9543.5	8647.0
35°	6715.0	6759.2	7070.8	7641.9	8578.4	9470.6	10005.4	10456.6	10561.7	10485.9	9427.7
37.5°	6421.4	6456.0	6789.6	7517.8	8621.9	9790.0	10476.9	11224.2	11498.7	11486.2	10370.1
40°	6060.3	6102.7	6502.0	7250.4	8600.5	10022.1	11030.2	12074.1	12422.6	12383.2	11304.7
42.5°	5633.6	5695.6	6083.0	6906.6	8443.5	10164.2	11483.2	12939.5	13566.8	13541.1	12132.0
45°	5211.6	5245.0	5598.4	6428.0	8154.6	10210.1	11909.3	14132.0	14740.1	14711.5	13128.7
47.5°	4776.5	4805.7	5174.6	5923.6	7653.3	10117.6	12246.5	15156.1	15935.6	15907.0	14118.8
50°	3764.3	3874.7	4630.9	5480.2	7082.1	9855.6	12564.7	16432.2	17186.6	17064.8	14986.0
52.5°	3220.5	3260.5	3652.7	5033.1	6512.1	9408.6	12777.1	17614.5	18215.5	18040.1	15872.9
55°	3010.5	3037.3	3229.5	4208.9	5976.7	8732.4	13027.2	18799.8	18987.2	18942.5	16596.3
57.5°	2851.1	2880.9	3018.2	3515.4	5412.7	7784.6	12949.0	19633.6	19868.2	19724.9	17364.4
60°	2625.5	2661.9	2843.9	3156.1	4771.7	6822.5	12260.9	19975.0	20508.6	20347.4	17948.7
62.5°	2483.4	2507.3	2611.8	2914.4	4240.5	6145.7	11281.5	19865.2	20830.3	20824.3	18455.5
65°	2290.7	2325.9	2437.5	2682.8	3767.8	5621.0	10357.5	19322.7	20691.8	20697.2	18559.9
67.5°	2088.9	2103.3	2220.2	2417.2	3211.0	5140.6	9162.1	18394.6	19613.3	19736.3	17837.1
70°	1837.1	1829.9	1956.4	2100.3	2624.3	4364.7	7374.5	16743.7	18019.8	18070.5	16375.5
72.5°	1445.5	1452.1	1487.3	1587.0	1992.2	3434.8	5351.3	14146.3	16354.0	16444.1	14507.4
75°	971.7	982.4	1146.5	1243.8	1433.0	2468.5	3365.0	9548.8	13825.2	14079.4	11873.5
77.5°	741.3	747.8	795.6	901.8	1036.7	1759.5	1823.9	5203.2	10065.1	10668.5	9288.6
80°	525.2	527.6	480.5	427.3	552.1	1193.7	1077.3	2216.1	4010.8	4739.5	5455.7
82.5°	235.2	231.6	272.8	226.8	318.1	462.0	508.5	1075.5	1665.8	1790.5	1949.3
85°	109.2	122.4	140.3	117.6	189.2	178.5	198.2	458.4	780.7	861.8	857.1
87.5°	26.9	29.2	37.0	47.2	68.6	60.9	59.7	134.9	174.3	173.7	266.8
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°	4663.1	4663.1	4663.1	4663.1	4663.1	4663.1	4663.1	4663.1	4663.1	4663.1	4663.1
2.5°	4666.1	4635.1	4561.6	4490.6	4423.2	4378.4	4328.3	4275.8	4244.1	4229.2	4261.4
5°	4689.4	4630.3	4490.0	4349.2	4229.8	4127.7	4056.1	3995.2	3962.4	3965.4	3967.2
7.5°	4709.1	4626.1	4429.7	4231.0	4044.8	3918.2	3824.5	3758.9	3721.3	3692.6	3714.1
10°	4726.4	4608.8	4359.3	4094.3	3892.0	3704.6	3577.5	3498.1	3428.8	3390.0	3420.5
12.5°	4744.9	4602.2	4280.5	3972.0	3710.0	3500.5	3326.2	3247.4	3179.4	3150.1	3168.6
15°	4825.4	4627.3	4207.1	3828.1	3530.3	3259.3	3071.3	2974.6	2920.9	2885.7	2893.5
17.5°	4963.9	4693.5	4160.0	3677.7	3329.8	3043.3	2799.8	2687.0	2598.0	2573.0	2566.4
20°	5160.9	4819.5	4160.0	3550.6	3102.4	2803.4	2522.8	2332.4	2194.0	2142.1	2182.0
22.5°	5491.5	5033.7	4201.2	3435.4	2906.6	2554.5	2220.2	1929.6	1742.8	1667.0	1711.1
25°	5954.1	5365.0	4268.0	3334.5	2728.2	2268.0	1836.5	1502.2	1296.3	1206.2	1205.0
27.5°	6558.1	5871.7	4402.9	3252.2	2514.5	1897.4	1436.0	1114.3	920.9	866.6	874.4
30°	7227.7	6420.8	4657.7	3132.8	2254.9	1482.5	1045.7	818.9	682.8	611.2	612.4
32.5°	7873.5	6989.6	4960.3	3055.2	1917.6	1117.9	745.5	584.3	499.6	457.2	463.7
35°	8565.8	7480.2	5185.3	2925.1	1521.9	808.1	527.0	438.1	402.9	380.8	382.0
37.5°	9313.7	8019.7	5370.4	2750.8	1150.7	555.1	389.1	375.4	360.5	332.4	330.1
40°	10094.9	8644.6	5480.8	2469.1	799.8	384.4	330.6	346.2	337.8	301.4	298.4
42.5°	10757.4	9126.9	5508.2	2096.1	517.5	311.6	299.6	323.5	325.3	288.3	283.5
45°	11393.7	9556.6	5454.5	1604.9	358.7	293.0	280.5	313.3	315.7	282.3	274.5
47.5°	12105.7	10144.5	5357.2	1070.7	296.6	276.9	273.9	296.6	305.0	277.5	268.0
50°	12970.5	10622.5	5069.0	657.7	279.9	266.8	266.8	280.5	291.9	268.0	263.2
52.5°	13857.4	11039.1	4642.2	451.2	269.8	256.0	263.8	269.8	273.9	252.5	256.6
55°	14493.0	11408.6	4006.0	362.9	263.8	248.9	267.4	255.4	249.5	231.0	226.8
57.5°	15198.5	11847.9	3355.4	321.7	256.0	253.1	255.4	232.8	216.1	197.0	192.8
60°	15690.9	12084.2	2559.2	302.6	247.1	248.9	235.8	205.3	174.9	161.1	158.2
62.5°	16120.6	12219.1	1875.9	278.1	238.7	238.1	213.7	175.5	143.8	128.9	126.5
65°	16055.6	12008.4	1215.8	258.4	232.2	224.4	191.6	150.4	120.0	108.6	107.4
67.5°	15340.0	11076.1	765.7	238.1	220.8	207.1	171.9	134.3	110.4	97.3	96.1
70°	13837.7	9788.8	468.5	211.9	196.4	183.2	152.2	125.9	104.4	88.9	85.9
72.5°	11761.3	8383.8	331.2	186.8	171.3	155.8	128.9	120.0	99.7	80.0	77.6
75°	9662.8	6175.5	277.5	162.9	146.2	125.3	109.8	111.6	93.7	72.8	71.0
77.5°	6804.6	3850.2	258.4	133.1	115.2	99.7	94.9	102.1	85.9	66.8	65.1
80°	3971.4	2162.3	213.7	105.0	86.5	77.0	79.4	86.5	75.2	60.3	57.9
82.5°	1603.1	855.9	150.4	81.8	63.3	61.5	65.1	70.4	62.1	50.7	49.5
85°	572.4	267.4	85.3	53.7	40.6	42.4	41.8	50.1	44.8	37.0	36.4
87.5°	150.4	53.1	38.2	21.5	17.3	17.3	16.1	23.3	21.5	16.7	18.5
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)