

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: McGRAW-EDISON

Report Number: P510500

Luminaire Tested: **CTN-CA10-310-750-U-T4-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510500
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-310-750-U-T4-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: 43662 lumens
Efficiency: N/A
Efficacy: 139.8 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

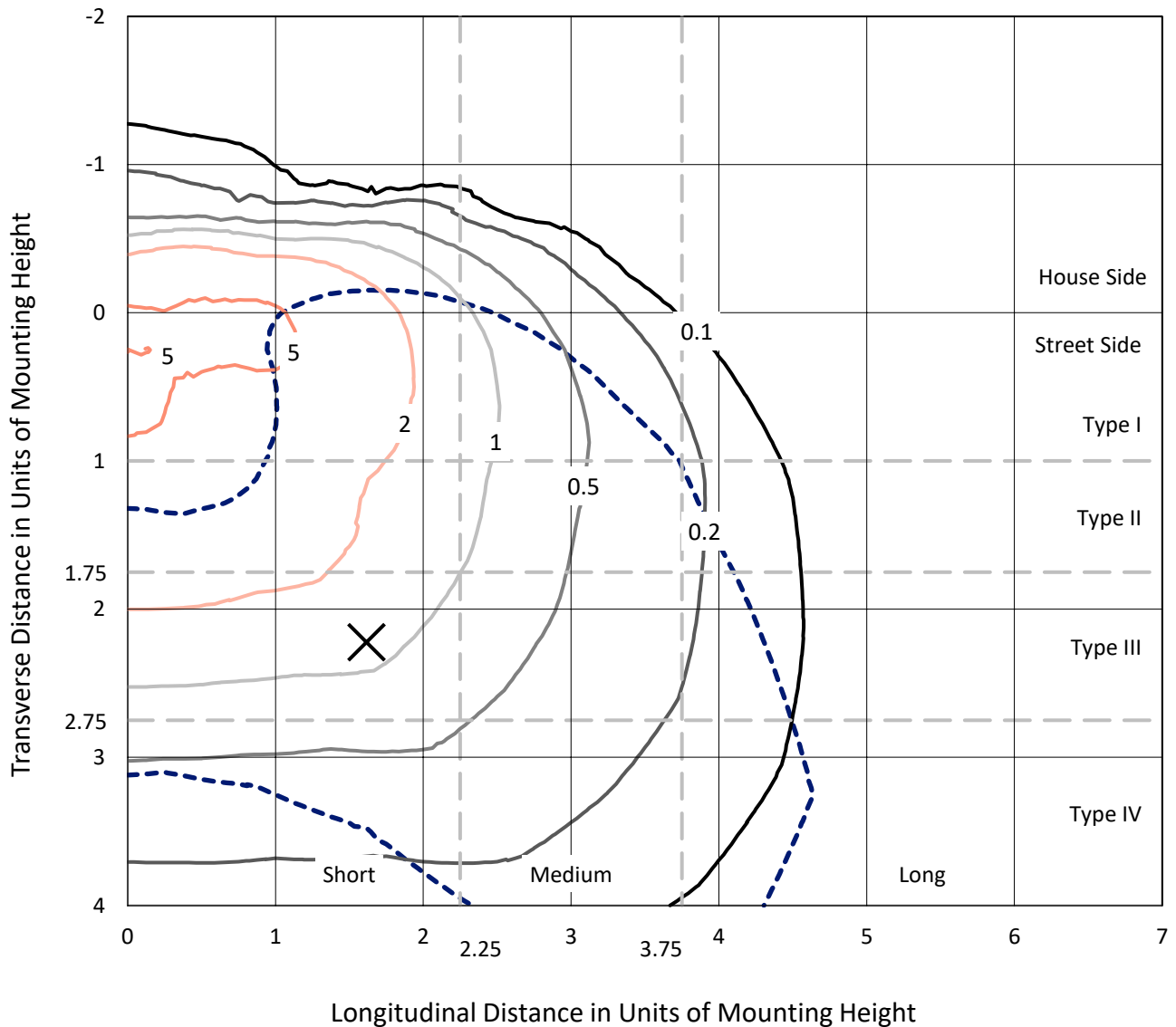
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

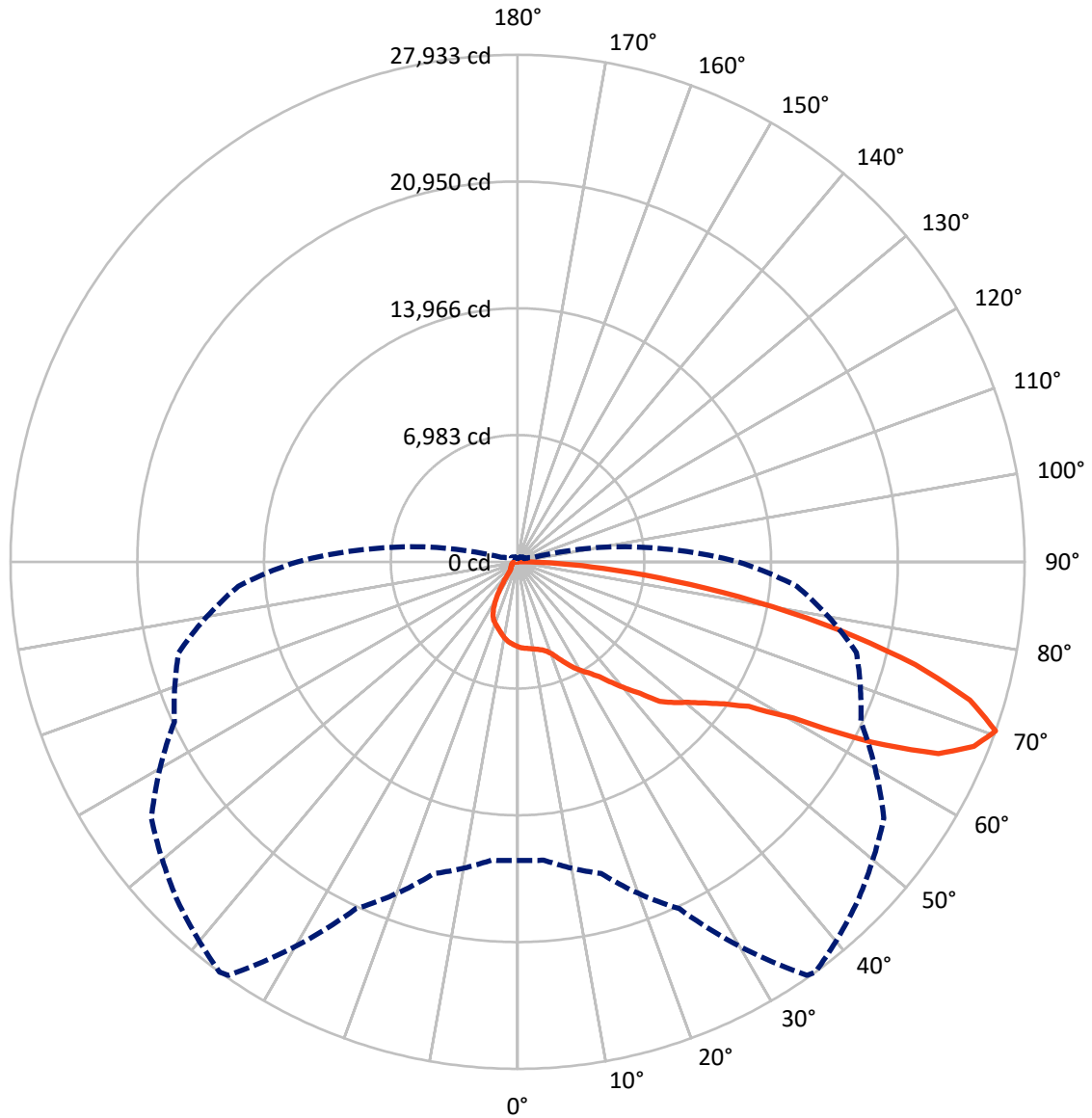
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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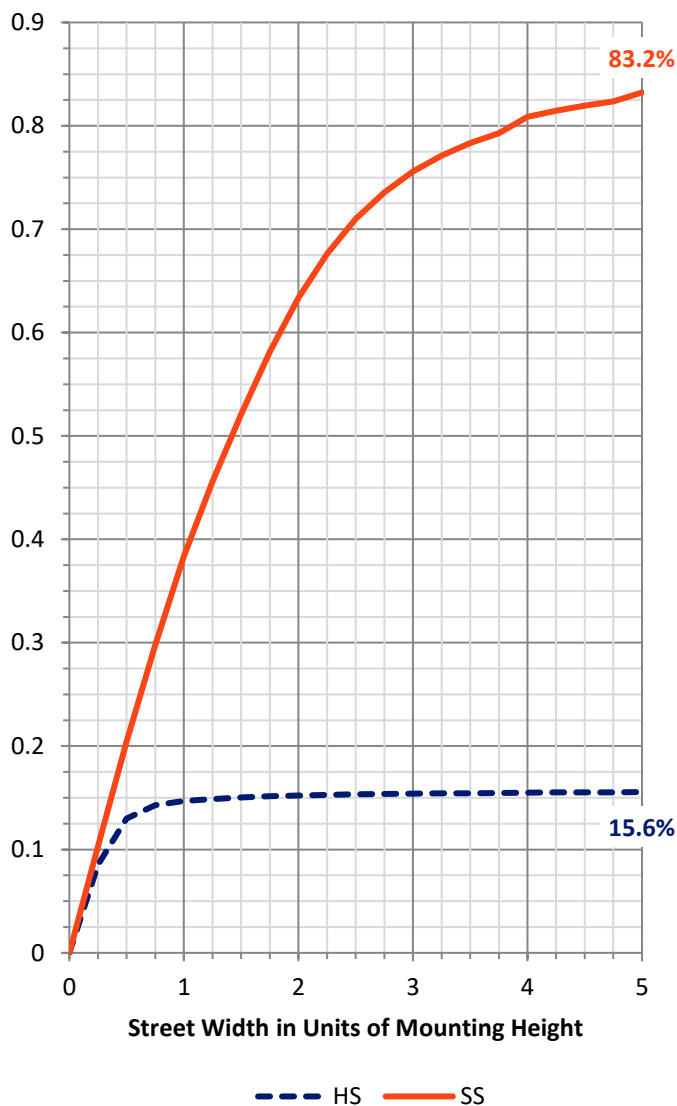
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6890.2	0.0	6890.2
	% Fixture	15.8	0.0	15.8
Street Side	Lumens	36771.8	0.0	36771.8
	% Fixture	84.2	0.0	84.2
Total	Lumens	43662.0	0.0	43662.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	443.7	1.0
10°-20°	1319.4	3.0
20°-30°	2372.7	5.4
30°-40°	3754.8	8.6
40°-50°	5868.0	13.4
50°-60°	8426.4	19.3
60°-70°	11429.6	26.2
70°-80°	8459.1	19.4
80°-90°	1588.4	3.6
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°	43662.0	100.0
0°-180°	43662.0	100.0

Coefficient of Utilization



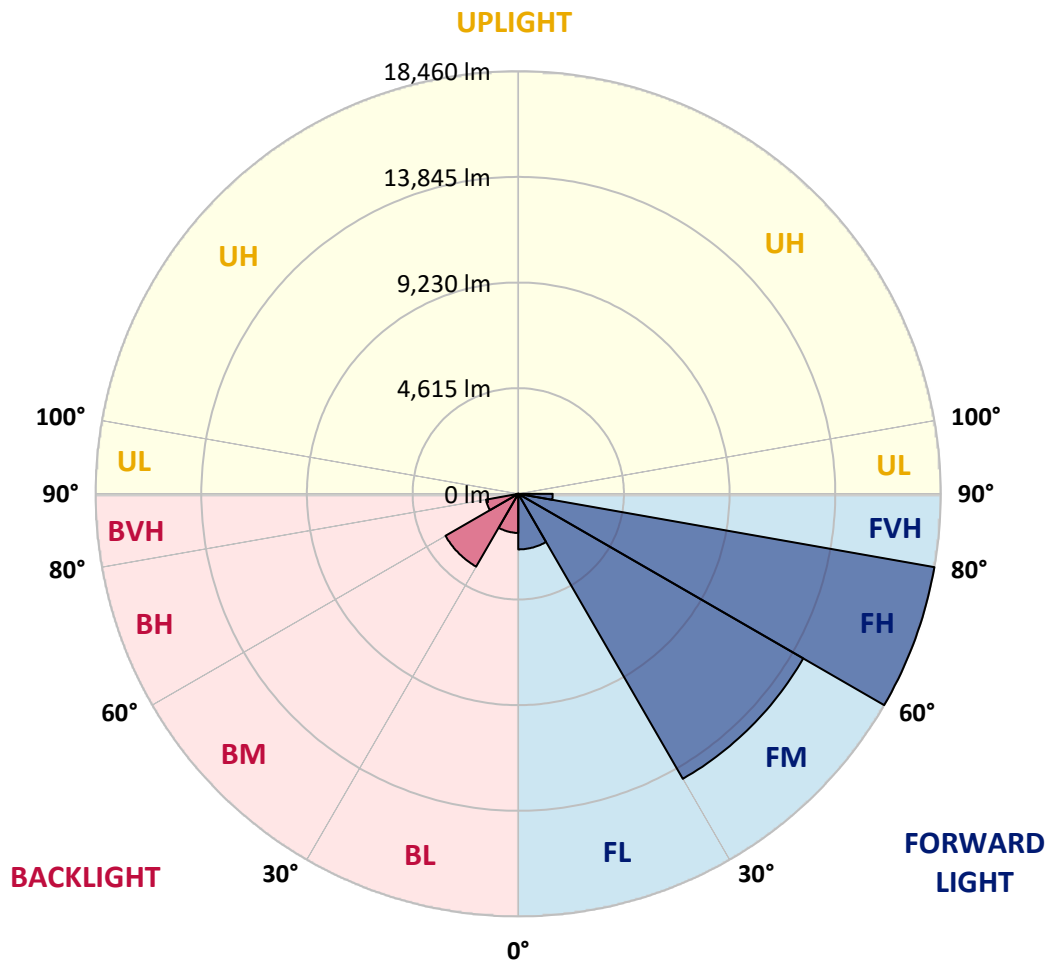
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2428.5	5.6			
FM (30°-60°)	14377.5	32.9			
FH (60°-80°)	18459.9	42.3			G5
FVH (80°-90°)	1506.0	3.4			G5
BL (0°-30°)	1707.4	3.9	B3/2500		
BM (30°-60°)	3671.6	8.4	B3/5000		
BH (60°-80°)	1428.8	3.3	B3/2500		G3/2500
BVH (80°-90°)	82.4	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-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	4678.2	4678.2	4678.2	4678.2	4678.2	4678.2	4678.2	4678.2	4678.2	4678.2	4678.2
2.5°	4772.9	4762.8	4754.8	4757.8	4751.8	4755.8	4746.7	4735.6	4709.4	4698.3	4693.3
5°	4815.3	4812.2	4804.2	4798.1	4787.0	4783.0	4772.9	4782.0	4767.9	4731.6	4710.4
7.5°	4840.5	4839.4	4830.4	4817.3	4823.3	4828.4	4838.4	4824.3	4806.2	4789.0	4745.7
10°	4851.5	4851.5	4840.5	4847.5	4878.8	4881.8	4886.8	4895.9	4878.8	4853.6	4810.2
12.5°	4879.8	4877.8	4881.8	4905.0	4937.2	4944.3	4969.5	4969.5	4971.5	4956.4	4906.0
15°	4950.3	4950.3	4959.4	4980.6	5036.0	5040.0	5077.3	5110.6	5114.6	5092.5	5054.2
17.5°	5113.6	5109.6	5104.6	5117.7	5177.1	5179.1	5243.7	5286.0	5297.1	5321.3	5315.2
20°	5424.1	5420.1	5419.1	5420.1	5416.0	5410.0	5473.5	5518.8	5575.3	5617.6	5638.8
22.5°	5868.6	5859.6	5859.6	5810.2	5771.9	5777.9	5788.0	5813.2	5887.8	5962.4	6042.0
25°	6347.4	6341.4	6346.4	6220.4	6169.0	6189.2	6176.1	6215.4	6313.2	6377.7	6462.3
27.5°	6738.5	6747.6	6719.4	6621.6	6588.3	6603.5	6573.2	6686.1	6794.0	6906.9	7034.9
30°	7225.4	7177.0	7107.5	6988.5	6976.4	6978.4	6976.4	7157.9	7381.6	7542.9	7720.3
32.5°	7861.5	7869.5	7713.3	7433.1	7330.2	7316.1	7356.4	7622.6	7925.0	8282.8	8516.7
35°	8504.6	8517.7	8403.8	8111.4	7818.1	7773.8	7714.3	8060.0	8496.5	9214.2	9567.0
37.5°	9187.0	9233.4	9098.3	8837.2	8489.4	8448.1	8166.9	8506.6	9151.7	10317.0	10779.6
40°	10100.2	10050.8	9887.6	9555.9	9232.3	9165.8	8839.2	9017.6	9994.4	11697.9	12033.6
42.5°	10773.6	10759.5	10621.4	10293.8	9968.2	9914.8	9651.7	9845.2	11055.8	13098.1	13248.3
45°	11307.8	11394.5	11391.5	11185.9	11002.4	10972.2	10816.9	11102.2	12339.0	14419.6	14346.0
47.5°	11782.6	11836.0	11750.4	11660.6	11575.0	11585.0	11700.0	12286.6	13650.4	15573.7	15248.1
50°	12559.8	12491.2	12107.2	12038.6	12159.6	12164.6	12514.4	13417.6	15094.9	16571.7	16012.2
52.5°	13596.0	13521.4	12732.2	12615.2	12901.5	12922.7	13504.3	14544.5	16584.8	17525.2	16772.2
55°	15138.3	14964.9	14119.2	13595.0	13726.0	13811.7	14516.3	15628.2	17751.0	18365.9	17347.8
57.5°	17032.3	17158.3	16724.9	15540.5	14995.1	15027.4	15674.5	16665.4	18780.2	19101.8	17684.5
60°	19034.2	19004.0	19185.4	18686.5	17642.2	17468.8	17139.2	17723.8	19577.5	19721.7	18031.2
62.5°	20130.9	20307.3	20912.1	21011.9	21954.4	21862.7	19615.8	19036.2	20498.9	20110.8	18126.0
65°	20124.9	20201.5	21327.4	22565.3	25509.7	25483.5	24439.2	20934.3	21185.3	20318.4	17936.5
67.5°	18824.6	18943.5	20260.0	22678.2	27152.7	27121.5	26399.7	23602.5	21401.0	20068.4	17052.5
70°	16453.7	16494.0	17778.2	21088.5	27813.0	27932.9	26467.3	24626.6	20864.8	19325.5	15440.7
72.5°	13573.8	13490.2	14746.2	18009.1	26131.6	26060.0	25348.4	23403.9	19961.6	17883.1	12593.0
75°	9994.4	10227.3	11354.2	14459.9	22373.7	22635.8	22951.3	21533.1	17728.8	14738.1	8708.2
77.5°	6599.4	6895.8	8034.8	10842.1	17712.7	18120.0	18937.4	18314.5	14422.6	10572.0	4146.9
80°	3410.1	3633.9	4659.0	7194.2	12697.9	13285.5	14784.5	13871.2	10225.2	4780.0	928.4
82.5°	1290.3	1261.0	2087.6	4117.7	8141.7	8675.9	9765.6	8318.1	3638.9	839.7	431.4
85°	566.5	599.8	864.9	1877.9	4655.0	4724.5	5531.9	3242.8	533.2	401.2	293.3
87.5°	244.9	281.2	362.9	540.3	1570.5	1813.4	2243.8	1030.2	161.3	139.1	147.2
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°	4678.2	4678.2	4678.2	4678.2	4678.2	4678.2	4678.2	4678.2	4678.2	4678.2	4678.2
2.5°	4684.2	4678.2	4668.1	4642.9	4601.6	4596.5	4592.5	4588.5	4580.4	4584.4	4607.6
5°	4694.3	4683.2	4646.9	4610.6	4574.3	4542.1	4502.8	4487.7	4467.5	4454.4	4478.6
7.5°	4728.6	4705.4	4652.0	4602.6	4503.8	4456.4	4406.0	4346.5	4304.2	4277.0	4301.2
10°	4786.0	4756.8	4690.3	4588.5	4472.5	4342.5	4253.8	4155.0	4074.4	4052.2	4074.4
12.5°	4879.8	4836.4	4758.8	4620.7	4415.1	4244.7	4076.4	3946.4	3816.3	3779.0	3790.1
15°	5032.0	4997.7	4878.8	4688.2	4416.1	4156.0	3906.0	3696.4	3526.0	3466.5	3462.5
17.5°	5275.9	5239.6	5102.5	4822.3	4452.4	4086.5	3738.7	3419.2	3161.1	3030.1	3008.9
20°	5625.7	5575.3	5367.6	5019.9	4531.0	4056.2	3583.5	3154.1	2752.9	2506.9	2469.6
22.5°	6014.8	5961.4	5654.9	5172.1	4587.4	3996.8	3435.3	2860.7	2332.5	2032.1	1989.8
25°	6498.6	6381.7	5930.1	5316.2	4574.3	3871.8	3194.4	2462.6	1890.0	1629.9	1601.7
27.5°	6976.4	6828.2	6210.3	5391.8	4516.9	3673.2	2841.6	1996.9	1479.8	1295.3	1272.1
30°	7569.1	7282.9	6459.3	5427.1	4371.7	3375.8	2368.8	1518.1	1107.8	980.8	958.6
32.5°	8273.7	7840.3	6693.2	5387.8	4129.8	2922.2	1841.6	1111.8	823.5	743.9	742.9
35°	9203.1	8523.7	6950.2	5258.8	3758.9	2433.3	1291.3	760.0	642.1	614.9	619.9
37.5°	10289.7	9449.1	7211.3	5047.1	3339.5	1861.8	860.8	585.7	564.5	565.5	566.5
40°	11435.9	10471.2	7563.1	4749.7	2830.5	1347.7	619.9	526.2	525.2	535.3	538.3
42.5°	12530.5	11464.1	7996.5	4353.6	2297.3	891.1	537.3	502.0	488.9	492.9	495.9
45°	13547.6	12315.8	8365.5	3967.5	1725.7	636.1	527.2	473.8	453.6	451.6	453.6
47.5°	14367.1	12998.3	8590.2	3513.9	1229.8	528.2	506.0	447.6	419.3	413.3	410.3
50°	14991.1	13505.3	8671.9	2999.8	831.6	504.0	477.8	417.3	383.0	384.1	384.1
52.5°	15599.9	13966.0	8577.1	2481.7	611.9	482.8	458.6	393.1	356.8	376.0	381.0
55°	16038.4	14159.5	8300.9	1921.3	510.1	456.6	437.5	364.9	339.7	370.9	381.0
57.5°	16294.5	14311.7	7793.9	1387.0	467.7	431.4	410.3	338.7	315.5	323.6	328.6
60°	16453.7	14099.0	7123.6	948.5	445.5	411.3	383.0	321.6	290.3	271.2	268.1
62.5°	16366.0	13566.8	6240.6	652.2	422.4	389.1	359.9	305.4	264.1	238.9	236.9
65°	15651.3	12582.0	4791.1	528.2	408.2	379.0	345.7	290.3	246.0	221.8	218.7
67.5°	14325.8	10811.9	2798.2	469.7	402.2	368.9	334.7	276.2	235.9	209.7	205.6
70°	12147.5	8132.6	937.4	419.3	401.2	367.9	325.6	266.1	224.8	197.6	193.5
72.5°	8763.6	4907.0	456.6	368.9	375.0	352.8	318.5	258.1	217.7	183.5	176.4
75°	4980.6	1597.7	412.3	318.5	348.8	336.7	314.5	259.1	220.8	166.3	158.3
77.5°	1417.3	466.7	398.2	271.2	329.6	347.8	294.3	233.9	225.8	154.2	144.1
80°	478.8	415.3	384.1	210.7	266.1	287.3	255.0	205.6	227.8	140.1	130.0
82.5°	384.1	417.3	322.6	168.3	202.6	217.7	202.6	184.5	184.5	125.0	116.9
85°	307.4	387.1	204.6	134.1	151.2	167.3	143.1	138.1	129.0	104.8	101.8
87.5°	178.4	121.0	84.7	68.5	63.5	64.5	55.4	66.5	81.6	71.6	70.6
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)