

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: P591028

Luminaire Tested: **CTN-CA8-480-722-U-T3-HSS-HM-EX120**

Issue Date: 12/14/2021

Test Information

Test Method: LM-79-08
Report Number: P591028
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2112-474-2)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 12/14/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-480-722-U-T3-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (8) 2200K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 52724 lumens
Efficiency: N/A
Efficacy: 109.7 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U0 - G5

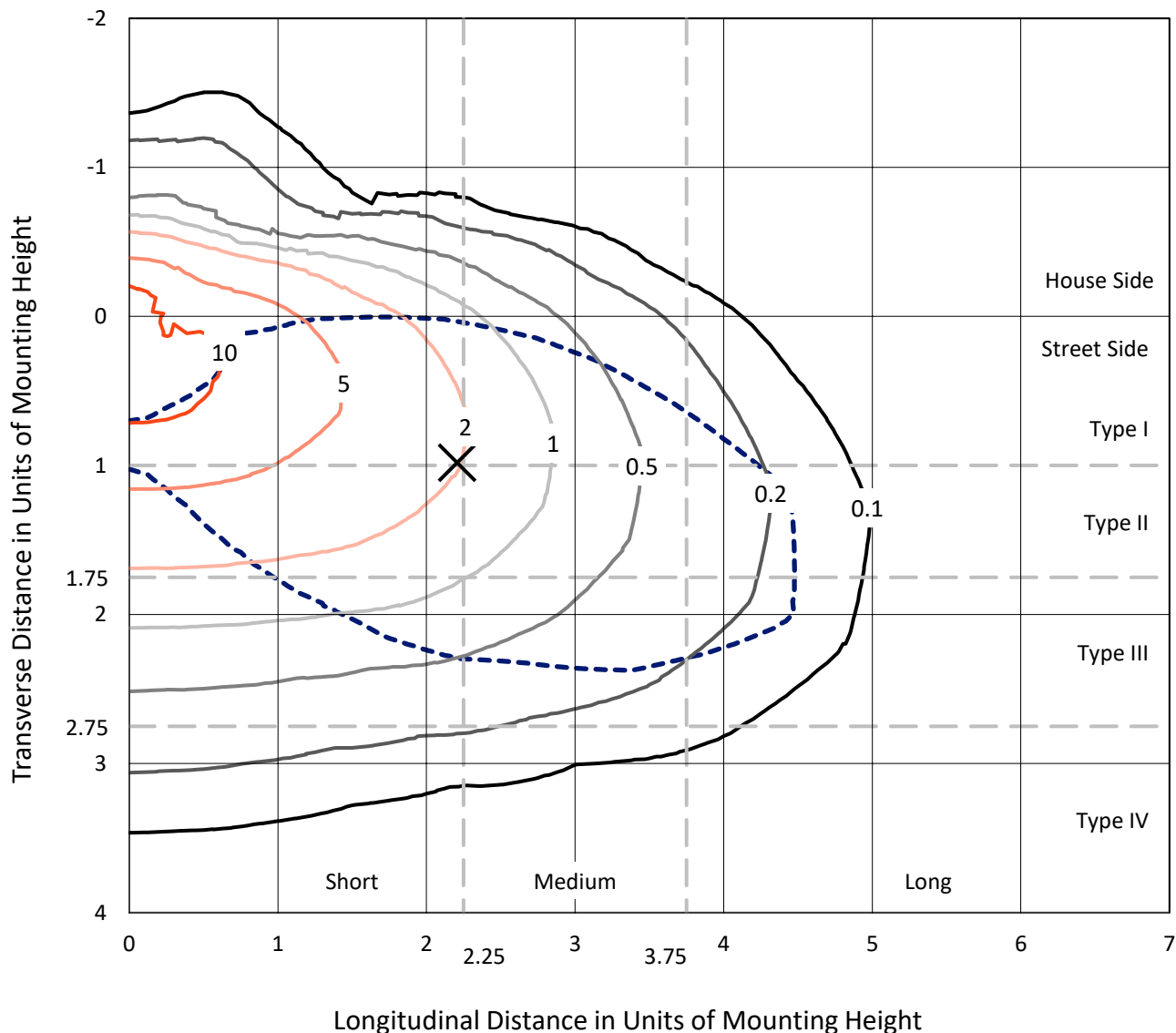
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

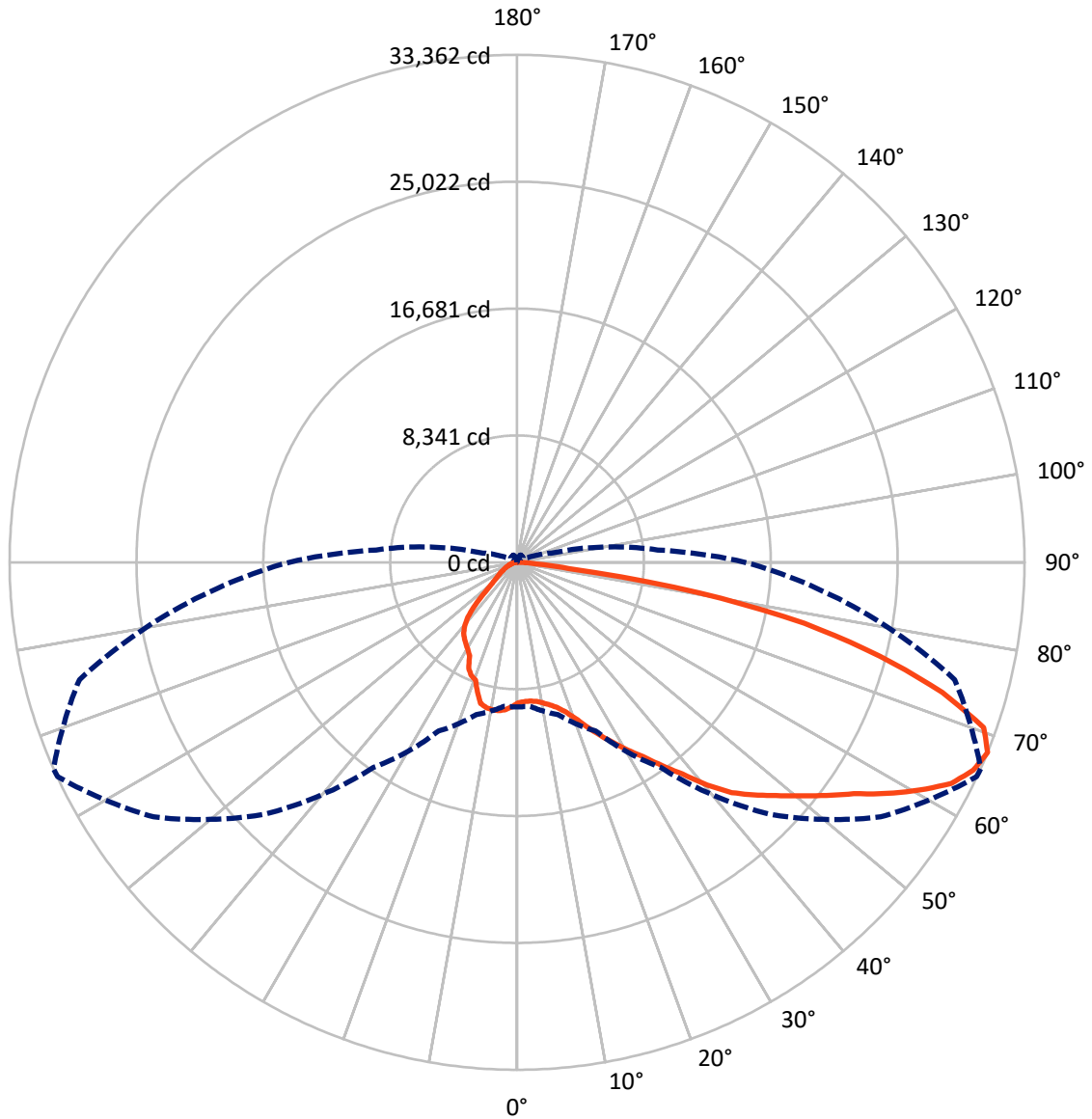
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11.5 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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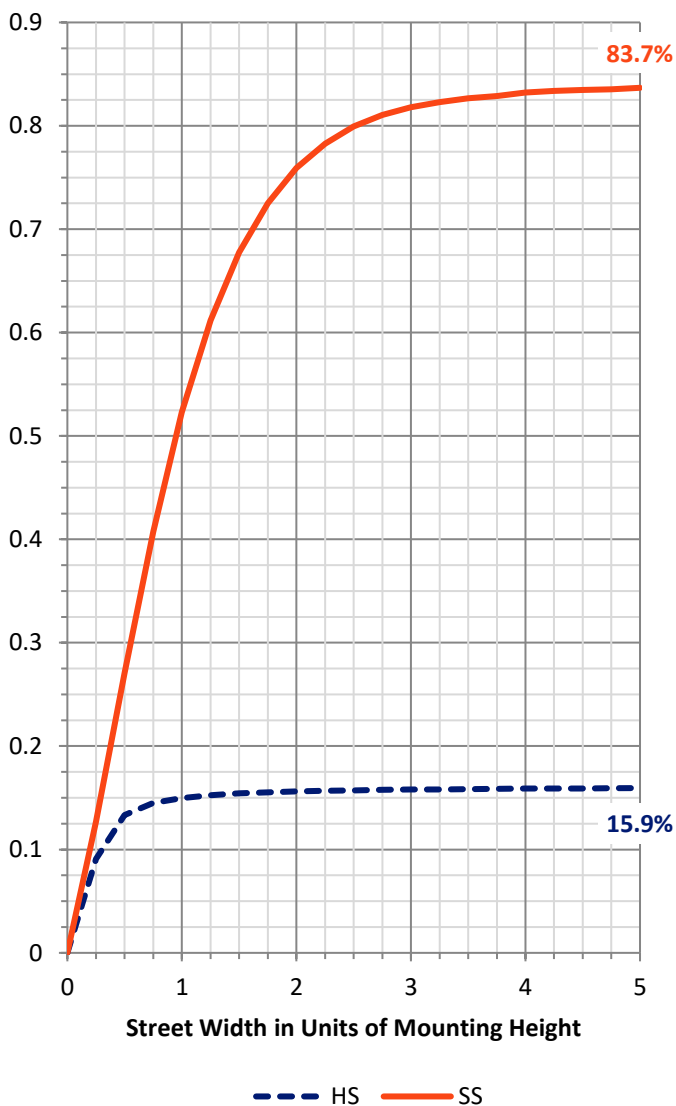
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8510.8	0.0	8510.8
	% Fixture	16.1	0.0	16.1
Street Side	Lumens	44213.2	0.0	44213.2
	% Fixture	83.9	0.0	83.9
Total	Lumens	52724.0	0.0	52724.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	914.8	1.7
10°-20°	2758.2	5.2
20°-30°	4483.7	8.5
30°-40°	6549.5	12.4
40°-50°	8723.3	16.5
50°-60°	10552.3	20.0
60°-70°	11297.4	21.4
70°-80°	6704.6	12.7
80°-90°	740.3	1.4
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°	52724.0	100.0
0°-180°	52724.0	100.0

Coefficient of Utilization



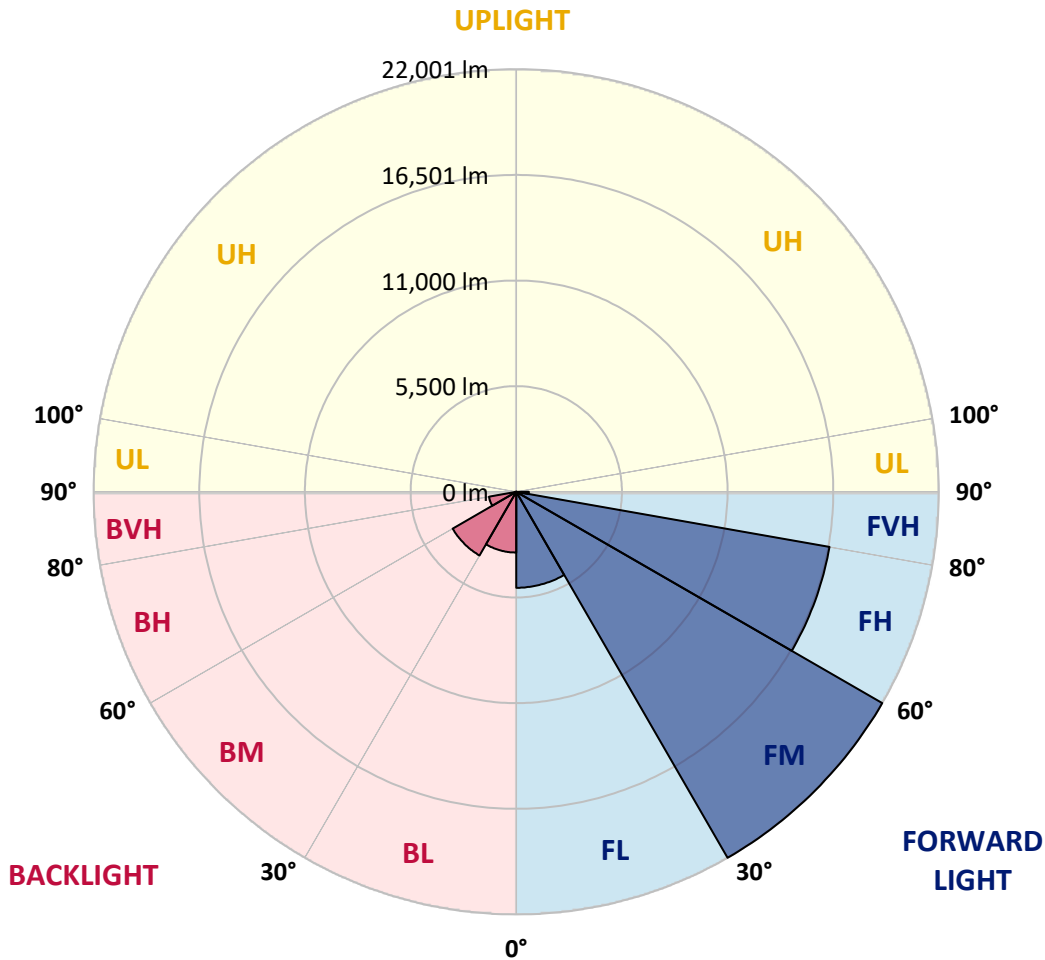
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4995.9	9.5			
FM	(30°-60°)	22000.7	41.7			
FH	(60°-80°)	16560.3	31.4			G5
FVH	(80°-90°)	656.3	1.2			G4/750
BL	(0°-30°)	3160.8	6.0	B4/5000		
BM	(30°-60°)	3824.3	7.3	B3/5000		
BH	(60°-80°)	1441.6	2.7	B3/2500		G3/2500
BVH	(80°-90°)	84.0	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	9232.4	9232.4	9232.4	9232.4	9232.4	9232.4	9232.4	9232.4	9232.4	9232.4	9232.4
2.5°	9113.7	9062.2	9085.4	9146.0	9029.8	9103.7	9051.4	9142.7	9167.6	9177.6	9214.1
5°	9292.2	9224.1	9225.7	9263.9	9131.9	9164.3	9075.5	9139.4	9159.3	9185.9	9274.7
7.5°	9605.2	9529.6	9523.0	9532.9	9368.6	9332.0	9206.7	9219.9	9234.9	9250.7	9366.1
10°	10035.2	9958.0	9944.7	9919.0	9702.3	9606.8	9420.9	9391.8	9405.9	9380.2	9517.2
12.5°	10551.7	10458.7	10409.7	10335.8	10085.1	9935.6	9689.9	9610.2	9622.6	9568.6	9664.1
15°	11094.6	10995.8	10969.3	10855.5	10546.7	10342.4	10024.4	9903.2	9906.6	9844.3	9840.1
17.5°	11674.2	11586.2	11564.6	11492.3	11150.3	10907.0	10514.3	10349.9	10337.5	10276.0	10093.4
20°	12331.7	12276.1	12264.5	12223.0	11913.3	11628.5	11181.8	10961.0	10948.5	10851.4	10461.2
22.5°	13140.4	13074.8	13039.9	13004.2	12772.6	12476.2	11996.3	11685.0	11733.9	11570.4	10938.6
25°	13944.9	13892.6	13862.7	13839.5	13648.5	13367.9	12882.2	12516.9	12565.8	12390.7	11518.9
27.5°	14743.6	14628.2	14676.3	14731.1	14540.2	14316.8	13788.8	13391.1	13406.1	13216.8	12213.8
30°	15485.8	15425.2	15508.3	15559.7	15420.2	15245.9	14691.3	14306.9	14329.3	14104.3	13010.9
32.5°	16145.1	16057.9	16243.0	16343.5	16260.5	16116.8	15581.3	15216.8	15223.5	15087.3	13962.3
35°	16629.1	16634.9	16890.6	17160.5	17159.6	16957.0	16502.1	16332.7	16409.9	16349.3	15129.7
37.5°	17122.3	17078.3	17373.8	17774.8	17906.0	17725.9	17456.0	17556.5	17660.3	17846.2	16232.2
40°	17355.6	17357.2	17715.1	18178.3	18481.4	18447.3	18352.7	19024.4	19239.4	19295.0	15790.5
42.5°	17074.1	17094.0	17732.5	18552.0	19022.7	19202.9	19410.4	20554.5	20699.8	20385.1	16311.1
45°	16705.5	16732.9	17482.6	18680.6	19502.6	20009.9	20581.9	21697.8	21810.7	21392.2	17068.3
47.5°	16359.3	16409.9	17190.3	18603.4	19882.8	20919.0	21629.7	22774.6	22912.4	22360.3	17774.0
50°	15904.3	16017.2	16813.4	18398.4	20169.3	21710.2	22597.8	24070.6	24123.8	23305.1	18410.0
52.5°	15464.3	15497.5	16386.7	18136.0	20385.1	22427.6	23752.6	25402.4	25463.8	24339.6	18997.0
55°	14861.5	14911.3	15905.1	17807.2	20518.0	23028.7	24921.6	26790.5	26845.3	25582.5	19628.0
57.5°	14198.1	14234.7	15280.8	17302.4	20418.4	23562.5	26167.8	28539.0	28673.5	26861.1	20195.0
60°	13365.4	13413.5	14475.4	16602.5	20074.6	24185.2	27707.1	30407.9	30407.9	28035.1	20644.2
62.5°	12192.2	12259.5	13334.7	15594.6	19360.6	24545.5	28935.9	32035.2	32024.4	28960.0	20796.1
65°	10829.0	10839.8	11814.5	14176.5	18175.0	24353.7	29404.2	32985.9	32961.8	29629.2	20586.9
67.5°	9506.4	9494.7	10359.9	12237.1	16465.5	23409.8	29180.8	33332.9	33362.0	29790.2	19807.3
70°	7630.0	7615.1	8410.4	9944.7	13880.1	21376.5	27911.4	32452.0	32540.0	28870.3	18512.9
72.5°	5459.7	5437.3	5818.4	6833.0	10193.0	17584.7	24746.5	29066.3	29227.3	25923.8	16149.2
75°	3197.3	3221.4	3619.1	4202.7	6053.4	11567.9	20071.3	24410.2	24640.2	22053.1	12702.0
77.5°	1778.4	1773.4	2065.7	2504.9	2977.3	5793.5	14012.1	19223.6	19301.7	17280.8	8541.6
80°	858.5	854.3	933.2	1177.3	1697.9	2602.8	6881.9	11944.0	12180.6	10502.7	4176.2
82.5°	617.7	621.0	665.0	645.9	633.5	1148.2	2296.5	3761.9	3434.7	2651.0	1291.0
85°	464.1	464.1	504.0	464.9	454.1	584.5	1116.7	1344.2	1290.2	1179.8	767.2
87.5°	218.4	207.6	220.8	209.2	194.3	259.0	489.8	567.9	525.5	458.3	335.4
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°	9232.4	9232.4	9232.4	9232.4	9232.4	9232.4	9232.4	9232.4	9232.4	9232.4	9232.4
2.5°	9276.4	9294.7	9390.1	9514.7	9526.3	9633.4	9666.6	9799.5	9794.5	9757.9	9796.1
5°	9338.7	9394.3	9557.8	9733.0	9777.9	9912.4	9941.4	10071.8	10080.1	10035.2	10072.6
7.5°	9438.3	9519.7	9674.1	9847.6	9867.5	9987.1	9982.1	10105.8	10084.2	10045.2	10095.0
10°	9560.3	9623.4	9726.4	9841.0	9831.8	9927.3	9897.4	9986.3	9941.4	9909.9	9967.2
12.5°	9683.2	9685.7	9694.0	9766.2	9709.8	9731.4	9672.4	9738.0	9669.1	9616.0	9650.8
15°	9806.1	9736.4	9619.3	9574.5	9417.5	9337.0	9252.3	9331.2	9170.1	9085.4	9107.0
17.5°	9979.6	9811.9	9418.4	8848.8	8365.6	8099.1	7899.0	7744.6	7747.9	7824.3	7869.9
20°	10118.3	9480.6	8519.2	8167.2	7806.0	7318.7	6562.3	6354.7	6217.7	6215.3	6237.7
22.5°	10069.3	9130.3	8520.0	7969.6	7184.2	6210.3	5883.2	5693.0	5373.4	4690.1	4634.5
25°	10520.1	9440.8	8569.0	7561.1	6193.7	5699.7	5250.5	4881.0	4074.0	3947.0	3942.0
27.5°	11060.6	9860.1	8635.4	6679.4	5797.6	5131.0	4559.7	3667.2	3280.3	3225.5	3206.4
30°	11685.8	10354.1	8230.3	6397.1	5375.9	4469.2	3712.1	2816.2	2501.5	2482.4	2487.4
32.5°	12469.5	10917.8	7807.7	6164.6	4865.3	3702.9	2531.4	2147.9	1967.7	1770.9	1834.0
35°	13304.8	10593.2	8060.1	5877.3	4226.0	2784.7	1922.9	1706.2	1560.0	1305.2	1201.4
37.5°	12976.0	10816.5	8353.2	5561.9	3427.3	1888.0	1487.8	1300.2	1163.2	950.6	946.5
40°	13381.2	11455.8	8562.4	5053.7	2478.3	1339.2	1084.3	1006.3	943.2	825.3	808.7
42.5°	14096.8	12013.7	8704.3	4402.0	1481.2	996.3	925.7	937.4	882.6	792.1	781.3
45°	14801.7	12501.9	8570.7	3408.2	1053.6	898.3	902.5	897.5	831.1	797.9	786.2
47.5°	15443.5	12914.6	8194.6	2248.3	914.1	875.9	885.0	862.6	787.9	768.8	767.2
50°	15994.8	13350.4	6488.4	1722.8	879.2	846.0	866.0	829.4	700.7	680.0	658.4
52.5°	16334.4	12625.6	5764.4	1323.4	842.7	799.5	805.3	835.2	660.0	525.5	492.3
55°	16282.9	11373.6	5359.3	1101.7	784.6	734.8	746.4	794.6	597.0	411.0	372.0
57.5°	16527.8	11270.7	4939.2	937.4	676.7	665.9	642.6	724.0	543.0	272.3	258.2
60°	16488.0	11258.2	4407.8	737.3	597.8	559.6	530.5	589.5	389.4	101.3	92.2
62.5°	16423.2	10938.6	3804.2	660.9	550.5	535.5	510.6	577.0	331.3	70.6	52.3
65°	16098.6	10419.6	3120.1	578.7	513.9	483.2	481.5	546.3	273.2	39.0	17.4
67.5°	14990.2	9289.7	2321.4	533.0	492.3	476.6	505.6	526.4	262.4	39.9	15.8
70°	13612.0	7799.4	1497.8	480.7	461.6	469.9	494.0	532.2	254.9	36.5	14.1
72.5°	11381.9	6033.4	908.3	429.2	417.6	442.5	487.4	532.2	235.8	30.7	11.6
75°	8658.7	4024.2	675.8	379.4	366.1	397.7	444.2	511.4	231.6	26.6	7.5
77.5°	5375.9	1900.4	533.0	318.8	304.7	337.1	372.8	421.8	235.0	25.7	4.2
80°	2174.4	793.7	418.4	256.5	239.1	256.5	302.2	359.5	186.8	36.5	0.0
82.5°	914.9	558.8	342.1	204.2	191.0	168.5	205.9	266.5	147.0	29.1	0.0
85°	605.3	387.7	244.9	138.7	122.0	82.2	100.5	120.4	83.9	0.0	0.0
87.5°	274.0	171.9	107.1	47.3	39.9	22.4	13.3	11.6	0.0	0.0	0.0
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)