

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: P510498

Luminaire Tested: **CTN-CA10-310-750-U-T3-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510498
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: McGRAW-EDISON
Catalog Number: CTN-CA10-310-750-U-T3-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: 46017 lumens
Efficiency: N/A
Efficacy: 147.3 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U0 - G5

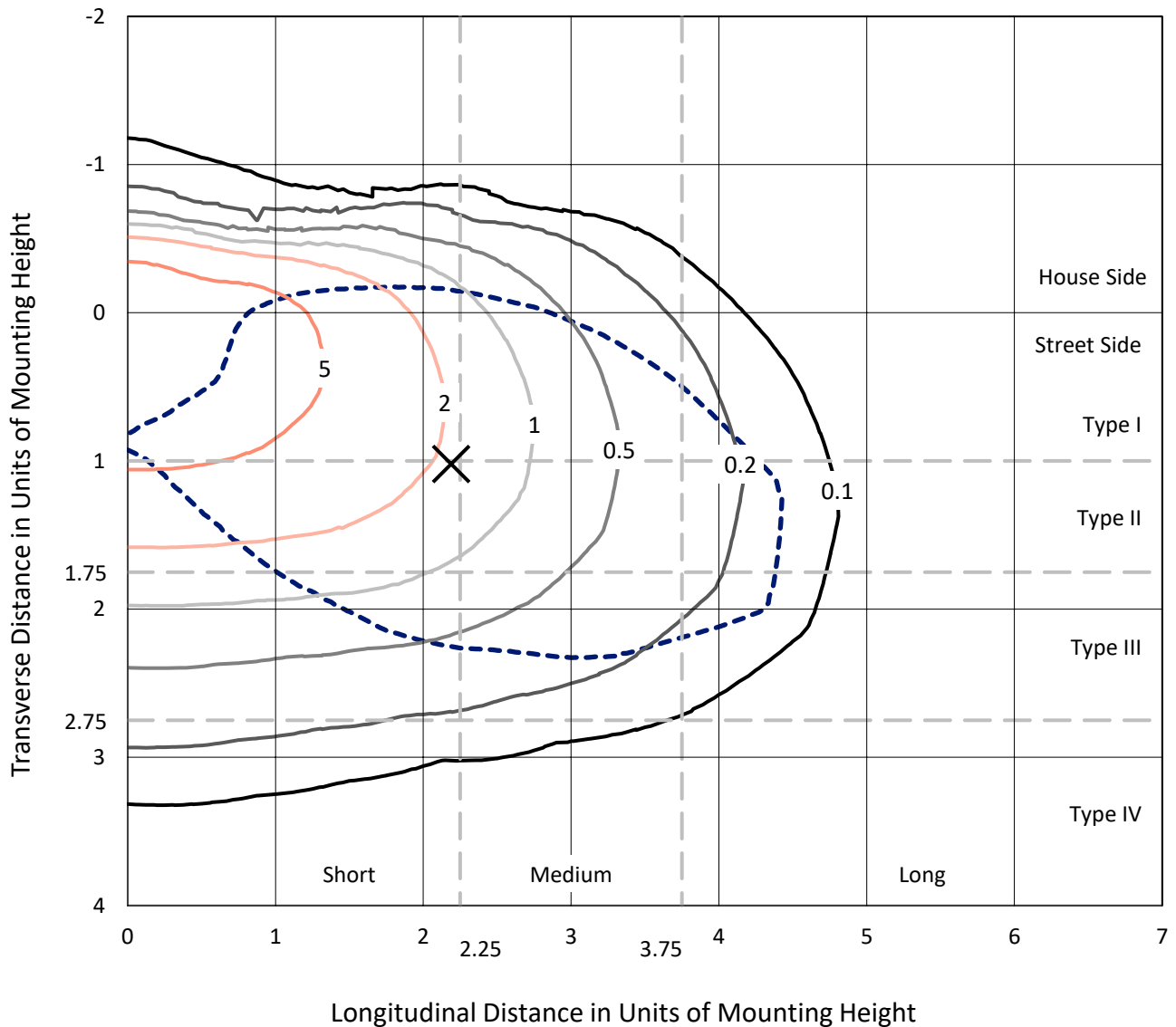
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

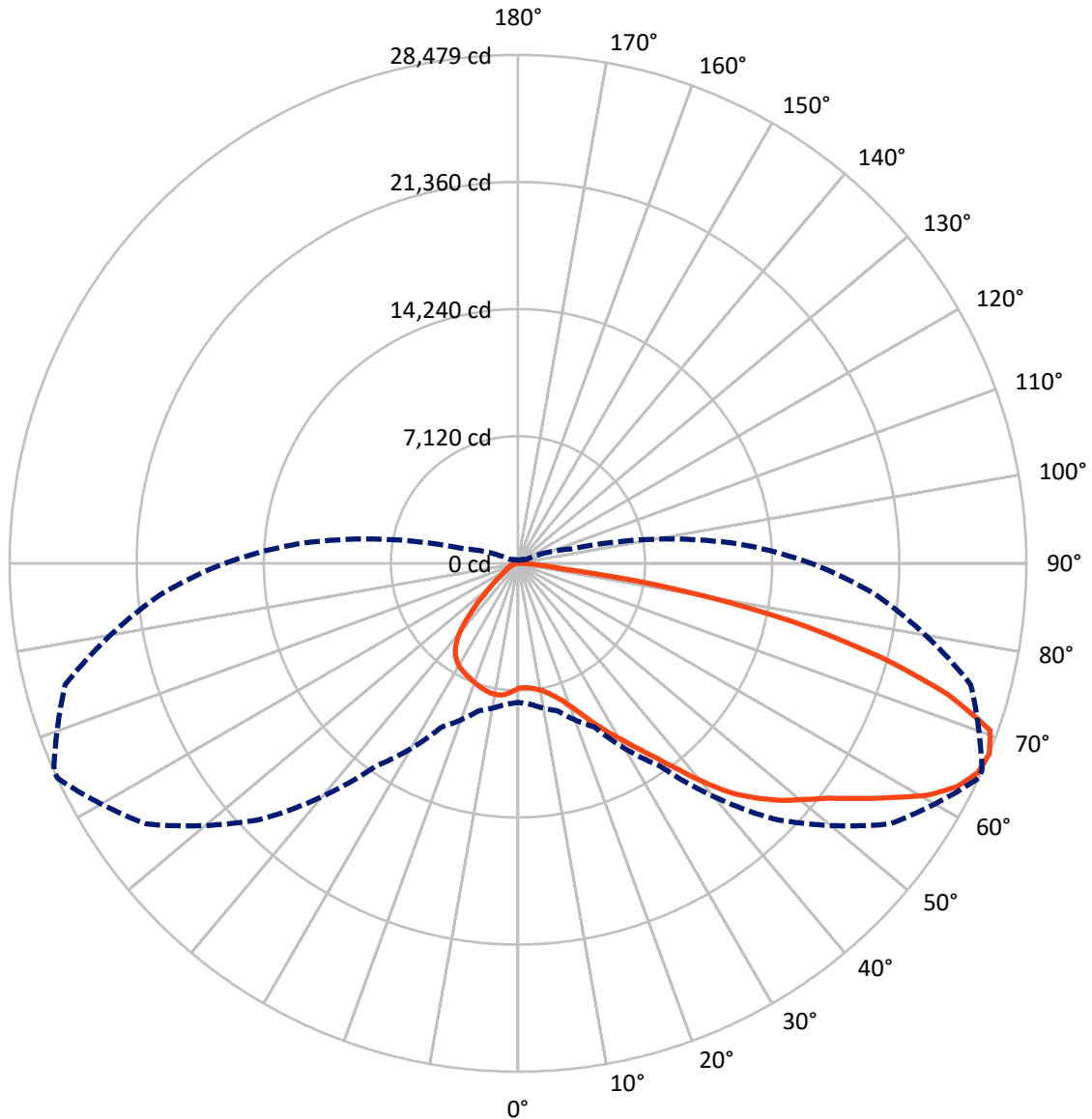
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.1 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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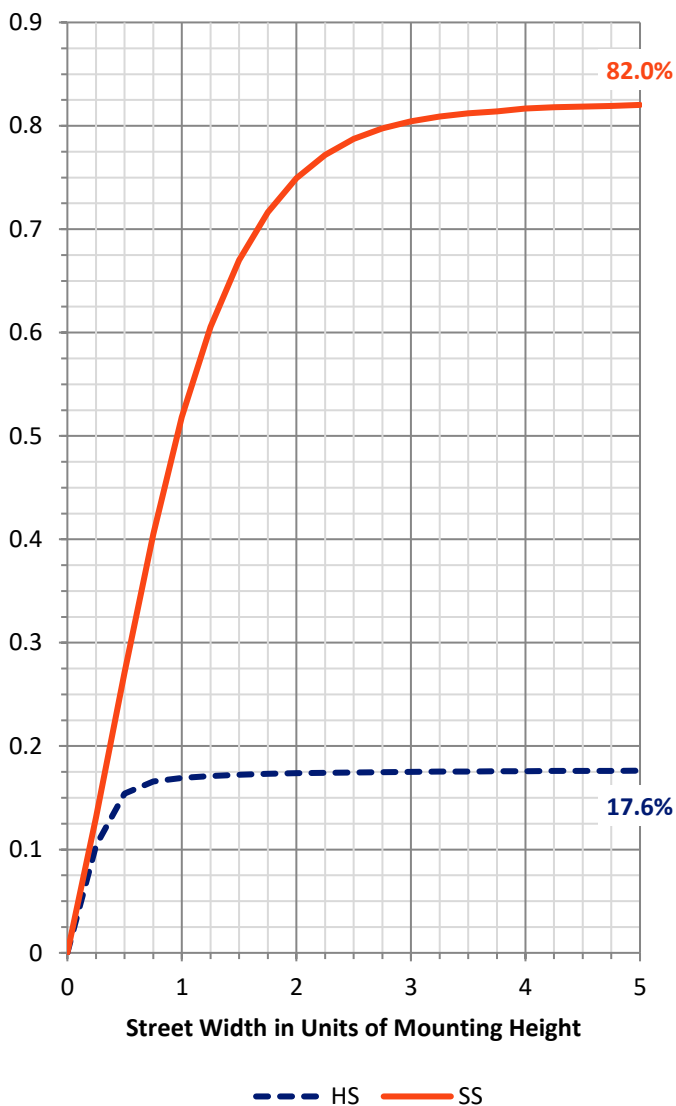
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8224.4	0.0	8224.4
	% Fixture	17.9	0.0	17.9
Street Side	Lumens	37792.6	0.0	37792.6
	% Fixture	82.1	0.0	82.1
Total	Lumens	46017.0	0.0	46017.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	691.8	1.5
10°-20°	2135.8	4.6
20°-30°	3705.2	8.1
30°-40°	5589.3	12.1
40°-50°	7749.9	16.8
50°-60°	9566.3	20.8
60°-70°	10192.7	22.1
70°-80°	5832.4	12.7
80°-90°	553.4	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°	46017.0	100.0
0°-180°	46017.0	100.0

Coefficient of Utilization



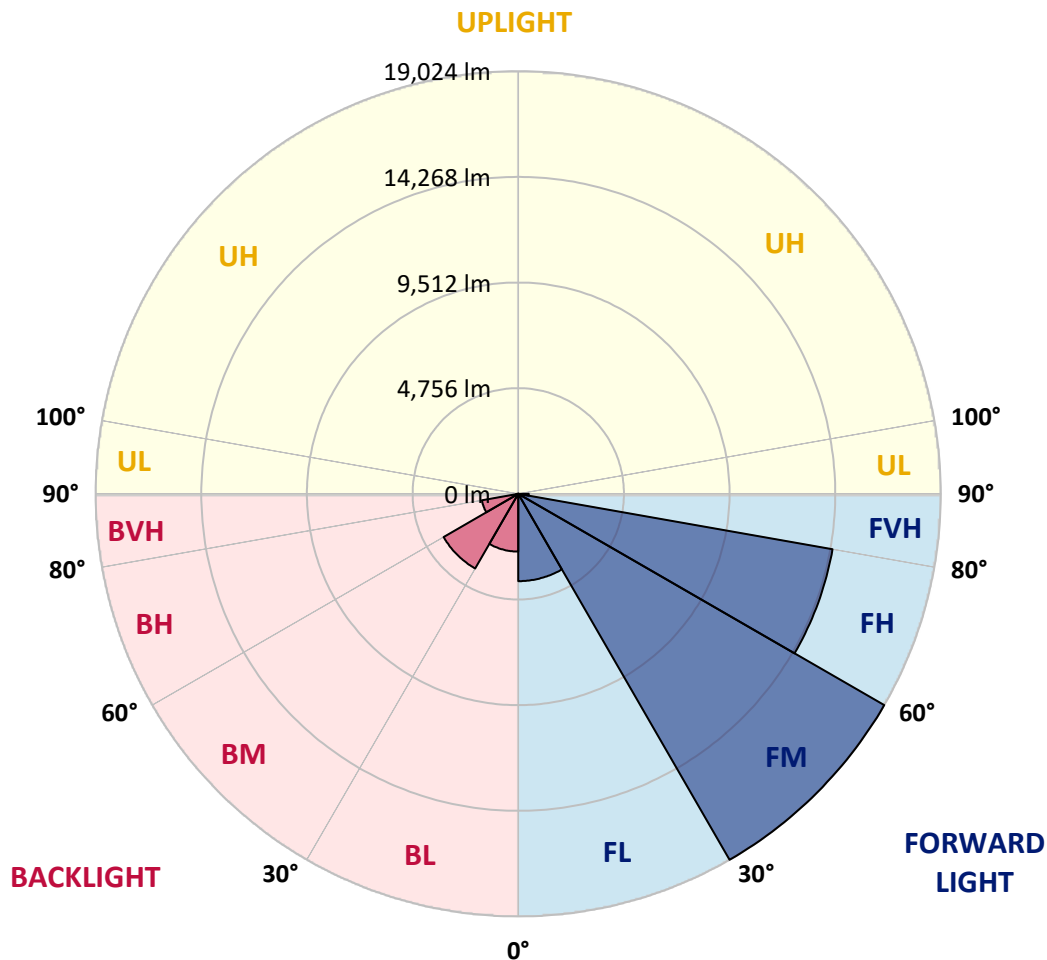
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3930.5	8.5			
FM	(30°-60°)	19024.1	41.3			
FH	(60°-80°)	14365.2	31.2			G5
FVH	(80°-90°)	472.8	1.0			G3/500
BL	(0°-30°)	2602.4	5.7	B4/5000		
BM	(30°-60°)	3881.5	8.4	B3/5000		
BH	(60°-80°)	1660.0	3.6	B3/2500		G3/2500
BVH	(80°-90°)	80.5	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: 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°	6992.6	6992.6	6992.6	6992.6	6992.6	6992.6	6992.6	6992.6	6992.6	6992.6	6992.6
2.5°	6925.0	6916.0	6907.9	6922.0	6930.1	6943.2	6962.3	6975.4	6979.5	6991.6	7006.7
5°	7035.9	7034.9	7023.8	7017.8	7000.6	6994.6	6998.6	7014.8	7015.8	7030.9	7078.3
7.5°	7253.7	7251.6	7224.4	7212.3	7176.0	7135.7	7105.5	7108.5	7107.5	7122.6	7186.1
10°	7582.3	7566.1	7527.8	7490.5	7420.0	7344.4	7288.9	7238.5	7238.5	7260.7	7331.3
12.5°	7953.2	7975.4	7923.0	7866.5	7748.6	7612.5	7515.7	7459.3	7453.2	7464.3	7514.7
15°	8413.9	8413.9	8378.6	8298.0	8194.1	8004.6	7805.0	7733.5	7723.4	7746.6	7743.6
17.5°	8933.0	8948.1	8881.6	8841.3	8682.0	8472.3	8222.4	8098.4	8098.4	8083.3	8013.7
20°	9595.3	9512.6	9519.7	9453.1	9336.2	9031.8	8777.8	8597.3	8595.3	8565.1	8369.5
22.5°	10315.0	10269.6	10230.3	10171.9	10010.6	9738.4	9385.6	9207.2	9203.2	9128.6	8838.3
25°	11024.6	11058.9	11015.6	10908.7	10790.8	10494.4	10105.3	9929.9	9928.9	9804.9	9393.7
27.5°	11754.4	11791.7	11777.6	11680.9	11523.6	11291.8	10923.8	10695.0	10680.9	10600.3	10083.2
30°	12560.8	12527.6	12570.9	12529.6	12451.0	12073.0	11740.3	11474.2	11508.5	11484.3	10866.4
32.5°	13147.5	13168.7	13310.8	13314.8	13232.2	12952.0	12545.7	12382.4	12436.9	12404.6	11829.0
35°	13677.7	13712.0	13895.5	14075.9	14136.4	13829.9	13416.6	13406.6	13477.1	13673.7	13155.6
37.5°	14133.3	14157.5	14414.6	14649.4	14845.0	14635.3	14334.9	14692.8	14796.6	15198.8	14524.5
40°	14406.5	14437.8	14770.4	15101.0	15449.8	15375.2	15347.0	16193.7	16291.5	16645.3	15523.4
42.5°	14252.3	14313.8	14868.2	15473.0	15986.1	16135.3	16521.3	17610.0	17721.9	17752.1	16505.2
45°	13977.1	14053.7	14673.6	15652.4	16489.1	16967.9	17702.7	18764.2	18825.6	18740.0	17318.7
47.5°	13680.7	13762.4	14454.9	15599.0	16893.3	17936.6	18758.1	19850.8	19894.1	19631.0	18138.2
50°	13344.1	13419.7	14164.6	15474.0	17197.7	18850.8	19842.7	20790.3	20952.5	20432.4	18775.2
52.5°	12934.8	13015.5	13805.7	15278.4	17464.8	19529.2	20799.3	21851.7	21862.8	21434.4	19492.9
55°	12404.6	12544.7	13355.2	14939.8	17604.9	20111.9	21633.0	23255.9	23327.4	22913.1	20093.7
57.5°	11814.9	11936.9	12812.8	14488.2	17478.9	20554.4	22973.6	24761.8	24752.8	23921.1	20618.9
60°	11035.7	11122.4	12106.2	13897.5	17072.7	21089.6	24369.7	26375.7	26359.5	24909.0	20956.6
62.5°	10035.8	10122.5	11047.8	12971.1	16476.0	21448.5	25317.2	27584.3	27537.9	25627.7	21060.4
65°	8876.6	9031.8	9835.2	11768.5	15420.6	21212.6	25774.9	28295.9	28221.3	26176.1	20812.4
67.5°	7789.9	7922.0	8558.0	10113.4	13863.2	20256.0	25452.3	28479.4	28457.2	26255.7	20111.9
70°	6251.7	6300.1	6882.7	8214.3	11534.7	18207.7	24337.5	28056.0	28066.1	25521.9	18704.7
72.5°	4279.0	4397.0	4656.0	5707.4	8393.7	14480.1	20976.7	25249.7	25251.7	22884.9	16296.5
75°	2301.3	2483.7	2786.1	3307.3	4692.3	9291.9	16845.9	20951.5	20990.9	19080.7	12953.0
77.5°	1141.1	1206.6	1382.0	1769.1	2151.1	4383.8	10834.1	15727.0	15820.8	14646.4	8834.2
80°	522.2	533.2	546.3	543.3	823.5	1923.3	4651.0	9445.1	9473.3	8711.2	4033.1
82.5°	408.2	406.2	412.3	375.0	377.0	741.9	1609.8	2473.7	2638.0	2076.5	1279.2
85°	247.0	246.0	265.1	205.6	253.0	401.2	812.5	986.8	998.9	812.5	662.3
87.5°	93.7	90.7	83.7	73.6	84.7	112.9	281.2	362.9	354.8	252.0	228.8
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°	6992.6	6992.6	6992.6	6992.6	6992.6	6992.6	6992.6	6992.6	6992.6	6992.6	6992.6
2.5°	7019.8	7052.1	7111.5	7156.9	7172.0	7220.4	7266.8	7274.8	7308.1	7321.2	7364.5
5°	7107.5	7161.9	7254.7	7316.2	7343.4	7424.0	7476.4	7502.6	7493.6	7498.6	7547.0
7.5°	7235.5	7286.9	7361.5	7436.1	7449.2	7463.3	7458.3	7454.3	7419.0	7388.7	7434.1
10°	7352.4	7400.8	7447.2	7458.3	7391.8	7354.5	7287.9	7236.5	7168.0	7136.7	7173.0
12.5°	7516.7	7526.8	7481.5	7421.0	7277.9	7144.8	7036.9	6943.2	6858.5	6800.1	6848.4
15°	7690.1	7650.8	7518.8	7342.4	7120.6	6930.1	6753.7	6597.4	6457.3	6423.1	6436.2
17.5°	7920.0	7813.1	7547.0	7250.6	6905.9	6609.5	6382.7	6185.2	6001.7	5925.1	5918.0
20°	8200.2	8027.8	7604.4	7134.7	6651.9	6257.7	5907.0	5611.6	5358.6	5150.9	5156.0
22.5°	8565.1	8315.1	7691.1	7013.8	6370.6	5845.5	5335.4	4833.4	4417.1	4237.7	4193.3
25°	9046.9	8673.9	7814.1	6903.9	6056.1	5321.3	4600.6	3891.9	3451.4	3277.0	3257.9
27.5°	9646.7	9155.8	8001.6	6781.9	5719.5	4699.4	3663.1	2968.6	2564.4	2380.9	2319.4
30°	10328.1	9749.5	8194.1	6654.9	5312.2	3900.0	2793.2	2112.8	1698.5	1534.2	1513.0
32.5°	11210.1	10501.5	8480.4	6455.3	4717.5	3065.4	1948.5	1318.5	1037.2	966.7	946.5
35°	12463.1	11518.6	8834.2	6203.3	3953.4	2141.0	1207.6	772.1	621.9	586.7	579.6
37.5°	13631.4	12516.5	9191.1	5785.0	3001.9	1336.6	690.5	494.9	461.7	462.7	464.7
40°	14557.7	13198.9	9479.4	5234.6	1974.7	759.0	479.8	411.3	412.3	409.3	407.2
42.5°	15382.3	13743.2	9609.4	4421.1	1144.1	508.0	416.3	379.0	369.9	373.0	370.9
45°	16064.7	14298.7	9357.4	3506.9	674.4	455.6	393.1	351.8	341.7	357.8	359.9
47.5°	16782.4	14825.8	8971.3	2642.0	547.4	433.4	372.0	331.6	326.6	346.8	348.8
50°	17386.2	15207.9	8313.1	1990.8	522.2	409.3	352.8	311.5	310.5	328.6	328.6
52.5°	17891.2	15438.7	7531.9	1537.2	505.0	388.1	333.7	292.3	292.3	298.4	299.4
55°	18247.0	15392.4	7066.2	1209.6	486.9	367.9	313.5	274.2	262.1	258.1	260.1
57.5°	18311.6	15269.4	6525.9	943.5	465.7	348.8	295.3	253.0	230.8	227.8	226.8
60°	18270.2	14999.2	5909.0	788.3	441.5	330.6	277.2	230.8	208.7	201.6	203.6
62.5°	18097.9	14520.4	5196.3	691.5	417.3	316.5	257.0	215.7	195.6	186.5	186.5
65°	17577.7	13835.0	4137.9	605.8	387.1	301.4	240.9	209.7	187.5	177.4	175.4
67.5°	16434.6	12412.7	3109.7	531.2	357.8	285.3	238.9	208.7	183.5	169.3	167.3
70°	14901.5	10662.8	2122.9	466.7	325.6	270.1	237.9	209.7	179.4	161.3	159.3
72.5°	12439.9	8405.8	1222.7	406.2	293.3	256.0	233.9	210.7	172.4	150.2	147.2
75°	9347.3	5895.9	717.7	348.8	262.1	234.9	222.8	204.6	161.3	137.1	134.1
77.5°	5621.7	2752.9	540.3	289.3	224.8	206.6	198.6	187.5	147.2	127.0	124.0
80°	2062.4	1045.3	424.4	231.8	178.4	179.4	171.4	164.3	134.1	116.9	114.9
82.5°	899.1	639.1	313.5	176.4	140.1	160.3	141.1	135.1	114.9	104.8	100.8
85°	545.3	381.0	201.6	120.0	96.8	108.9	98.8	103.8	88.7	82.7	79.6
87.5°	180.4	113.9	89.7	58.5	48.4	45.4	44.4	53.4	50.4	46.4	46.4
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)