

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: P591044

Luminaire Tested: **CTN-CA8-480-730-U-T3-HSS-HM-EX120**

Issue Date: 12/14/2021

Test Information

Test Method: LM-79-08
Report Number: P591044
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-CA8-480-730-U-T3-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (8) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 63521 lumens
Efficiency: N/A
Efficacy: 132.1 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U0 - G5

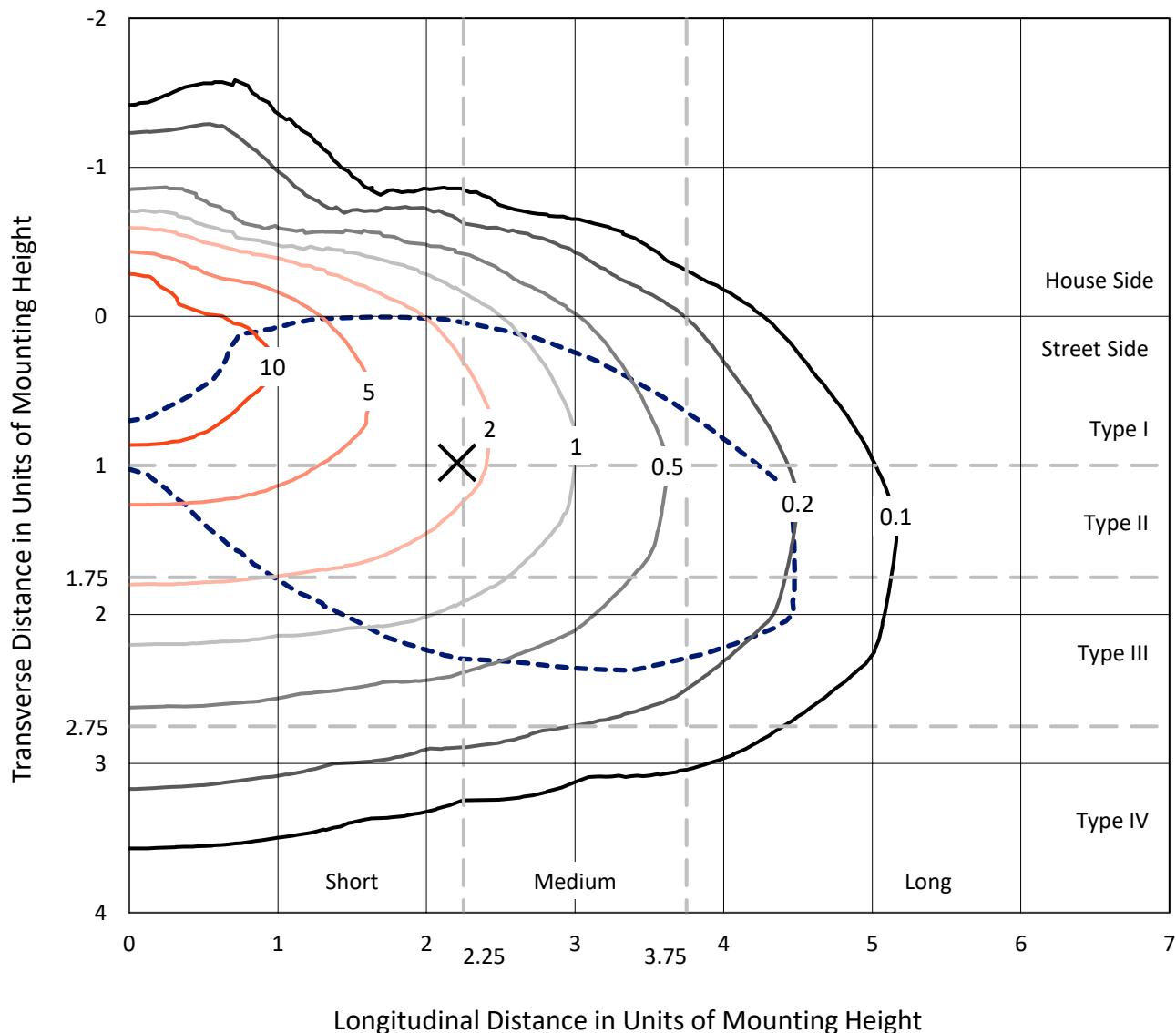
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

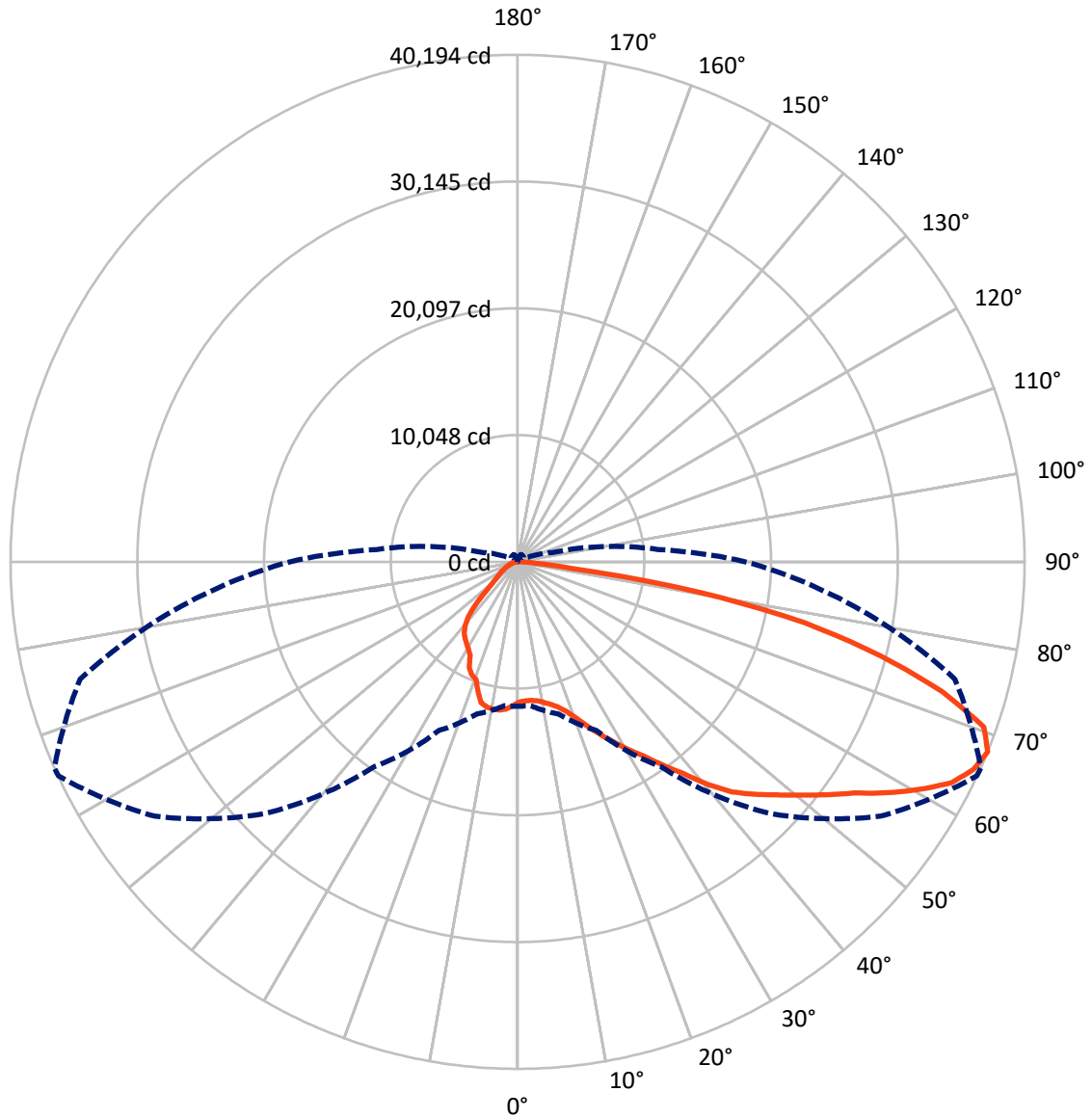
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 13.8 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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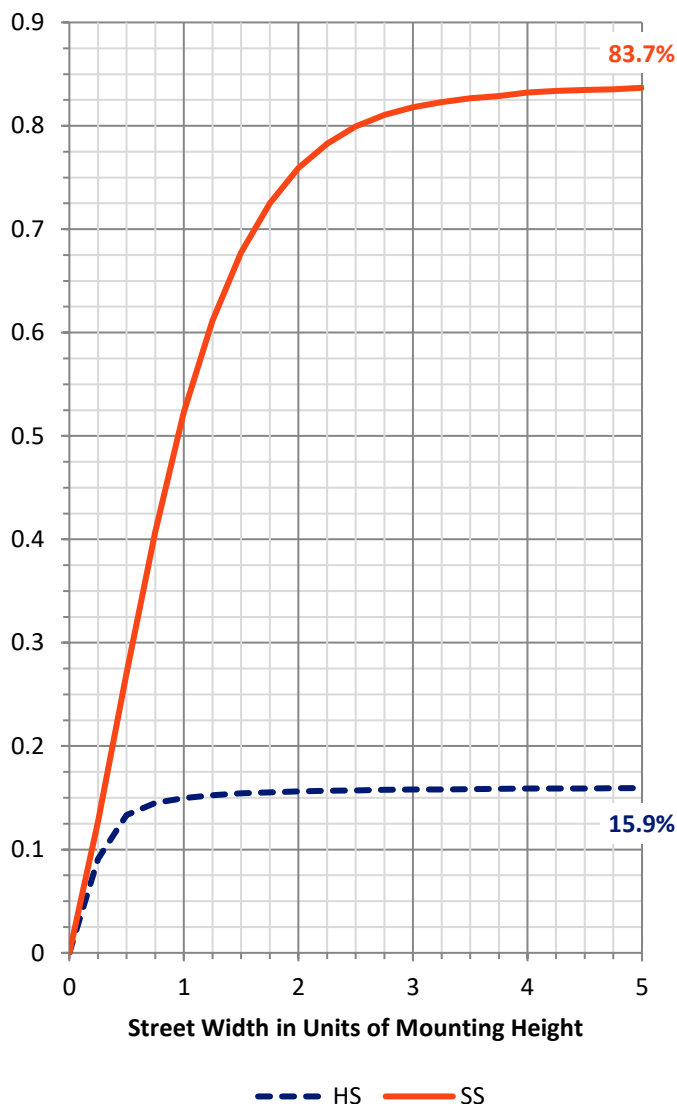
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10253.6	0.0	10253.6
	% Fixture	16.1	0.0	16.1
Street Side	Lumens	53267.4	0.0	53267.4
	% Fixture	83.9	0.0	83.9
Total	Lumens	63521.0	0.0	63521.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1102.2	1.7
10°-20°	3323.0	5.2
20°-30°	5401.8	8.5
30°-40°	7890.7	12.4
40°-50°	10509.7	16.5
50°-60°	12713.3	20.0
60°-70°	13610.9	21.4
70°-80°	8077.5	12.7
80°-90°	891.9	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°	63521.0	100.0
0°-180°	63521.0	100.0

Coefficient of Utilization



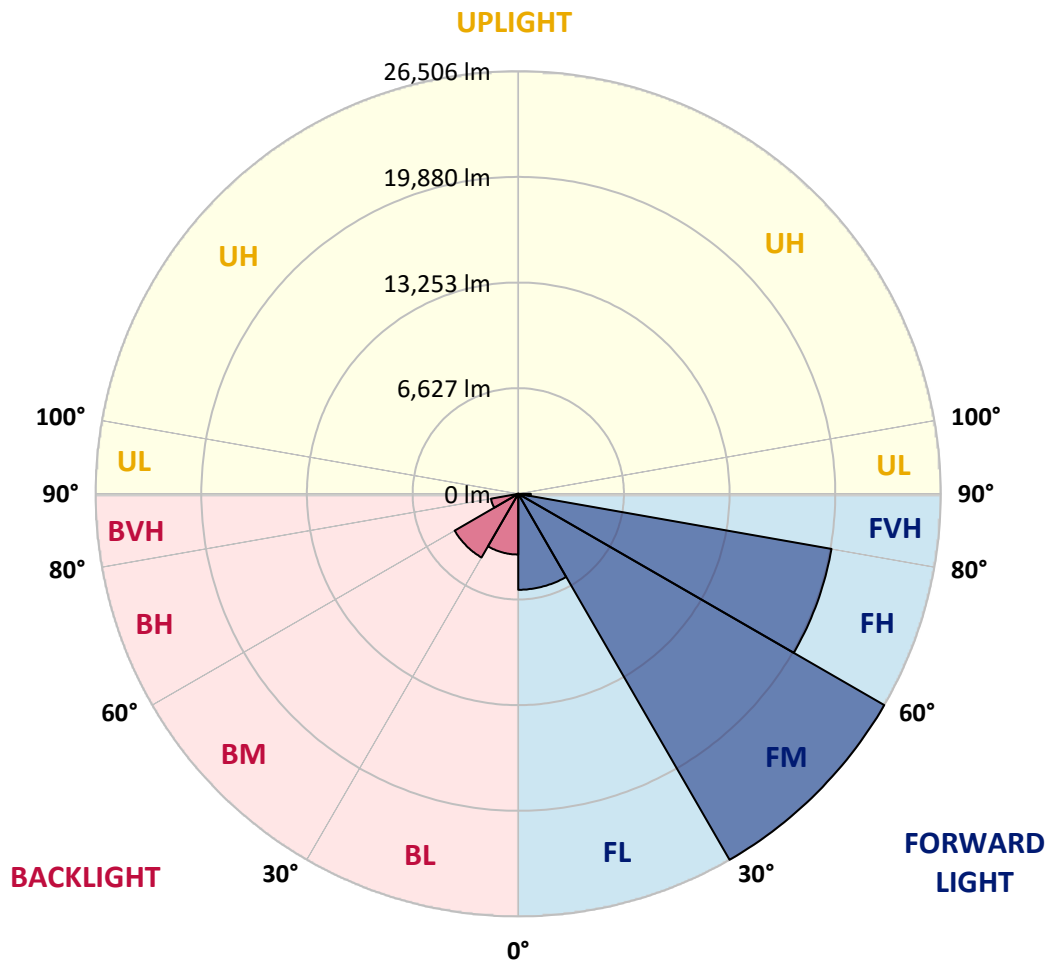
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	6019.0	9.5			
FM (30°-60°)	26506.1	41.7			
FH (60°-80°)	19951.6	31.4			G5
FVH (80°-90°)	790.7	1.2			G5
BL (0°-30°)	3808.1	6.0	B4/5000		
BM (30°-60°)	4607.5	7.3	B3/5000		
BH (60°-80°)	1736.9	2.7	B3/2500		G3/2500
BVH (80°-90°)	101.2	0.2			G2/225
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°	11123.0	11123.0	11123.0	11123.0	11123.0	11123.0	11123.0	11123.0	11123.0	11123.0	11123.0
2.5°	10980.0	10918.0	10946.0	11019.0	10879.0	10968.0	10905.0	11015.0	11045.0	11057.0	11101.0
5°	11195.0	11113.0	11115.0	11161.0	11002.0	11041.0	10934.0	11011.0	11035.0	11067.0	11174.0
7.5°	11572.2	11481.1	11473.1	11485.1	11287.1	11243.1	11092.0	11108.0	11126.0	11145.0	11284.1
10°	12090.3	11997.3	11981.3	11950.3	11689.2	11574.2	11350.1	11315.1	11332.1	11301.1	11466.1
12.5°	12712.5	12600.4	12541.4	12452.4	12150.3	11970.3	11674.2	11578.2	11593.2	11528.1	11643.2
15°	13366.6	13247.6	13215.6	13078.6	12706.5	12460.4	12077.3	11931.2	11935.3	11860.2	11855.2
17.5°	14064.8	13958.8	13932.8	13845.8	13433.7	13140.6	12667.4	12469.4	12454.4	12380.4	12160.3
20°	14857.0	14790.0	14776.0	14726.0	14352.9	14009.8	13471.7	13205.6	13190.6	13073.6	12603.4
22.5°	15831.3	15752.3	15710.3	15667.3	15388.2	15031.1	14452.9	14077.8	14136.8	13939.8	13178.6
25°	16800.6	16737.6	16701.5	16673.5	16443.5	16105.4	15520.2	15080.1	15139.1	14928.1	13877.8
27.5°	17762.8	17623.8	17681.8	17747.8	17517.8	17248.7	16612.5	16133.4	16151.4	15923.3	14715.0
30°	18657.1	18584.1	18684.1	18746.1	18578.1	18368.0	17699.8	17236.7	17263.7	16992.6	15675.3
32.5°	19451.3	19346.3	19569.3	19690.4	19590.3	19417.3	18772.1	18333.0	18341.0	18177.0	16821.6
35°	20034.5	20041.5	20349.5	20674.6	20673.6	20429.6	19881.4	19677.4	19770.4	19697.4	18228.0
37.5°	20628.6	20575.6	20931.7	21414.8	21572.9	21355.8	21030.7	21151.8	21276.8	21500.9	19556.3
40°	20909.7	20911.7	21342.8	21901.0	22266.1	22225.1	22111.0	22920.2	23179.3	23246.3	19024.2
42.5°	20570.6	20594.6	21363.8	22351.1	22918.2	23135.3	23385.4	24763.7	24938.8	24559.7	19651.4
45°	20126.5	20159.5	21062.7	22506.1	23496.4	24107.6	24796.8	26141.1	26277.2	25773.0	20563.6
47.5°	19709.4	19770.4	20710.6	22413.1	23954.5	25202.9	26059.1	27438.5	27604.5	26939.3	21413.8
50°	19161.2	19297.3	20256.5	22166.0	24299.6	26156.1	27225.4	28999.9	29063.9	28077.6	22180.0
52.5°	18631.1	18671.1	19742.4	21850.0	24559.7	27020.4	28616.8	30604.3	30678.4	29324.0	22887.2
55°	17904.9	17964.9	19162.2	21453.8	24719.7	27744.6	30025.2	32276.8	32342.8	30821.4	23647.4
57.5°	17105.7	17149.7	18410.0	20845.7	24599.7	28387.7	31526.6	34383.4	34545.4	32361.8	24330.6
60°	16102.4	16160.4	17439.7	20002.4	24185.6	29137.9	33381.1	36635.0	36635.0	33776.2	24871.8
62.5°	14689.0	14770.0	16065.4	18788.1	23325.4	29572.1	34861.5	38595.5	38582.5	34890.5	25054.8
65°	13046.6	13059.6	14233.9	17079.7	21897.0	29341.0	35425.6	39740.8	39711.8	35696.7	24802.8
67.5°	11453.1	11439.1	12481.4	14743.0	19837.4	28203.7	35156.6	40158.9	40193.9	35890.8	23863.5
70°	9192.5	9174.5	10132.8	11981.3	16722.6	25754.0	33627.2	39097.6	39203.7	34782.5	22304.1
72.5°	6577.8	6550.8	7009.9	8232.2	12280.3	21185.8	29814.1	35018.5	35212.6	31232.5	19456.3
75°	3852.0	3881.1	4360.2	5063.4	7293.0	13936.8	24181.6	29409.0	29686.1	26569.2	15303.2
77.5°	2142.6	2136.6	2488.7	3017.8	3587.0	6979.9	16881.6	23160.3	23254.3	20819.7	10290.8
80°	1034.3	1029.3	1124.3	1418.4	2045.6	3135.9	8291.3	14389.9	14675.0	12653.4	5031.4
82.5°	744.2	748.2	801.2	778.2	763.2	1383.4	2766.8	4532.2	4138.1	3193.9	1555.4
85°	559.2	559.2	607.2	560.2	547.1	704.2	1345.4	1619.4	1554.4	1421.4	924.3
87.5°	263.1	250.1	266.1	252.1	234.1	312.1	590.2	684.2	633.2	552.2	404.1
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°	11123.0	11123.0	11123.0	11123.0	11123.0	11123.0	11123.0	11123.0	11123.0	11123.0	11123.0
2.5°	11176.0	11198.0	11313.1	11463.1	11477.1	11606.2	11646.2	11806.2	11800.2	11756.2	11802.2
5°	11251.1	11318.1	11515.1	11726.2	11780.2	11942.3	11977.3	12134.3	12144.3	12090.3	12135.3
7.5°	11371.1	11469.1	11655.2	11864.2	11888.2	12032.3	12026.3	12175.3	12149.3	12102.3	12162.3
10°	11518.1	11594.2	11718.2	11856.2	11845.2	11960.3	11924.2	12031.3	11977.3	11939.3	12008.3
12.5°	11666.2	11669.2	11679.2	11766.2	11698.2	11724.2	11653.2	11732.2	11649.2	11585.2	11627.2
15°	11814.2	11730.2	11589.2	11535.1	11346.1	11249.1	11147.0	11242.1	11048.0	10946.0	10972.0
17.5°	12023.3	11821.2	11347.1	10660.9	10078.7	9757.7	9516.6	9330.5	9334.5	9426.6	9481.6
20°	12190.3	11422.1	10263.8	9839.7	9404.6	8817.4	7906.2	7656.1	7491.0	7488.0	7515.0
22.5°	12131.3	11000.0	10264.8	9601.6	8655.4	7482.0	7087.9	6858.9	6473.8	5650.5	5583.5
25°	12674.5	11374.1	10323.8	9109.5	7462.0	6866.9	6325.7	5880.6	4908.3	4755.3	4749.3
27.5°	13325.6	11879.2	10403.8	8047.2	6984.9	6181.7	5493.5	4418.2	3952.1	3886.1	3863.1
30°	14078.8	12474.4	9915.7	7707.1	6476.8	5384.5	4472.2	3392.9	3013.8	2990.8	2996.8
32.5°	15023.1	13153.6	9406.6	7427.0	5861.6	4461.2	3049.8	2587.7	2370.6	2133.6	2209.6
35°	16029.4	12762.5	9710.6	7080.9	5091.4	3354.9	2316.6	2055.6	1879.5	1572.4	1447.4
37.5°	15633.3	13031.5	10063.7	6700.8	4129.1	2274.6	1792.5	1566.4	1401.4	1145.3	1140.3
40°	16121.4	13801.8	10315.8	6088.7	2985.8	1613.4	1306.4	1212.3	1136.3	994.3	974.3
42.5°	16983.6	14473.9	10486.9	5303.4	1784.5	1200.3	1115.3	1129.3	1063.3	954.3	941.3
45°	17832.9	15062.1	10325.8	4106.1	1269.3	1082.3	1087.3	1081.3	1001.3	961.3	947.3
47.5°	18606.1	15559.2	9872.7	2708.7	1101.3	1055.3	1066.3	1039.3	949.3	926.3	924.3
50°	19270.2	16084.4	7817.1	2075.6	1059.3	1019.3	1043.3	999.3	844.2	819.2	793.2
52.5°	19679.4	15211.1	6944.9	1594.4	1015.3	963.3	970.3	1006.3	795.2	633.2	593.2
55°	19617.3	13702.7	6456.8	1327.4	945.3	885.2	899.2	957.3	719.2	495.1	448.1
57.5°	19912.4	13578.7	5950.6	1129.3	815.2	802.2	774.2	872.2	654.2	328.1	311.1
60°	19864.4	13563.7	5310.4	888.2	720.2	674.2	639.2	710.2	469.1	122.0	111.0
62.5°	19786.4	13178.6	4583.2	796.2	663.2	645.2	615.2	695.2	399.1	85.0	63.0
65°	19395.3	12553.4	3759.0	697.2	619.2	582.2	580.2	658.2	329.1	47.0	21.0
67.5°	18059.9	11192.0	2796.8	642.2	593.2	574.2	609.2	634.2	316.1	48.0	19.0
70°	16399.5	9396.6	1804.5	579.2	556.2	566.2	595.2	641.2	307.1	44.0	17.0
72.5°	13712.7	7269.0	1094.3	517.1	503.1	533.1	587.2	641.2	284.1	37.0	14.0
75°	10431.8	4848.3	814.2	457.1	441.1	479.1	535.1	616.2	279.1	32.0	9.0
77.5°	6476.8	2289.6	642.2	384.1	367.1	406.1	449.1	508.1	283.1	31.0	5.0
80°	2619.7	956.3	504.1	309.1	288.1	309.1	364.1	433.1	225.1	44.0	0.0
82.5°	1102.3	673.2	412.1	246.1	230.1	203.1	248.1	321.1	177.0	35.0	0.0
85°	729.2	467.1	295.1	167.0	147.0	99.0	121.0	145.0	101.0	0.0	0.0
87.5°	330.1	207.1	129.0	57.0	48.0	27.0	16.0	14.0	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)