

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: P591039

Luminaire Tested: **CTN-CA10-630-730-U-T3-HSS-HM-EX120**

Issue Date: 12/14/2021

Test Information

Test Method: LM-79-08
Report Number: P591039
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-CA10-630-730-U-T3-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (10) 3000K CCT, 70 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 82472 lumens
Efficiency: N/A
Efficacy: 130.6 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U0 - G5

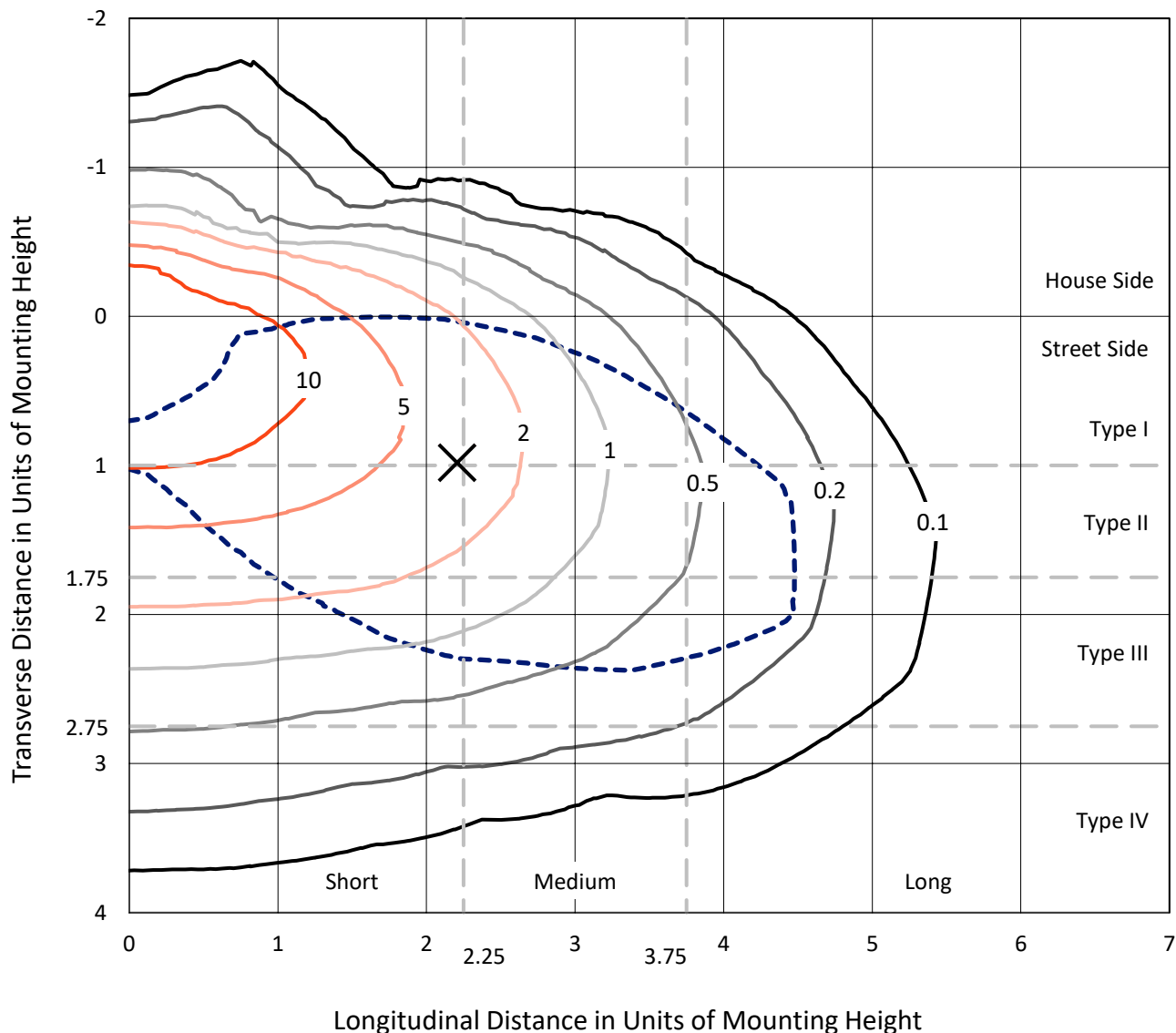
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

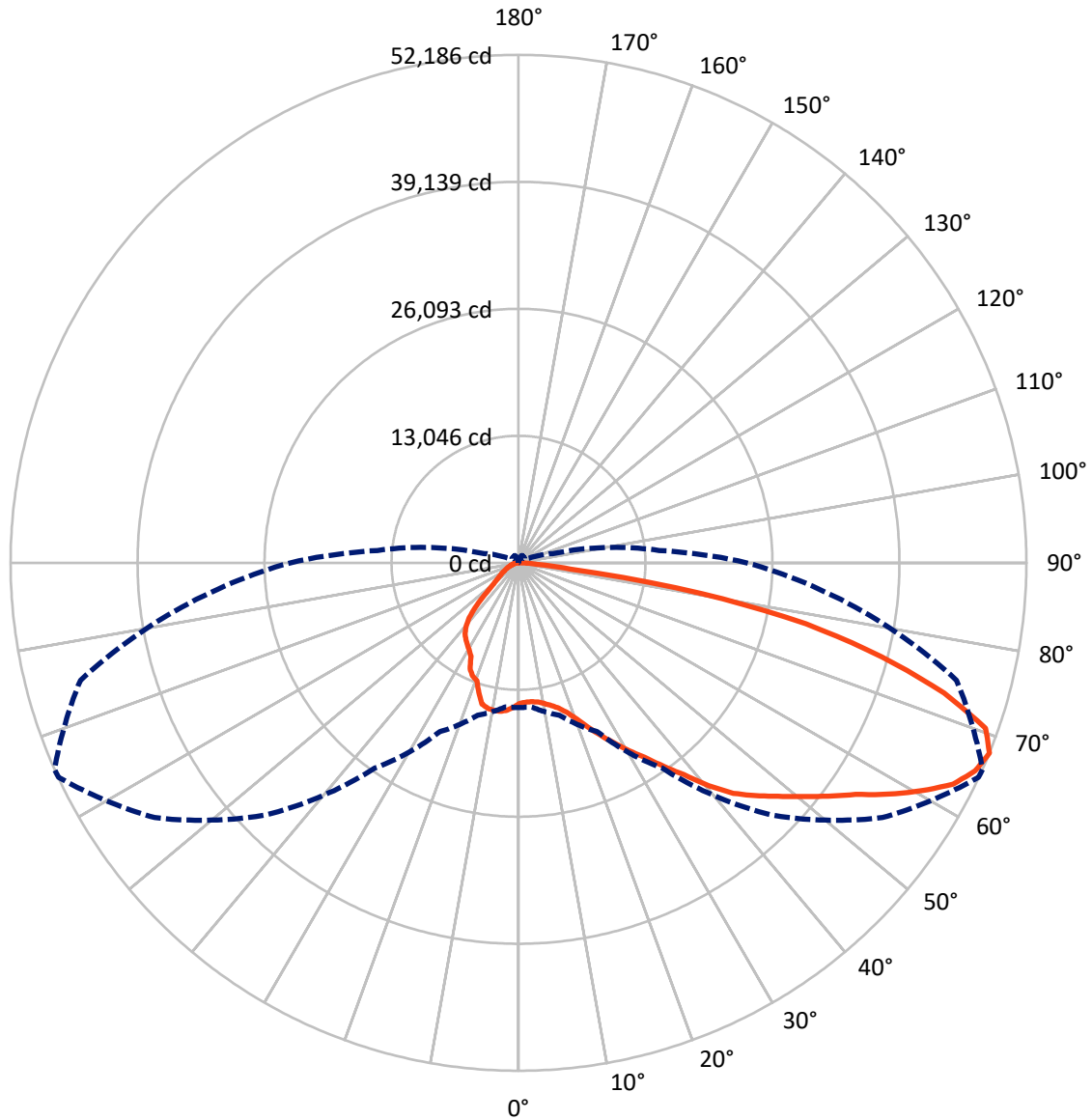
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 18 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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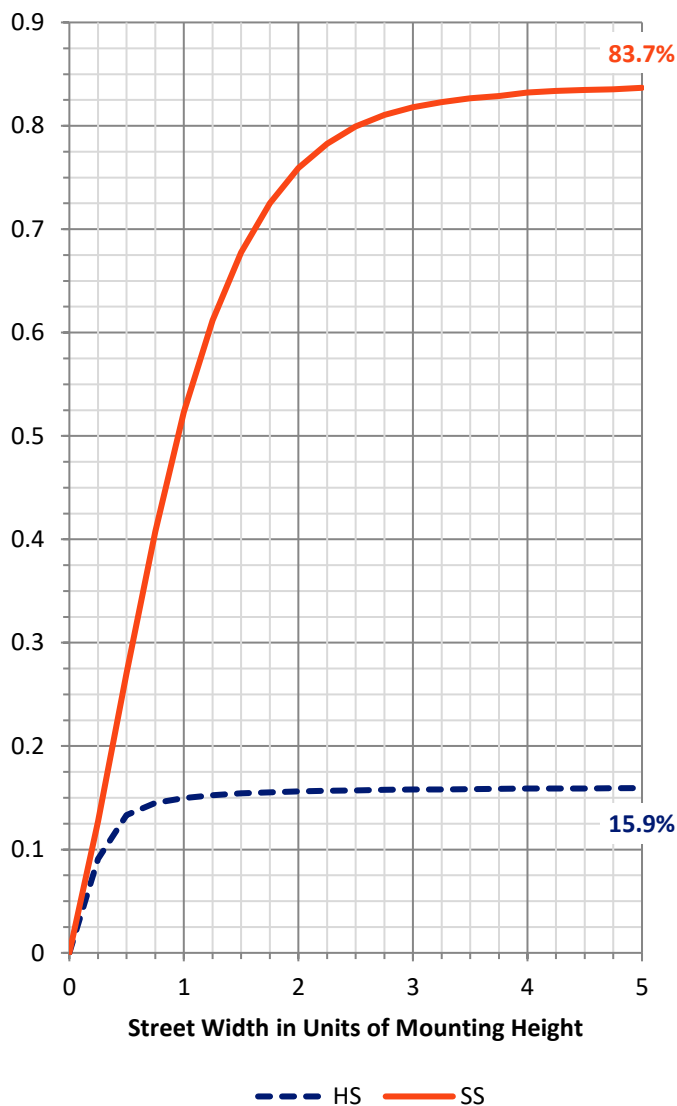
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13312.7	0.0	13312.7
	% Fixture	16.1	0.0	16.1
Street Side	Lumens	69159.3	0.0	69159.3
	% Fixture	83.9	0.0	83.9
Total	Lumens	82472.0	0.0	82472.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1431.0	1.7
10°-20°	4314.5	5.2
20°-30°	7013.4	8.5
30°-40°	10244.8	12.4
40°-50°	13645.1	16.5
50°-60°	16506.2	20.0
60°-70°	17671.6	21.4
70°-80°	10487.4	12.7
80°-90°	1158.0	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°	82472.0	100.0
0°-180°	82472.0	100.0

Coefficient of Utilization



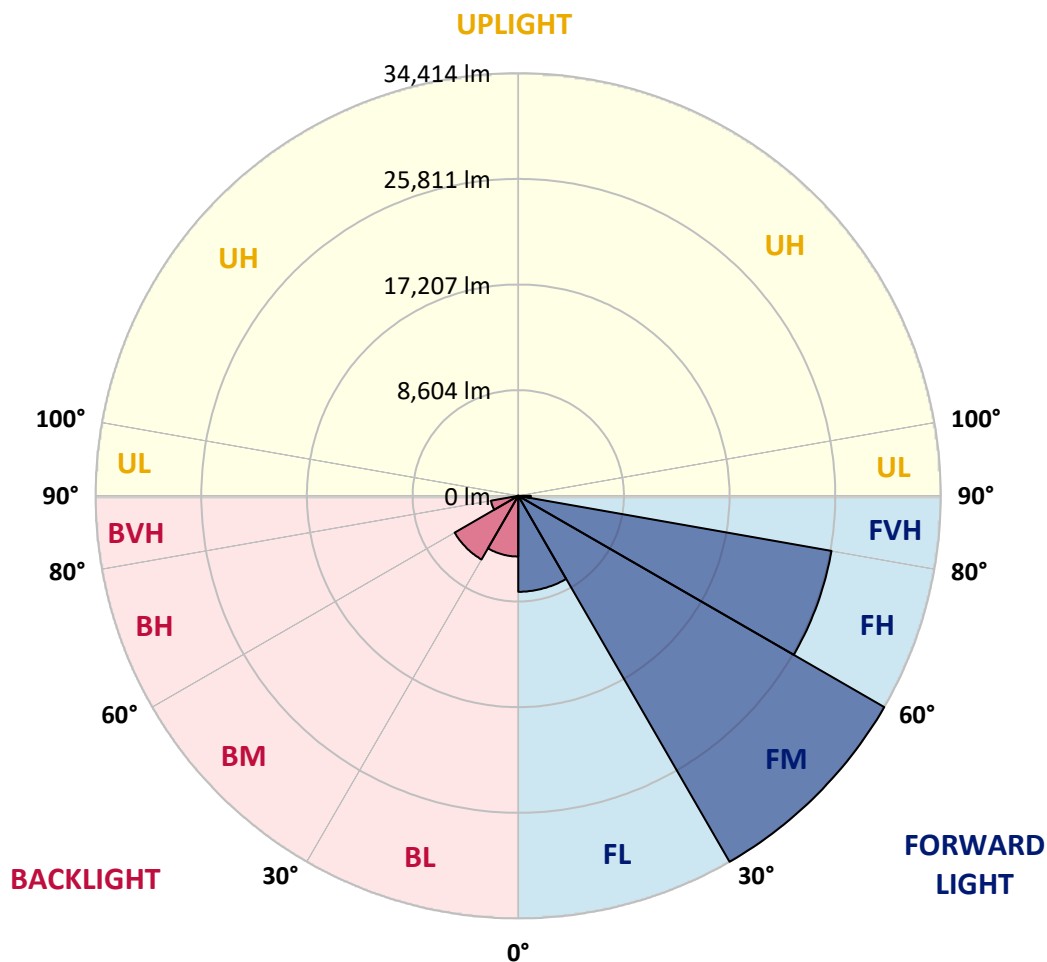
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	7814.7	9.5			
FM (30°-60°)	34414.0	41.7			
FH (60°-80°)	25904.0	31.4			G5
FVH (80°-90°)	1026.5	1.2			G5
BL (0°-30°)	4944.2	6.0	B4/5000		
BM (30°-60°)	5982.1	7.3	B4/8500		
BH (60°-80°)	2255.0	2.7	B3/2500		G3/2500
BVH (80°-90°)	131.4	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°	14441.5	14441.5	14441.5	14441.5	14441.5	14441.5	14441.5	14441.5	14441.5	14441.5	14441.5
2.5°	14255.8	14175.3	14211.6	14306.4	14124.6	14240.2	14158.4	14301.2	14340.2	14355.8	14412.9
5°	14535.0	14428.5	14431.1	14490.8	14284.4	14335.0	14196.0	14296.0	14327.2	14368.8	14507.7
7.5°	15024.6	14906.4	14896.0	14911.6	14654.5	14597.3	14401.2	14422.0	14445.4	14470.1	14650.6
10°	15697.3	15576.6	15555.8	15515.5	15176.6	15027.2	14736.3	14690.8	14712.9	14672.7	14887.0
12.5°	16505.1	16359.7	16283.0	16167.5	15775.3	15541.5	15157.1	15032.4	15051.9	14967.5	15116.8
15°	17354.5	17199.9	17158.4	16980.4	16497.3	16177.9	15680.5	15490.8	15496.0	15398.6	15392.1
17.5°	18261.0	18123.3	18089.5	17976.5	17441.5	17061.0	16446.7	16189.5	16170.1	16074.0	15788.2
20°	19289.5	19202.5	19184.3	19119.4	18635.0	18189.5	17490.8	17145.4	17125.9	16974.0	16363.6
22.5°	20554.5	20451.9	20397.3	20341.5	19979.1	19515.5	18764.9	18277.8	18354.5	18098.6	17110.3
25°	21812.9	21731.1	21684.3	21648.0	21349.3	20910.3	20150.6	19579.1	19655.8	19381.7	18018.1
27.5°	23062.2	22881.7	22957.0	23042.8	22744.1	22394.7	21568.7	20946.7	20970.0	20673.9	19105.1
30°	24223.3	24128.5	24258.3	24338.9	24120.7	23848.0	22980.4	22379.1	22414.2	22062.2	20351.9
32.5°	25254.4	25118.1	25407.7	25564.8	25435.0	25210.3	24372.6	23802.5	23812.9	23599.9	21840.2
35°	26011.6	26020.7	26420.7	26842.7	26841.4	26524.6	25812.9	25547.9	25668.7	25573.9	23666.1
37.5°	26783.0	26714.2	27176.5	27803.8	28009.0	27727.2	27305.1	27462.2	27624.6	27915.5	25390.8
40°	27147.9	27150.5	27710.3	28434.9	28909.0	28855.7	28707.7	29758.3	30094.7	30181.7	24699.9
42.5°	26707.7	26738.9	27737.5	29019.4	29755.7	30037.5	30362.2	32151.8	32379.1	31886.9	25514.2
45°	26131.1	26173.9	27346.6	29220.7	30506.4	31299.9	32194.7	33940.1	34116.7	33462.2	26698.6
47.5°	25589.5	25668.7	26889.5	29099.9	31101.2	32721.9	33833.6	35624.5	35840.1	34976.5	27802.5
50°	24877.8	25054.4	26299.9	28779.1	31549.2	33959.6	35347.9	37651.8	37734.9	36454.4	28797.3
52.5°	24189.5	24241.5	25632.4	28368.7	31886.9	35081.7	37154.4	39734.9	39831.0	38072.6	29715.5
55°	23246.7	23324.6	24879.1	27854.4	32094.7	36021.9	38983.0	41906.3	41992.0	40016.7	30702.5
57.5°	22209.0	22266.1	23902.5	27064.8	31938.8	36857.0	40932.3	44641.4	44851.8	42016.7	31589.5
60°	20906.4	20981.7	22642.8	25970.0	31401.2	37831.0	43340.1	47564.7	47564.7	43853.1	32292.1
62.5°	19071.4	19176.5	20858.4	24393.4	30284.3	38394.6	45262.2	50110.2	50093.3	45299.8	32529.7
65°	16938.9	16955.8	18480.4	22175.2	28429.8	38094.6	45994.6	51597.2	51559.5	46346.6	32202.5
67.5°	14870.1	14851.9	16205.1	19141.5	25755.7	36618.0	45645.3	52140.0	52185.5	46598.5	30983.0
70°	11935.0	11911.6	13155.8	15555.8	21711.6	33437.5	43659.6	50762.1	50899.8	45159.6	28958.3
72.5°	8540.2	8505.2	9101.3	10688.3	15944.1	27506.4	38708.9	45466.0	45718.0	40550.5	25260.9
75°	5001.3	5038.9	5661.0	6574.0	9468.8	18094.7	31396.0	38183.0	38542.7	34496.0	19868.7
77.5°	2781.8	2774.0	3231.2	3918.2	4657.1	9062.3	21918.1	30070.0	30192.1	27031.1	13361.0
80°	1342.9	1336.4	1459.7	1841.6	2655.8	4071.4	10764.9	18683.0	19053.2	16428.5	6532.4
82.5°	966.2	971.4	1040.3	1010.4	990.9	1796.1	3592.2	5884.4	5372.7	4146.7	2019.5
85°	726.0	726.0	788.3	727.3	710.4	914.3	1746.7	2102.6	2018.2	1845.4	1200.0
87.5°	341.6	324.7	345.5	327.3	303.9	405.2	766.2	888.3	822.1	716.9	524.7
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°	14441.5	14441.5	14441.5	14441.5	14441.5	14441.5	14441.5	14441.5	14441.5	14441.5	14441.5
2.5°	14510.3	14538.9	14688.3	14883.1	14901.2	15068.8	15120.7	15328.5	15320.7	15263.6	15323.3
5°	14607.7	14694.7	14950.6	15224.6	15294.7	15505.1	15550.6	15754.5	15767.5	15697.3	15755.8
7.5°	14763.6	14890.8	15132.4	15403.8	15435.0	15622.0	15614.2	15807.7	15774.0	15712.9	15790.8
10°	14954.5	15053.2	15214.2	15393.4	15379.2	15528.5	15481.8	15620.7	15550.6	15501.2	15590.8
12.5°	15146.7	15150.6	15163.6	15276.6	15188.2	15222.0	15129.8	15232.4	15124.6	15041.5	15096.0
15°	15338.9	15229.8	15046.7	14976.6	14731.1	14605.1	14472.7	14596.0	14344.1	14211.6	14245.4
17.5°	15610.3	15348.0	14732.4	13841.5	13085.7	12668.8	12355.8	12114.2	12119.4	12238.9	12310.3
20°	15827.2	14829.8	13325.9	12775.3	12210.3	11448.0	10264.9	9940.2	9725.9	9722.0	9757.1
22.5°	15750.6	14281.8	13327.2	12466.2	11237.6	9714.2	9202.6	8905.2	8405.2	7336.3	7249.3
25°	16455.8	14767.5	13403.8	11827.2	9688.3	8915.5	8213.0	7635.0	6372.7	6174.0	6166.2
27.5°	17301.2	15423.3	13507.7	10448.0	9068.8	8025.9	7132.4	5736.3	5131.1	5045.4	5015.6
30°	18279.1	16196.0	12874.0	10006.5	8409.1	6990.9	5806.5	4405.2	3913.0	3883.1	3890.9
32.5°	19505.1	17077.9	12212.9	9642.8	7610.4	5792.2	3959.7	3359.7	3077.9	2770.1	2868.8
35°	20811.6	16570.1	12607.7	9193.5	6610.4	4355.8	3007.8	2668.8	2440.2	2041.6	1879.2
37.5°	20297.3	16919.4	13066.2	8700.0	5361.0	2953.2	2327.3	2033.8	1819.5	1487.0	1480.5
40°	20931.1	17919.4	13393.5	7905.2	3876.6	2094.8	1696.1	1574.0	1475.3	1290.9	1264.9
42.5°	22050.6	18792.1	13615.5	6885.7	2316.9	1558.4	1448.0	1466.2	1380.5	1239.0	1222.1
45°	23153.2	19555.8	13406.4	5331.1	1648.0	1405.2	1411.7	1403.9	1300.0	1248.0	1229.9
47.5°	24157.0	20201.2	12818.1	3516.9	1429.9	1370.1	1384.4	1349.3	1232.5	1202.6	1200.0
50°	25019.4	20883.0	10149.3	2694.8	1375.3	1323.4	1354.5	1297.4	1096.1	1063.6	1029.9
52.5°	25550.5	19749.3	9016.8	2070.1	1318.2	1250.6	1259.7	1306.5	1032.5	822.1	770.1
55°	25470.0	17790.8	8383.1	1723.4	1227.3	1149.3	1167.5	1242.9	933.8	642.9	581.8
57.5°	25853.1	17629.8	7725.9	1466.2	1058.4	1041.6	1005.2	1132.5	849.3	426.0	403.9
60°	25790.8	17610.3	6894.8	1153.2	935.1	875.3	829.9	922.1	609.1	158.4	144.2
62.5°	25689.5	17110.3	5950.6	1033.8	861.0	837.7	798.7	902.6	518.2	110.4	81.8
65°	25181.7	16298.6	4880.5	905.2	803.9	755.8	753.2	854.5	427.3	61.0	27.3
67.5°	23448.0	14531.1	3631.2	833.8	770.1	745.5	790.9	823.4	410.4	62.3	24.7
70°	21292.1	12199.9	2342.8	751.9	722.1	735.1	772.7	832.5	398.7	57.1	22.1
72.5°	17803.8	9437.6	1420.8	671.4	653.2	692.2	762.3	832.5	368.8	48.1	18.2
75°	13544.1	6294.8	1057.1	593.5	572.7	622.1	694.8	800.0	362.3	41.6	11.7
77.5°	8409.1	2972.7	833.8	498.7	476.6	527.3	583.1	659.7	367.5	40.3	6.5
80°	3401.3	1241.6	654.5	401.3	374.0	401.3	472.7	562.3	292.2	57.1	0.0
82.5°	1431.2	874.0	535.1	319.5	298.7	263.6	322.1	416.9	229.9	45.5	0.0
85°	946.7	606.5	383.1	216.9	190.9	128.6	157.1	188.3	131.2	0.0	0.0
87.5°	428.6	268.8	167.5	74.0	62.3	35.1	20.8	18.2	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)