

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: P510468

Luminaire Tested: **CTN-CA10-310-727-U-T3-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510468
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-CA10-310-727-U-T3-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38265 lumens
Efficiency: N/A
Efficacy: 122.5 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

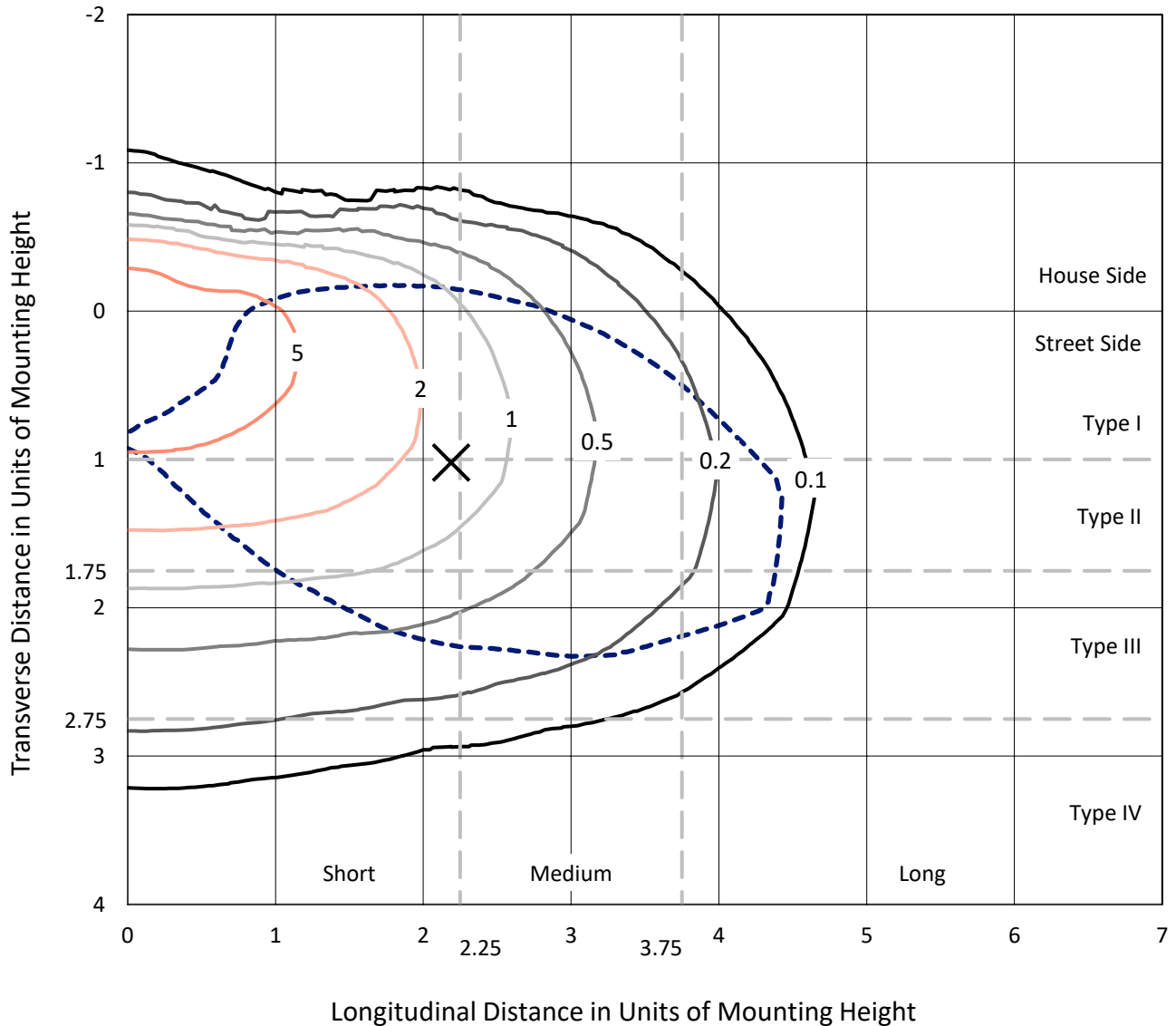
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

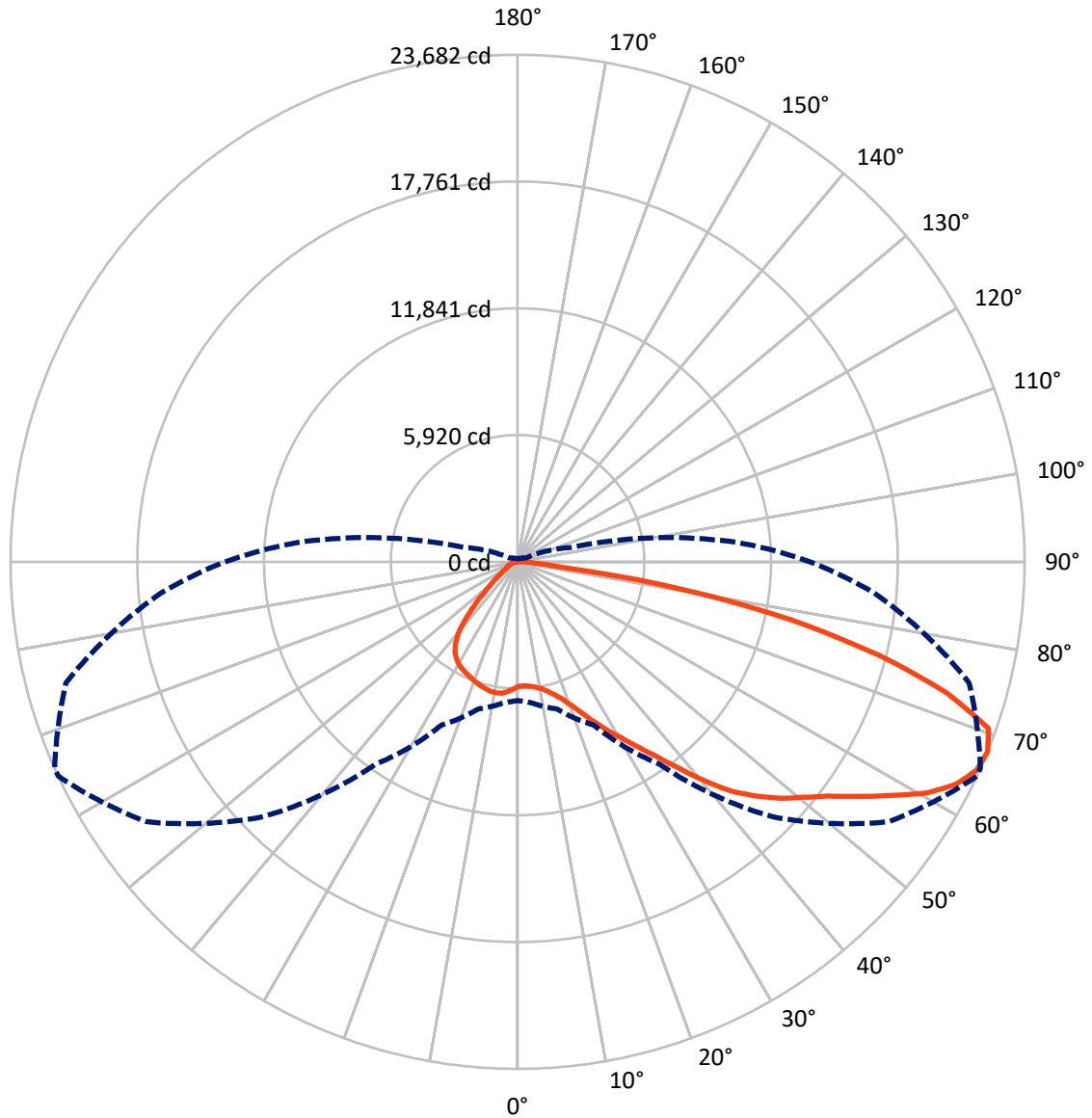
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.6 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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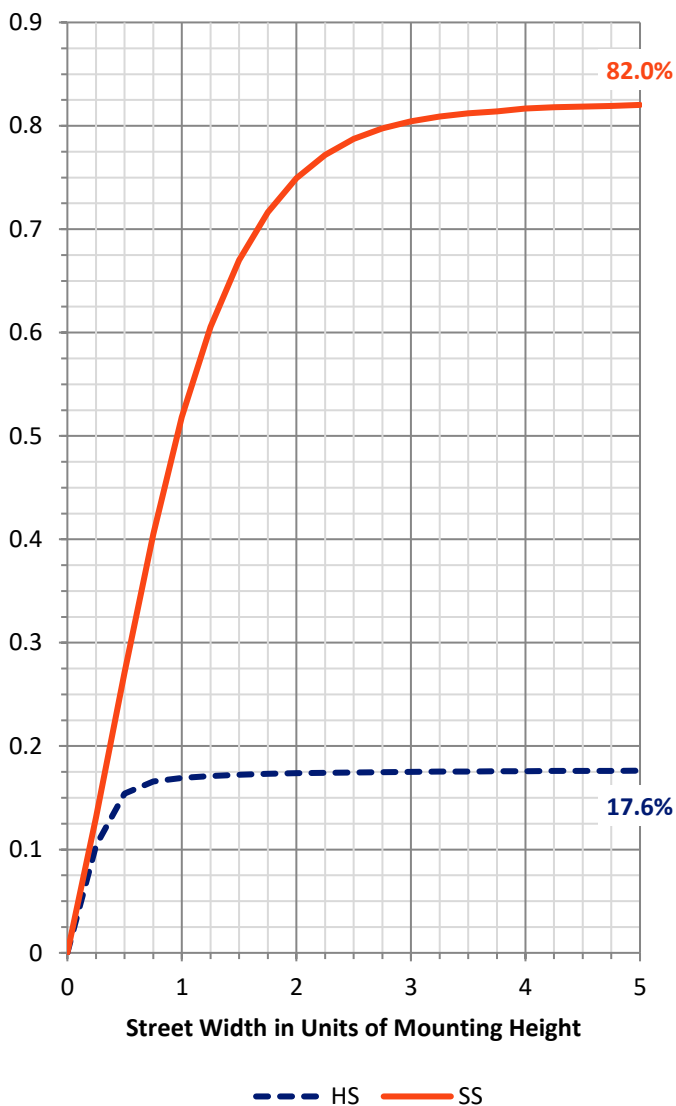
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6838.9	0.0	6838.9
	% Fixture	17.9	0.0	17.9
Street Side	Lumens	31426.1	0.0	31426.1
	% Fixture	82.1	0.0	82.1
Total	Lumens	38265.0	0.0	38265.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	575.3	1.5
10°-20°	1776.0	4.6
20°-30°	3081.1	8.1
30°-40°	4647.7	12.1
40°-50°	6444.4	16.8
50°-60°	7954.8	20.8
60°-70°	8475.7	22.1
70°-80°	4849.9	12.7
80°-90°	460.2	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°	38265.0	100.0
0°-180°	38265.0	100.0

Coefficient of Utilization



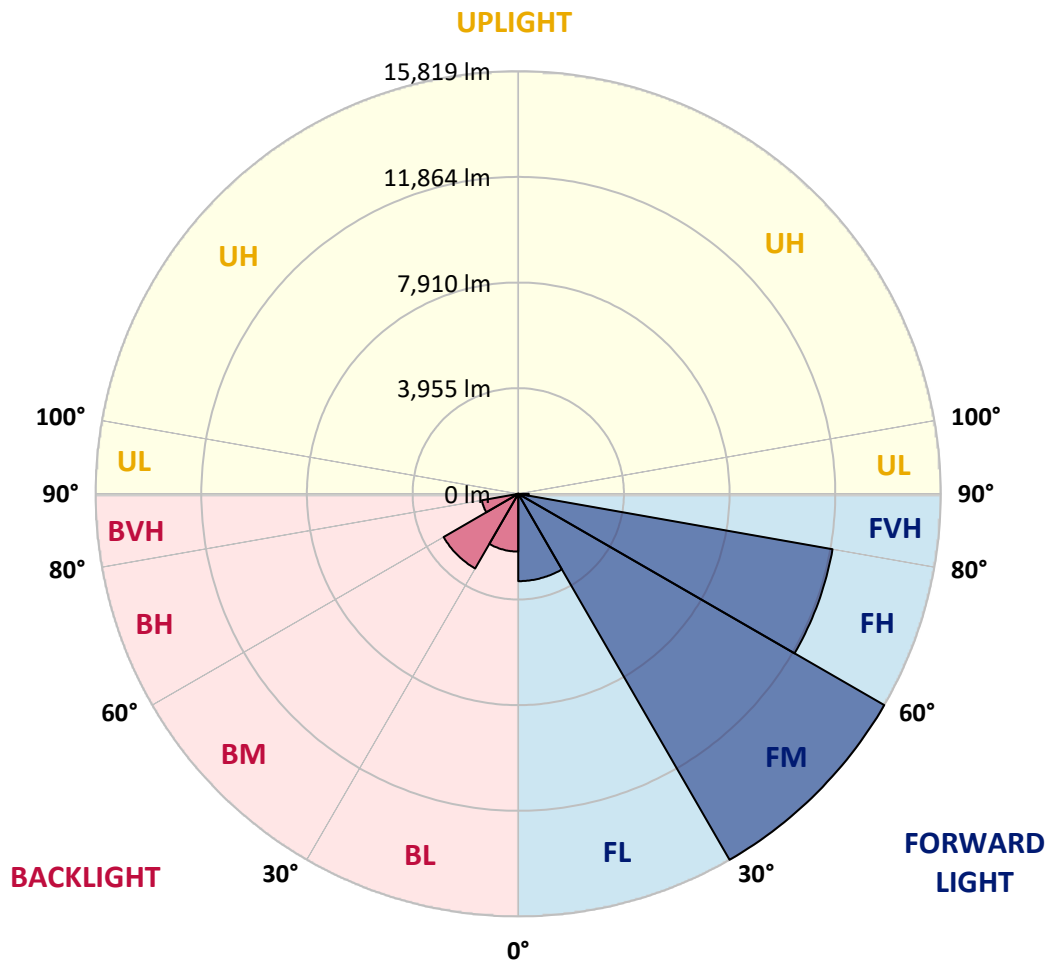
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3268.3	8.5			
FM	(30°-60°)	15819.3	41.3			
FH	(60°-80°)	11945.3	31.2			G4/12000
FVH	(80°-90°)	393.2	1.0			G3/500
BL	(0°-30°)	2164.0	5.7	B3/2500		
BM	(30°-60°)	3227.6	8.4	B3/5000		
BH	(60°-80°)	1380.3	3.6	B3/2500		G3/2500
BVH	(80°-90°)	67.0	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	5814.6	5814.6	5814.6	5814.6	5814.6	5814.6	5814.6	5814.6	5814.6	5814.6	5814.6
2.5°	5758.5	5750.9	5744.2	5755.9	5762.6	5773.5	5789.5	5800.4	5803.7	5813.8	5826.4
5°	5850.7	5849.8	5840.6	5835.6	5821.3	5816.3	5819.6	5833.1	5833.9	5846.5	5885.9
7.5°	6031.7	6030.0	6007.4	5997.3	5967.2	5933.6	5908.5	5911.0	5910.2	5922.7	5975.6
10°	6305.0	6291.6	6259.7	6228.7	6170.0	6107.1	6061.0	6019.1	6019.1	6037.6	6096.3
12.5°	6613.4	6631.9	6588.3	6541.3	6443.3	6330.1	6249.6	6202.7	6197.7	6206.9	6248.8
15°	6996.5	6996.5	6967.1	6900.1	6813.8	6656.2	6490.2	6430.7	6422.3	6441.6	6439.1
17.5°	7428.2	7440.7	7385.4	7351.9	7219.4	7045.1	6837.2	6734.1	6734.1	6721.6	6663.7
20°	7978.9	7910.1	7916.0	7860.7	7763.4	7510.3	7299.1	7149.0	7147.4	7122.2	6959.6
22.5°	8577.3	8539.6	8506.9	8458.3	8324.2	8097.9	7804.5	7656.1	7652.8	7590.8	7349.4
25°	9167.4	9195.9	9159.9	9071.0	8973.0	8726.5	8403.0	8257.1	8256.3	8153.2	7811.2
27.5°	9774.3	9805.3	9793.6	9713.1	9582.3	9389.6	9083.6	8893.3	8881.6	8814.5	8384.5
30°	10444.9	10417.2	10453.2	10418.9	10353.5	10039.2	9762.6	9541.3	9569.8	9549.7	9035.8
32.5°	10932.7	10950.3	11068.5	11071.8	11003.1	10770.1	10432.3	10296.5	10341.8	10314.9	9836.3
35°	11373.6	11402.1	11554.6	11704.7	11755.0	11500.1	11156.5	11148.1	11206.8	11370.2	10939.4
37.5°	11752.4	11772.6	11986.3	12181.6	12344.2	12169.9	11920.1	12217.7	12304.0	12638.4	12077.7
40°	11979.6	12005.6	12282.2	12557.1	12847.1	12785.1	12761.6	13465.7	13547.0	13841.3	12908.3
42.5°	11851.4	11902.5	12363.5	12866.4	13293.1	13417.1	13738.2	14643.4	14736.5	14761.6	13724.7
45°	11622.5	11686.2	12201.7	13015.6	13711.3	14109.5	14720.5	15603.2	15654.3	15583.0	14401.2
47.5°	11376.1	11444.0	12019.8	12971.2	14047.4	14915.0	15598.1	16506.7	16542.8	16324.0	15082.6
50°	11096.1	11159.0	11778.4	12867.3	14300.6	15675.2	16500.0	17287.9	17422.9	16990.4	15612.4
52.5°	10755.8	10822.9	11480.0	12704.6	14522.7	16239.4	17295.5	18170.6	18179.8	17823.6	16209.2
55°	10314.9	10431.4	11105.4	12423.0	14639.2	16723.8	17988.7	19338.2	19397.7	19053.2	16708.7
57.5°	9824.6	9926.0	10654.4	12047.5	14534.4	17091.8	19103.5	20590.5	20582.9	19891.4	17145.4
60°	9176.6	9248.7	10066.8	11556.3	14196.6	17536.9	20264.4	21932.4	21919.0	20712.8	17426.2
62.5°	8345.2	8417.2	9186.7	10786.0	13700.4	17835.3	21052.3	22937.4	22898.9	21310.5	17512.6
65°	7381.2	7510.3	8178.3	9786.0	12822.8	17639.2	21432.9	23529.2	23467.2	21766.5	17306.4
67.5°	6477.6	6587.4	7116.3	8409.7	11527.8	16843.7	21164.6	23681.8	23663.3	21832.7	16723.8
70°	5198.5	5238.8	5723.3	6830.5	9591.6	15140.5	20237.6	23329.7	23338.1	21222.5	15553.7
72.5°	3558.2	3656.2	3871.7	4745.9	6979.7	12040.8	17443.0	20996.2	20997.8	19029.7	13551.2
75°	1913.6	2065.3	2316.8	2750.1	3901.8	7726.6	14008.1	17422.1	17454.7	15866.4	10770.9
77.5°	948.8	1003.3	1149.2	1471.0	1788.7	3645.3	9009.0	13077.6	13155.6	12179.1	7346.0
80°	434.2	443.4	454.3	451.8	684.8	1599.3	3867.5	7854.0	7877.4	7243.8	3353.7
82.5°	339.5	337.8	342.8	311.8	313.5	616.9	1338.6	2057.0	2193.6	1726.7	1063.7
85°	205.4	204.5	220.4	171.0	210.4	333.6	675.6	820.6	830.7	675.6	550.7
87.5°	78.0	75.4	69.6	61.2	70.4	93.9	233.9	301.8	295.0	209.6	190.3
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°	5814.6	5814.6	5814.6	5814.6	5814.6	5814.6	5814.6	5814.6	5814.6	5814.6	5814.6
2.5°	5837.2	5864.1	5913.5	5951.2	5963.8	6004.1	6042.6	6049.3	6077.0	6087.9	6123.9
5°	5910.2	5955.4	6032.5	6083.7	6106.3	6173.4	6217.0	6238.7	6231.2	6235.4	6275.6
7.5°	6016.6	6059.4	6121.4	6183.4	6194.3	6206.1	6201.9	6198.5	6169.2	6144.0	6181.7
10°	6113.9	6154.1	6192.6	6201.9	6146.5	6115.5	6060.2	6017.5	5960.5	5934.5	5964.7
12.5°	6250.5	6258.9	6221.1	6170.9	6051.8	5941.2	5851.5	5773.5	5703.1	5654.5	5694.8
15°	6394.7	6362.0	6252.2	6105.5	5921.1	5762.6	5616.0	5486.0	5369.5	5341.0	5351.9
17.5°	6585.8	6496.9	6275.6	6029.2	5742.5	5496.1	5307.5	5143.2	4990.7	4927.0	4921.1
20°	6818.8	6675.5	6323.4	5932.8	5531.3	5203.6	4911.9	4666.3	4455.9	4283.2	4287.4
22.5°	7122.2	6914.3	6395.5	5832.2	5297.4	4860.7	4436.6	4019.2	3673.0	3523.8	3486.9
25°	7522.9	7212.7	6497.8	5740.9	5035.9	4424.9	3825.6	3236.3	2870.0	2725.0	2709.1
27.5°	8021.6	7613.4	6653.7	5639.4	4756.0	3907.7	3046.0	2468.5	2132.4	1979.8	1928.7
30°	8588.2	8107.1	6813.8	5533.8	4417.3	3243.0	2322.7	1756.9	1412.4	1275.7	1258.1
32.5°	9321.7	8732.4	7051.8	5367.9	3922.8	2549.0	1620.2	1096.4	862.5	803.8	787.1
35°	10363.5	9578.1	7346.0	5158.3	3287.4	1780.3	1004.2	642.1	517.2	487.8	482.0
37.5°	11335.0	10408.0	7642.7	4810.4	2496.2	1111.5	574.2	411.6	383.9	384.7	386.4
40°	12105.3	10975.4	7882.5	4352.8	1642.0	631.2	399.0	342.0	342.8	340.3	338.6
42.5°	12791.0	11428.1	7990.6	3676.4	951.4	422.5	346.2	315.2	307.6	310.1	308.5
45°	13358.4	11889.9	7781.0	2916.1	560.8	378.9	326.9	292.5	284.2	297.6	299.2
47.5°	13955.2	12328.3	7460.0	2196.9	455.1	360.4	309.3	275.8	271.6	288.3	290.0
50°	14457.3	12646.0	6912.7	1655.5	434.2	340.3	293.4	259.0	258.2	273.3	273.3
52.5°	14877.3	12837.9	6263.1	1278.3	419.9	322.7	277.4	243.1	243.1	248.1	248.9
55°	15173.2	12799.4	5875.8	1005.8	404.9	305.9	260.7	228.0	217.9	214.6	216.3
57.5°	15226.8	12697.1	5426.5	784.6	387.2	290.0	245.6	210.4	191.9	189.4	188.6
60°	15192.4	12472.5	4913.5	655.5	367.1	274.9	230.5	191.9	173.5	167.6	169.3
62.5°	15049.1	12074.3	4320.9	575.0	347.0	263.2	213.7	179.4	162.6	155.1	155.1
65°	14616.6	11504.3	3440.8	503.8	321.9	250.6	200.3	174.3	155.9	147.5	145.8
67.5°	13666.1	10321.6	2585.9	441.7	297.6	237.2	198.7	173.5	152.6	140.8	139.1
70°	12391.2	8866.5	1765.3	388.1	270.7	224.6	197.8	174.3	149.2	134.1	132.4
72.5°	10344.3	6989.8	1016.7	337.8	243.9	212.9	194.5	175.2	143.3	124.9	122.4
75°	7772.7	4902.7	596.8	290.0	217.9	195.3	185.2	170.2	134.1	114.0	111.5
77.5°	4674.7	2289.1	449.3	240.6	186.9	171.8	165.1	155.9	122.4	105.6	103.1
80°	1715.0	869.2	352.9	192.8	148.4	149.2	142.5	136.6	111.5	97.2	95.6
82.5°	747.7	531.4	260.7	146.7	116.5	133.3	117.3	112.3	95.6	87.2	83.8
85°	453.5	316.8	167.6	99.7	80.5	90.5	82.1	86.3	73.8	68.7	66.2
87.5°	150.0	94.7	74.6	48.6	40.2	37.7	36.9	44.4	41.9	38.6	38.6
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)