

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: P232789

Luminaire Tested: **CTN-10-8-D-E1-T2-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232789
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-7)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-10-8-D-E1-T2-7030
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 3000K LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 78305 lumens
Efficiency: N/A
Efficacy: 124.1 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B5 - U0 - G5

Input Watts (W): 631
Input Voltage (V): NR
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: 25 FT

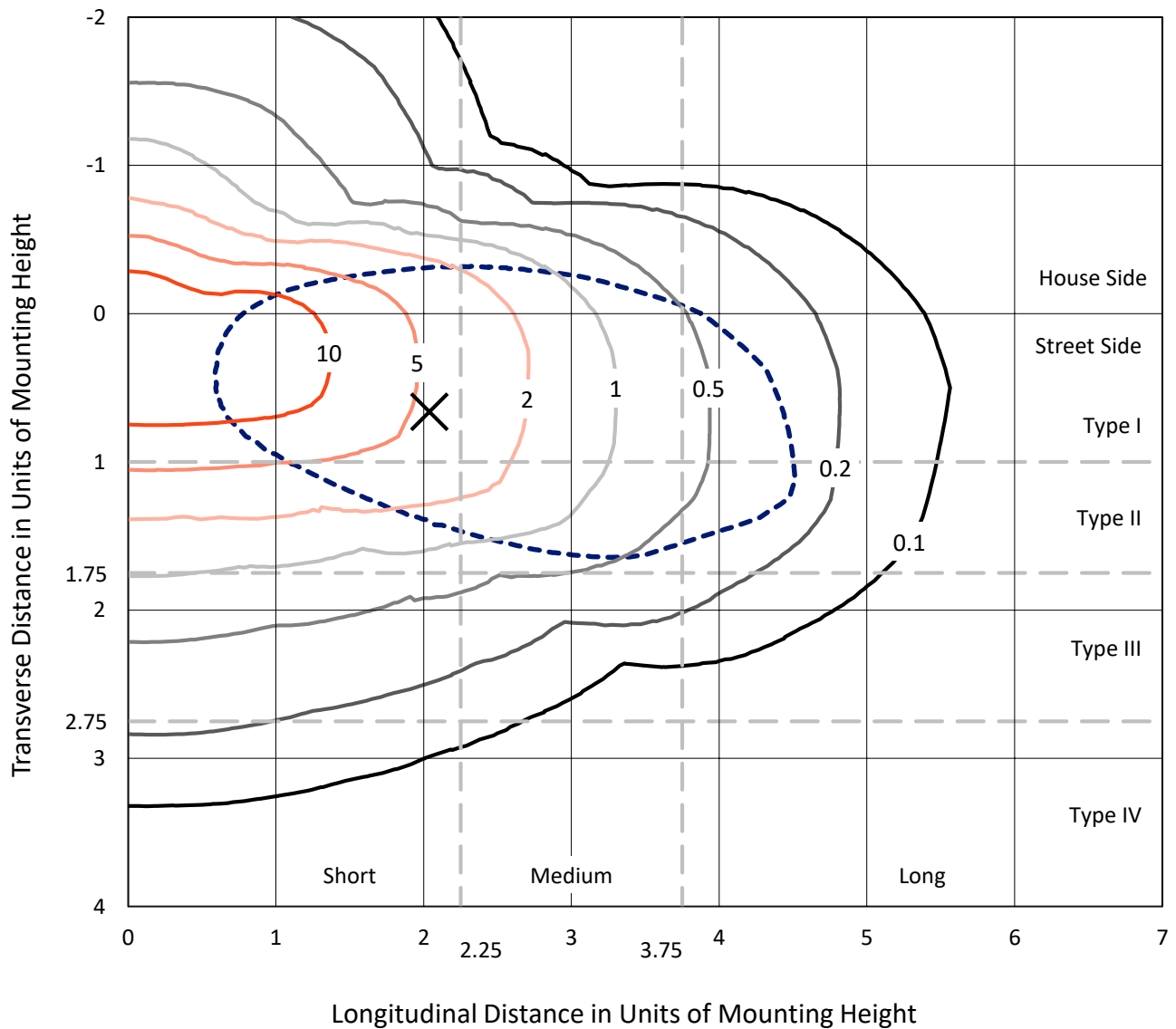


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

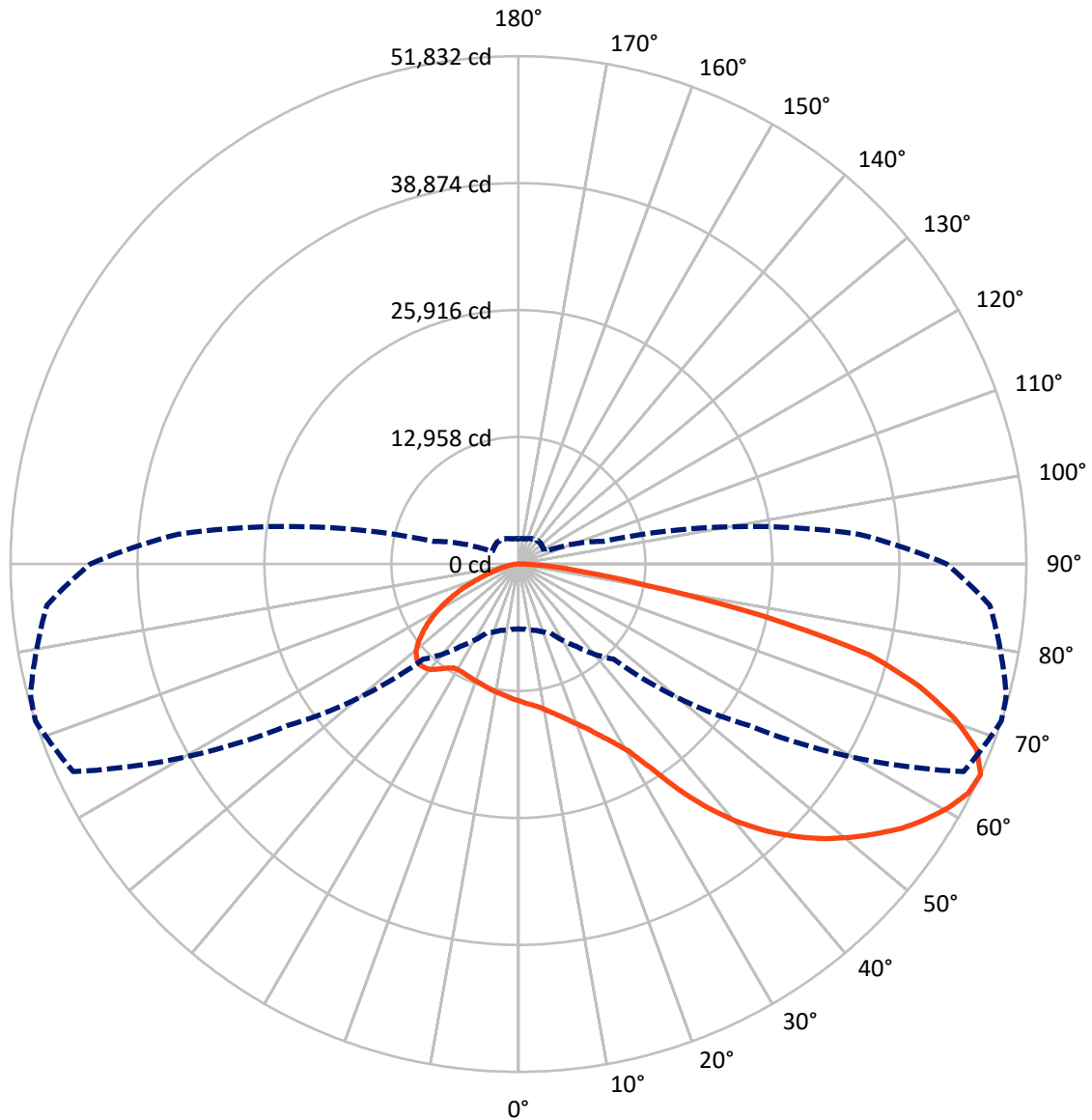


Based on 30 foot mounting height. Maximum calculated value = 18.2 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 72-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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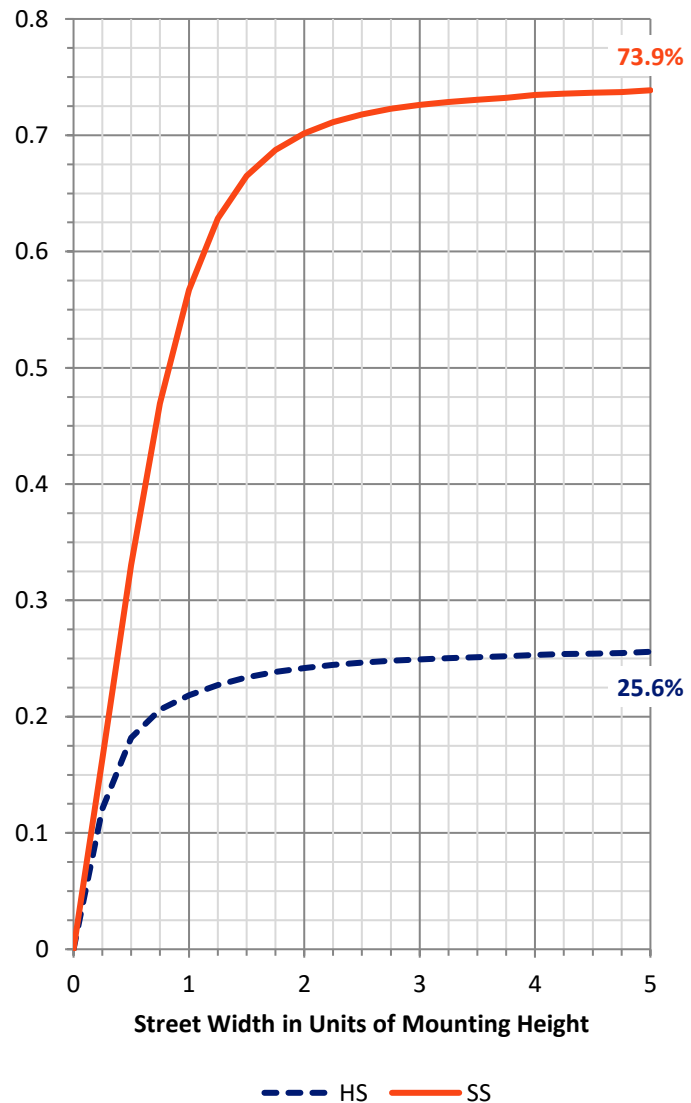
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	20397.7	0.0	20397.7
	% Fixture	26.0	0.0	26.0
Street Side	Lumens	57907.3	0.0	57907.3
	% Fixture	74.0	0.0	74.0
Total	Lumens	78305.0	0.0	78305.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1344.0	1.7
10°-20°	4096.4	5.2
20°-30°	6861.5	8.8
30°-40°	9959.5	12.7
40°-50°	13467.3	17.2
50°-60°	15720.0	20.1
60°-70°	15652.0	20.0
70°-80°	9491.2	12.1
80°-90°	1713.3	2.2
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°	78305.0	100.0
0°-180°	78305.0	100.0



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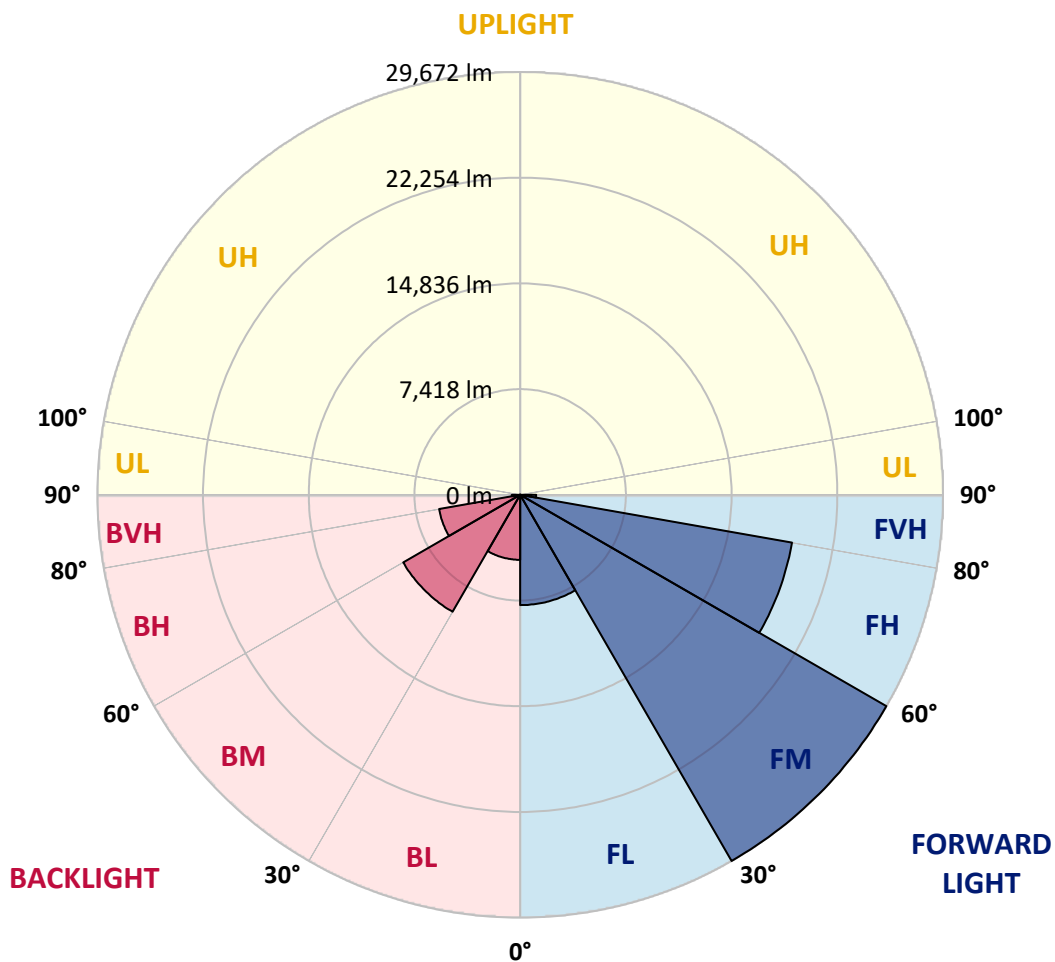
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	7739.3	9.9			
FM (30°-60°)	29671.5	37.9			
FH (60°-80°)	19369.4	24.7			G5
FVH (80°-90°)	1127.0	1.4			G5
BL (0°-30°)	4562.5	5.8	B4/5000		
BM (30°-60°)	9475.2	12.1	B5		
BH (60°-80°)	5773.7	7.4	B5		G5
BVH (80°-90°)	586.3	0.7			G4/750
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	72°	75°	85°
0°	13976.9	13976.9	13976.9	13976.9	13976.9	13976.9	13976.9	13976.9	13976.9	13976.9	13976.9
2.5°	14704.0	14676.1	14685.4	14698.9	14532.0	14504.0	14365.9	14295.5	14218.4	14164.2	14042.1
5°	15460.8	15458.3	15398.1	15399.0	15137.1	15036.2	14781.2	14593.0	14429.4	14344.7	14090.4
7.5°	16147.3	16076.1	16070.2	16053.2	15757.5	15596.4	15258.3	14972.7	14722.7	14592.2	14198.1
10°	16792.3	16742.3	16743.1	16722.8	16419.4	16218.5	15811.7	15452.4	15118.5	14949.8	14376.1
12.5°	17480.4	17423.6	17414.3	17343.1	17064.3	16871.1	16426.1	15984.6	15580.3	15389.7	14645.6
15°	18186.4	18132.1	18105.0	18022.8	17711.8	17505.8	17133.0	16587.2	16127.0	15889.7	14999.8
17.5°	18837.3	18804.2	18758.4	18694.9	18422.8	18197.4	17824.5	17305.8	16755.8	16452.4	15407.5
20°	19239.0	19210.2	19240.7	19240.7	19083.9	18920.3	18544.9	18099.9	17505.8	17130.4	15876.1
22.5°	19546.6	19517.0	19652.6	19721.2	19737.3	19700.9	19332.2	18944.0	18325.4	17938.1	16455.8
25°	19622.0	19625.4	19855.1	20163.6	20392.4	20499.2	20215.3	19929.7	19395.8	18911.0	17248.2
27.5°	19600.0	19622.0	19916.1	20467.0	21015.3	21274.7	21172.1	21006.0	20583.1	20170.4	18306.7
30°	19567.8	19625.4	20013.6	20690.7	21484.0	21997.6	22100.1	22351.8	22144.2	21862.8	19985.6
32.5°	19167.8	19219.5	19775.4	20773.8	21883.2	22815.4	23367.1	24434.1	24772.3	24717.2	22584.0
35°	18231.3	18333.0	19157.6	20556.0	22190.8	23648.5	24957.9	27191.9	28362.3	28268.2	25581.6
37.5°	17277.0	17401.6	18390.6	20150.0	22329.8	24535.0	26698.6	30275.0	31689.5	31552.2	28462.3
40°	16411.7	16555.0	17553.3	19541.5	22292.5	25363.8	28527.5	33172.6	34652.4	34408.3	31031.0
42.5°	15411.7	15619.3	16528.7	18730.5	22001.8	25947.7	30336.9	35941.4	37281.3	36908.4	33368.4
45°	14480.3	14647.2	15521.0	17619.4	21558.6	26377.4	31992.1	38506.8	39672.1	39237.3	35521.9
47.5°	13470.9	13682.8	14560.8	16476.1	20678.0	26474.0	33507.4	40785.7	41882.3	41429.8	37530.5
50°	10808.1	11149.6	13132.8	15357.4	19311.0	26123.2	34853.2	42923.1	43868.9	43511.2	39608.5
52.5°	9423.3	9490.2	10493.7	14073.5	17646.5	25205.3	35824.4	45019.8	45736.7	45372.3	41447.6
55°	8803.8	8822.4	9271.6	11911.5	16032.1	23457.0	36294.8	47027.5	47566.5	47061.4	43188.3
57.5°	8167.3	8271.5	8723.3	10052.1	14514.2	20934.0	35968.5	48783.5	49104.7	48536.0	44786.7
60°	7641.0	7725.8	8176.6	9079.2	12848.9	18000.8	34448.1	50182.7	50465.8	49885.2	46286.8
62.5°	7163.9	7225.7	7574.9	8420.7	11344.6	15399.8	31610.7	50557.3	51507.3	51045.4	47673.3
65°	6622.3	6679.1	7002.8	7757.1	10243.7	13735.3	28756.3	50136.1	51831.9	51552.2	48297.0
67.5°	5979.1	6055.3	6347.7	6997.8	9109.7	12302.2	25386.7	49067.4	50447.1	50017.4	46952.0
70°	5134.1	5258.7	5590.1	6153.7	7785.1	10455.5	20251.7	45554.5	47193.6	46702.9	43360.4
72.5°	4047.6	4074.8	4314.6	4783.3	6165.5	8317.3	13667.5	38546.6	42827.3	42688.3	38355.9
75°	3017.9	3110.3	3495.1	3856.1	4504.4	5967.2	8308.0	28094.4	36975.3	36975.3	32325.1
77.5°	2462.8	2511.1	2767.1	3070.5	3512.9	4187.5	5281.6	15874.4	25485.9	28070.7	24296.8
80°	1924.7	1907.7	1925.5	2062.0	2479.8	2768.8	3511.2	8158.8	13166.7	14966.8	15915.9
82.5°	1054.3	1055.1	1170.4	1103.4	1367.9	1556.0	2129.8	4589.2	6880.0	7639.3	8526.6
85°	533.9	521.2	580.5	541.5	633.1	710.2	967.0	2279.8	3511.2	3806.1	4018.0
87.5°	190.7	181.4	208.5	250.0	233.9	248.3	333.9	819.5	1356.8	1451.8	1422.9
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°	13976.9	13976.9	13976.9	13976.9	13976.9	13976.9	13976.9	13976.9	13976.9	13976.9	13976.9
2.5°	14007.4	13926.0	13827.7	13745.5	13571.8	13481.1	13409.1	13429.4	13351.4	13238.7	13237.0
5°	13998.1	13843.0	13632.0	13457.4	13177.7	13033.6	12898.0	12862.4	12746.3	12634.4	12628.5
7.5°	14030.3	13824.3	13481.9	13203.1	12838.7	12614.1	12403.9	12321.7	12185.3	12067.5	12061.5
10°	14119.3	13847.2	13378.5	12992.1	12536.1	12228.5	11956.5	11791.2	11633.6	11512.4	11510.7
12.5°	14278.6	13915.0	13287.9	12783.6	12242.1	11834.4	11486.9	11273.4	11053.0	10963.2	10958.1
15°	14503.2	14014.2	13170.1	12506.5	11880.2	11415.8	10986.1	10703.9	10459.8	10373.3	10392.0
17.5°	14791.3	14176.0	13075.1	12200.5	11481.0	10920.8	10474.2	10190.3	9830.9	9751.3	9773.3
20°	15149.0	14426.1	13054.8	11920.9	11043.7	10376.7	9828.4	9627.5	9172.4	9065.6	9051.2
22.5°	15611.7	14721.0	13046.3	11621.7	10531.0	9751.3	9101.2	8846.1	8463.9	8284.3	8243.6
25°	16184.6	15062.5	13031.9	11322.5	9959.8	9038.5	8247.8	7889.3	7650.3	7378.3	7372.4
27.5°	16938.9	15521.0	13065.8	11025.9	9336.8	8207.1	7331.7	6896.9	6759.6	6583.3	6491.8
30°	18238.9	16338.0	13158.2	10667.4	8655.5	7250.3	6328.2	5998.6	5829.9	5651.1	5620.6
32.5°	20421.2	18105.9	13443.8	10279.3	7897.0	6215.5	5507.0	5162.1	4882.4	4790.0	4765.5
35°	23154.4	20205.1	14177.7	9864.0	7076.6	5396.0	4830.7	4375.6	4108.7	4086.6	4084.9
37.5°	25609.6	22444.2	15134.6	9352.1	6172.3	4811.2	4159.5	3767.1	3566.3	3586.6	3640.0
40°	27984.3	24430.7	16149.0	8841.9	5294.3	4192.6	3507.8	3319.6	3229.8	3302.7	3338.3
42.5°	30214.9	26245.2	16879.5	8149.5	4534.1	3528.1	3058.6	3169.6	3201.8	3262.0	3286.6
45°	32299.7	28104.6	17422.8	7315.6	3850.2	3059.5	2994.2	3185.7	3277.3	3323.9	3321.3
47.5°	34316.8	29881.8	17585.5	6213.0	3321.3	3007.8	3053.5	3162.8	3306.1	3391.7	3385.7
50°	36329.6	31498.8	17449.1	5092.6	3214.5	3107.8	3110.3	3092.5	3259.5	3329.0	3302.7
52.5°	38133.9	33009.1	16677.8	4262.1	3285.7	3212.9	3177.3	3087.4	3134.9	3183.2	3159.5
55°	39756.0	34269.3	15468.5	3852.7	3346.8	3280.7	3328.1	3153.5	3059.5	3018.8	3026.4
57.5°	41265.4	35241.4	14078.6	3598.5	3334.0	3264.5	3388.3	3135.7	2998.4	2827.2	2794.2
60°	42696.8	35879.5	12513.3	3379.0	3273.9	3240.8	3257.8	3136.6	2941.7	2719.6	2665.4
62.5°	43708.7	35913.4	10716.6	3183.2	3157.8	3204.4	3155.2	3112.0	2956.9	2788.3	2754.4
65°	43688.3	34858.3	8939.4	2958.6	3012.8	3106.9	3022.2	2878.9	2644.2	2594.2	2577.2
67.5°	41792.5	32187.8	7215.6	2625.5	2778.1	2975.6	2831.5	2598.4	2395.9	2336.5	2347.6
70°	37670.3	28412.3	5329.0	2128.1	2425.5	2751.8	2662.0	2402.6	2180.6	2134.0	2184.0
72.5°	32784.5	24407.0	3788.3	1687.4	2014.5	2434.9	2399.3	2175.5	1980.6	2000.1	2045.0
75°	27370.7	19428.8	2778.9	1451.8	1581.4	2075.5	2165.3	2022.1	1898.4	1960.3	1958.6
77.5°	20399.2	14348.1	2116.2	1217.8	1309.4	1615.3	1908.6	1854.3	2191.6	2663.7	2678.9
80°	13404.8	9315.7	1428.0	1000.0	1071.2	1211.9	1557.7	1786.5	2244.2	1945.0	1921.3
82.5°	7427.4	4944.3	885.6	778.0	804.3	878.9	1128.9	1865.3	1648.4	1529.7	1535.7
85°	3293.4	1914.5	522.9	522.1	523.8	533.1	724.6	1414.5	1159.4	1122.9	1141.6
87.5°	1140.7	504.3	164.4	130.5	147.5	184.8	377.1	862.7	605.1	501.7	503.4
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)