

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: P510416

Luminaire Tested: **CTN-CA10-210-730-U-T2-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510416
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-CA10-210-730-U-T2-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31190 lumens
Efficiency: N/A
Efficacy: 146.5 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G4

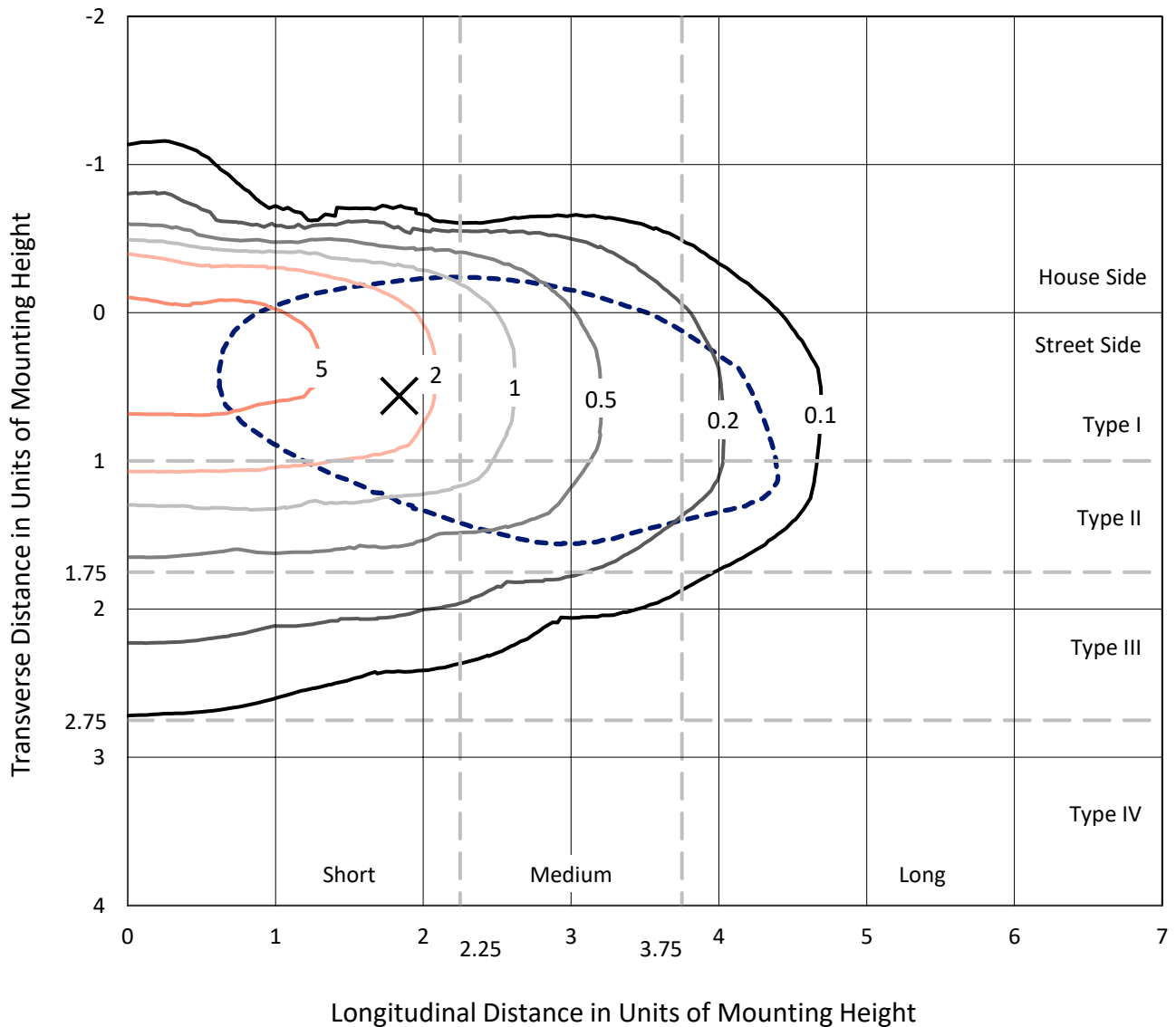
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

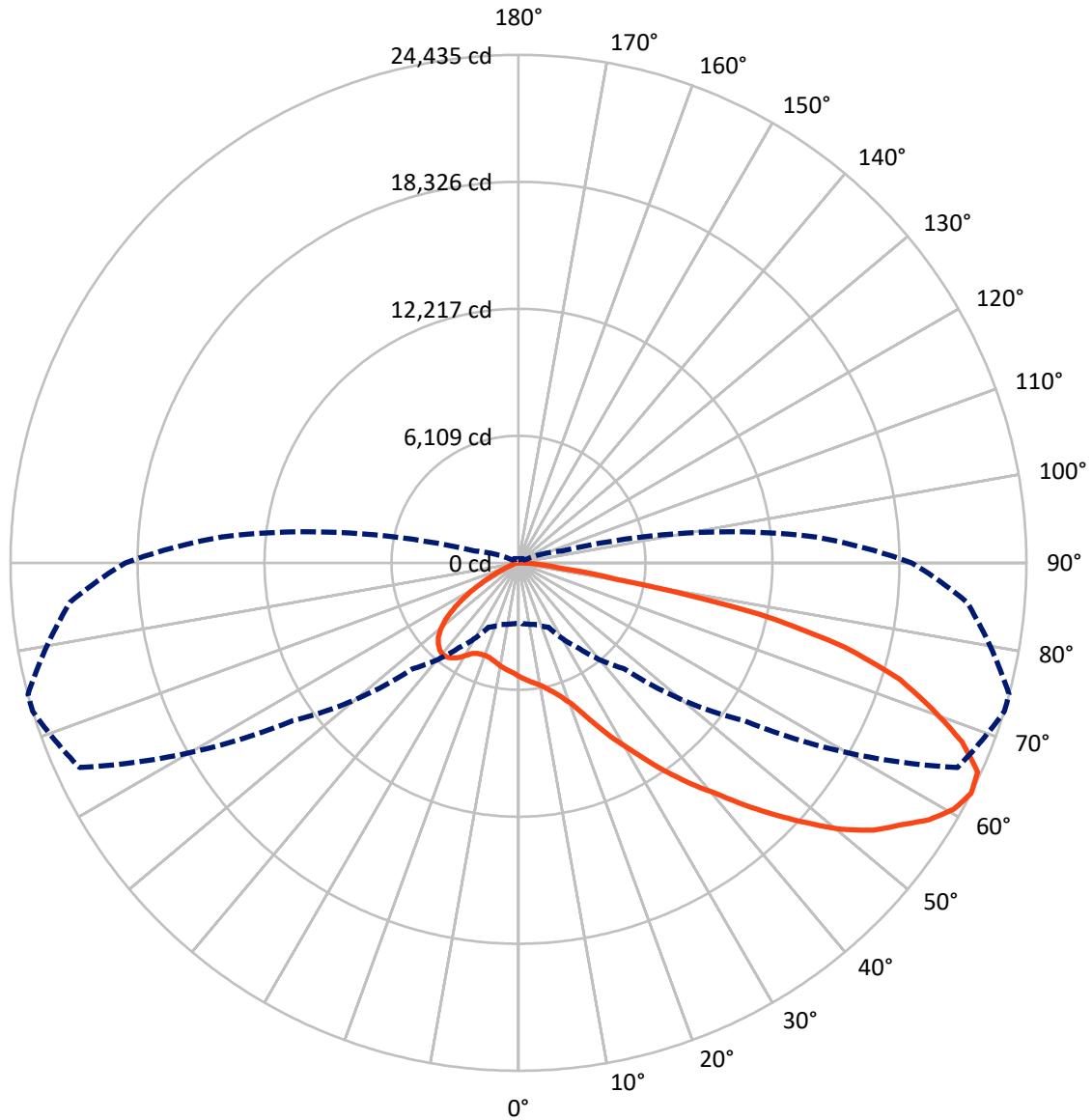
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.6 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 73-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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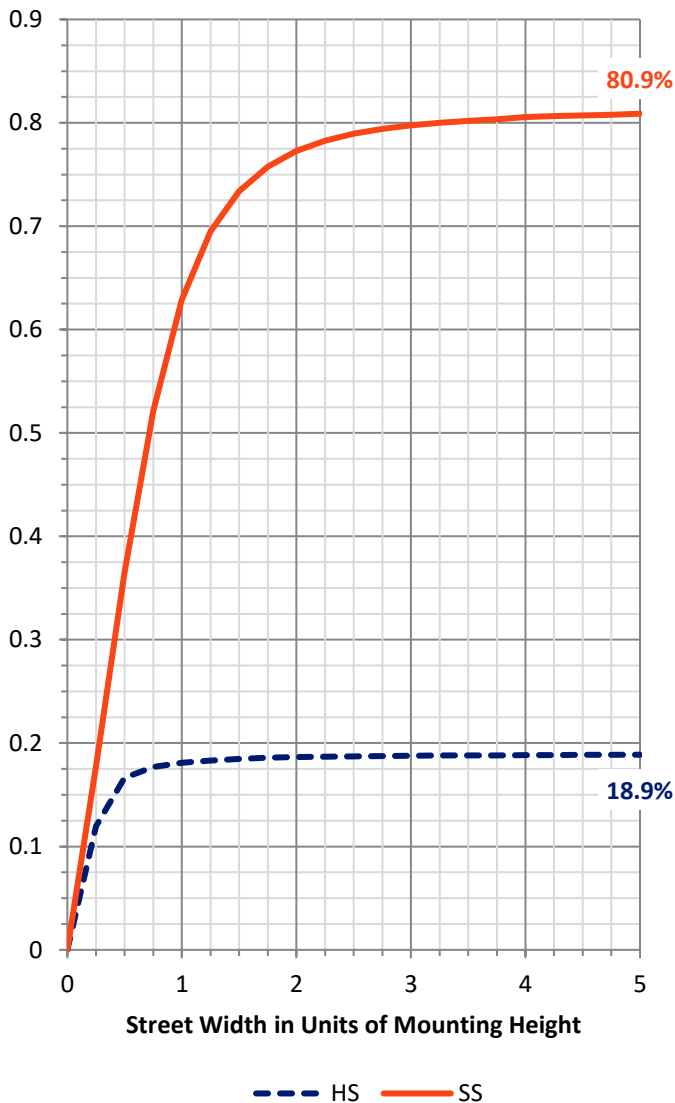
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5966.5	0.0	5966.5
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	25223.5	0.0	25223.5
	% Fixture	80.9	0.0	80.9
Total	Lumens	31190.0	0.0	31190.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	522.4	1.7
10°-20°	1571.4	5.0
20°-30°	2715.1	8.7
30°-40°	4082.9	13.1
40°-50°	5444.1	17.5
50°-60°	6411.5	20.6
60°-70°	6374.2	20.4
70°-80°	3659.6	11.7
80°-90°	408.8	1.3
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°	31190.0	100.0
0°-180°	31190.0	100.0



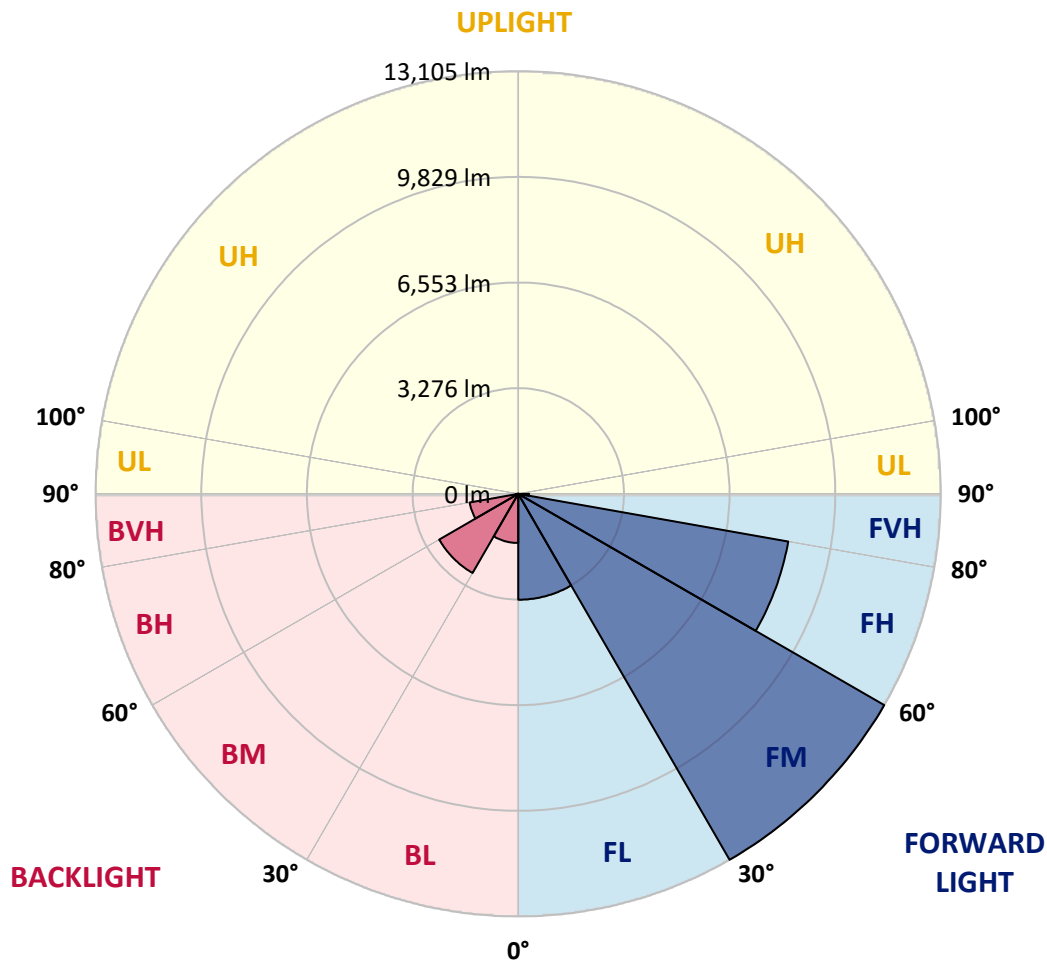
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3284.3	10.5			
FM (30°-60°)	13105.3	42.0			
FH (60°-80°)	8501.9	27.3			G4/12000
FVH (80°-90°)	332.0	1.1			G3/500
BL (0°-30°)	1524.7	4.9	B3/2500		
BM (30°-60°)	2833.2	9.1	B3/5000		
BH (60°-80°)	1531.8	4.9	B3/2500		G3/2500
BVH (80°-90°)	76.8	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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	73°	75°	85°
0°	5470.0	5470.0	5470.0	5470.0	5470.0	5470.0	5470.0	5470.0	5470.0	5470.0	5470.0
2.5°	5852.3	5867.0	5849.5	5841.8	5833.4	5778.8	5715.1	5649.9	5597.4	5589.0	5520.4
5°	6263.2	6270.9	6242.2	6209.3	6152.6	6062.3	5948.2	5835.5	5730.5	5702.5	5577.1
7.5°	6579.0	6564.3	6557.3	6529.3	6479.6	6380.2	6207.2	6022.4	5860.0	5820.8	5630.3
10°	6875.2	6868.9	6815.6	6780.6	6701.5	6609.8	6467.7	6233.1	6004.2	5941.2	5676.6
12.5°	7195.8	7181.8	7160.1	7084.5	7020.1	6865.3	6693.8	6480.3	6225.4	6141.4	5755.7
15°	7484.3	7446.4	7434.5	7355.4	7290.3	7172.0	6999.8	6751.9	6479.6	6407.5	5906.2
17.5°	7758.7	7741.2	7714.6	7660.7	7587.9	7496.9	7358.9	7093.6	6812.1	6707.1	6161.7
20°	7991.8	7970.1	7947.0	7961.7	7945.6	7887.5	7800.7	7574.6	7230.8	7129.3	6472.6
22.5°	8154.3	8153.6	8246.0	8299.9	8330.7	8328.6	8307.6	8179.5	7833.6	7730.7	6937.5
25°	8289.4	8299.9	8416.8	8621.9	8805.4	8822.2	8970.6	8909.7	8615.6	8508.5	7636.9
27.5°	8329.3	8350.3	8562.4	8885.2	9163.8	9431.3	9649.0	9760.3	9488.0	9359.9	8388.8
30°	8358.0	8366.4	8574.3	8960.8	9548.2	9971.8	10361.0	10549.4	10314.8	10221.0	9226.8
32.5°	8155.7	8158.5	8477.0	9062.3	9830.3	10564.8	11025.4	11380.4	11318.8	11194.9	10143.3
35°	7877.0	7928.8	8294.3	8964.3	10062.8	11109.5	11736.8	12266.1	12389.3	12300.4	11059.1
37.5°	7532.6	7573.2	7964.5	8818.7	10113.9	11484.0	12289.9	13166.4	13488.5	13473.8	12164.5
40°	7109.0	7158.7	7627.1	8505.0	10088.7	11756.4	12938.9	14163.4	14572.2	14526.0	13260.9
42.5°	6608.4	6681.2	7135.6	8101.8	9904.6	11923.0	13470.3	15178.5	15914.4	15884.3	14231.3
45°	6113.4	6152.6	6567.1	7540.3	9565.7	11976.9	13970.1	16577.4	17290.8	17257.2	15400.5
47.5°	5603.0	5637.3	6070.0	6948.7	8977.6	11868.4	14365.7	17778.8	18693.1	18659.5	16562.0
50°	4415.6	4545.2	5432.2	6428.5	8307.6	11561.0	14738.9	19275.6	20160.6	20017.8	17579.2
52.5°	3777.8	3824.7	4284.7	5904.1	7639.0	11036.6	14988.1	20662.6	21367.6	21161.7	18619.6
55°	3531.4	3562.9	3788.3	4937.2	7011.0	10243.4	15281.5	22053.0	22272.8	22220.3	19468.2
57.5°	3344.5	3379.5	3540.5	4123.7	6349.4	9131.6	15189.7	23031.1	23306.2	23138.2	20369.2
60°	3079.8	3122.5	3336.1	3702.2	5597.4	8003.0	14382.5	23431.5	24057.4	23868.4	21054.6
62.5°	2913.2	2941.2	3063.7	3418.7	4974.3	7209.1	13233.6	23302.7	24434.8	24427.8	21649.0
65°	2687.0	2728.4	2859.3	3147.0	4419.8	6593.7	12149.8	22666.3	24272.4	24278.7	21771.5
67.5°	2450.4	2467.2	2604.4	2835.5	3766.6	6030.1	10747.5	21577.6	23007.3	23151.5	20923.7
70°	2155.0	2146.6	2295.0	2463.7	3078.4	5120.0	8650.6	19641.1	21137.9	21197.4	19209.1
72.5°	1695.7	1703.4	1744.7	1861.6	2337.0	4029.2	6277.3	16594.2	19183.9	19289.6	17017.7
75°	1139.8	1152.4	1344.9	1459.0	1681.0	2895.7	3947.3	11201.2	16217.5	16515.8	13928.1
77.5°	869.5	877.2	933.3	1057.9	1216.1	2063.9	2139.6	6103.6	11806.8	12514.6	10895.9
80°	616.1	618.9	563.6	501.3	647.6	1400.2	1263.7	2599.5	4704.8	5559.6	6399.8
82.5°	275.8	271.6	320.0	266.0	373.2	541.9	596.5	1261.6	1954.0	2100.4	2286.6
85°	128.1	143.5	164.5	137.9	221.9	209.3	232.4	537.7	915.8	1011.0	1005.4
87.5°	31.5	34.3	43.4	55.3	80.5	71.4	70.0	158.2	204.4	203.7	313.0
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°	5470.0	5470.0	5470.0	5470.0	5470.0	5470.0	5470.0	5470.0	5470.0	5470.0	5470.0
2.5°	5473.5	5437.1	5351.0	5267.7	5188.6	5136.1	5077.3	5015.6	4978.5	4961.0	4998.8
5°	5500.8	5431.5	5267.0	5101.8	4961.7	4842.0	4758.0	4686.6	4648.1	4651.6	4653.7
7.5°	5523.9	5426.6	5196.3	4963.1	4744.7	4596.3	4486.4	4409.3	4365.2	4331.6	4356.8
10°	5544.2	5406.3	5113.7	4802.8	4565.5	4345.6	4196.5	4103.4	4022.2	3976.7	4012.4
12.5°	5565.9	5398.6	5021.2	4659.3	4351.9	4106.2	3901.8	3809.3	3729.5	3695.2	3716.9
15°	5660.4	5428.0	4935.1	4490.6	4141.2	3823.3	3602.8	3489.4	3426.4	3385.1	3394.2
17.5°	5822.9	5505.7	4879.8	4314.1	3906.0	3569.9	3284.2	3151.9	3047.6	3018.2	3010.5
20°	6053.9	5653.4	4879.8	4165.0	3639.2	3288.5	2959.4	2736.1	2573.6	2512.7	2559.6
22.5°	6441.8	5904.8	4928.1	4029.9	3409.6	2996.5	2604.4	2263.5	2044.3	1955.4	2007.2
25°	6984.4	6293.4	5006.5	3911.6	3200.2	2660.4	2154.3	1762.2	1520.7	1414.9	1413.5
27.5°	7692.9	6887.8	5164.8	3814.9	2949.6	2225.7	1684.5	1307.1	1080.3	1016.6	1025.7
30°	8478.4	7531.9	5463.7	3674.9	2645.0	1739.1	1226.6	960.6	800.9	716.9	718.3
32.5°	9235.9	8199.1	5818.7	3583.9	2249.5	1311.3	874.4	685.4	586.0	536.3	544.0
35°	10048.1	8774.6	6082.6	3431.3	1785.3	948.0	618.2	513.9	472.6	446.7	448.1
37.5°	10925.3	9407.5	6299.7	3226.8	1349.8	651.1	456.5	440.4	422.9	390.0	387.2
40°	11841.8	10140.5	6429.2	2896.4	938.2	450.9	387.9	406.1	396.3	353.6	350.1
42.5°	12618.9	10706.2	6461.4	2458.8	607.0	365.5	351.5	379.5	381.6	338.2	332.6
45°	13365.2	11210.3	6398.4	1882.6	420.8	343.8	329.1	367.6	370.4	331.2	322.1
47.5°	14200.5	11899.9	6284.3	1256.0	348.0	324.9	321.4	348.0	357.8	325.6	314.4
50°	15214.9	12460.7	5946.1	771.5	328.4	313.0	313.0	329.1	342.4	314.4	308.8
52.5°	16255.3	12949.4	5445.5	529.3	316.5	300.4	309.5	316.5	321.4	296.1	301.1
55°	17000.9	13382.7	4699.2	425.7	309.5	291.9	313.7	299.7	292.6	270.9	266.0
57.5°	17828.5	13898.0	3936.1	377.4	300.4	296.8	299.7	273.0	253.4	231.0	226.1
60°	18406.1	14175.3	3002.1	355.0	289.8	291.9	276.5	240.8	205.1	189.0	185.5
62.5°	18910.2	14333.5	2200.5	326.3	280.0	279.3	250.6	205.8	168.7	151.2	148.4
65°	18833.9	14086.4	1426.1	303.2	272.3	263.2	224.7	176.4	140.7	127.4	126.0
67.5°	17994.4	12992.8	898.3	279.3	259.0	242.9	201.6	157.5	129.5	114.1	112.7
70°	16232.2	11482.6	549.6	248.5	230.3	214.9	178.5	147.7	122.5	104.3	100.8
72.5°	13796.5	9834.5	388.6	219.1	200.9	182.7	151.2	140.7	116.9	93.8	91.0
75°	11334.9	7244.1	325.6	191.1	171.5	147.0	128.8	130.9	109.9	85.4	83.3
77.5°	7982.0	4516.5	303.2	156.1	135.1	116.9	111.3	119.7	100.8	78.4	76.3
80°	4658.6	2536.5	250.6	123.2	101.5	90.3	93.1	101.5	88.2	70.7	67.9
82.5°	1880.5	1004.0	176.4	95.9	74.2	72.1	76.3	82.6	72.8	59.5	58.1
85°	671.4	313.7	100.1	63.0	47.6	49.7	49.0	58.8	52.5	43.4	42.7
87.5°	176.4	62.3	44.8	25.2	20.3	20.3	18.9	27.3	25.2	19.6	21.7
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)