

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: P591453

Luminaire Tested: **CTN-CA8-230-740-U-T4-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591453
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-12)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-230-740-U-T4-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15760 lumens
Efficiency: N/A
Efficacy: 69.0 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

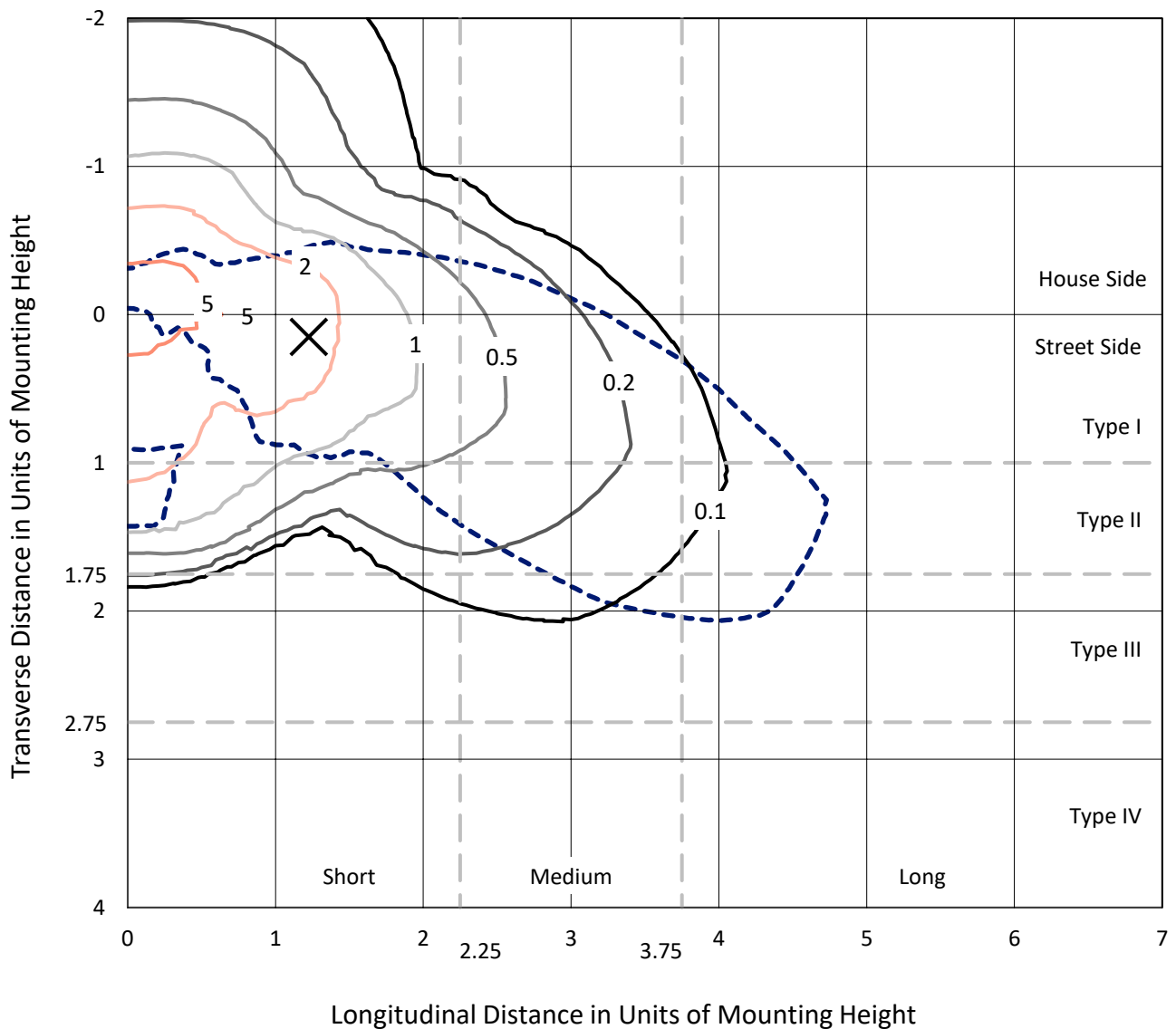
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

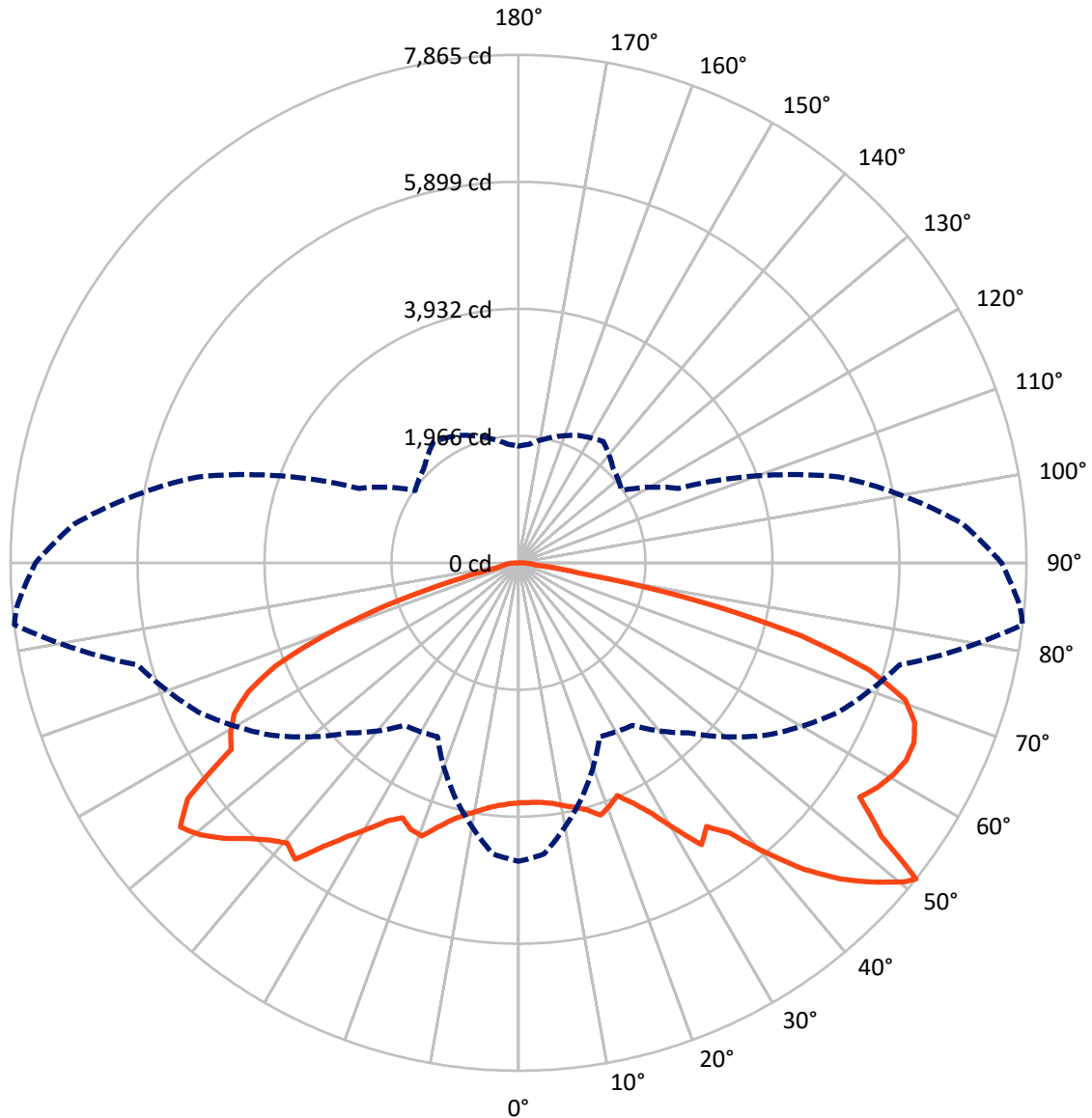
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.3 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 83-Deg Lateral - - - Horizontal Cone Through 51-Deg Vertical

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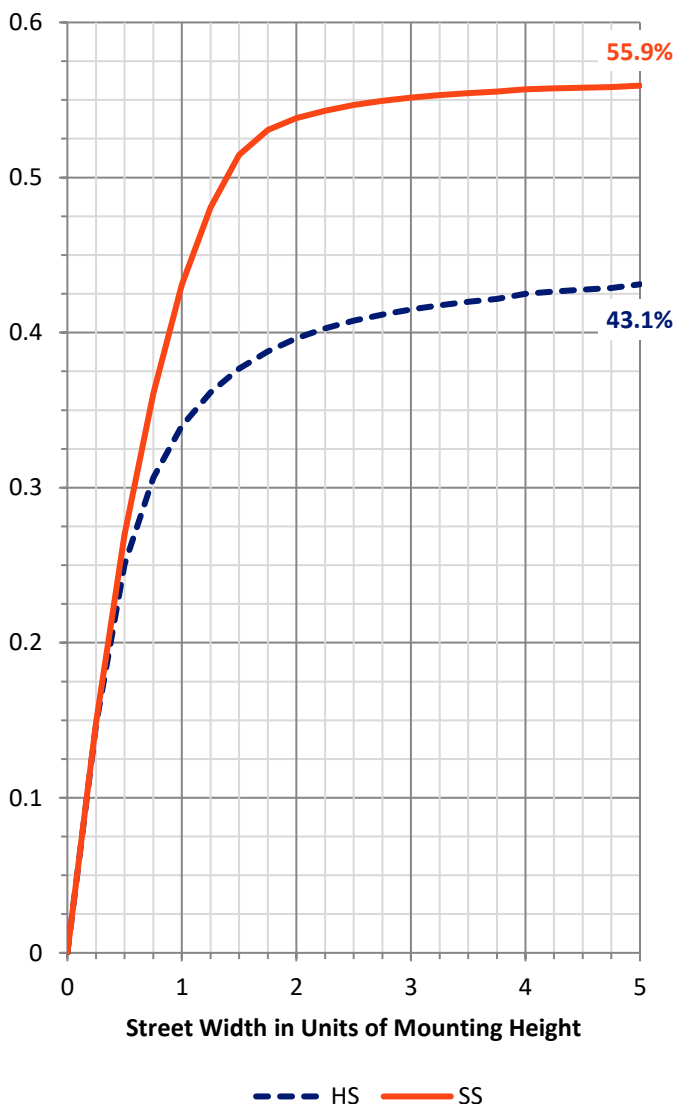
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6946.3	0.0	6946.3
	% Fixture	44.1	0.0	44.1
Street Side	Lumens	8813.7	0.0	8813.7
	% Fixture	55.9	0.0	55.9
Total	Lumens	15760.0	0.0	15760.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	362.9	2.3
10°-20°	1104.3	7.0
20°-30°	1715.5	10.9
30°-40°	2295.4	14.6
40°-50°	2978.0	18.9
50°-60°	3171.7	20.1
60°-70°	2209.4	14.0
70°-80°	1541.4	9.8
80°-90°	381.4	2.4
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°	15760.0	100.0
0°-180°	15760.0	100.0

Coefficient of Utilization



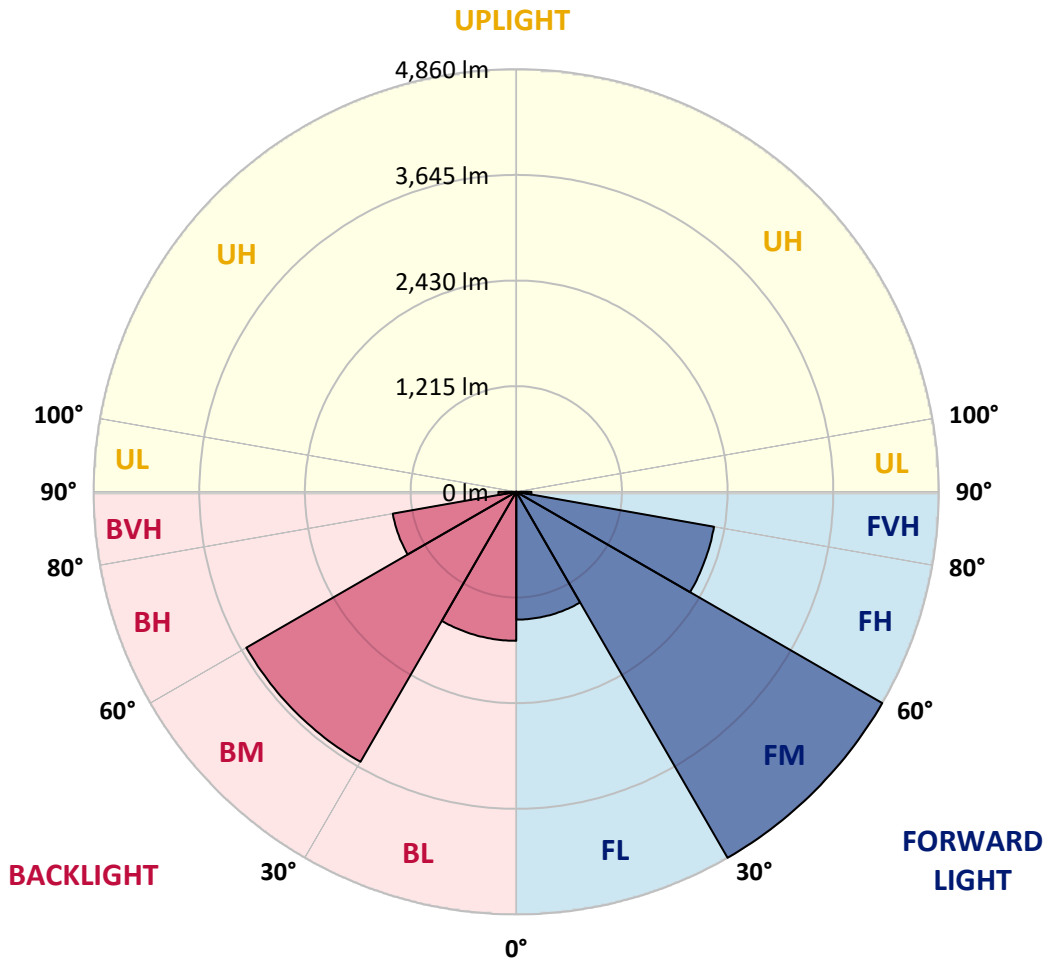
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1469.5	9.3			
FM (30°-60°)	4859.9	30.8			
FH (60°-80°)	2309.2	14.7			G2/5000
FVH (80°-90°)	175.1	1.1			G2/225
BL (0°-30°)	1713.2	10.9	B3/2500		
BM (30°-60°)	3585.2	22.7	B3/5000		
BH (60°-80°)	1441.6	9.1	B3/2500		G3/2500
BVH (80°-90°)	206.3	1.3			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	83°	85°
0°	3714.7	3714.7	3714.7	3714.7	3714.7	3714.7	3714.7	3714.7	3714.7	3714.7	3714.7
2.5°	3670.4	3644.9	3647.1	3681.4	3636.0	3665.9	3661.5	3714.7	3704.7	3715.8	3723.5
5°	3638.2	3618.3	3618.3	3663.7	3631.6	3663.7	3641.6	3688.1	3703.6	3728.0	3736.8
7.5°	3644.9	3623.8	3632.7	3672.6	3637.1	3670.4	3669.3	3713.6	3719.1	3762.3	3776.7
10°	3663.7	3640.4	3644.9	3677.0	3657.1	3714.7	3704.7	3765.6	3765.6	3823.2	3845.4
12.5°	3624.9	3609.4	3618.3	3661.5	3679.2	3739.0	3752.3	3814.4	3823.2	3885.3	3913.0
15°	3582.8	3560.7	3589.5	3651.5	3681.4	3767.9	3796.7	3891.9	3905.2	3969.5	4000.5
17.5°	3379.0	3364.6	3417.8	3467.6	3484.2	3568.4	3624.9	3783.4	3973.9	4108.0	4144.5
20°	2973.5	2971.3	2872.7	2851.6	3109.8	3417.8	3456.5	3591.7	3812.2	4021.6	4095.8
22.5°	2482.7	2549.2	2869.4	2971.3	2964.7	3086.5	3582.8	3710.2	3807.7	3914.1	3958.4
25°	2482.7	2477.2	2666.6	3105.4	3106.5	3158.5	3269.3	3907.4	4000.5	4122.4	4157.8
27.5°	2561.4	2566.9	2554.7	2874.9	3259.3	3308.1	3355.7	3685.9	4256.4	4391.6	4450.3
30°	2694.3	2703.2	2654.4	2655.6	3310.3	3456.5	3547.4	3677.0	4434.8	4781.6	4808.1
32.5°	2956.9	2953.6	2892.6	2814.0	2904.8	3601.7	3734.6	3903.0	4153.4	5202.5	5264.6
35°	3166.3	3151.9	3109.8	3055.5	2935.8	3560.7	3913.0	4145.6	4464.7	5015.3	5343.2
37.5°	3398.9	3377.9	3330.2	3263.8	3155.2	2484.9	4089.1	4422.6	4917.8	5308.9	5329.9
40°	3661.5	3638.2	3572.9	3475.4	3336.9	2545.9	4167.8	4764.9	5508.3	5901.6	5898.3
42.5°	3863.1	3839.9	3805.5	3702.5	2933.6	2808.4	3634.9	5245.7	6147.6	6488.8	6460.0
45°	4033.7	4013.8	4017.1	3908.6	2751.9	3130.8	4049.3	5497.2	6750.2	6982.9	6945.2
47.5°	4166.7	4135.7	4051.5	3288.1	2822.8	3353.5	4386.0	4794.8	7258.7	7390.6	7348.5
50°	4490.2	4438.1	3937.4	2919.2	3002.3	3626.0	4706.2	5289.0	6611.7	7761.7	7687.5
51°	4622.0	4527.9	3773.4	2970.2	3073.2	3724.6	4658.6	5468.4	6107.7	7864.7	7798.3
52.5°	4760.5	4574.4	3323.6	3047.7	3159.6	3860.9	3957.3	5744.3	6248.4	7038.3	7430.5
55°	4016.0	4089.1	3432.2	3331.4	3323.6	3336.9	4041.5	6155.3	6542.0	6409.0	6331.5
57.5°	2362.0	2405.2	3486.5	3730.2	2876.0	2650.0	4264.2	6465.5	6795.7	6556.4	6469.9
60°	1187.6	1243.0	1269.6	1157.7	1551.0	2417.4	3591.7	4686.3	6950.8	6667.1	6563.0
62.5°	52.1	86.4	34.3	37.7	63.1	843.1	2638.9	4813.7	7081.5	6734.7	6597.3
65°	4.4	4.4	5.5	11.1	27.7	885.2	2937.0	4989.8	7134.7	6728.1	6544.2
67.5°	1.1	1.1	2.2	7.8	19.9	958.3	3287.0	5061.8	7136.9	6615.1	6390.2
70°	0.0	1.1	2.2	6.6	17.7	1002.6	3363.5	5047.4	7046.0	6349.2	6040.1
72.5°	0.0	0.0	1.1	5.5	15.5	946.1	3274.9	5018.6	6735.8	5680.0	5241.3
75°	0.0	0.0	1.1	4.4	13.3	962.7	3283.7	4695.1	5881.7	4522.3	3989.4
77.5°	0.0	0.0	1.1	4.4	12.2	888.5	3006.7	4065.9	4648.6	2815.1	2232.4
80°	0.0	0.0	1.1	4.4	11.1	762.2	2472.8	3174.0	2601.3	955.0	616.0
82.5°	0.0	0.0	1.1	4.4	8.9	516.3	1643.0	1586.5	524.0	273.6	245.9
85°	0.0	0.0	1.1	3.3	6.6	308.0	823.1	216.0	202.7	173.9	157.3
87.5°	0.0	0.0	1.1	2.2	4.4	130.7	253.7	66.5	84.2	70.9	63.1
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°	3714.7	3714.7	3714.7	3714.7	3714.7	3714.7	3714.7	3714.7	3714.7	3714.7	3714.7
2.5°	3730.2	3730.2	3742.4	3783.4	3778.9	3812.2	3793.3	3834.3	3837.6	3829.9	3848.7
5°	3744.6	3757.9	3798.9	3842.1	3824.4	3873.1	3896.4	3950.7	3948.4	3941.8	3963.9
7.5°	3785.6	3813.3	3854.3	3906.3	3925.2	3965.1	3967.3	4041.5	4037.1	4033.7	4055.9
10°	3854.3	3890.8	3936.3	4014.9	4003.8	4061.4	4037.1	4091.4	4090.2	4088.0	4110.2
12.5°	3925.2	3978.3	4033.7	4110.2	4109.1	4111.3	4090.2	4117.9	4112.4	4096.9	4113.5
15°	4024.9	4095.8	4172.2	4227.6	4178.9	4168.9	4122.4	4105.8	4073.6	4029.3	4042.6
17.5°	4190.0	4259.7	4357.2	4387.2	4307.4	4262.0	4135.7	4043.7	3944.0	3876.4	3890.8
20°	4338.4	4468.0	4561.1	4558.9	4456.9	4337.3	4141.2	3986.1	3793.3	3662.6	3651.5
22.5°	4153.4	4371.6	4777.1	4729.5	4551.1	4381.6	4134.6	3894.2	3574.0	3371.2	3363.5
25°	4259.7	4264.2	4627.6	4824.8	4593.2	4362.8	4054.8	3733.5	3323.6	3113.1	3100.9
27.5°	4531.2	4506.8	4406.0	4722.8	4554.4	4266.4	3894.2	3459.9	3095.4	2912.6	2903.7
30°	4853.6	4778.2	4541.1	4228.7	4394.9	4079.2	3647.1	3179.6	2889.3	2723.1	2709.8
32.5°	5239.1	5080.7	4664.1	4174.4	3872.0	3796.7	3328.0	2958.0	2718.7	2545.9	2511.5
35°	5696.7	5459.6	4782.7	4082.5	3464.3	3377.9	3027.8	2758.6	2558.1	2383.0	2348.7
37.5°	5695.5	5942.6	4957.7	3956.2	3211.7	2908.1	2809.5	2625.6	2446.2	2234.6	2195.8
40°	5737.6	5745.4	5150.5	3833.2	2975.7	2666.6	2679.9	2560.3	2375.3	2142.6	2102.7
42.5°	6249.5	5872.8	5386.4	3668.1	2753.0	2488.3	2624.5	2537.0	2337.6	2099.4	2055.1
45°	6694.8	6260.6	4869.1	3487.6	2519.3	2349.8	2580.2	2482.7	2284.4	2047.3	1997.5
47.5°	7082.6	6568.5	5000.9	3171.8	2291.1	2236.8	2494.9	2378.6	2189.1	1968.7	1924.4
50°	7377.3	6823.4	5116.1	2747.5	2069.5	2123.8	2356.4	2237.9	2055.1	1876.7	1839.1
51°	7478.1	6905.3	5139.4	2728.7	1952.1	2070.6	2291.1	2175.8	2011.9	1841.3	1806.9
52.5°	7586.7	7011.7	5173.7	2770.8	1785.9	1983.1	2184.7	2083.9	1947.6	1801.4	1762.6
55°	6308.2	6588.5	5086.2	2682.1	1593.1	1809.1	1989.7	1944.3	1869.0	1739.4	1711.7
57.5°	6077.8	5574.8	4218.8	2271.1	1423.6	1602.0	1800.3	1830.2	1772.6	1640.8	1620.8
60°	6127.6	5523.8	3756.8	1693.9	1255.2	1417.0	1658.5	1685.1	1635.2	1535.5	1507.8
62.5°	6118.7	5393.1	3350.2	1193.2	1109.0	1320.6	1556.6	1567.6	1498.9	1415.9	1390.4
65°	5972.5	5092.9	2795.1	902.9	1028.1	1267.4	1496.7	1502.3	1417.0	1310.6	1297.3
67.5°	5646.8	4617.6	1944.3	793.2	982.7	1226.4	1456.8	1432.5	1350.5	1238.6	1218.7
70°	5023.1	3762.3	908.5	730.1	914.0	1151.1	1359.4	1330.5	1240.8	1136.7	1118.9
72.5°	4027.1	2614.6	431.0	668.0	842.0	1056.9	1239.7	1194.3	1120.1	1081.3	1071.3
75°	2635.6	1227.5	360.1	601.6	746.7	942.8	1136.7	1120.1	1051.4	973.8	936.1
77.5°	1069.1	323.5	325.7	534.0	670.3	868.6	1027.0	1013.7	922.9	853.1	837.5
80°	269.2	242.6	298.0	440.9	583.8	756.7	900.7	863.0	829.8	754.5	730.1
82.5°	205.0	195.0	233.8	341.2	479.7	623.7	768.9	784.4	729.0	671.4	659.2
85°	142.9	177.3	141.8	242.6	355.6	491.9	644.8	672.5	634.8	569.4	525.1
87.5°	78.7	93.1	58.7	127.4	188.3	269.2	370.0	373.4	309.1	283.6	267.0
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)