

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: P591357

Luminaire Tested: **CTN-CA8-230-730-U-T4-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591357
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-CA8-230-730-U-T4-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15475 lumens
Efficiency: N/A
Efficacy: 67.8 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

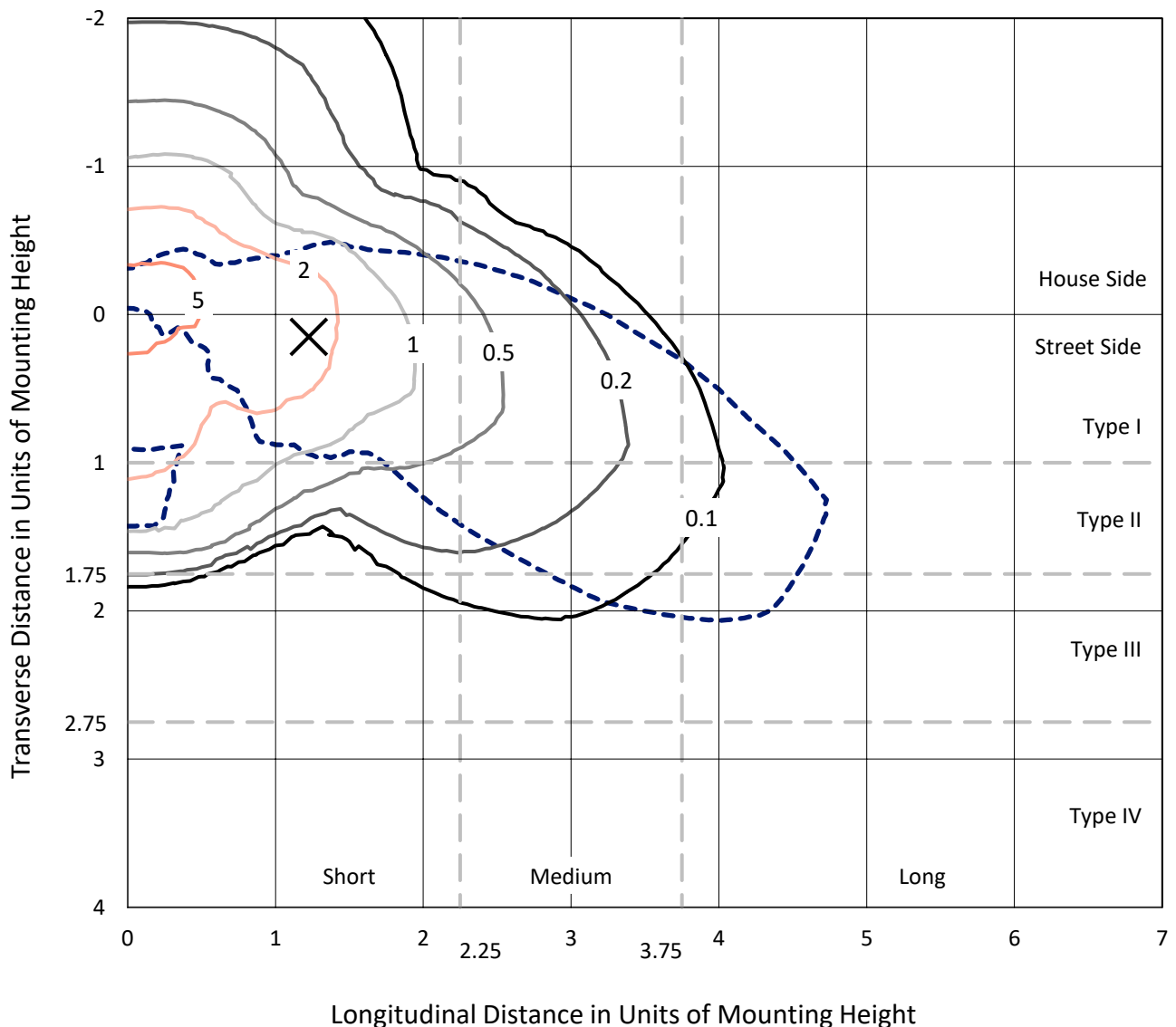
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

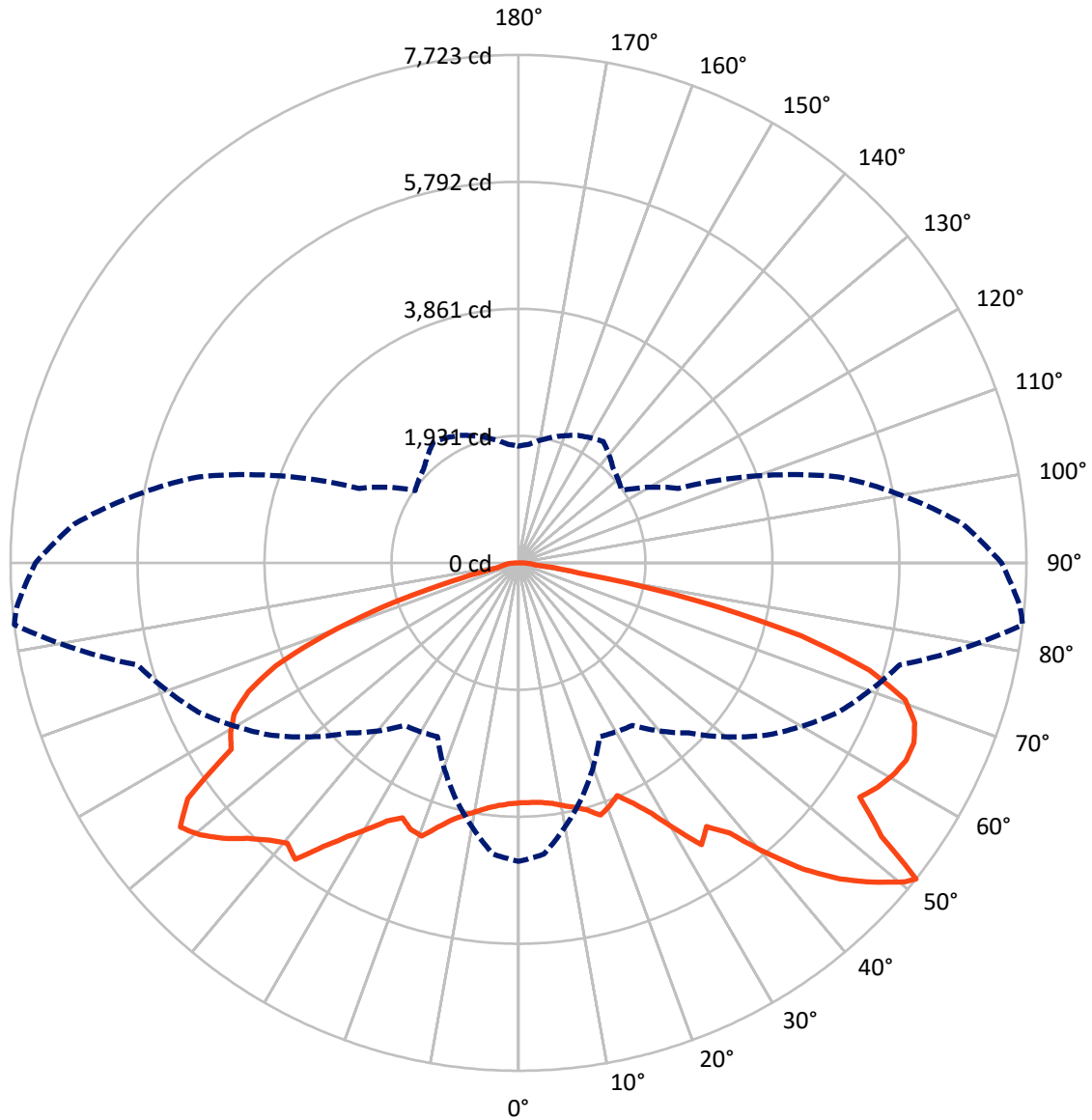
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.2 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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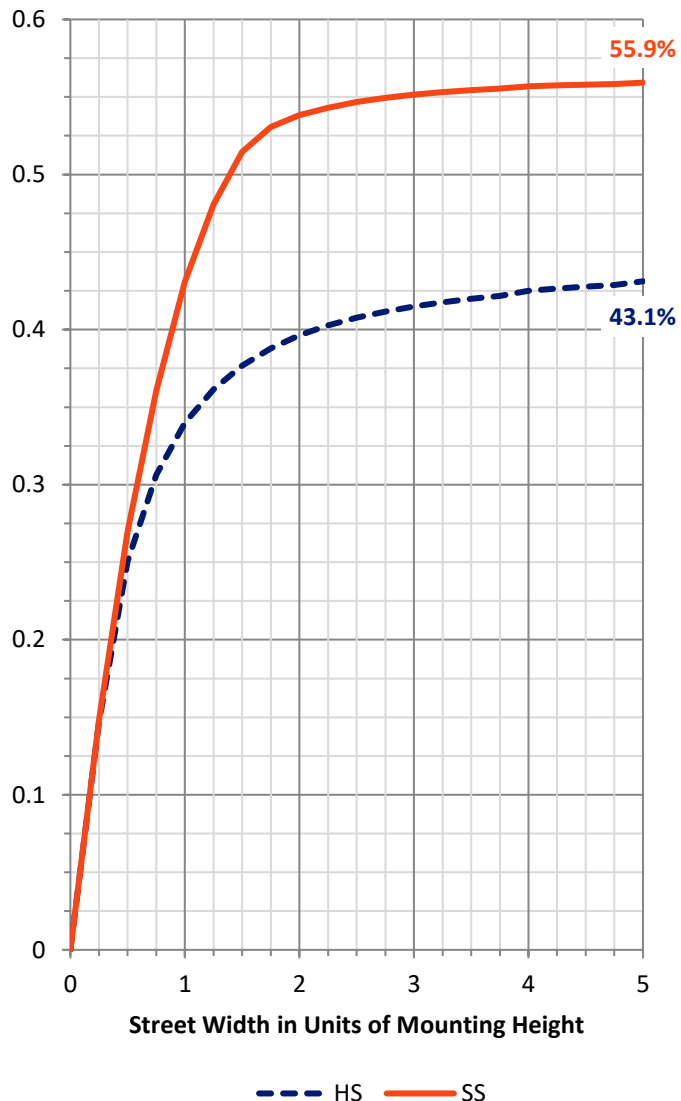
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6820.7	0.0	6820.7
	% Fixture	44.1	0.0	44.1
Street Side	Lumens	8654.3	0.0	8654.3
	% Fixture	55.9	0.0	55.9
Total	Lumens	15475.0	0.0	15475.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	356.3	2.3
10°-20°	1084.4	7.0
20°-30°	1684.5	10.9
30°-40°	2253.9	14.6
40°-50°	2924.2	18.9
50°-60°	3114.3	20.1
60°-70°	2169.4	14.0
70°-80°	1513.6	9.8
80°-90°	374.5	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°	15475.0	100.0
0°-180°	15475.0	100.0

Coefficient of Utilization



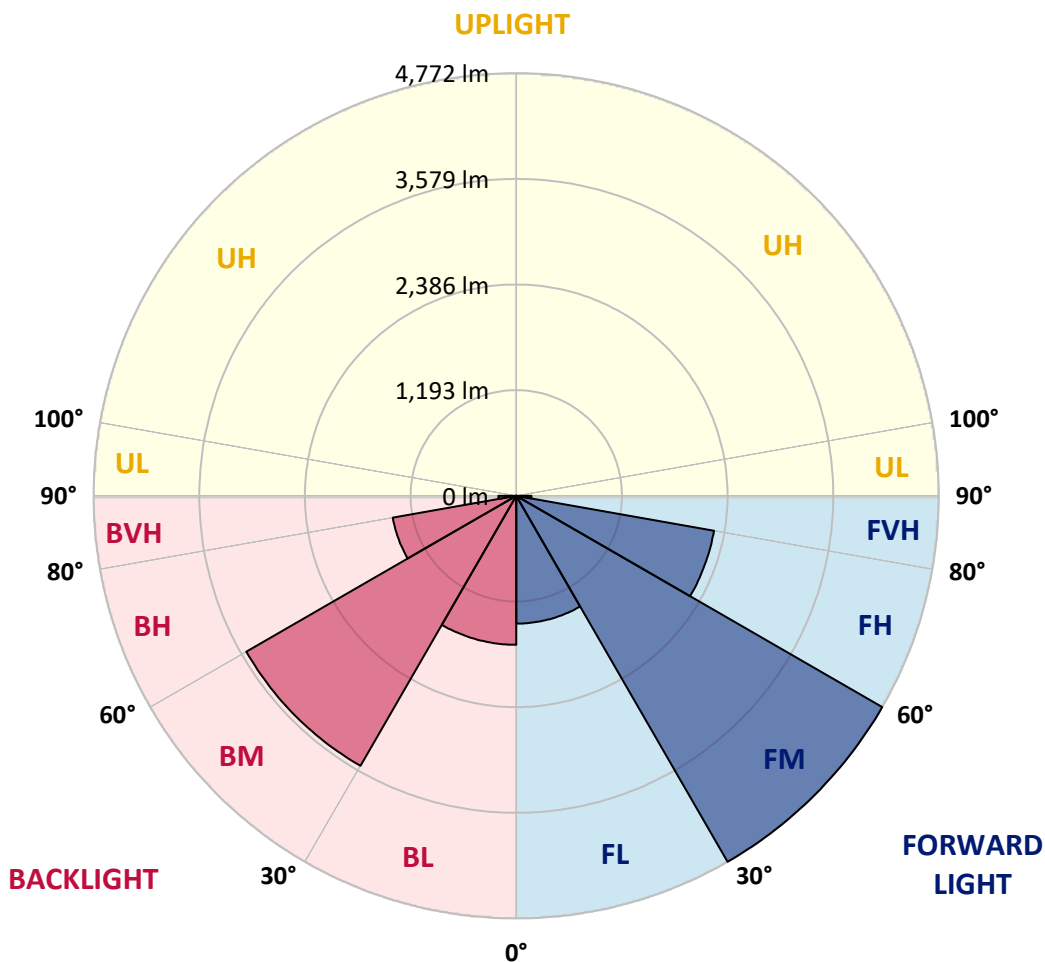
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1442.9	9.3			
FM (30°-60°)	4772.0	30.8			
FH (60°-80°)	2267.4	14.7			G2/5000
FVH (80°-90°)	171.9	1.1			G2/225
BL (0°-30°)	1682.3	10.9	B3/2500		
BM (30°-60°)	3520.3	22.7	B3/5000		
BH (60°-80°)	1415.6	9.1	B3/2500		G3/2500
BVH (80°-90°)	202.5	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°	3647.5	3647.5	3647.5	3647.5	3647.5	3647.5	3647.5	3647.5	3647.5	3647.5	3647.5
2.5°	3604.0	3579.0	3581.1	3614.9	3570.3	3599.6	3595.3	3647.5	3637.7	3648.6	3656.2
5°	3572.4	3552.9	3552.9	3597.5	3565.9	3597.5	3575.7	3621.4	3636.6	3660.6	3669.3
7.5°	3579.0	3558.3	3567.0	3606.2	3571.4	3604.0	3602.9	3646.4	3651.9	3694.3	3708.4
10°	3597.5	3574.6	3579.0	3610.5	3590.9	3647.5	3637.7	3697.5	3697.5	3754.1	3775.9
12.5°	3559.4	3544.2	3552.9	3595.3	3612.7	3671.4	3684.5	3745.4	3754.1	3815.0	3842.2
15°	3518.0	3496.3	3524.6	3585.5	3614.9	3699.7	3728.0	3821.6	3834.6	3897.7	3928.2
17.5°	3317.9	3303.7	3356.0	3404.9	3421.2	3503.9	3559.4	3714.9	3902.1	4033.7	4069.6
20°	2919.7	2917.6	2820.7	2800.1	3053.5	3356.0	3394.0	3526.8	3743.2	3948.8	4021.7
22.5°	2437.8	2503.1	2817.5	2917.6	2911.0	3030.7	3518.0	3643.2	3738.9	3843.3	3886.8
25°	2437.8	2432.4	2618.4	3049.2	3050.3	3101.4	3210.2	3836.8	3928.2	4047.8	4082.6
27.5°	2515.1	2520.5	2508.5	2822.9	3200.4	3248.3	3295.0	3619.2	4179.5	4312.2	4369.8
30°	2645.6	2654.3	2606.4	2607.5	3250.4	3394.0	3483.2	3610.5	4354.6	4695.1	4721.2
32.5°	2903.4	2900.2	2840.3	2763.1	2852.3	3536.5	3667.1	3832.4	4078.3	5108.5	5169.4
35°	3109.0	3094.9	3053.5	3000.2	2882.8	3496.3	3842.2	4070.7	4384.0	4924.6	5246.6
37.5°	3337.5	3316.8	3270.0	3204.8	3098.1	2440.0	4015.2	4342.6	4828.9	5212.9	5233.6
40°	3595.3	3572.4	3508.3	3412.5	3276.6	2499.8	4092.4	4678.8	5408.7	5794.9	5791.6
42.5°	3793.3	3770.4	3736.7	3635.5	2880.6	2757.7	3569.2	5150.9	6036.4	6371.4	6343.1
45°	3960.8	3941.2	3944.5	3837.9	2702.2	3074.2	3976.0	5397.8	6628.2	6856.6	6819.6
47.5°	4091.3	4060.9	3978.2	3228.7	2771.8	3292.9	4306.7	4708.1	7127.5	7256.9	7215.6
50°	4409.0	4357.9	3866.2	2866.4	2948.0	3560.5	4621.1	5193.3	6492.2	7621.4	7548.5
51°	4538.4	4446.0	3705.2	2916.5	3017.6	3657.3	4574.3	5369.5	5997.2	7722.5	7657.3
52.5°	4674.4	4491.7	3263.5	2992.6	3102.5	3791.1	3885.7	5640.4	6135.4	6911.0	7296.1
55°	3943.4	4015.2	3370.1	3271.1	3263.5	3276.6	3968.4	6044.0	6423.6	6293.1	6217.0
57.5°	2319.3	2361.7	3423.4	3662.7	2824.0	2602.1	4187.1	6348.6	6672.8	6437.8	6352.9
60°	1166.2	1220.5	1246.7	1136.8	1523.0	2373.6	3526.8	4601.5	6825.1	6546.6	6444.3
62.5°	51.1	84.9	33.7	37.0	62.0	827.8	2591.2	4726.6	6953.4	6612.9	6478.0
65°	4.4	4.4	5.4	10.9	27.2	869.2	2883.8	4899.6	7005.6	6606.4	6425.8
67.5°	1.1	1.1	2.2	7.6	19.6	941.0	3227.6	4970.3	7007.8	6495.4	6274.6
70°	0.0	1.1	2.2	6.5	17.4	984.5	3302.7	4956.2	6918.6	6234.4	5930.9
72.5°	0.0	0.0	1.1	5.4	15.2	929.0	3215.6	4927.9	6614.0	5577.3	5146.5
75°	0.0	0.0	1.1	4.4	13.1	945.3	3224.3	4610.2	5775.3	4440.5	3917.3
77.5°	0.0	0.0	1.1	4.4	12.0	872.4	2952.4	3992.3	4564.5	2764.2	2192.0
80°	0.0	0.0	1.1	4.4	10.9	748.4	2428.0	3116.6	2554.2	937.7	604.8
82.5°	0.0	0.0	1.1	4.4	8.7	506.9	1613.3	1557.8	514.5	268.7	241.5
85°	0.0	0.0	1.1	3.3	6.5	302.4	808.3	212.1	199.1	170.8	154.5
87.5°	0.0	0.0	1.1	2.2	4.4	128.4	249.1	65.3	82.7	69.6	62.0
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°	3647.5	3647.5	3647.5	3647.5	3647.5	3647.5	3647.5	3647.5	3647.5	3647.5	3647.5
2.5°	3662.7	3662.7	3674.7	3714.9	3710.6	3743.2	3724.7	3765.0	3768.3	3760.6	3779.1
5°	3676.9	3689.9	3730.2	3772.6	3755.2	3803.1	3825.9	3879.2	3877.0	3870.5	3892.3
7.5°	3717.1	3744.3	3784.6	3835.7	3854.2	3893.4	3895.5	3968.4	3964.1	3960.8	3982.6
10°	3784.6	3820.5	3865.1	3942.3	3931.4	3988.0	3964.1	4017.4	4016.3	4014.1	4035.9
12.5°	3854.2	3906.4	3960.8	4035.9	4034.8	4036.9	4016.3	4043.5	4038.0	4022.8	4039.1
15°	3952.1	4021.7	4096.8	4151.2	4103.3	4093.5	4047.8	4031.5	4000.0	3956.4	3969.5
17.5°	4114.2	4182.7	4278.4	4307.8	4229.5	4184.9	4060.9	3970.6	3872.7	3806.3	3820.5
20°	4260.0	4387.2	4478.6	4476.4	4376.3	4258.9	4066.3	3914.0	3724.7	3596.4	3585.5
22.5°	4078.3	4292.6	4690.7	4644.0	4468.8	4302.4	4059.8	3823.7	3509.3	3310.3	3302.7
25°	4182.7	4187.1	4543.9	4737.5	4510.2	4283.9	3981.5	3666.0	3263.5	3056.8	3044.8
27.5°	4449.2	4425.3	4326.3	4637.4	4472.1	4189.2	3823.7	3397.3	3039.4	2859.9	2851.2
30°	4765.8	4691.8	4459.0	4152.3	4315.4	4005.4	3581.1	3122.1	2837.1	2673.9	2660.8
32.5°	5144.4	4988.8	4579.8	4099.0	3802.0	3728.0	3267.8	2904.5	2669.5	2499.8	2466.1
35°	5593.6	5360.8	4696.2	4008.7	3401.7	3316.8	2973.0	2708.7	2511.8	2339.9	2306.2
37.5°	5592.5	5835.1	4868.0	3884.6	3153.6	2855.6	2758.7	2578.2	2401.9	2194.2	2156.1
40°	5633.9	5641.5	5057.3	3763.9	2921.9	2618.4	2631.5	2514.0	2332.3	2103.9	2064.7
42.5°	6136.5	5766.6	5289.0	3601.8	2703.3	2443.3	2577.1	2491.1	2295.3	2061.4	2017.9
45°	6573.8	6147.3	4781.0	3424.5	2473.7	2307.3	2533.6	2437.8	2243.1	2010.3	1961.4
47.5°	6954.5	6449.8	4910.5	3114.5	2249.6	2196.3	2449.8	2335.6	2149.6	1933.1	1889.6
50°	7243.9	6700.0	5023.6	2697.8	2032.1	2085.4	2313.8	2197.4	2017.9	1842.8	1805.8
51°	7342.9	6780.5	5046.5	2679.3	1916.8	2033.2	2249.6	2136.5	1975.5	1808.0	1774.3
52.5°	7449.5	6884.9	5080.2	2720.7	1753.6	1947.2	2145.2	2046.2	1912.4	1768.8	1730.7
55°	6194.1	6469.3	4994.2	2633.6	1564.3	1776.4	1953.7	1909.1	1835.2	1707.9	1680.7
57.5°	5967.8	5474.0	4142.5	2230.1	1397.9	1573.0	1767.7	1797.1	1740.5	1611.1	1591.5
60°	6016.8	5423.9	3688.8	1663.3	1232.5	1391.3	1628.5	1654.6	1605.6	1507.7	1480.5
62.5°	6008.1	5295.6	3289.6	1171.6	1088.9	1296.7	1528.4	1539.3	1471.8	1390.2	1365.2
65°	5864.5	5000.8	2744.6	886.6	1009.5	1244.5	1469.7	1475.1	1391.3	1286.9	1273.9
67.5°	5544.7	4534.1	1909.1	778.9	964.9	1204.2	1430.5	1406.6	1326.1	1216.2	1196.6
70°	4932.2	3694.3	892.0	716.9	897.5	1130.3	1334.8	1306.5	1218.4	1116.1	1098.7
72.5°	3954.3	2567.3	423.2	656.0	826.8	1037.8	1217.3	1172.7	1099.8	1061.7	1051.9
75°	2588.0	1205.3	353.5	590.7	733.2	925.7	1116.1	1099.8	1032.4	956.2	919.2
77.5°	1049.8	317.6	319.8	524.3	658.1	852.9	1008.4	995.4	906.2	837.6	822.4
80°	264.3	238.2	292.6	433.0	573.3	743.0	884.4	847.4	814.8	740.8	716.9
82.5°	201.2	191.5	229.5	335.1	471.0	612.4	755.0	770.2	715.8	659.2	647.3
85°	140.3	174.1	139.2	238.2	349.2	483.0	633.1	660.3	623.3	559.1	515.6
87.5°	77.2	91.4	57.7	125.1	184.9	264.3	363.3	366.6	303.5	278.5	262.2
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)