

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: P591096

Luminaire Tested: **CTN-CA10-210-722-U-T1-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591096
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-210-722-U-T1-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18077 lumens
Efficiency: N/A
Efficacy: 84.9 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B4 - U0 - G4

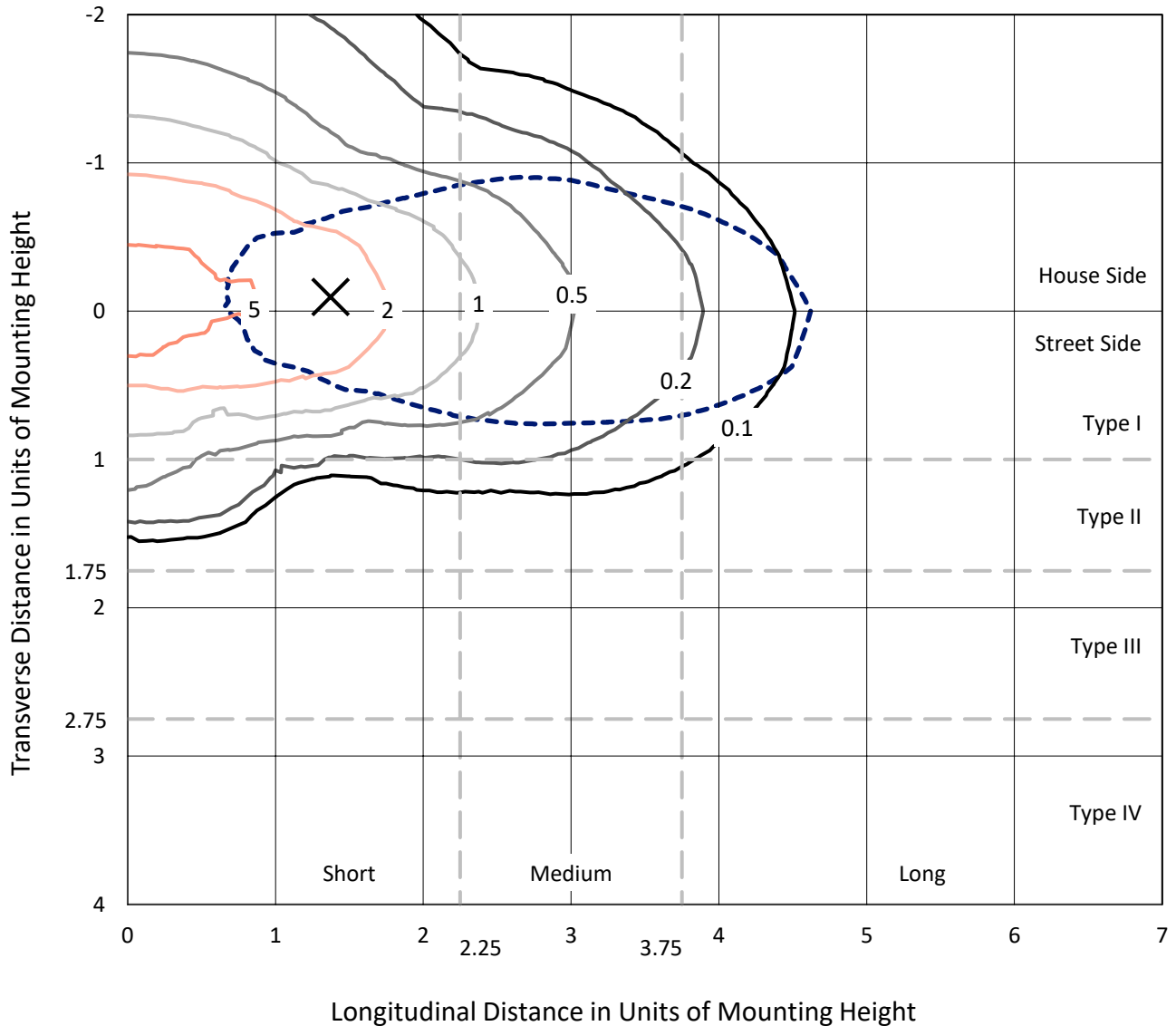
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

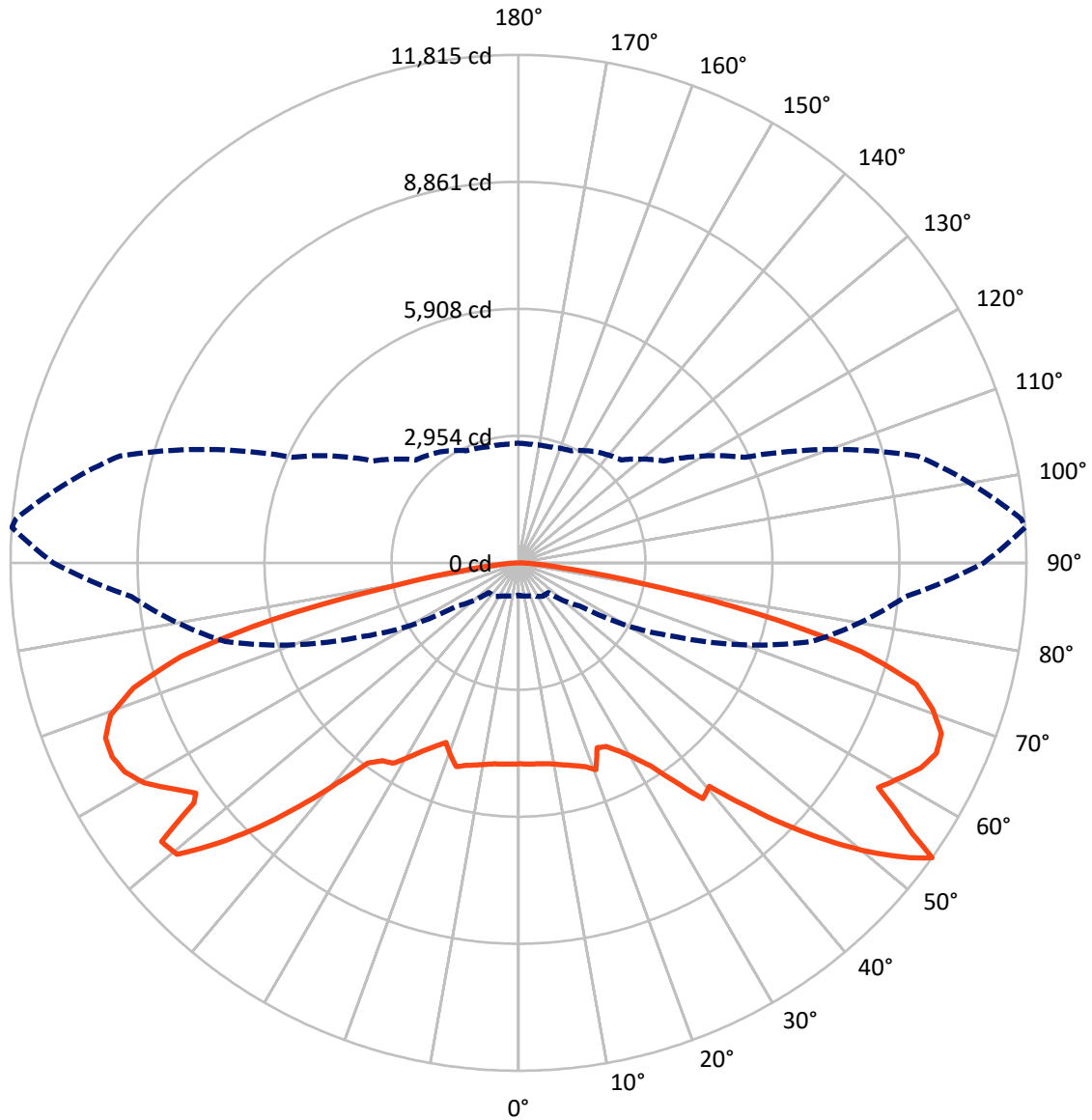
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.5 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 94-Deg Lateral - - - Horizontal Cone Through 54-Deg Vertical

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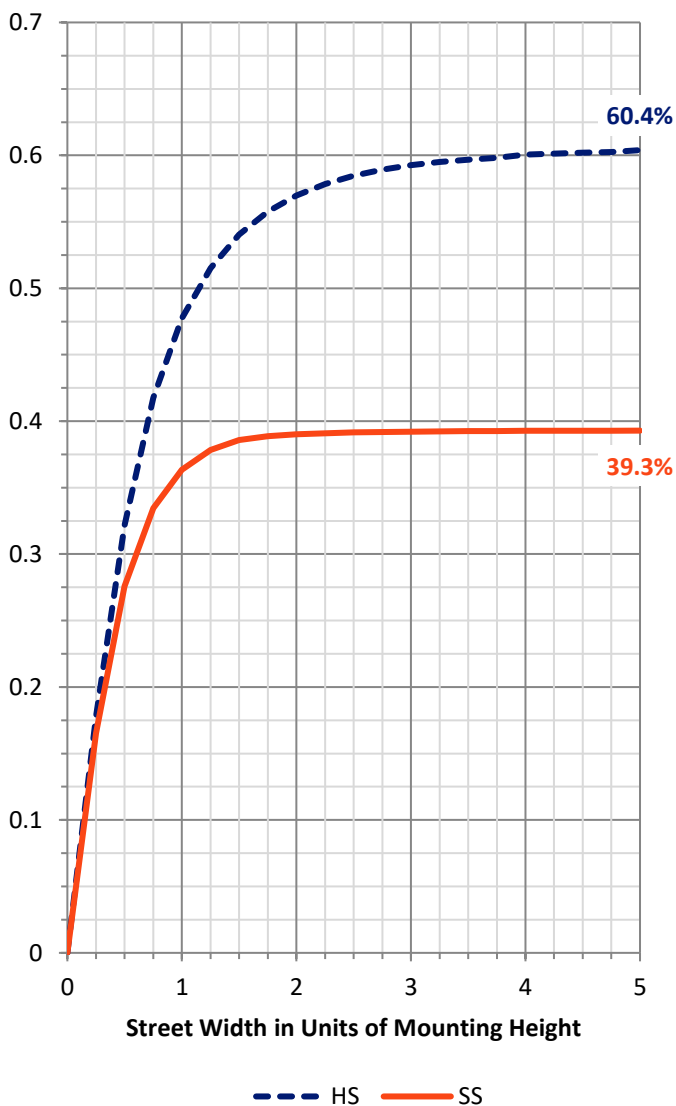
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11010.4	0.0	11010.4
	% Fixture	60.9	0.0	60.9
Street Side	Lumens	7066.6	0.0	7066.6
	% Fixture	39.1	0.0	39.1
Total	Lumens	18077.0	0.0	18077.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	446.1	2.5
10°-20°	1276.4	7.1
20°-30°	1823.0	10.1
30°-40°	2412.1	13.3
40°-50°	3175.3	17.6
50°-60°	3503.3	19.4
60°-70°	3156.7	17.5
70°-80°	1996.4	11.0
80°-90°	287.7	1.6
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°	18077.0	100.0
0°-180°	18077.0	100.0

Coefficient of Utilization

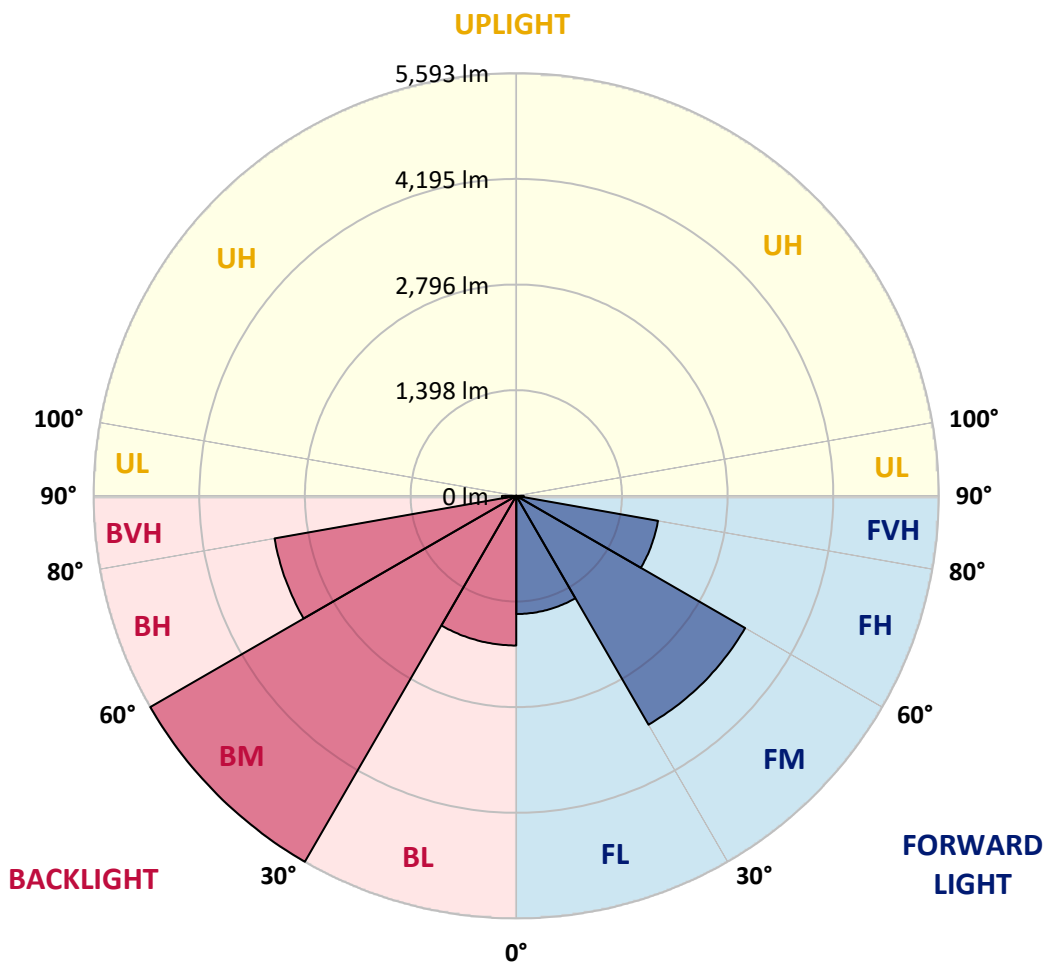


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1564.4	8.7			
FM (30°-60°)	3497.7	19.3			
FH (60°-80°)	1904.8	10.5			G2/5000
FVH (80°-90°)	99.6	0.6			G1/100
BL (0°-30°)	1981.1	11.0	B3/2500		
BM (30°-60°)	5593.0	30.9	B4/8500		
BH (60°-80°)	3248.3	18.0	B4/5000		G4/5000
BVH (80°-90°)	188.1	1.0			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4
 Type I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4674.2	4674.2	4674.2	4674.2	4674.2	4674.2	4674.2	4674.2	4674.2	4674.2	4674.2
2.5°	4683.0	4650.5	4654.9	4689.2	4616.2	4661.9	4640.8	4678.6	4663.7	4684.8	4700.6
5°	4641.7	4611.0	4618.9	4661.1	4603.0	4654.9	4625.0	4661.9	4667.2	4692.7	4707.7
7.5°	4607.4	4577.5	4582.8	4622.4	4585.5	4631.2	4613.6	4662.8	4663.7	4708.5	4720.0
10°	4573.2	4542.4	4549.4	4583.7	4560.0	4609.2	4620.6	4678.6	4691.8	4754.2	4755.1
12.5°	4500.2	4472.9	4476.4	4523.9	4524.8	4596.0	4618.9	4708.5	4735.8	4806.1	4813.1
15°	4212.7	4232.1	4305.9	4365.7	4421.1	4516.9	4595.1	4741.9	4778.9	4864.1	4884.4
17.5°	3516.5	3486.6	3325.7	3411.0	3677.3	3932.3	4067.7	4374.5	4718.2	4952.9	4979.3
20°	2465.9	2513.4	2765.7	2881.7	3071.6	3533.2	3956.9	4133.6	4245.2	4669.9	5001.3
22.5°	1956.0	1970.1	2331.4	2764.8	2907.2	3105.9	3608.8	4198.6	4373.6	4496.7	4551.2
25°	1820.6	1831.2	1889.2	2456.2	2844.8	3055.8	3276.5	4043.9	4524.8	4677.8	4742.8
27.5°	1707.2	1718.7	1775.8	1966.6	2787.7	3055.8	3306.3	3660.6	4671.6	4903.7	4959.1
30°	1622.8	1622.8	1681.7	1844.4	2336.7	3065.5	3368.8	3703.7	4443.0	5188.5	5237.8
32.5°	1545.5	1546.4	1610.5	1767.0	2024.6	3024.2	3456.7	3861.9	4265.5	5473.4	5600.8
35°	1476.0	1478.7	1536.7	1694.9	1945.5	2437.8	3554.3	4065.0	4606.6	5441.7	6152.9
37.5°	1417.1	1418.9	1469.0	1623.7	1878.7	1766.1	3617.6	4309.4	5064.6	5723.9	6268.1
40°	1374.9	1372.3	1408.3	1549.0	1781.1	1614.1	3062.0	4563.5	5608.7	6607.4	6809.6
42.5°	1332.7	1328.3	1364.4	1470.8	1218.5	1571.9	2836.9	4811.4	6235.6	7578.0	7758.2
45°	1283.5	1285.3	1320.4	1319.6	1153.4	1515.6	2861.5	4237.3	6906.3	8570.5	8799.9
47.5°	1257.1	1249.2	1266.8	958.2	1099.8	1438.2	2851.0	3934.0	7498.0	9519.0	9746.7
50°	1207.9	1206.1	887.9	908.1	1046.1	1349.4	2685.7	4043.0	6765.7	10398.2	10628.5
52.5°	1134.1	1001.3	823.7	873.0	992.5	1244.8	1918.2	4087.9	6747.2	10311.1	11450.5
54°	753.4	771.9	797.4	848.3	953.8	978.5	1754.7	4084.4	7068.1	9032.9	10821.9
55°	431.6	604.8	776.3	828.1	926.6	684.8	1691.4	4065.9	7272.9	9088.3	9755.5
57.5°	373.6	375.4	427.2	691.0	475.6	587.2	1512.1	3915.6	7656.2	9597.3	9788.1
60°	32.5	31.6	36.0	49.2	62.4	137.1	761.3	2511.6	7388.1	10034.2	10330.5
62.5°	13.2	14.1	17.6	23.7	37.8	61.5	629.4	2225.9	7501.5	10300.6	10625.0
65°	2.6	2.6	4.4	7.9	14.1	36.9	536.3	1982.4	7443.5	10387.6	10821.0
67.5°	0.0	0.0	2.6	6.2	11.4	29.9	464.2	1824.2	7112.0	10357.7	10748.0
70°	0.0	0.0	2.6	6.2	10.5	29.0	397.4	1683.5	6290.1	10044.8	10477.3
72.5°	0.0	0.0	2.6	5.3	9.7	26.4	340.2	1486.6	5331.8	9291.4	9880.4
75°	0.0	0.0	2.6	5.3	8.8	23.7	286.6	1275.6	4454.5	8007.9	8715.5
77.5°	0.0	0.0	2.6	5.3	7.9	21.1	225.1	1018.9	3498.0	5806.5	6186.3
80°	0.0	0.0	2.6	5.3	7.0	16.7	166.2	643.5	1940.2	2945.0	3101.5
82.5°	0.0	0.0	1.8	4.4	6.2	10.5	79.1	243.5	914.3	1348.6	1308.1
85°	0.0	0.0	1.8	4.4	5.3	7.9	34.3	61.5	304.2	447.5	416.7
87.5°	0.0	0.0	1.8	3.5	4.4	5.3	8.8	10.5	96.7	129.2	133.6
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):

	94°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4674.2	4674.2	4674.2	4674.2	4674.2	4674.2	4674.2	4674.2	4674.2	4674.2	4674.2
2.5°	4690.1	4690.1	4689.2	4712.1	4683.0	4685.7	4658.4	4728.8	4720.8	4698.9	4725.2
5°	4695.3	4699.7	4698.9	4710.3	4687.4	4701.5	4663.7	4733.2	4721.7	4704.1	4731.4
7.5°	4717.3	4725.2	4719.1	4739.3	4693.6	4707.7	4669.0	4729.6	4718.2	4692.7	4721.7
10°	4764.8	4772.7	4760.4	4770.1	4721.7	4714.7	4667.2	4730.5	4705.9	4686.6	4722.6
12.5°	4826.3	4836.0	4811.4	4809.6	4748.1	4734.0	4665.5	4708.5	4672.5	4656.7	4689.2
15°	4894.9	4906.3	4877.3	4871.2	4803.5	4756.9	4658.4	4668.1	4616.2	4595.1	4629.4
17.5°	4984.6	4995.1	4973.1	4969.6	4881.7	4802.6	4648.8	4617.1	4544.1	4526.6	4545.0
20°	5134.9	5141.9	5112.9	5086.6	4957.3	4827.2	4632.9	4550.3	4438.6	4401.7	4422.8
22.5°	4673.4	4729.6	5300.2	5201.7	5013.6	4852.7	4593.4	4455.4	4298.9	4229.4	4243.5
25°	4734.0	4739.3	4955.6	5338.0	5075.1	4869.4	4546.8	4337.5	4122.2	4021.1	4038.7
27.5°	4953.8	4947.7	4862.4	5352.9	5148.1	4879.1	4488.8	4213.6	3947.2	3825.9	3830.3
30°	5238.6	5229.0	5099.7	4839.5	5252.7	4882.6	4437.8	4071.2	3791.6	3662.4	3658.9
32.5°	5628.1	5600.8	5400.4	5040.8	4810.5	4906.3	4365.7	3935.8	3643.0	3515.6	3505.9
35°	6225.9	6175.8	5810.9	5296.7	4734.0	4906.3	4267.2	3789.9	3505.9	3384.6	3377.6
37.5°	6967.0	6980.2	6335.8	5583.3	4851.8	4446.6	4149.4	3653.6	3387.2	3280.0	3280.0
40°	6834.2	7009.2	6945.0	5876.9	4973.1	4372.7	4022.8	3522.6	3288.8	3207.0	3217.6
42.5°	7710.7	7643.0	7651.8	6171.4	5058.4	4297.1	3885.7	3401.3	3201.7	3132.3	3140.2
45°	8683.0	8606.5	7004.8	6435.1	5098.0	4184.6	3746.8	3276.5	3105.9	3047.9	3069.0
47.5°	9643.0	9574.4	7692.2	6370.9	5061.1	4012.3	3575.4	3168.3	3004.8	2963.5	2995.1
50°	10572.2	10475.5	8433.3	5694.9	4930.1	3774.0	3400.4	3054.9	2916.9	2892.3	2916.0
52.5°	11401.2	11272.9	9184.1	5796.9	4306.8	3533.2	3244.8	2945.9	2836.9	2809.6	2833.4
54°	11815.3	11737.1	9603.4	5808.3	4128.3	3383.7	3151.6	2876.5	2792.1	2769.2	2782.4
55°	11110.2	11266.7	9852.2	5798.6	3999.1	3293.2	3090.1	2830.7	2760.4	2735.8	2749.0
57.5°	9866.3	9697.5	9211.4	5680.0	3647.4	3066.4	2909.9	2714.7	2666.4	2634.7	2653.2
60°	10179.3	10148.5	8408.7	5418.9	3263.3	2812.3	2732.3	2579.3	2546.8	2520.4	2545.0
62.5°	10506.3	10486.1	8537.1	5013.6	2880.9	2562.6	2528.3	2421.1	2401.7	2390.3	2396.5
65°	10683.0	10553.8	8533.6	4471.2	2530.1	2306.8	2301.5	2221.5	2230.3	2225.0	2250.5
67.5°	10608.3	10470.2	8156.4	4080.0	2200.4	2014.9	2031.6	1998.2	2030.8	2040.4	2059.8
70°	10217.9	10262.8	7334.4	3702.8	1872.5	1696.7	1749.4	1745.0	1792.5	1829.4	1860.2
72.5°	9678.2	9505.9	6147.6	3147.2	1370.5	1207.0	1298.5	1360.0	1412.7	1456.7	1485.7
75°	8237.3	8035.1	4538.9	2453.6	992.5	832.5	857.1	884.4	918.7	1019.8	1079.6
77.5°	5647.4	5563.0	3264.2	1850.5	632.1	502.0	597.8	652.3	681.3	676.9	687.5
80°	2895.8	2880.9	1932.3	1106.8	426.4	367.5	435.2	440.4	487.0	523.1	524.8
82.5°	1167.5	1225.5	771.9	606.6	296.3	277.8	306.8	345.5	385.1	406.2	411.4
85°	413.2	403.5	234.7	284.8	188.1	194.3	217.1	261.1	302.4	307.7	296.3
87.5°	110.8	115.2	50.1	104.6	102.9	112.5	124.8	142.4	172.3	181.1	172.3
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)