

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: P591252

Luminaire Tested: **CTN-CA8-230-727-U-T1-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591252
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-CA8-230-727-U-T1-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19291 lumens
Efficiency: N/A
Efficacy: 84.5 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B4 - U0 - G4

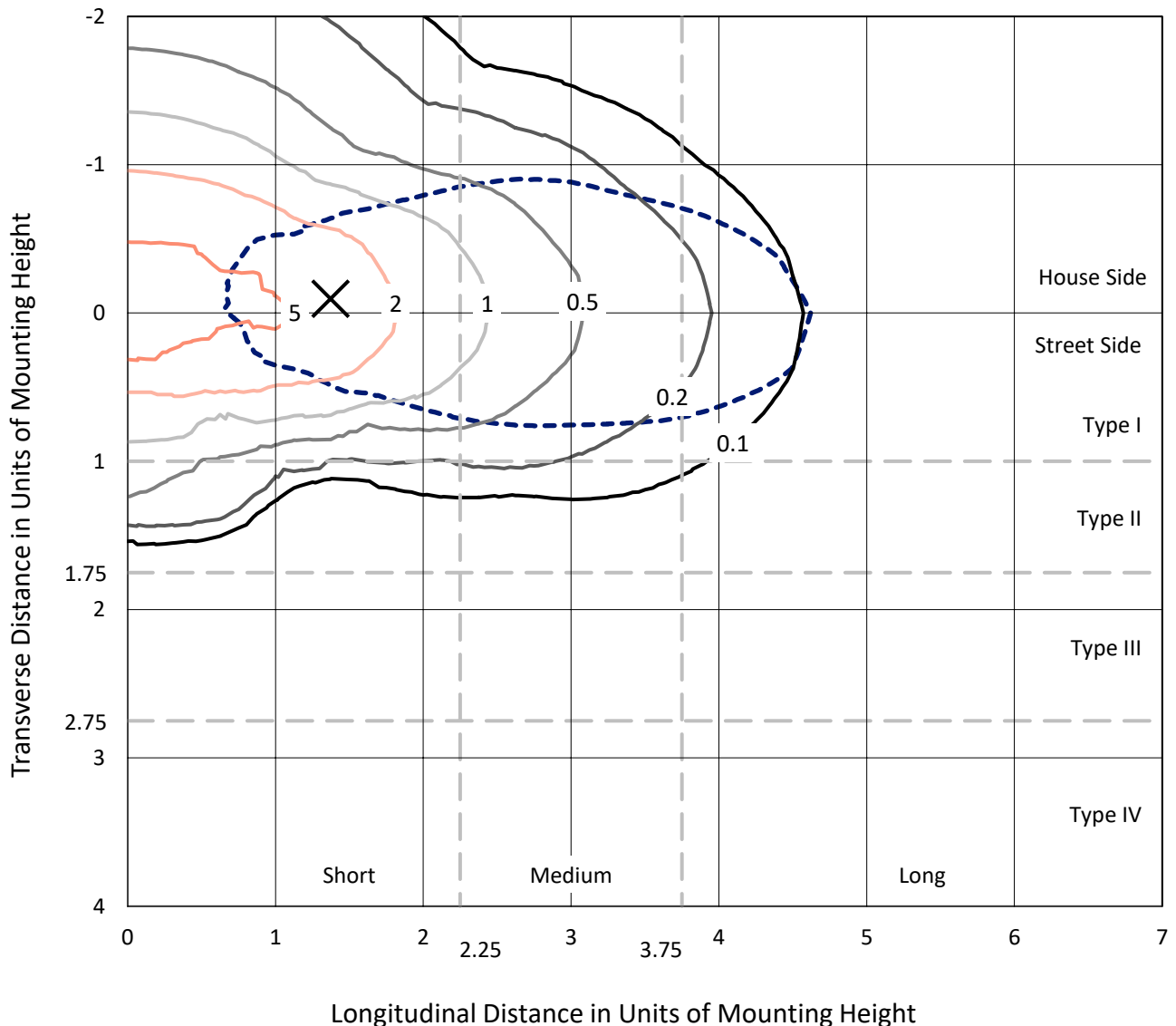
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

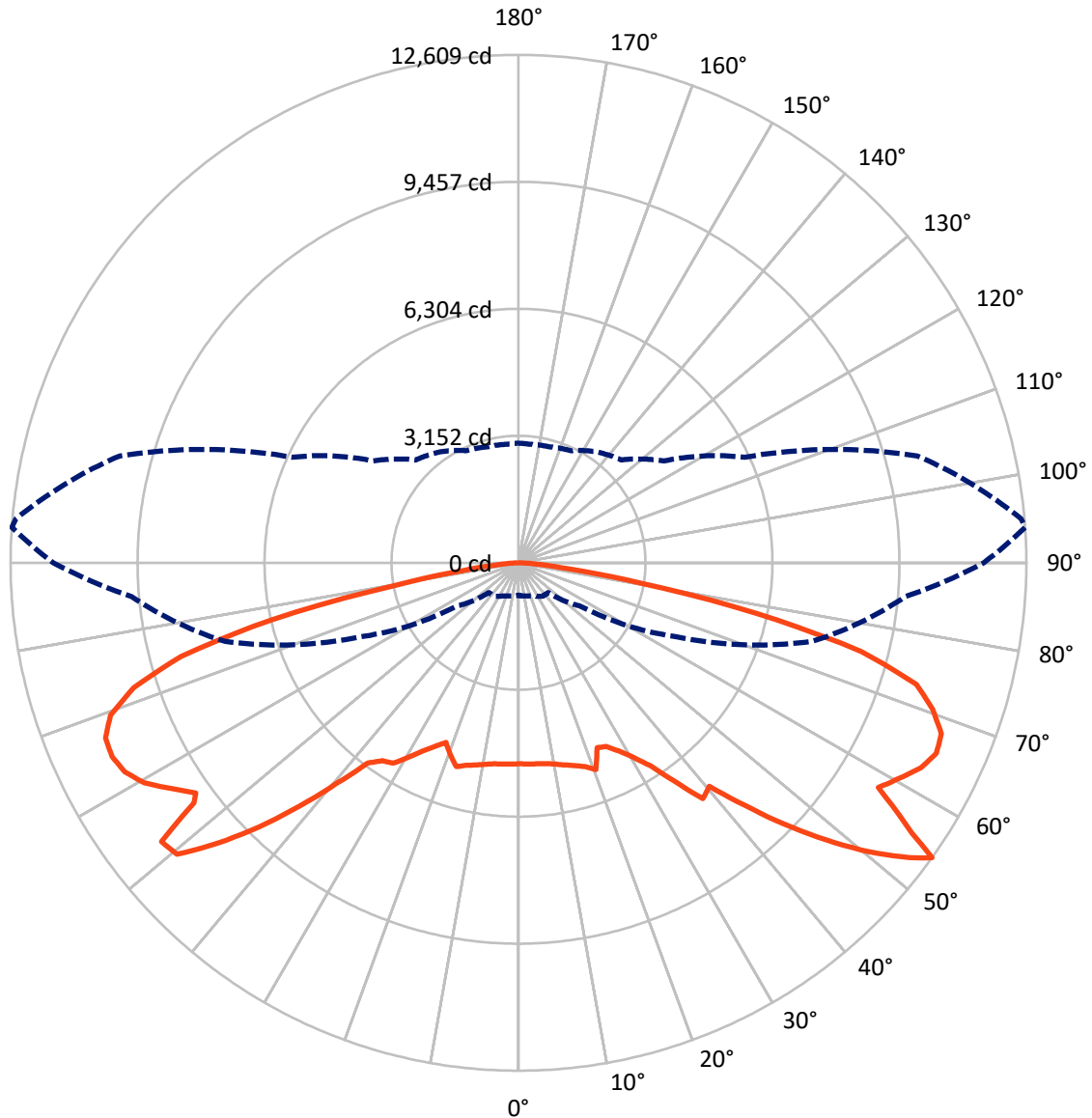
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8 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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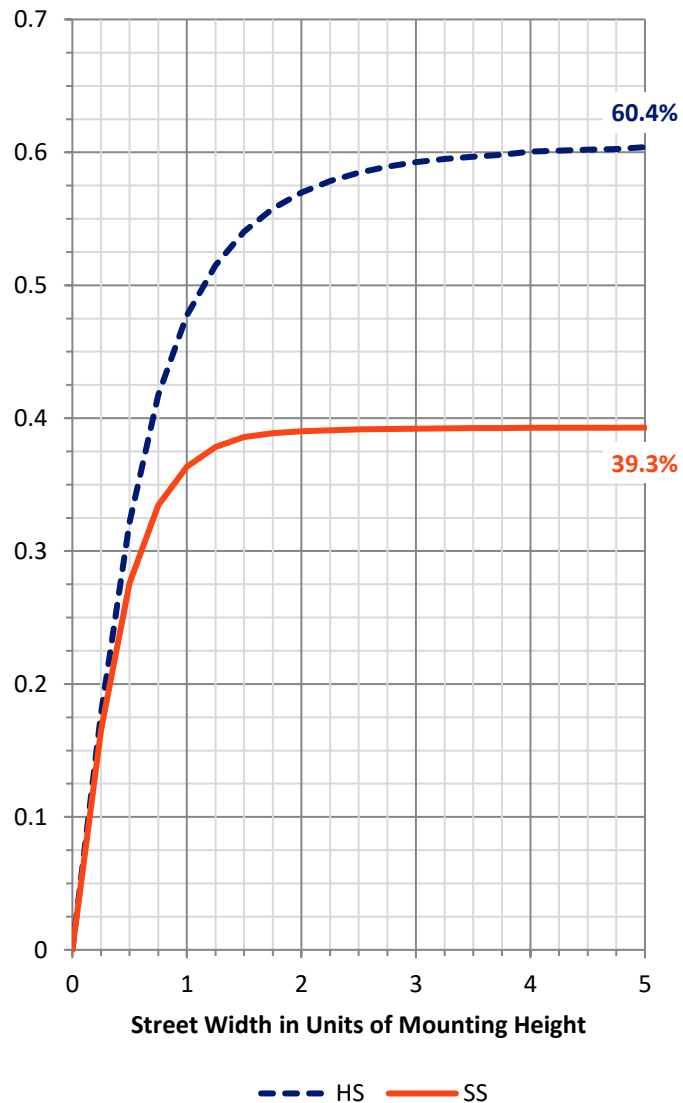
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11749.8	0.0	11749.8
	% Fixture	60.9	0.0	60.9
Street Side	Lumens	7541.2	0.0	7541.2
	% Fixture	39.1	0.0	39.1
Total	Lumens	19291.0	0.0	19291.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	476.0	2.5
10°-20°	1362.1	7.1
20°-30°	1945.5	10.1
30°-40°	2574.1	13.3
40°-50°	3388.6	17.6
50°-60°	3738.5	19.4
60°-70°	3368.7	17.5
70°-80°	2130.5	11.0
80°-90°	307.0	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°	19291.0	100.0
0°-180°	19291.0	100.0

Coefficient of Utilization

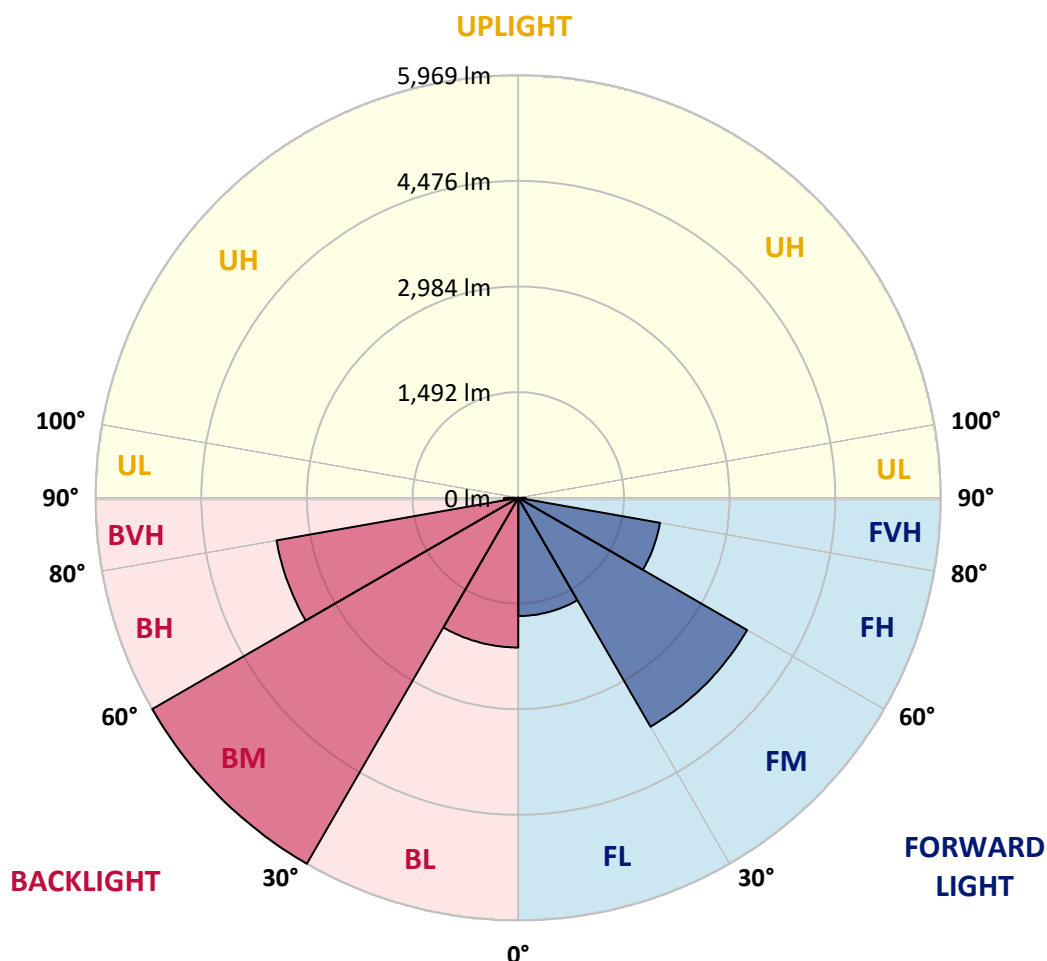


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1669.5	8.7			
FM (30°-60°)	3732.6	19.3			
FH (60°-80°)	2032.8	10.5			G2/5000
FVH (80°-90°)	106.3	0.6			G2/225
BL (0°-30°)	2114.1	11.0	B3/2500		
BM (30°-60°)	5968.6	30.9	B4/8500		
BH (60°-80°)	3466.4	18.0	B4/5000		G4/5000
BVH (80°-90°)	200.7	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°	4988.2	4988.2	4988.2	4988.2	4988.2	4988.2	4988.2	4988.2	4988.2	4988.2	4988.2
2.5°	4997.5	4962.8	4967.5	5004.1	4926.2	4975.0	4952.5	4992.9	4976.9	4999.4	5016.3
5°	4953.4	4920.6	4929.1	4974.1	4912.2	4967.5	4935.6	4975.0	4980.7	5007.9	5023.8
7.5°	4916.9	4885.0	4890.6	4932.8	4893.4	4942.2	4923.4	4976.0	4976.9	5024.7	5036.9
10°	4880.3	4847.4	4854.9	4891.5	4866.2	4918.7	4930.9	4992.9	5006.9	5073.5	5074.5
12.5°	4802.4	4773.3	4777.1	4827.7	4828.7	4904.7	4929.1	5024.7	5053.8	5128.9	5136.4
15°	4495.6	4516.3	4595.1	4658.9	4718.0	4820.2	4903.7	5060.4	5099.8	5190.8	5212.4
17.5°	3752.6	3720.7	3549.0	3640.0	3924.3	4196.4	4340.8	4668.2	5035.1	5285.6	5313.7
20°	2631.5	2682.2	2951.4	3075.3	3277.9	3770.4	4222.6	4411.2	4530.3	4983.5	5337.2
22.5°	2087.4	2102.4	2488.0	2950.5	3102.5	3314.5	3851.1	4480.6	4667.3	4798.7	4856.8
25°	1942.9	1954.2	2016.1	2621.2	3035.9	3261.0	3496.5	4315.5	4828.7	4991.9	5061.3
27.5°	1821.9	1834.1	1895.1	2098.6	2974.9	3261.0	3528.4	3906.5	4985.3	5233.0	5292.1
30°	1731.8	1731.8	1794.7	1968.2	2493.6	3271.3	3595.0	3952.4	4741.4	5537.0	5589.5
32.5°	1649.3	1650.2	1718.7	1885.7	2160.6	3227.2	3688.8	4121.3	4551.9	5840.9	5977.0
35°	1575.2	1578.0	1639.9	1808.8	2076.1	2601.5	3793.0	4338.0	4915.9	5807.2	6566.1
37.5°	1512.3	1514.2	1567.7	1732.8	2004.8	1884.7	3860.5	4598.8	5404.7	6108.3	6689.0
40°	1467.3	1464.5	1502.9	1653.0	1900.7	1722.4	3267.6	4870.0	5985.4	7051.2	7266.9
42.5°	1422.2	1417.5	1456.0	1569.5	1300.3	1677.4	3027.4	5134.5	6654.3	8086.9	8279.2
45°	1369.7	1371.6	1409.1	1408.2	1230.9	1617.4	3053.7	4521.9	7370.1	9146.1	9390.9
47.5°	1341.6	1333.1	1351.9	1022.6	1173.6	1534.8	3042.4	4198.2	8001.5	10158.3	10401.3
50°	1289.0	1287.1	947.5	969.1	1116.4	1440.1	2866.1	4314.6	7220.0	11096.5	11342.3
52.5°	1210.2	1068.6	879.0	931.6	1059.2	1328.4	2047.0	4362.4	7200.3	11003.6	12219.4
54°	804.0	823.7	850.9	905.3	1017.9	1044.2	1872.6	4358.7	7542.7	9639.5	11548.7
55°	460.6	645.4	828.4	883.7	988.8	730.8	1805.0	4339.0	7761.3	9698.6	10410.7
57.5°	398.7	400.6	455.9	737.4	507.5	626.7	1613.6	4178.5	8170.4	10241.8	10445.4
60°	34.7	33.8	38.5	52.5	66.6	146.4	812.4	2680.3	7884.2	10708.1	11024.2
62.5°	14.1	15.0	18.8	25.3	40.3	65.7	671.7	2375.4	8005.3	10992.3	11338.5
65°	2.8	2.8	4.7	8.4	15.0	39.4	572.3	2115.5	7943.3	11085.2	11547.7
67.5°	0.0	0.0	2.8	6.6	12.2	31.9	495.3	1946.7	7589.7	11053.3	11469.9
70°	0.0	0.0	2.8	6.6	11.3	31.0	424.0	1796.6	6712.5	10719.3	11180.9
72.5°	0.0	0.0	2.8	5.6	10.3	28.1	363.1	1586.4	5689.9	9915.3	10543.9
75°	0.0	0.0	2.8	5.6	9.4	25.3	305.8	1361.3	4753.6	8545.6	9300.8
77.5°	0.0	0.0	2.8	5.6	8.4	22.5	240.2	1087.3	3732.9	6196.5	6601.8
80°	0.0	0.0	2.8	5.6	7.5	17.8	177.3	686.7	2070.5	3142.8	3309.8
82.5°	0.0	0.0	1.9	4.7	6.6	11.3	84.4	259.9	975.7	1439.1	1396.0
85°	0.0	0.0	1.9	4.7	5.6	8.4	36.6	65.7	324.6	477.5	444.7
87.5°	0.0	0.0	1.9	3.8	4.7	5.6	9.4	11.3	103.2	137.9	142.6
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°	4988.2	4988.2	4988.2	4988.2	4988.2	4988.2	4988.2	4988.2	4988.2	4988.2	4988.2
2.5°	5005.0	5005.0	5004.1	5028.5	4997.5	5000.4	4971.3	5046.3	5037.9	5014.4	5042.6
5°	5010.7	5015.4	5014.4	5026.6	5002.2	5017.2	4976.9	5051.0	5038.8	5020.1	5049.1
7.5°	5034.1	5042.6	5036.0	5057.6	5008.8	5023.8	4982.5	5047.3	5035.1	5007.9	5038.8
10°	5084.8	5093.2	5080.1	5090.4	5038.8	5031.3	4980.7	5048.2	5021.9	5001.3	5039.8
12.5°	5150.5	5160.8	5134.5	5132.6	5067.0	5052.0	4978.8	5024.7	4986.3	4969.4	5004.1
15°	5223.6	5235.8	5204.9	5198.3	5126.1	5076.3	4971.3	4981.6	4926.2	4903.7	4940.3
17.5°	5319.3	5330.6	5307.1	5303.4	5209.6	5125.1	4961.0	4927.2	4849.3	4830.5	4850.3
20°	5479.8	5487.3	5456.3	5428.2	5290.2	5151.4	4944.1	4855.9	4736.7	4697.3	4719.8
22.5°	4987.2	5047.3	5656.1	5551.1	5350.3	5178.6	4901.8	4754.6	4587.6	4513.5	4528.5
25°	5052.0	5057.6	5288.4	5696.5	5416.0	5196.4	4852.1	4628.8	4399.0	4291.1	4309.9
27.5°	5286.5	5279.9	5188.9	5712.4	5493.8	5206.7	4790.2	4496.6	4212.3	4082.8	4087.5
30°	5590.5	5580.1	5442.2	5164.5	5605.5	5210.5	4735.8	4344.6	4046.3	3908.3	3904.6
32.5°	6006.1	5977.0	5763.1	5379.4	5133.6	5235.8	4658.9	4200.1	3887.7	3751.7	3741.4
35°	6644.0	6590.5	6201.2	5652.4	5052.0	5235.8	4553.8	4044.4	3741.4	3611.9	3604.4
37.5°	7434.9	7448.9	6761.3	5958.2	5177.7	4745.2	4428.1	3899.0	3614.7	3500.2	3500.2
40°	7293.2	7479.9	7411.4	6271.6	5307.1	4666.4	4293.0	3759.2	3509.6	3422.4	3433.6
42.5°	8228.5	8156.3	8165.7	6585.8	5398.1	4585.7	4146.6	3629.7	3416.8	3342.6	3351.1
45°	9266.1	9184.5	7475.2	6867.3	5440.3	4465.6	3998.4	3496.5	3314.5	3252.6	3275.1
47.5°	10290.6	10217.4	8208.8	6798.8	5400.9	4281.7	3815.5	3381.1	3206.6	3162.5	3196.3
50°	11282.2	11179.0	8999.7	6077.4	5261.2	4027.5	3628.8	3260.1	3112.8	3086.5	3111.9
52.5°	12166.9	12029.9	9800.9	6186.2	4596.0	3770.4	3462.7	3143.8	3027.4	2998.3	3023.7
54°	12608.8	12525.3	10248.4	6198.4	4405.6	3611.0	3363.3	3069.6	2979.6	2955.2	2969.3
55°	11856.4	12023.4	10513.9	6188.1	4267.7	3514.3	3297.6	3020.9	2945.8	2919.5	2933.6
57.5°	10528.9	10348.8	9830.0	6061.4	3892.4	3272.3	3105.3	2897.0	2845.4	2811.6	2831.3
60°	10862.9	10830.0	8973.4	5782.8	3482.4	3001.2	2915.8	2752.5	2717.8	2689.7	2716.0
62.5°	11211.9	11190.3	9110.4	5350.3	3074.3	2734.7	2698.1	2583.7	2563.0	2550.8	2557.4
65°	11400.4	11262.5	9106.7	4771.4	2700.0	2461.7	2456.1	2370.7	2380.1	2374.5	2401.7
67.5°	11320.7	11173.4	8704.2	4354.0	2348.2	2150.2	2168.1	2132.4	2167.1	2177.5	2198.1
70°	10904.2	10952.0	7827.0	3951.5	1998.3	1810.6	1866.9	1862.2	1912.9	1952.3	1985.1
72.5°	10328.1	10144.2	6560.5	3358.6	1462.6	1288.1	1385.7	1451.3	1507.6	1554.5	1585.5
75°	8790.5	8574.7	4843.7	2618.4	1059.2	888.4	914.7	943.8	980.4	1088.3	1152.1
77.5°	6026.7	5936.6	3483.4	1974.8	674.5	535.7	637.9	696.1	727.1	722.4	733.6
80°	3090.3	3074.3	2062.1	1181.1	455.0	392.1	464.4	470.0	519.7	558.2	560.1
82.5°	1245.9	1307.8	823.7	647.3	316.2	296.5	327.4	368.7	410.9	433.4	439.1
85°	440.9	430.6	250.5	304.0	200.8	207.3	231.7	278.6	322.7	328.4	316.2
87.5°	118.2	122.9	53.5	111.6	109.8	120.1	133.2	152.0	183.9	193.3	183.9
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)