

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: P591144

Luminaire Tested: **CTN-CA6-230-722-U-T1-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591144
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-CA6-230-722-U-T1-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (6) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17846 lumens
Efficiency: N/A
Efficacy: 78.3 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B4 - U0 - G4

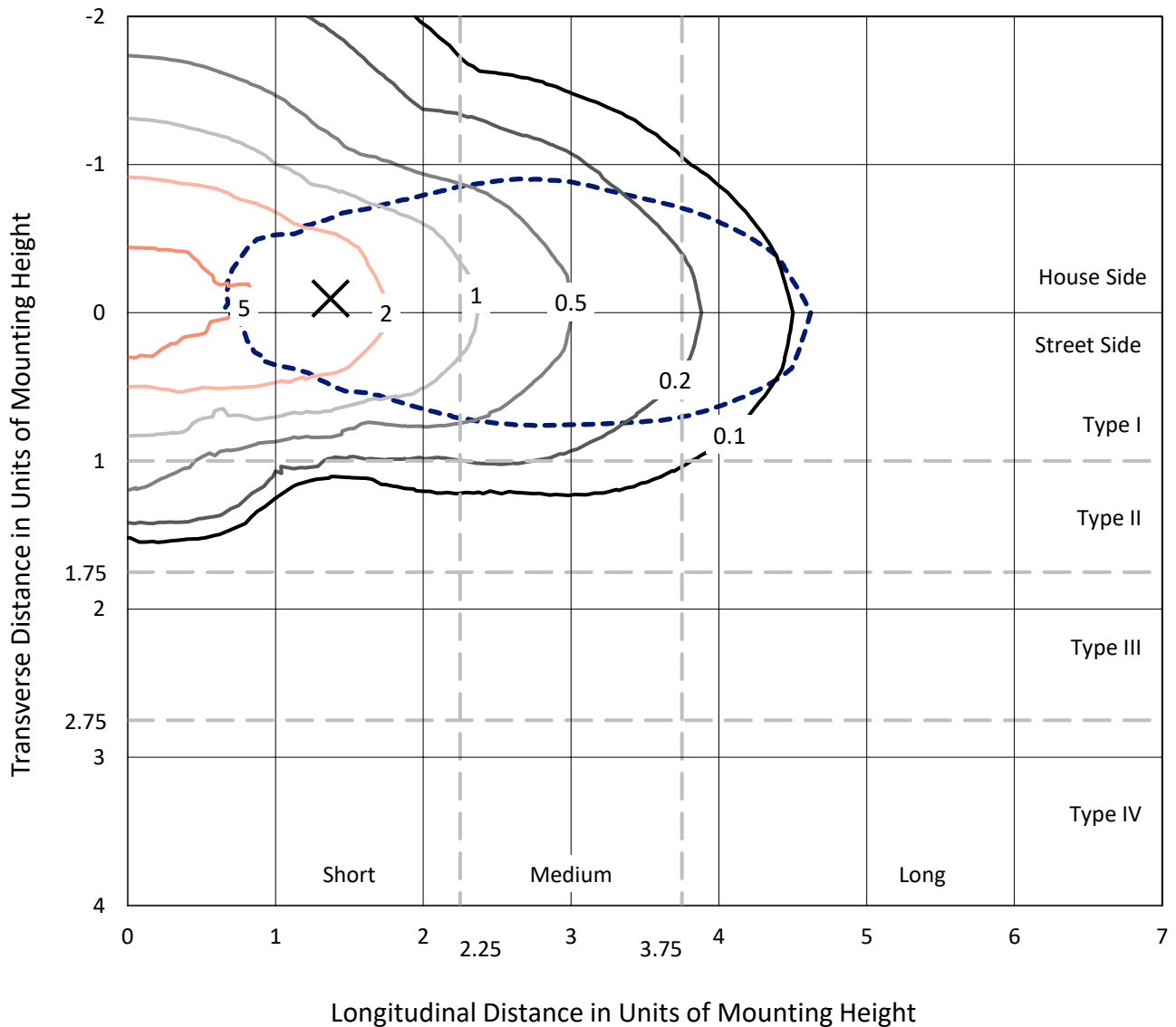
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

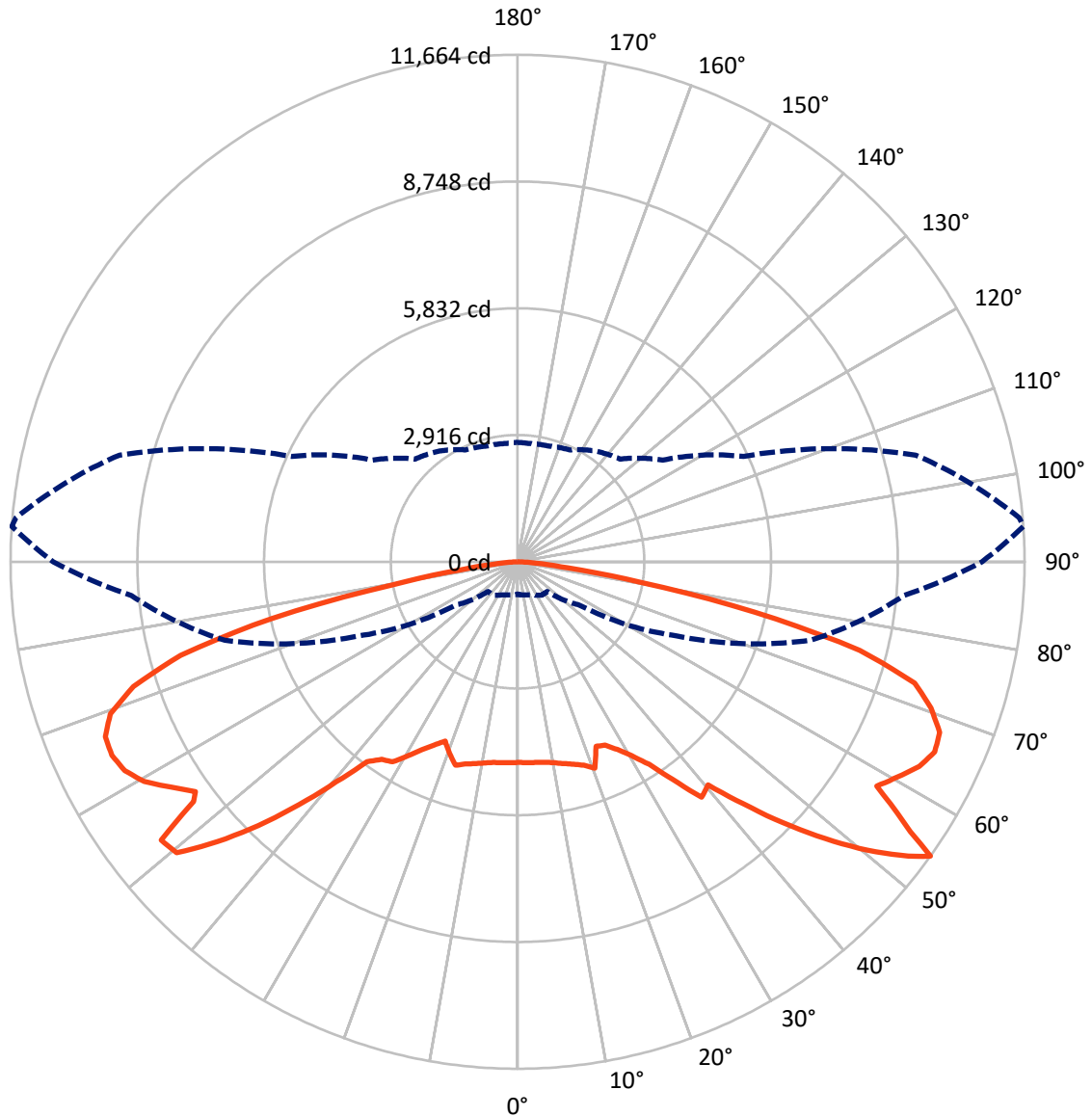
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.4 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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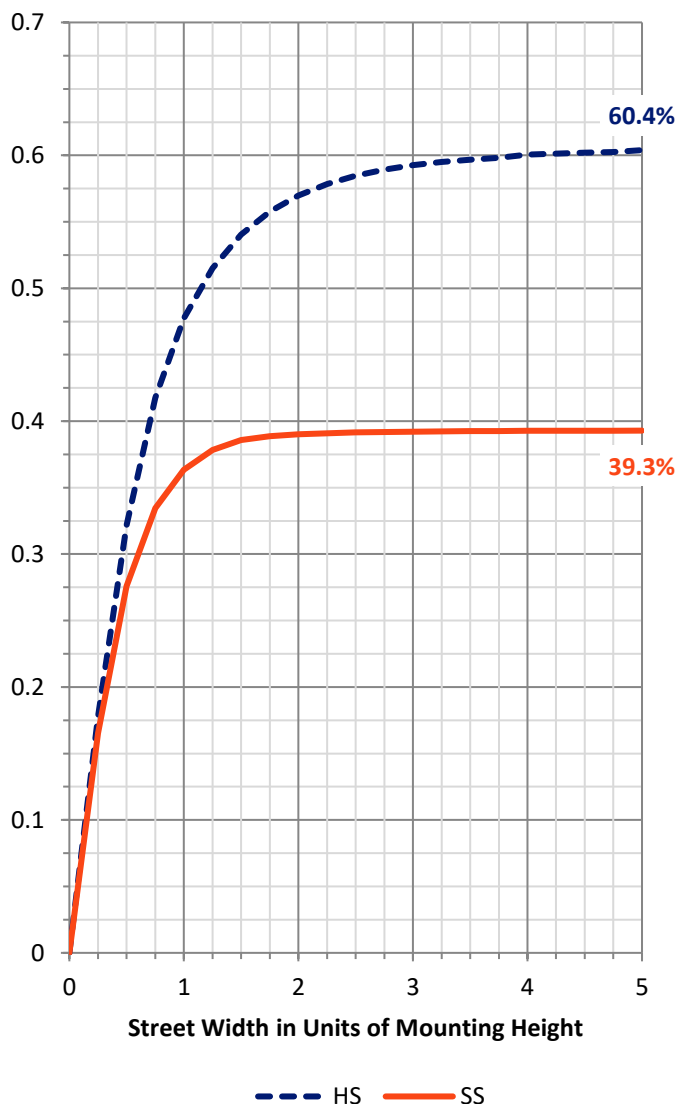
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10869.7	0.0	10869.7
	% Fixture	60.9	0.0	60.9
Street Side	Lumens	6976.3	0.0	6976.3
	% Fixture	39.1	0.0	39.1
Total	Lumens	17846.0	0.0	17846.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	440.4	2.5
10°-20°	1260.1	7.1
20°-30°	1799.7	10.1
30°-40°	2381.3	13.3
40°-50°	3134.8	17.6
50°-60°	3458.5	19.4
60°-70°	3116.4	17.5
70°-80°	1970.9	11.0
80°-90°	284.0	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°	17846.0	100.0
0°-180°	17846.0	100.0

Coefficient of Utilization

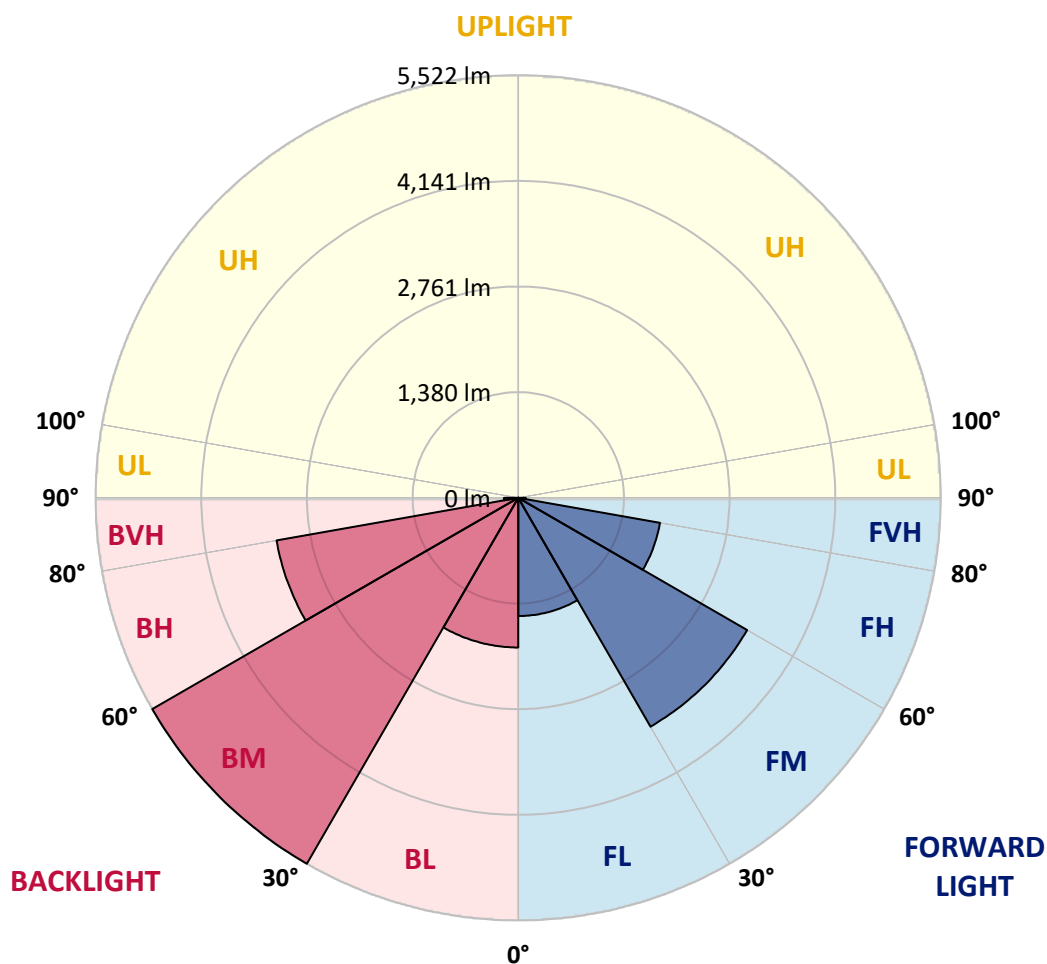


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1544.4	8.7			
FM (30°-60°)	3453.0	19.3			
FH (60°-80°)	1880.5	10.5			G2/5000
FVH (80°-90°)	98.3	0.6			G1/100
BL (0°-30°)	1955.7	11.0	B3/2500		
BM (30°-60°)	5521.5	30.9	B4/8500		
BH (60°-80°)	3206.8	18.0	B4/5000		G4/5000
BVH (80°-90°)	185.7	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°	4614.5	4614.5	4614.5	4614.5	4614.5	4614.5	4614.5	4614.5	4614.5	4614.5	4614.5
2.5°	4623.2	4591.1	4595.4	4629.3	4557.2	4602.4	4581.5	4618.9	4604.1	4624.9	4640.6
5°	4582.4	4552.0	4559.8	4601.5	4544.2	4595.4	4565.9	4602.4	4607.6	4632.7	4647.5
7.5°	4548.6	4519.1	4524.3	4563.3	4526.9	4572.0	4554.6	4603.2	4604.1	4648.4	4659.6
10°	4514.7	4484.3	4491.3	4525.1	4501.7	4550.3	4561.6	4618.9	4631.9	4693.5	4694.4
12.5°	4442.7	4415.8	4419.2	4466.1	4467.0	4537.3	4559.8	4648.4	4675.3	4744.7	4751.6
15°	4158.9	4178.0	4250.9	4309.9	4364.6	4459.2	4536.4	4681.3	4717.8	4802.0	4821.9
17.5°	3471.5	3442.0	3283.2	3367.4	3630.3	3882.0	4015.7	4318.6	4657.9	4889.6	4915.7
20°	2434.4	2481.3	2730.4	2844.9	3032.4	3488.0	3906.3	4080.8	4191.0	4610.2	4937.4
22.5°	1931.0	1944.9	2301.6	2729.5	2870.1	3066.2	3562.6	4145.0	4317.7	4439.2	4493.0
25°	1797.4	1807.8	1865.1	2424.9	2808.5	3016.8	3234.6	3992.2	4467.0	4618.0	4682.2
27.5°	1685.4	1696.7	1753.1	1941.4	2752.0	3016.8	3264.1	3613.9	4611.9	4841.0	4895.7
30°	1602.1	1602.1	1660.3	1820.8	2306.8	3026.3	3325.7	3656.4	4386.3	5122.2	5170.8
32.5°	1525.7	1526.6	1590.0	1744.4	1998.7	2985.5	3412.5	3812.6	4211.0	5403.4	5529.3
35°	1457.2	1459.8	1517.1	1673.3	1920.6	2406.6	3508.8	4013.1	4547.7	5372.2	6074.3
37.5°	1399.0	1400.8	1450.2	1603.0	1854.7	1743.6	3571.3	4254.3	4999.9	5650.8	6188.0
40°	1357.4	1354.8	1390.3	1529.2	1758.3	1593.4	3022.8	4505.2	5537.1	6523.0	6722.6
42.5°	1315.7	1311.4	1347.0	1452.0	1202.9	1551.8	2800.6	4749.9	6155.9	7481.1	7659.0
45°	1267.1	1268.8	1303.6	1302.7	1138.7	1496.2	2825.0	4183.2	6818.1	8461.0	8687.5
47.5°	1241.1	1233.3	1250.6	946.0	1085.7	1419.9	2814.5	3883.8	7402.2	9397.4	9622.2
50°	1192.5	1190.7	876.6	896.5	1032.8	1332.2	2651.4	3991.4	6679.2	10265.3	10492.7
52.5°	1119.6	988.5	813.2	861.8	979.8	1228.9	1893.7	4035.6	6661.0	10179.4	11304.1
54°	743.8	762.0	787.2	837.5	941.7	966.0	1732.3	4032.2	6977.8	8917.5	10683.6
55°	426.1	597.1	766.3	817.5	914.7	676.1	1669.8	4013.9	7180.0	8972.1	9630.9
57.5°	368.8	370.6	421.8	682.2	469.5	579.7	1492.8	3865.5	7558.4	9474.6	9663.0
60°	32.1	31.2	35.6	48.6	61.6	135.4	751.6	2479.5	7293.7	9906.0	10198.5
62.5°	13.0	13.9	17.4	23.4	37.3	60.8	621.4	2197.5	7405.6	10169.0	10489.2
65°	2.6	2.6	4.3	7.8	13.9	36.5	529.4	1957.1	7348.3	10254.9	10682.7
67.5°	0.0	0.0	2.6	6.1	11.3	29.5	458.2	1800.9	7021.2	10225.4	10610.7
70°	0.0	0.0	2.6	6.1	10.4	28.6	392.3	1662.0	6209.7	9916.4	10343.4
72.5°	0.0	0.0	2.6	5.2	9.5	26.0	335.9	1467.6	5263.7	9172.6	9754.1
75°	0.0	0.0	2.6	5.2	8.7	23.4	282.9	1259.3	4397.5	7905.5	8604.2
77.5°	0.0	0.0	2.6	5.2	7.8	20.8	222.2	1005.9	3453.3	5732.3	6107.3
80°	0.0	0.0	2.6	5.2	6.9	16.5	164.0	635.3	1915.4	2907.4	3061.9
82.5°	0.0	0.0	1.7	4.3	6.1	10.4	78.1	240.4	902.6	1331.3	1291.4
85°	0.0	0.0	1.7	4.3	5.2	7.8	33.8	60.8	300.3	441.8	411.4
87.5°	0.0	0.0	1.7	3.5	4.3	5.2	8.7	10.4	95.5	127.6	131.9
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°	4614.5	4614.5	4614.5	4614.5	4614.5	4614.5	4614.5	4614.5	4614.5	4614.5	4614.5
2.5°	4630.1	4630.1	4629.3	4651.8	4623.2	4625.8	4598.9	4668.3	4660.5	4638.8	4664.9
5°	4635.3	4639.7	4638.8	4650.1	4627.5	4641.4	4604.1	4672.7	4661.4	4644.0	4670.9
7.5°	4657.0	4664.9	4658.8	4678.7	4633.6	4647.5	4609.3	4669.2	4657.9	4632.7	4661.4
10°	4703.9	4711.7	4699.6	4709.1	4661.4	4654.4	4607.6	4670.1	4645.8	4626.7	4662.3
12.5°	4764.7	4774.2	4749.9	4748.2	4687.4	4673.5	4605.8	4648.4	4612.8	4597.2	4629.3
15°	4832.4	4843.6	4815.0	4808.9	4742.1	4696.1	4598.9	4608.4	4557.2	4536.4	4570.3
17.5°	4920.9	4931.3	4909.6	4906.1	4819.3	4741.2	4589.4	4558.1	4486.1	4468.7	4486.9
20°	5069.3	5076.2	5047.6	5021.6	4894.0	4765.5	4573.7	4492.1	4381.9	4345.5	4366.3
22.5°	4613.7	4669.2	5232.4	5135.2	4949.5	4790.7	4534.7	4398.4	4243.9	4175.4	4189.3
25°	4673.5	4678.7	4892.2	5269.8	5010.3	4807.2	4488.7	4282.1	4069.5	3969.7	3987.0
27.5°	4890.5	4884.4	4800.2	5284.5	5082.3	4816.7	4431.4	4159.7	3896.8	3777.0	3781.4
30°	5171.7	5162.2	5034.6	4777.7	5185.6	4820.2	4381.1	4019.2	3743.2	3615.6	3612.1
32.5°	5556.2	5529.3	5331.4	4976.4	4749.0	4843.6	4309.9	3885.5	3596.5	3470.7	3461.1
35°	6146.3	6096.9	5736.7	5229.0	4673.5	4843.6	4212.7	3741.4	3461.1	3341.3	3334.4
37.5°	6878.0	6891.0	6254.8	5511.9	4789.8	4389.7	4096.4	3606.9	3343.9	3238.1	3238.1
40°	6746.9	6919.6	6856.3	5801.8	4909.6	4316.8	3971.4	3477.6	3246.7	3166.0	3176.4
42.5°	7612.2	7545.4	7554.0	6092.5	4993.8	4242.2	3836.0	3357.8	3160.8	3092.3	3100.1
45°	8572.1	8496.5	6915.3	6352.9	5032.8	4131.1	3698.9	3234.6	3066.2	3008.9	3029.8
47.5°	9519.8	9452.1	7594.0	6289.5	4996.4	3961.0	3529.7	3127.8	2966.4	2925.6	2956.9
50°	10437.1	10341.7	8325.6	5622.1	4867.1	3725.8	3357.0	3015.9	2879.6	2855.3	2878.8
52.5°	11255.5	11128.8	9066.7	5722.8	4251.7	3488.0	3203.3	2908.3	2800.6	2773.7	2797.2
54°	11664.3	11587.1	9480.7	5734.1	4075.6	3340.5	3111.4	2839.7	2756.4	2733.8	2746.8
55°	10968.3	11122.8	9726.3	5724.5	3948.0	3251.1	3050.6	2794.6	2725.1	2700.8	2713.9
57.5°	9740.2	9573.6	9093.6	5607.4	3600.8	3027.2	2872.7	2680.0	2632.3	2601.0	2619.3
60°	10049.2	10018.8	8301.3	5349.6	3221.6	2776.3	2697.4	2546.4	2514.2	2488.2	2512.5
62.5°	10372.0	10352.1	8428.0	4949.5	2844.0	2529.9	2496.0	2390.1	2371.0	2359.8	2365.8
65°	10546.5	10418.9	8424.5	4414.0	2497.8	2277.3	2272.1	2193.1	2201.8	2196.6	2221.8
67.5°	10472.7	10336.5	8052.2	4027.8	2172.3	1989.2	2005.7	1972.7	2004.8	2014.4	2033.4
70°	10087.4	10131.6	7240.7	3655.5	1848.6	1675.0	1727.1	1722.7	1769.6	1806.1	1836.4
72.5°	9554.5	9384.4	6069.1	3107.0	1353.0	1191.6	1281.9	1342.6	1394.7	1438.1	1466.7
75°	8132.0	7932.4	4480.9	2422.3	979.8	821.9	846.2	873.1	906.9	1006.7	1065.8
77.5°	5575.3	5491.9	3222.4	1826.9	624.0	495.6	590.2	644.0	672.6	668.3	678.7
80°	2858.8	2844.0	1907.6	1092.7	420.9	362.8	429.6	434.8	480.8	516.4	518.1
82.5°	1152.5	1209.8	762.0	598.8	292.5	274.3	302.9	341.1	380.1	401.0	406.2
85°	407.9	398.4	231.7	281.2	185.7	191.8	214.4	257.8	298.6	303.8	292.5
87.5°	109.4	113.7	49.5	103.3	101.5	111.1	123.2	140.6	170.1	178.8	170.1
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)