

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: P591306

Luminaire Tested: **CTN-CA10-310-730-U-T3-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591306
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-9)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-310-730-U-T3-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24569 lumens
Efficiency: N/A
Efficacy: 78.6 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G3

Input Watts (W): 312.4
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

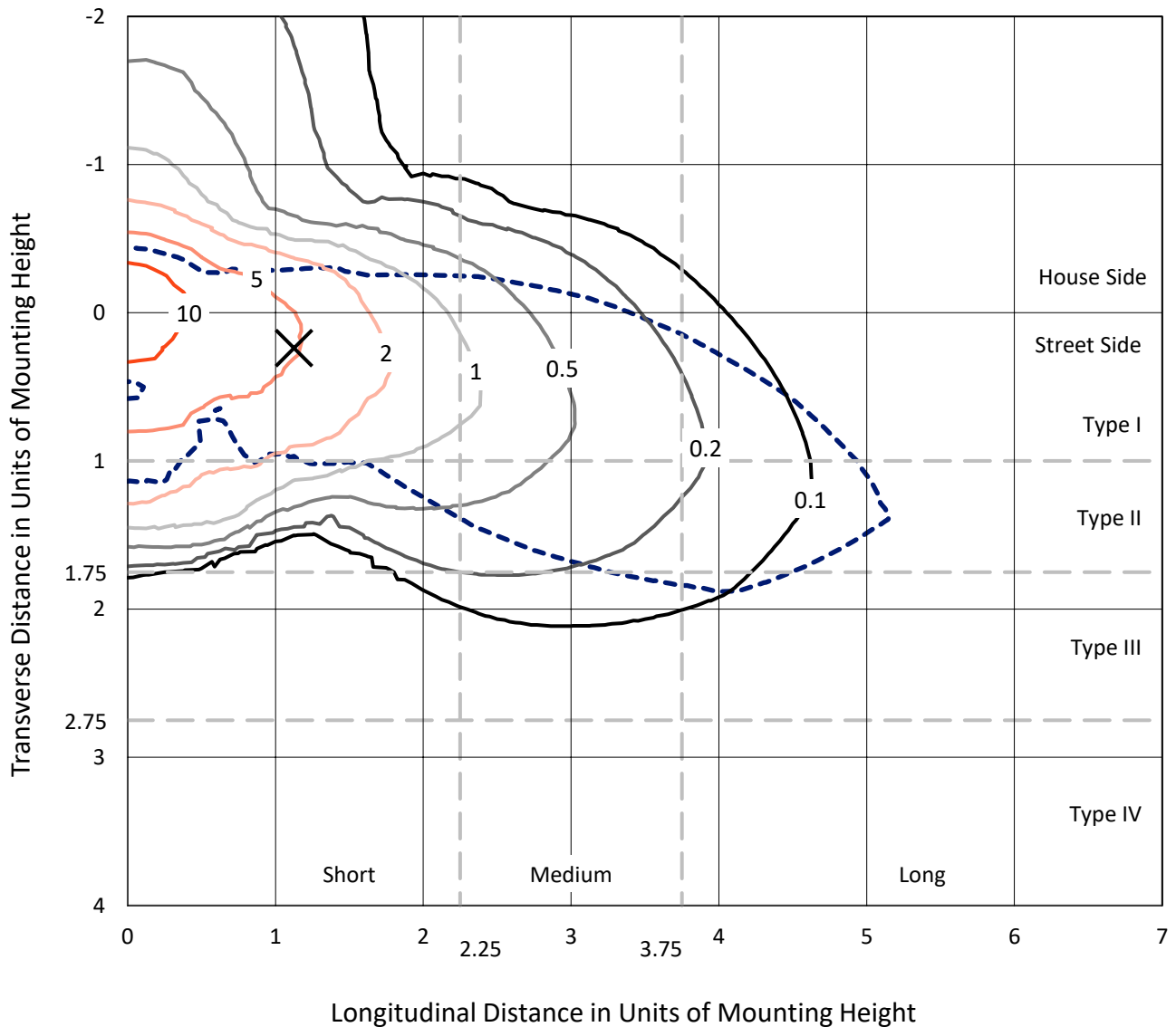




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Iso-Footcandle Lines of Horizontal Illumination

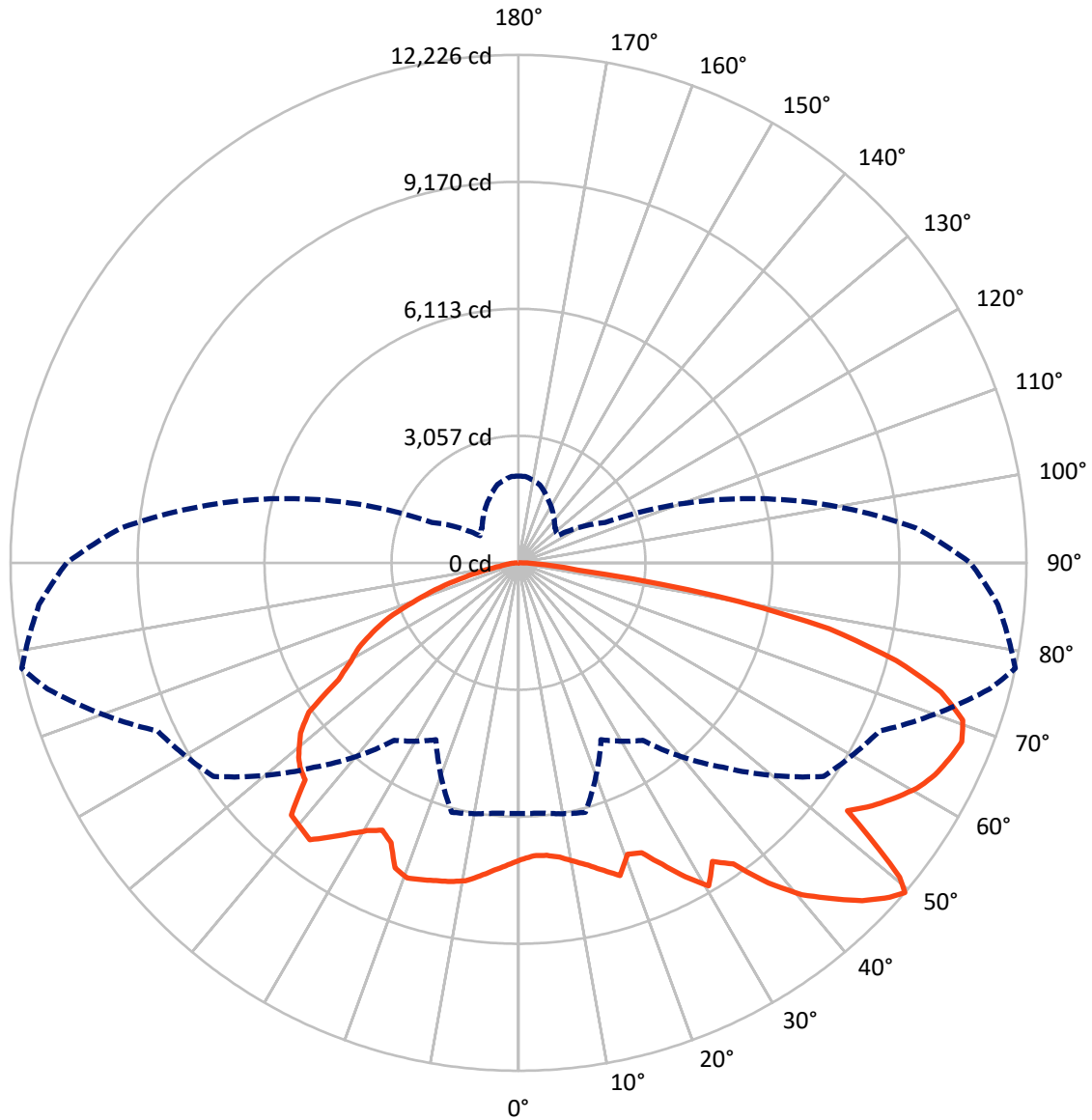
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.8 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral - - - Horizontal Cone Through 49-Deg Vertical

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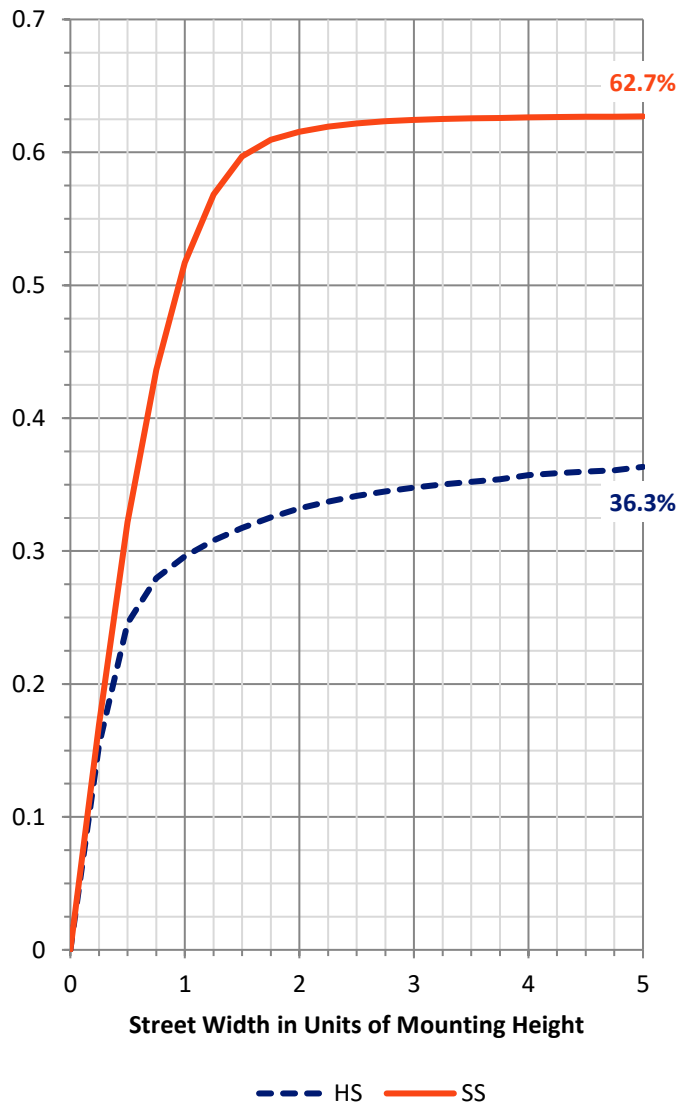
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9189.3	0.0	9189.3
	% Fixture	37.4	0.0	37.4
Street Side	Lumens	15379.6	0.0	15379.6
	% Fixture	62.6	0.0	62.6
Total	Lumens	24569.0	0.0	24569.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	715.1	2.9
10°-20°	2195.2	8.9
20°-30°	3181.1	12.9
30°-40°	3908.9	15.9
40°-50°	4411.8	18.0
50°-60°	4192.3	17.1
60°-70°	3131.1	12.7
70°-80°	2325.3	9.5
80°-90°	508.1	2.1
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°	24569.0	100.0
0°-180°	24569.0	100.0

Coefficient of Utilization

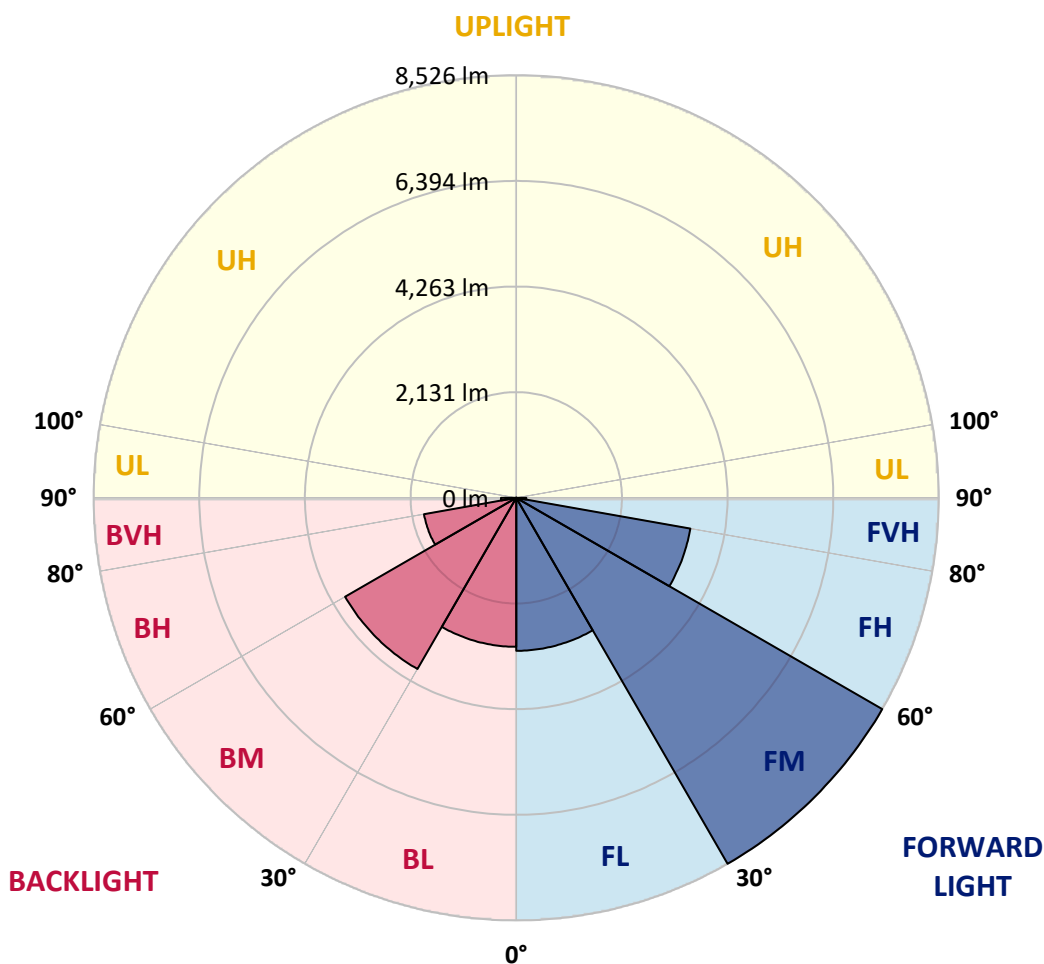


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3086.0	12.6			
FM (30°-60°)	8525.5	34.7			
FH (60°-80°)	3567.2	14.5			G2/5000
FVH (80°-90°)	200.9	0.8			G2/225
BL (0°-30°)	3005.5	12.2	B4/5000		
BM (30°-60°)	3987.5	16.2	B3/5000		
BH (60°-80°)	1889.1	7.7	B3/2500		G3/2500
BVH (80°-90°)	307.3	1.3			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G3
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	7144.5	7144.5	7144.5	7144.5	7144.5	7144.5	7144.5	7144.5	7144.5	7144.5	7144.5
2.5°	6990.1	6951.9	6962.2	7021.0	6907.8	6990.1	6956.3	7035.7	7062.2	7059.3	7173.9
5°	7047.5	6997.5	7012.2	7051.9	6928.4	6991.6	6965.1	7050.4	7072.5	7074.0	7229.8
7.5°	7257.8	7200.4	7185.7	7188.6	7072.5	7119.5	7051.9	7118.1	7157.8	7153.4	7326.9
10°	7563.6	7500.4	7468.0	7457.7	7316.6	7296.0	7213.6	7237.2	7296.0	7303.3	7479.8
12.5°	7878.3	7828.3	7781.2	7757.7	7563.6	7518.0	7397.4	7418.0	7462.1	7471.0	7654.8
15°	8156.2	8109.1	8101.7	8075.3	7878.3	7790.0	7644.5	7622.4	7656.2	7684.2	7844.4
17.5°	7884.1	7823.8	7785.6	7794.4	7694.5	7471.0	7381.3	7532.7	7815.0	7913.5	8065.0
20°	7116.6	7190.1	7159.2	7040.1	6932.8	7294.5	7218.1	7185.7	7360.7	7487.1	7853.3
22.5°	6252.0	6252.0	6546.1	6751.9	6793.1	6996.0	7413.6	7559.2	7578.3	7578.3	7472.4
25°	5568.3	5762.4	6260.8	7043.1	7047.5	7006.3	7122.5	7920.9	8053.2	8038.5	7860.6
27.5°	5833.0	5800.6	6135.9	6679.9	7448.9	7401.9	7175.4	7535.7	8626.7	8559.0	8331.1
30°	6066.8	6034.4	6094.7	6769.6	7563.6	7831.2	7637.1	7529.8	8657.5	9025.1	8888.4
32.5°	6285.8	6249.1	6318.2	6421.1	7197.5	8257.6	8120.9	8050.3	8216.4	8573.7	9519.2
35°	6462.3	6468.2	6547.6	6699.0	7054.8	8113.5	8606.1	8632.6	8923.7	8901.6	9379.5
37.5°	6593.1	6604.9	6674.0	6853.4	6985.7	6702.0	9067.8	9373.6	9822.1	9778.0	9426.6
40°	6600.5	6627.0	6765.2	6985.7	7141.6	5968.2	8982.5	10191.1	10635.2	10505.8	10069.1
42.5°	6463.8	6477.0	6707.8	7081.3	5419.8	6207.9	8329.7	11005.7	11204.2	11045.4	10560.2
45°	6341.7	6338.8	6585.8	6921.0	5121.3	6488.7	8312.0	10769.0	11727.7	11604.2	10985.1
47.5°	6169.7	6168.2	6409.3	5208.1	5186.0	6791.6	8750.2	9338.3	12161.4	12029.1	11371.9
49°	6031.5	6046.2	6216.7	4697.8	5215.4	6960.7	8963.4	9582.4	11736.5	12226.1	11586.5
50°	5956.5	5971.2	5555.1	4646.4	5224.2	7057.8	9075.1	9761.8	10563.1	11892.4	11724.7
52.5°	5615.3	5486.0	4306.7	4539.0	5227.2	7172.5	7803.3	10142.6	10067.6	9913.2	11101.3
55°	3383.3	3828.8	3899.4	4417.0	5180.1	5209.5	7622.4	10585.2	10552.9	10327.9	9558.9
57.5°	2051.2	2030.6	3011.3	4077.3	3468.6	4368.5	7920.9	11170.4	10979.3	10679.3	9722.1
60°	723.4	639.6	645.5	695.5	1291.0	3268.6	6318.2	8412.0	11067.5	11020.4	9870.6
62.5°	57.3	54.4	54.4	57.3	82.3	1227.8	5009.6	8438.5	11373.3	11251.3	9904.4
65°	7.4	7.4	7.4	16.2	42.6	1110.1	5016.9	8575.2	11601.2	11392.4	9814.7
67.5°	0.0	0.0	4.4	11.8	33.8	982.2	4869.9	8656.1	11805.6	11510.1	9732.4
70°	0.0	0.0	2.9	10.3	29.4	813.1	4690.5	8726.7	11710.0	11343.9	9317.7
72.5°	0.0	0.0	2.9	8.8	25.0	536.7	4158.2	8204.7	11029.3	10632.3	8466.4
75°	0.0	0.0	2.9	7.4	23.5	305.8	3406.9	7248.9	9814.7	9394.2	7134.2
77.5°	0.0	0.0	1.5	5.9	20.6	167.6	2354.1	6000.6	8107.6	7645.9	5344.8
80°	0.0	0.0	1.5	5.9	19.1	114.7	1070.4	3898.0	5403.6	4825.8	2929.0
82.5°	0.0	0.0	1.5	5.9	14.7	77.9	432.3	1092.5	1671.8	1429.2	932.2
85°	0.0	0.0	1.5	4.4	10.3	50.0	213.2	448.5	674.9	648.4	472.0
87.5°	0.0	0.0	1.5	4.4	7.4	14.7	63.2	147.0	263.2	267.6	201.4
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°	7144.5	7144.5	7144.5	7144.5	7144.5	7144.5	7144.5	7144.5	7144.5	7144.5	7144.5
2.5°	7228.3	7241.6	7285.7	7351.9	7362.2	7451.8	7437.1	7604.8	7620.9	7660.6	7704.7
5°	7304.8	7350.4	7450.4	7601.8	7712.1	7847.4	7834.1	8023.8	8042.9	8032.6	8100.3
7.5°	7416.6	7484.2	7640.1	7844.4	7881.2	8048.8	8026.8	8191.4	8194.4	8172.3	8238.5
10°	7579.8	7659.2	7803.3	7919.4	8007.6	8109.1	8094.4	8241.4	8226.7	8201.7	8270.8
12.5°	7737.1	7781.2	7869.4	8006.2	8022.3	8063.5	8038.5	8175.3	8160.6	8125.3	8190.0
15°	7878.3	7900.3	7901.8	7969.4	7932.7	7963.5	7897.4	7995.9	7962.1	7948.8	7994.4
17.5°	8059.1	8017.9	7957.7	7953.2	7828.3	7785.6	7679.8	7706.2	7635.6	7629.8	7654.8
20°	8082.6	8167.9	7994.4	7815.0	7604.8	7497.4	7297.5	7298.9	7219.5	7188.6	7203.3
22.5°	7438.6	7648.9	8037.1	7694.5	7337.2	7096.0	6838.7	6760.8	6610.8	6547.6	6522.6
25°	7690.0	7416.6	7387.1	7491.5	6990.1	6622.6	6249.1	6019.7	5841.8	5697.7	5708.0
27.5°	8079.7	7723.9	7004.8	7047.5	6553.4	6037.3	5474.2	5150.7	4969.9	4830.2	4814.0
30°	8595.8	8148.8	7087.2	6107.9	6052.0	5302.2	4611.1	4253.8	4070.0	4020.0	3989.1
32.5°	9236.9	8654.6	7272.5	5893.2	5008.1	4506.7	3731.8	3443.6	3356.9	3352.4	3317.2
35°	9998.5	9323.6	7443.0	5608.0	4318.5	3670.0	2981.9	2792.2	2805.5	2806.9	2836.3
37.5°	9511.8	9955.9	7656.2	5337.4	3646.5	2727.5	2398.2	2279.1	2317.3	2379.1	2408.5
40°	9519.2	9063.4	7904.7	4886.0	2833.4	2080.6	1876.2	1849.7	2012.9	2137.9	2168.8
42.5°	9901.5	9004.6	7813.6	4371.4	2074.7	1582.1	1563.0	1705.6	1940.9	2080.6	2105.6
45°	10311.7	9283.9	6490.2	3642.1	1504.2	1338.0	1485.1	1683.6	1939.4	2087.9	2102.6
47.5°	10701.4	9460.4	6221.1	2846.6	1208.6	1261.6	1461.5	1683.6	1949.7	2101.2	2110.0
49°	10874.9	9603.0	5971.2	2302.6	1133.7	1232.2	1448.3	1686.5	1952.7	2082.0	2086.5
50°	10977.8	9683.9	5769.7	2135.0	1096.9	1213.1	1442.4	1690.9	1948.2	2060.0	2064.4
52.5°	11138.1	9814.7	5306.6	1701.2	1027.8	1168.9	1433.6	1708.6	1932.1	1998.2	1995.3
55°	9185.4	9173.6	4919.9	1427.7	974.9	1129.2	1430.7	1723.3	1939.4	2007.1	2004.1
57.5°	8803.1	7532.7	4145.0	1167.5	930.7	1095.4	1433.6	1745.3	2071.8	2189.4	2174.7
60°	8831.1	7418.0	3527.4	1013.1	879.3	1067.5	1442.4	1843.8	2393.8	2512.9	2476.1
62.5°	8734.0	7137.2	3156.9	910.2	824.9	1042.5	1448.3	1980.6	2434.9	2445.2	2382.0
65°	8503.2	6784.3	2658.4	796.9	767.5	1019.0	1446.8	2030.6	2246.7	2162.9	2142.3
67.5°	8075.3	6409.3	2104.1	698.4	705.8	983.7	1480.7	1943.8	2126.2	2058.5	2027.6
70°	7568.0	5609.5	1483.6	607.3	649.9	944.0	1476.3	1923.2	2062.9	1962.9	1920.3
72.5°	6665.2	4715.5	998.4	523.5	579.3	898.4	1401.3	1861.5	2021.8	1955.6	1896.8
75°	5297.7	3528.9	579.3	451.4	510.2	832.2	1327.7	1823.3	2043.8	1917.4	1795.3
77.5°	3621.5	2010.0	432.3	377.9	439.6	746.9	1204.2	1695.3	1976.2	1867.4	1704.2
80°	1623.3	726.4	330.8	307.3	369.1	605.8	1038.1	1499.8	1871.8	1871.8	1757.1
82.5°	645.5	457.3	229.4	241.1	301.4	461.7	821.9	1293.9	1649.8	1724.7	1843.8
85°	364.7	267.6	147.0	175.0	230.8	357.3	598.4	1005.7	1343.9	1489.5	1614.5
87.5°	144.1	101.5	58.8	98.5	133.8	183.8	261.7	492.6	723.4	891.0	985.1
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)