

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: P591302

Luminaire Tested: **CTN-CA10-310-730-U-T2-SSS-HM-EX120**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591302
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-5)
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-T2-SSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE, 120D 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: 29138 lumens
Efficiency: N/A
Efficacy: 93.3 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

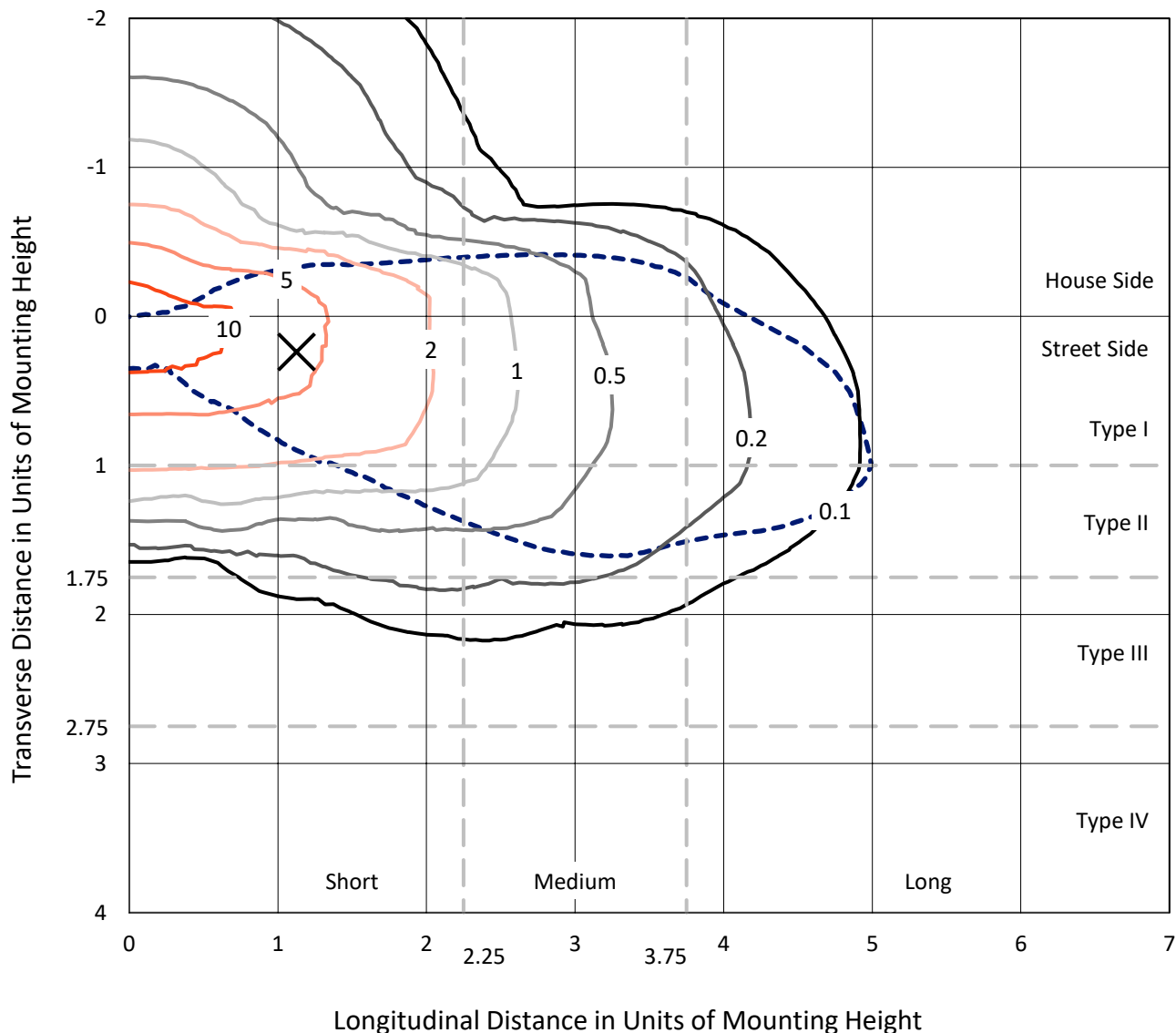
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

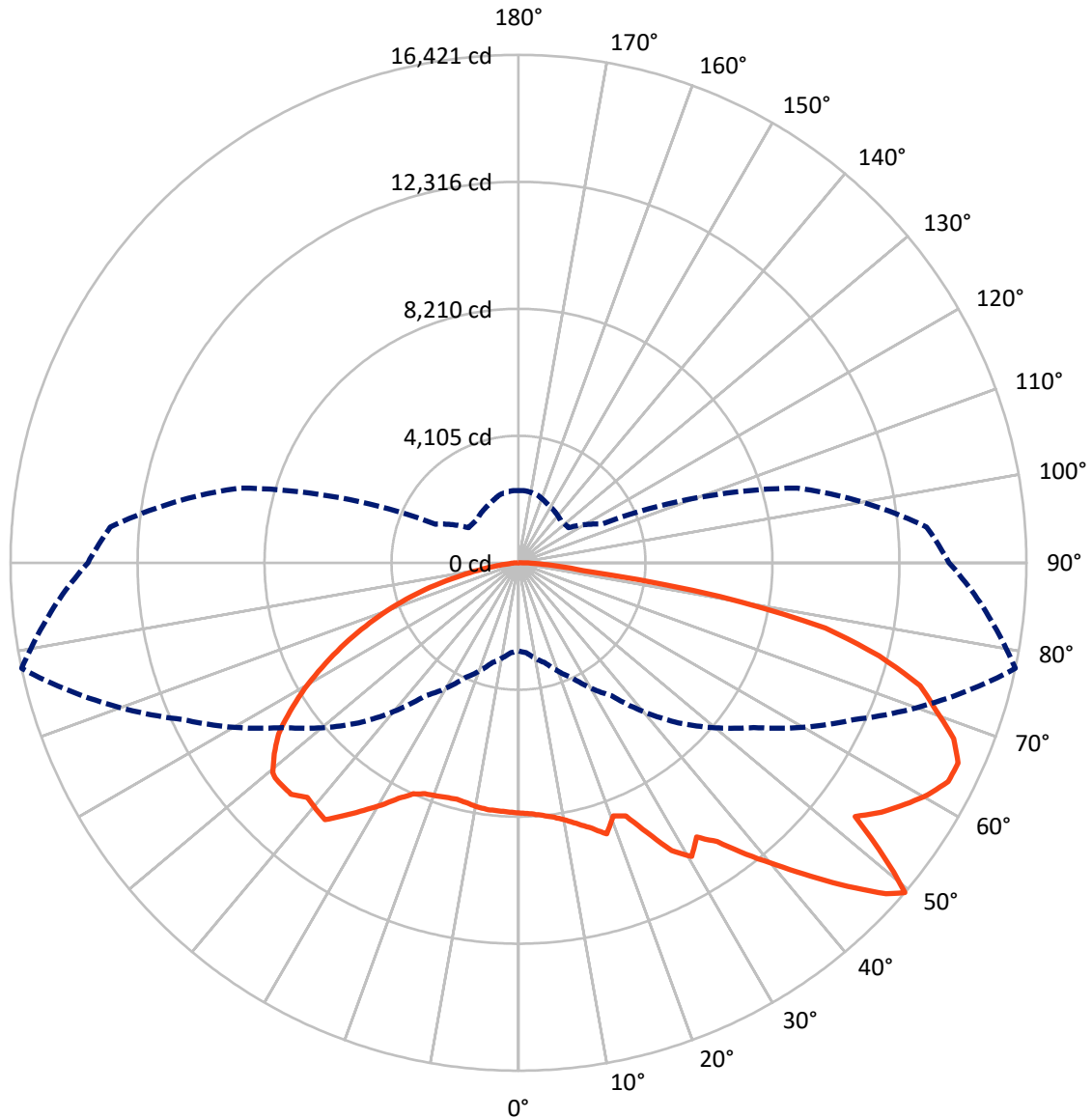
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 14.8 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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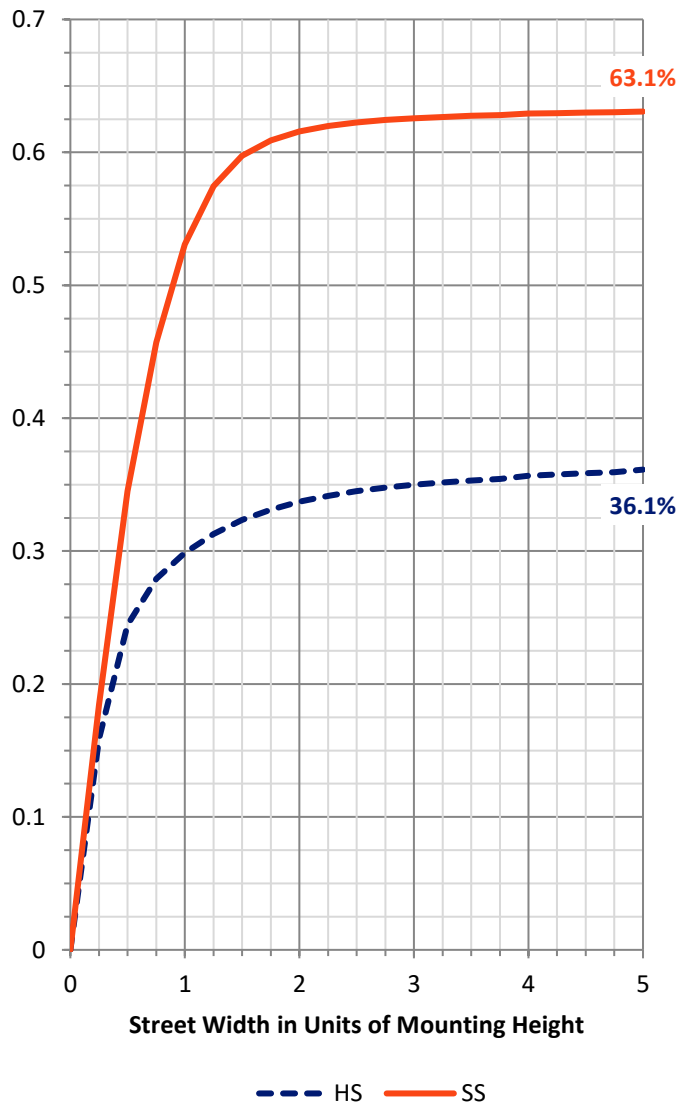
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10788.7	0.0	10788.7
	% Fixture	37.0	0.0	37.0
Street Side	Lumens	18349.3	0.0	18349.3
	% Fixture	63.0	0.0	63.0
Total	Lumens	29138.0	0.0	29138.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	784.3	2.7
10°-20°	2308.1	7.9
20°-30°	3294.9	11.3
30°-40°	4241.6	14.6
40°-50°	4975.4	17.1
50°-60°	5132.8	17.6
60°-70°	4660.5	16.0
70°-80°	3095.1	10.6
80°-90°	645.4	2.2
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°	29138.0	100.0
0°-180°	29138.0	100.0

Coefficient of Utilization

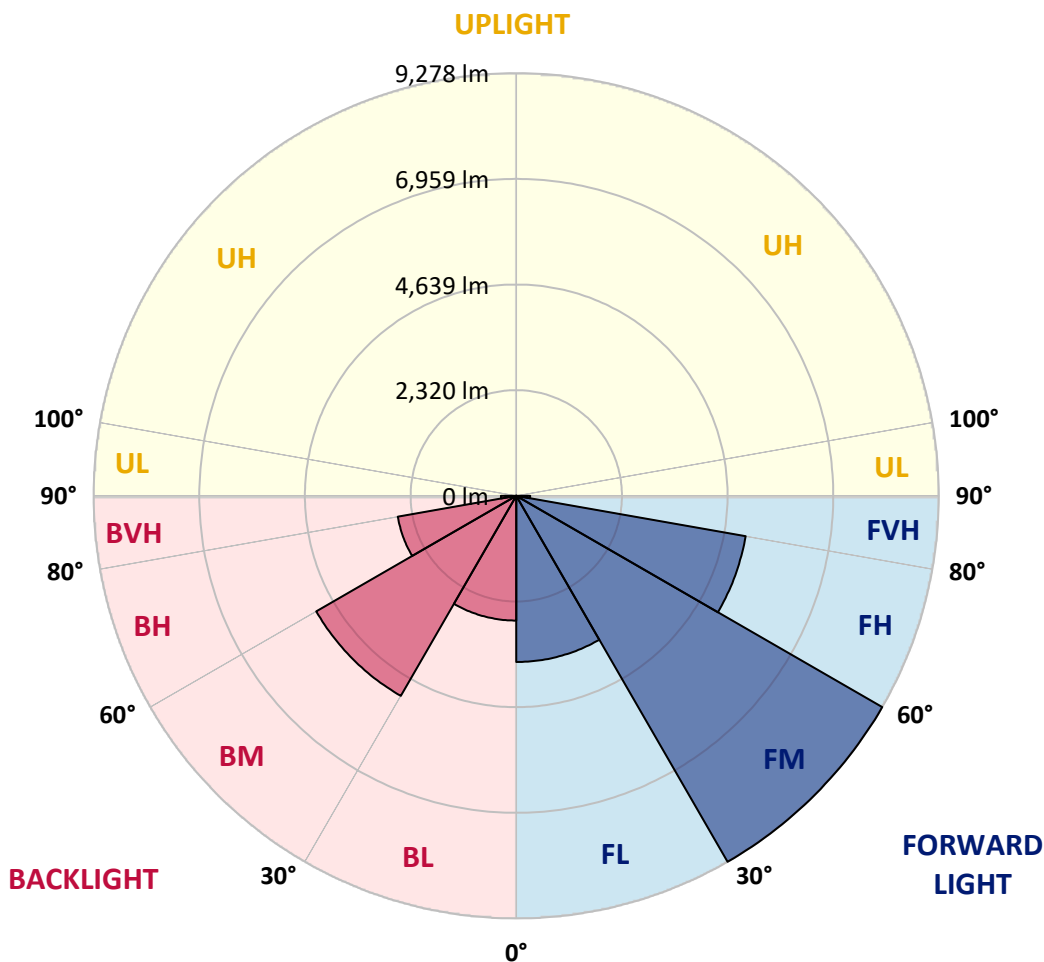


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3648.5	12.5			
FM	(30°-60°)	9278.4	31.8			
FH	(60°-80°)	5114.8	17.6			G3/7500
FVH	(80°-90°)	307.6	1.1			G3/500
BL	(0°-30°)	2738.8	9.4	B4/5000		
BM	(30°-60°)	5071.3	17.4	B4/8500		
BH	(60°-80°)	2640.8	9.1	B4/5000		G4/5000
BVH	(80°-90°)	337.8	1.2			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	8091.3	8091.3	8091.3	8091.3	8091.3	8091.3	8091.3	8091.3	8091.3	8091.3	8091.3
2.5°	8422.2	8357.5	8378.0	8413.3	8253.1	8288.4	8219.2	8247.2	8161.9	8129.6	8144.3
5°	9017.6	8948.5	8973.5	8985.3	8753.0	8658.9	8442.7	8397.2	8263.4	8204.5	8198.7
7.5°	9311.7	9236.7	9242.6	9250.0	9064.7	9077.9	8882.4	8648.6	8400.1	8310.4	8270.7
10°	9795.5	9691.1	9655.8	9641.1	9391.1	9286.7	9116.2	8988.2	8600.1	8464.8	8363.3
12.5°	10093.9	10017.5	10017.5	10002.8	9738.1	9657.2	9352.9	9217.6	8835.3	8675.1	8500.1
15°	10148.3	10096.9	10163.0	10149.8	9976.3	9882.2	9746.9	9464.6	9073.5	8907.4	8701.5
17.5°	9533.7	9397.0	9135.3	9175.0	9176.4	9367.6	9275.0	9469.0	9354.4	9219.1	8997.1
20°	7829.6	7876.7	8295.7	8194.3	8156.0	8561.8	8976.5	8988.2	8760.3	8738.3	9038.2
22.5°	6820.9	6653.3	7119.4	7797.3	7839.9	8382.5	8866.2	9448.5	9083.8	8888.3	8658.9
25°	5809.3	5871.1	6573.9	7451.7	8072.2	8192.8	8748.6	9677.8	9833.7	9652.8	9173.5
27.5°	5634.4	5631.4	5937.3	6910.6	8184.0	8636.8	8820.6	9548.4	10635.0	10533.6	9927.8
30°	5596.1	5572.6	5732.9	6541.6	7664.9	9036.8	9386.7	9647.0	10571.8	11023.2	10771.8
32.5°	5428.5	5407.9	5578.5	6002.0	7248.8	9329.4	9926.3	10314.5	10357.1	10570.3	11662.8
35°	5165.3	5181.5	5418.2	5878.5	6647.4	8626.5	10479.2	11065.8	11220.2	11073.2	11224.6
37.5°	4896.3	4913.9	5146.2	5668.2	6543.0	8332.5	10836.5	11792.2	12112.7	11955.4	11255.5
40°	4562.5	4590.4	4859.5	5446.2	6422.5	7669.3	10102.8	12617.1	13052.3	12846.4	12067.1
42.5°	4183.1	4194.9	4500.7	5108.0	6269.6	7709.0	9345.5	13378.7	13963.9	13850.7	12867.0
45°	3853.8	3853.8	4131.7	4672.8	5921.1	7634.0	9025.0	12811.1	15082.8	14922.6	13668.4
47.5°	3405.3	3445.0	3771.4	4308.1	5510.9	7460.5	9208.8	11536.4	16125.3	15991.5	14472.6
49°	2852.5	2920.1	3350.9	4108.2	5247.7	7316.5	9282.3	11986.3	15406.3	16420.8	14994.6
50°	2626.0	2661.3	2665.7	3965.5	5052.1	7185.6	9316.1	12331.8	14193.3	15728.3	15360.7
52.5°	2273.2	2051.1	1823.2	3570.0	4659.5	6701.8	9336.7	13269.9	13902.1	13627.2	15075.5
55°	960.1	1257.1	1598.3	2920.1	4236.1	6103.4	9269.1	14300.6	14541.7	14238.9	12925.8
57.5°	726.4	773.4	858.7	2265.8	3034.8	5421.2	9041.2	14953.4	15081.4	14737.3	13450.7
60°	105.9	108.8	152.9	919.0	1738.0	3870.0	8220.7	14934.3	15482.8	15218.1	13903.6
62.5°	44.1	45.6	58.8	752.8	1339.5	2978.9	7504.7	14684.4	15872.4	15588.6	14328.5
65°	7.4	8.8	25.0	666.1	1107.2	2783.4	6719.5	14734.4	15734.2	15616.6	14493.2
67.5°	5.9	7.4	23.5	598.4	913.1	2548.1	5944.6	13938.9	15229.9	15178.4	14053.6
70°	5.9	7.4	25.0	541.1	789.6	2245.2	4987.4	12837.6	14305.0	14325.6	13315.5
72.5°	7.4	7.4	25.0	483.7	686.7	1918.8	3946.4	11367.3	13465.4	13578.7	12265.6
75°	7.4	7.4	23.5	420.5	589.6	1599.7	2842.2	8358.9	12076.0	12042.2	10757.1
77.5°	7.4	7.4	23.5	333.8	489.6	1316.0	1851.2	4708.1	9999.8	10142.5	8994.1
80°	7.4	7.4	23.5	244.1	383.8	986.6	1121.9	2409.9	5338.8	6609.2	6187.2
82.5°	7.4	7.4	23.5	164.7	263.2	569.0	647.0	1220.4	1917.3	2101.1	2458.4
85°	5.9	5.9	17.6	98.5	135.3	201.4	311.7	649.9	1048.4	1095.4	1068.9
87.5°	2.9	2.9	8.8	35.3	58.8	73.5	139.7	261.7	385.2	394.1	342.6
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	8091.3	8091.3	8091.3	8091.3	8091.3	8091.3	8091.3	8091.3	8091.3	8091.3	8091.3
2.5°	8144.3	8097.2	8054.6	8061.9	7970.8	7944.3	7842.8	7895.8	7844.3	7798.7	7841.4
5°	8157.5	8100.1	8022.2	7947.2	7738.4	7641.4	7519.4	7550.2	7481.1	7426.7	7473.8
7.5°	8195.7	8125.1	8004.6	7791.4	7542.9	7388.5	7250.3	7385.6	7369.4	7328.2	7376.7
10°	8213.4	8153.1	7945.8	7695.8	7348.8	7251.8	7126.8	7125.3	7129.7	7137.1	7185.6
12.5°	8260.4	8169.3	7841.4	7550.2	7228.2	7031.2	6940.0	7013.6	6881.2	6803.3	6837.1
15°	8372.2	8206.0	7770.8	7345.9	7041.5	6878.3	6587.2	6612.2	6584.2	6507.8	6541.6
17.5°	8592.7	8308.9	7767.8	7216.5	6803.3	6537.2	6282.8	6162.2	6124.0	6129.9	6159.3
20°	8863.3	8491.3	7773.7	7050.3	6554.8	6246.0	5853.5	5769.6	5643.2	5646.1	5653.5
22.5°	8691.2	8701.5	7776.7	6860.6	6244.6	5857.9	5441.8	5277.1	5180.0	5155.0	5191.8
25°	9157.3	9110.3	7822.3	6759.2	5918.2	5399.1	4963.9	4753.6	4608.1	4596.3	4637.5
27.5°	9777.8	9692.5	8057.5	6540.1	5572.6	4849.2	4377.2	4218.4	4093.4	4049.3	4078.7
30°	10532.1	10432.1	8382.5	6369.5	5106.5	4258.1	3853.8	3745.0	3621.5	3540.6	3547.9
32.5°	11320.2	11107.0	8716.2	6225.5	4628.7	3740.6	3395.0	3298.0	3152.4	3048.0	3073.0
35°	12114.2	11811.3	9088.2	5971.1	4044.9	3284.8	3005.4	2874.5	2755.4	2661.3	2645.2
37.5°	11486.4	12634.7	9448.5	5734.4	3587.6	2937.8	2621.6	2529.0	2458.4	2384.9	2383.4
40°	11537.8	11801.0	9661.7	5315.3	3077.4	2581.9	2264.3	2296.7	2326.1	2270.2	2270.2
42.5°	12048.0	11673.1	9576.4	4759.5	2698.1	2226.1	2080.5	2211.4	2304.0	2264.3	2262.9
45°	12767.0	12280.3	9721.9	4133.1	2329.0	2007.0	2029.1	2189.3	2309.9	2302.6	2299.6
47.5°	13530.1	12971.4	9442.6	3389.2	2074.7	1939.4	2029.1	2157.0	2301.1	2334.9	2327.6
49°	13922.7	13244.9	9330.8	2955.4	1973.2	1930.6	2032.0	2130.5	2284.9	2336.4	2329.0
50°	14162.4	13391.9	9186.7	2708.4	1918.8	1932.0	2037.9	2114.4	2270.2	2327.6	2323.2
52.5°	14702.0	13615.4	8472.1	2279.0	1830.6	1936.4	2076.1	2098.2	2215.8	2277.6	2309.9
55°	14152.1	14125.6	7560.5	2082.0	1783.5	1926.2	2092.3	2112.9	2170.2	2204.1	2229.0
57.5°	14066.8	14347.7	6412.2	1976.1	1742.4	1911.5	2073.2	2111.4	2145.2	2139.4	2129.1
60°	14337.4	14541.7	5228.6	1871.8	1695.3	1887.9	2010.0	2065.8	2076.1	2061.4	2037.9
62.5°	14380.0	14594.7	4018.5	1765.9	1643.8	1830.6	1917.3	1973.2	1973.2	1936.4	1927.6
65°	14181.5	14263.8	2961.3	1643.8	1582.1	1764.4	1808.5	1849.7	1868.8	1820.3	1823.2
67.5°	13612.5	13136.1	2248.2	1498.3	1507.1	1673.3	1704.1	1732.1	1736.5	1708.5	1705.6
70°	12468.6	11874.5	1607.1	1277.7	1370.4	1529.2	1576.2	1618.9	1604.1	1555.6	1548.3
72.5°	10743.8	10216.0	1092.5	1023.4	1205.7	1390.9	1420.4	1421.8	1392.4	1427.7	1452.7
75°	9242.6	7979.6	814.6	816.0	966.0	1199.8	1291.0	1298.3	1311.6	1505.6	1545.3
77.5°	7344.4	5199.2	694.0	644.0	741.1	998.4	1142.5	1195.4	1586.5	1720.3	1702.7
80°	4511.0	3121.5	538.1	510.2	602.8	767.5	982.2	1221.9	1618.9	1521.8	1470.3
82.5°	2112.9	1424.8	388.2	391.1	448.5	560.2	776.3	1421.8	1398.3	1154.2	1139.5
85°	817.5	492.6	235.3	266.1	301.4	379.3	595.5	1402.7	1086.6	977.8	905.7
87.5°	210.3	95.6	102.9	108.8	133.8	200.0	324.9	735.2	572.0	501.4	492.6
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)