

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: P591381

Luminaire Tested: **CTN-CA8-480-730-U-T4-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591381
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-12)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-480-730-U-T4-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30680 lumens
Efficiency: N/A
Efficacy: 63.8 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

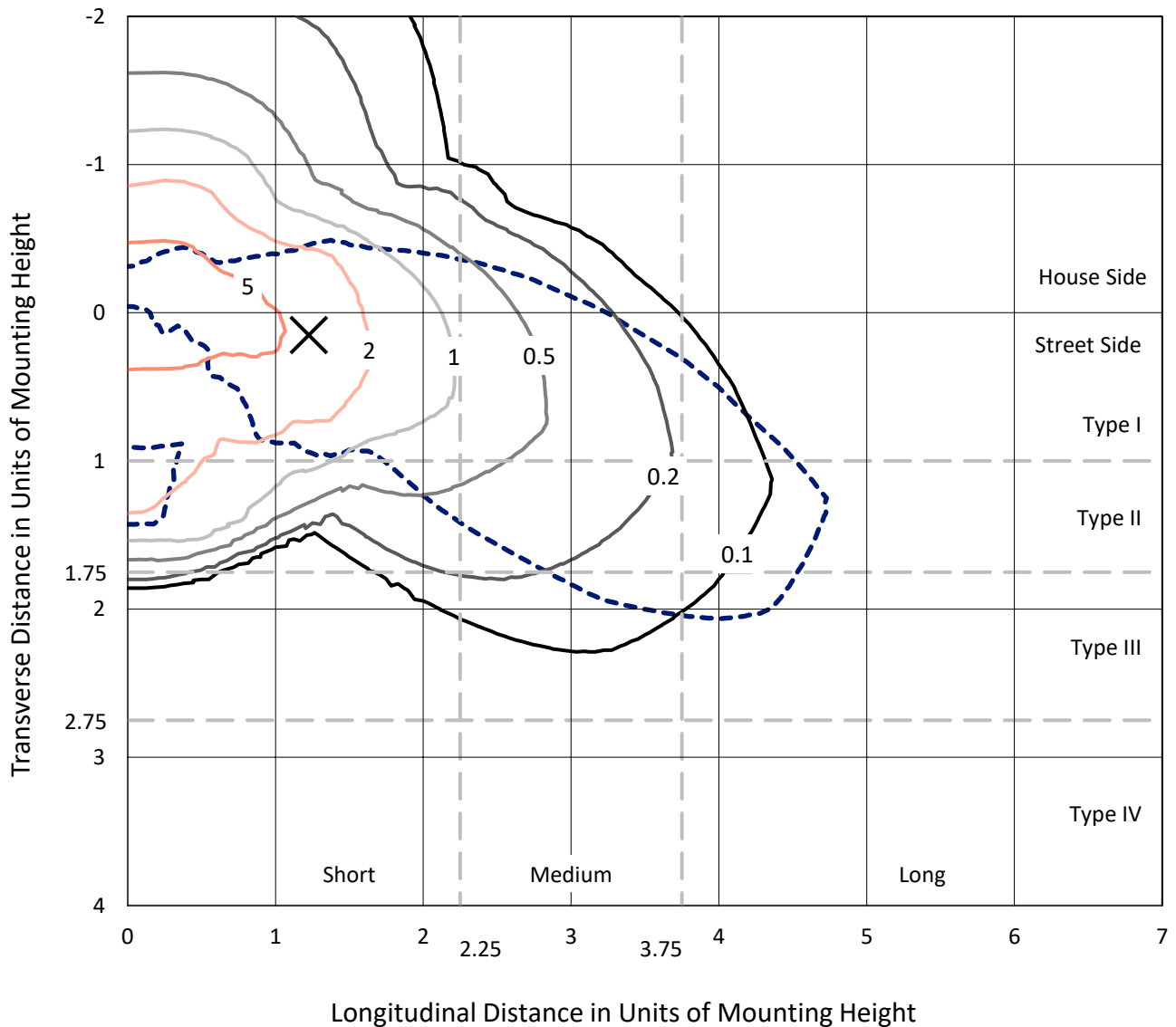
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

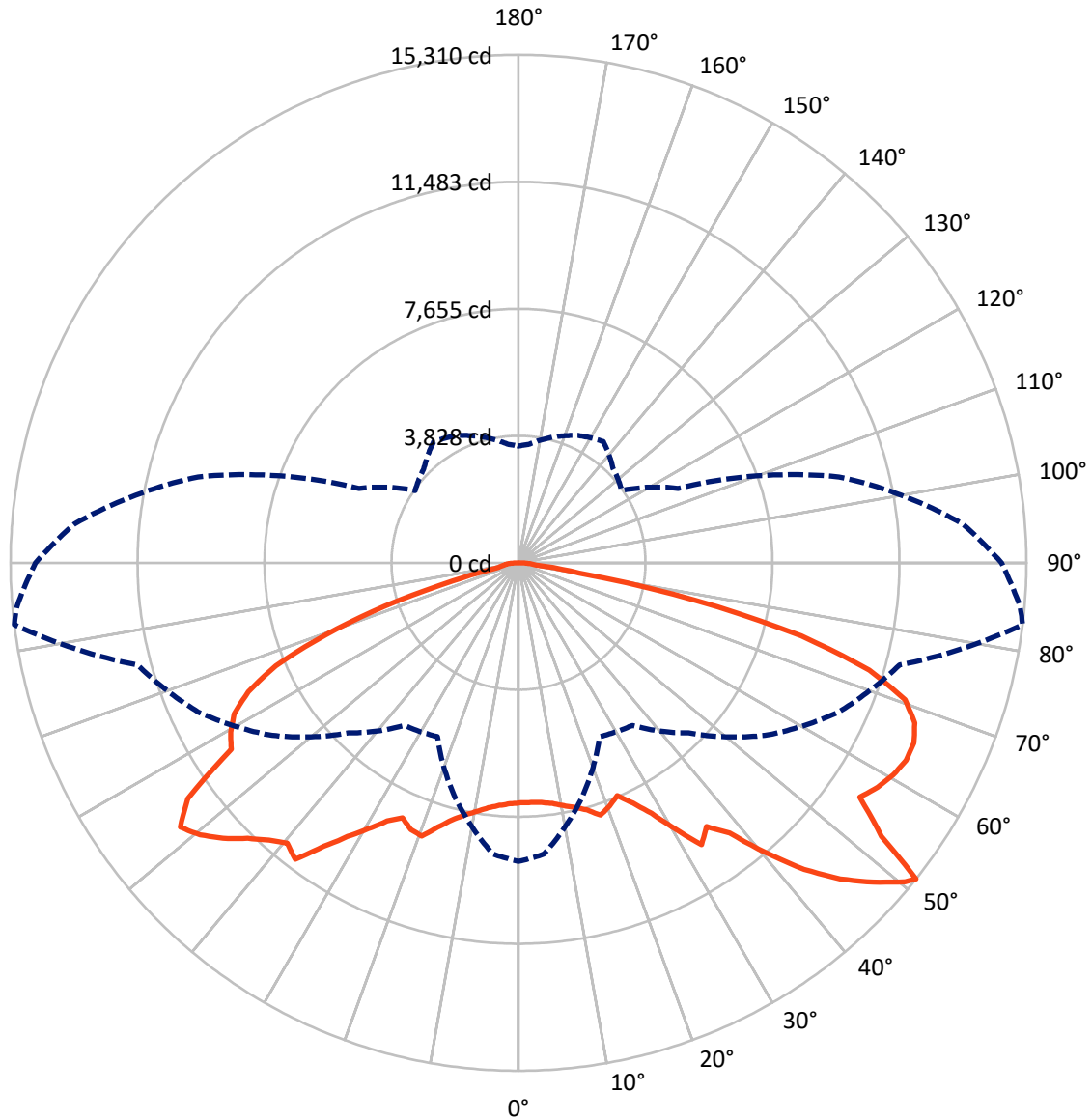
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.5 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 83-Deg Lateral - - - Horizontal Cone Through 51-Deg Vertical

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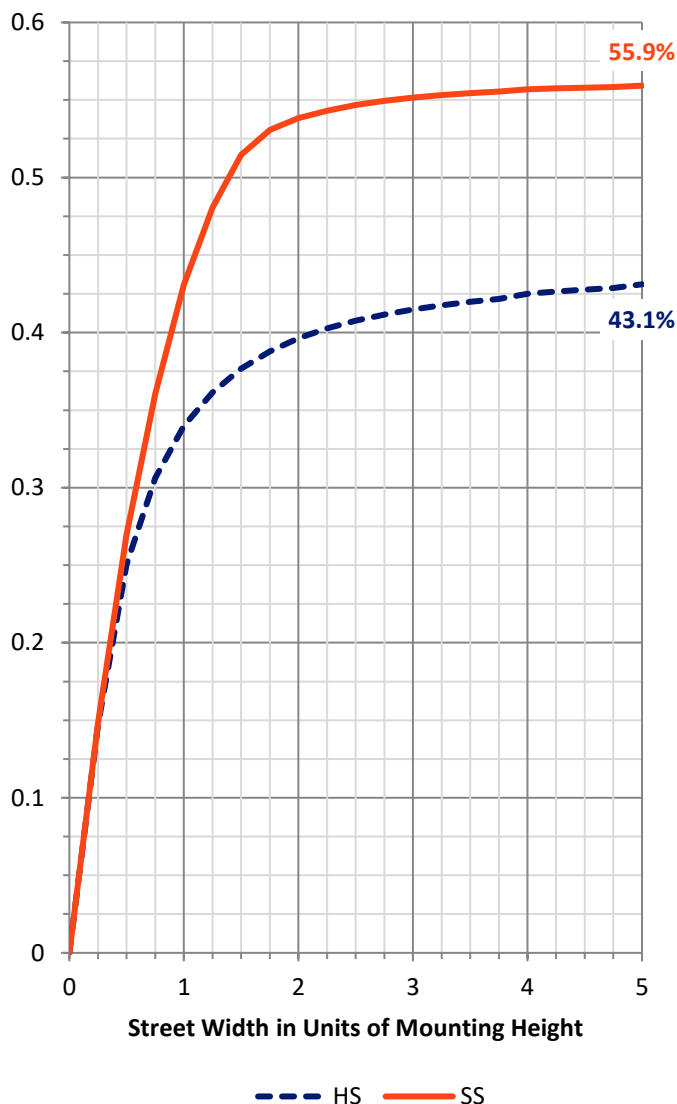
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13522.4	0.0	13522.4
	% Fixture	44.1	0.0	44.1
Street Side	Lumens	17157.6	0.0	17157.6
	% Fixture	55.9	0.0	55.9
Total	Lumens	30680.0	0.0	30680.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	706.4	2.3
10°-20°	2149.8	7.0
20°-30°	3339.6	10.9
30°-40°	4468.5	14.6
40°-50°	5797.3	18.9
50°-60°	6174.3	20.1
60°-70°	4301.0	14.0
70°-80°	3000.7	9.8
80°-90°	742.4	2.4
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°	30680.0	100.0
0°-180°	30680.0	100.0

Coefficient of Utilization

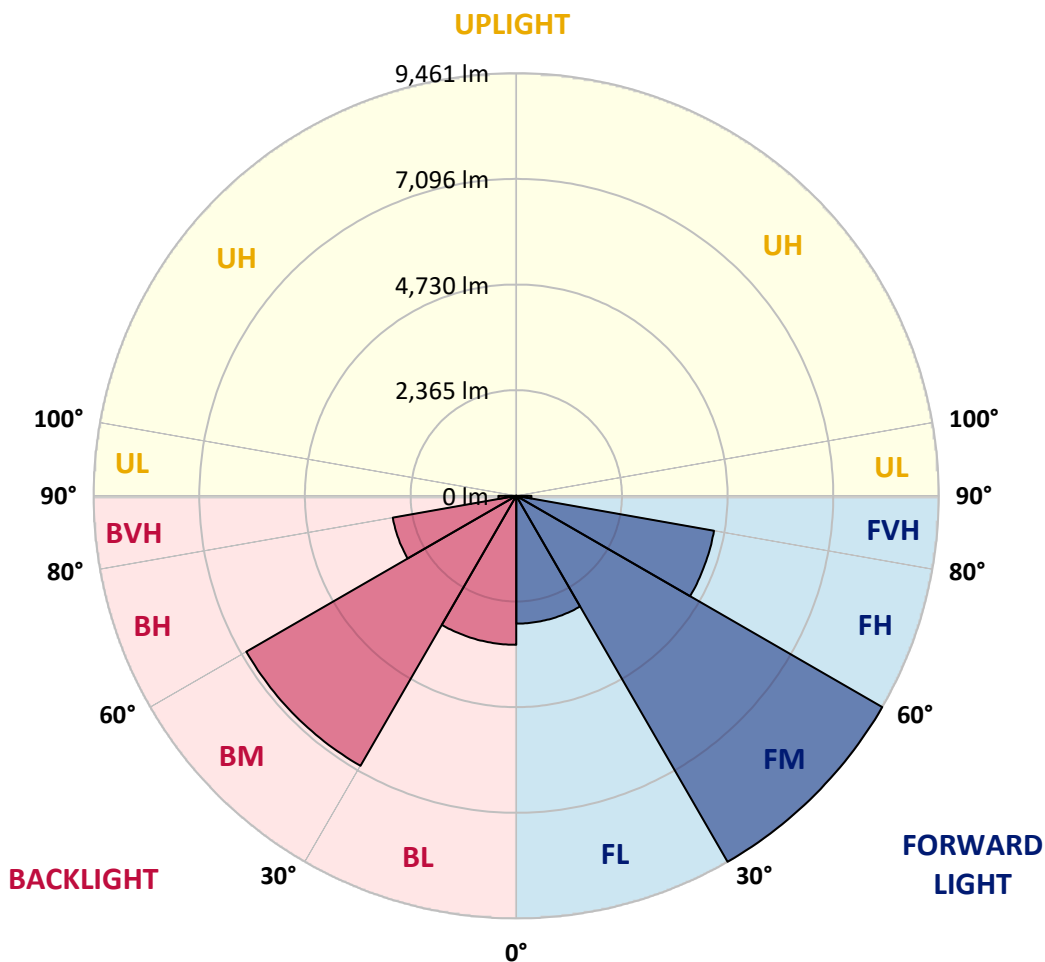


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2860.6	9.3			
FM (30°-60°)	9460.8	30.8			
FH (60°-80°)	4495.3	14.7			G2/5000
FVH (80°-90°)	340.9	1.1			G3/500
BL (0°-30°)	3335.2	10.9	B4/5000		
BM (30°-60°)	6979.2	22.7	B4/8500		
BH (60°-80°)	2806.4	9.1	B4/5000		G4/5000
BVH (80°-90°)	401.6	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-G4
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	83°	85°
0°	7231.4	7231.4	7231.4	7231.4	7231.4	7231.4	7231.4	7231.4	7231.4	7231.4	7231.4
2.5°	7145.1	7095.5	7099.8	7166.7	7078.2	7136.5	7127.8	7231.4	7212.0	7233.5	7248.6
5°	7082.6	7043.7	7043.7	7132.2	7069.6	7132.2	7089.0	7179.6	7209.8	7257.2	7274.5
7.5°	7095.5	7054.5	7071.8	7149.4	7080.4	7145.1	7142.9	7229.2	7240.0	7324.1	7352.1
10°	7132.2	7086.9	7095.5	7158.0	7119.2	7231.4	7212.0	7330.6	7330.6	7442.7	7485.9
12.5°	7056.7	7026.5	7043.7	7127.8	7162.3	7278.8	7304.7	7425.5	7442.7	7563.5	7617.4
15°	6974.7	6931.6	6987.7	7108.4	7166.7	7334.9	7391.0	7576.4	7602.3	7727.4	7787.8
17.5°	6577.9	6549.9	6653.4	6750.4	6782.8	6946.7	7056.7	7365.1	7736.0	7997.0	8068.2
20°	5788.5	5784.2	5592.3	5551.3	6053.8	6653.4	6728.9	6992.0	7421.2	7828.8	7973.3
22.5°	4833.1	4962.5	5585.8	5784.2	5771.3	6008.5	6974.7	7222.7	7412.5	7619.6	7705.8
25°	4833.1	4822.3	5191.1	6045.2	6047.3	6148.7	6364.4	7606.6	7787.8	8025.0	8094.0
27.5°	4986.3	4997.0	4973.3	5596.6	6345.0	6439.9	6532.6	7175.3	8286.0	8549.1	8663.4
30°	5245.1	5262.3	5167.4	5169.6	6444.2	6728.9	6905.7	7158.0	8633.2	9308.3	9360.0
32.5°	5756.2	5749.7	5631.1	5478.0	5654.8	7011.4	7270.2	7598.0	8085.4	10127.8	10248.6
35°	6163.8	6135.8	6053.8	5948.1	5715.2	6931.6	7617.4	8070.3	8691.4	9763.3	10401.7
37.5°	6616.7	6575.7	6483.0	6353.6	6142.2	4837.4	7960.3	8609.5	9573.5	10334.8	10375.8
40°	7127.8	7082.6	6955.3	6765.5	6495.9	4956.1	8113.4	9275.9	10723.0	11488.7	11482.2
42.5°	7520.4	7475.1	7408.2	7207.6	5710.9	5467.2	7076.1	10211.9	11967.4	12631.7	12575.6
45°	7852.5	7813.7	7820.1	7608.8	5357.2	6094.8	7882.7	10701.5	13140.7	13593.6	13520.3
47.5°	8111.3	8050.9	7887.0	6401.0	5495.2	6528.3	8538.3	9334.1	14130.6	14387.2	14305.3
50°	8741.0	8639.7	7664.9	5682.9	5844.6	7058.8	9161.6	10296.0	12871.1	15109.7	14965.2
51°	8997.7	8814.4	7345.7	5782.1	5982.6	7250.8	9068.9	10645.4	11889.8	15310.3	15180.9
52.5°	9267.3	8905.0	6470.1	5933.0	6150.9	7516.0	7703.7	11182.4	12163.7	13701.4	14464.9
55°	7818.0	7960.3	6681.4	6485.2	6470.1	6495.9	7867.6	11982.5	12735.2	12476.4	12325.5
57.5°	4598.1	4682.2	6787.1	7261.6	5598.8	5158.8	8301.1	12586.4	13229.1	12763.3	12595.0
60°	2312.0	2419.8	2471.6	2253.7	3019.4	4705.9	6992.0	9122.8	13531.0	12978.9	12776.2
62.5°	101.4	168.2	66.9	73.3	122.9	1641.2	5137.2	9370.8	13785.5	13110.5	12843.1
65°	8.6	8.6	10.8	21.6	53.9	1723.2	5717.4	9713.7	13889.0	13097.5	12739.5
67.5°	2.2	2.2	4.3	15.1	38.8	1865.5	6398.9	9853.9	13893.4	12877.6	12439.8
70°	0.0	2.2	4.3	12.9	34.5	1951.8	6547.7	9825.9	13716.5	12360.0	11758.2
72.5°	0.0	0.0	2.2	10.8	30.2	1841.8	6375.2	9769.8	13112.6	11057.3	10203.3
75°	0.0	0.0	2.2	8.6	25.9	1874.2	6392.4	9140.0	11449.8	8803.6	7766.2
77.5°	0.0	0.0	2.2	8.6	23.7	1729.7	5853.2	7915.0	9049.4	5480.1	4345.7
80°	0.0	0.0	2.2	8.6	21.6	1483.8	4813.7	6178.9	5063.9	1859.1	1199.1
82.5°	0.0	0.0	2.2	8.6	17.3	1005.0	3198.4	3088.4	1020.1	532.7	478.8
85°	0.0	0.0	2.2	6.5	12.9	599.6	1602.4	420.6	394.7	338.6	306.2
87.5°	0.0	0.0	2.2	4.3	8.6	254.5	493.9	129.4	163.9	138.0	122.9
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7231.4	7231.4	7231.4	7231.4	7231.4	7231.4	7231.4	7231.4	7231.4	7231.4	7231.4
2.5°	7261.6	7261.6	7285.3	7365.1	7356.5	7421.2	7384.5	7464.3	7470.8	7455.7	7492.3
5°	7289.6	7315.5	7395.3	7479.4	7444.9	7539.8	7585.1	7690.7	7686.4	7673.5	7716.6
7.5°	7369.4	7423.3	7503.1	7604.5	7641.1	7718.8	7723.1	7867.6	7859.0	7852.5	7895.6
10°	7503.1	7574.3	7662.7	7815.8	7794.3	7906.4	7859.0	7964.6	7962.5	7958.2	8001.3
12.5°	7641.1	7744.7	7852.5	8001.3	7999.1	8003.5	7962.5	8016.4	8005.6	7975.4	8007.8
15°	7835.2	7973.3	8122.1	8229.9	8135.0	8115.6	8025.0	7992.7	7930.1	7843.9	7869.7
17.5°	8156.6	8292.5	8482.2	8540.5	8385.2	8296.8	8050.9	7871.9	7677.8	7546.2	7574.3
20°	8445.6	8697.9	8879.1	8874.8	8676.3	8443.4	8061.7	7759.8	7384.5	7130.0	7108.4
22.5°	8085.4	8510.3	9299.6	9206.9	8859.7	8529.7	8048.7	7580.7	6957.5	6562.8	6547.7
25°	8292.5	8301.1	9008.5	9392.4	8941.6	8493.0	7893.5	7268.0	6470.1	6060.3	6036.6
27.5°	8820.8	8773.4	8577.1	9193.9	8866.1	8305.4	7580.7	6735.3	6025.8	5669.9	5652.7
30°	9448.4	9301.8	8840.2	8232.1	8555.6	7940.9	7099.8	6189.7	5624.6	5301.1	5275.3
32.5°	10199.0	9890.6	9079.6	8126.4	7537.6	7391.0	6478.7	5758.3	5292.5	4956.1	4889.2
35°	11089.7	10628.1	9310.4	7947.4	6744.0	6575.7	5894.2	5370.1	4979.8	4639.0	4572.2
37.5°	11087.5	11568.5	9651.2	7701.5	6252.2	5661.3	5469.4	5111.3	4762.0	4350.0	4274.5
40°	11169.5	11184.6	10026.4	7462.1	5792.9	5191.1	5217.0	4984.1	4623.9	4171.0	4093.4
42.5°	12165.9	11432.6	10485.8	7140.8	5359.4	4843.9	5109.2	4938.8	4550.6	4086.9	4000.6
45°	13032.8	12187.4	9478.6	6789.2	4904.3	4574.3	5022.9	4833.1	4447.1	3985.6	3888.5
47.5°	13787.7	12787.0	9735.3	6174.6	4460.0	4354.3	4856.9	4630.4	4261.6	3832.4	3746.2
50°	14361.4	13283.0	9959.6	5348.6	4028.7	4134.4	4587.3	4356.5	4000.6	3653.4	3580.1
51°	14557.6	13442.6	10004.9	5311.9	3800.1	4030.8	4460.0	4235.7	3916.5	3584.4	3517.6
52.5°	14769.0	13649.7	10071.7	5393.9	3476.6	3860.5	4253.0	4056.7	3791.5	3506.8	3431.3
55°	12280.2	12825.8	9901.3	5221.3	3101.3	3521.9	3873.4	3785.0	3638.3	3386.0	3332.1
57.5°	11831.6	10852.4	8212.7	4421.2	2771.3	3118.6	3504.6	3562.8	3450.7	3194.0	3155.2
60°	11928.6	10753.2	7313.3	3297.6	2443.5	2758.4	3228.6	3280.3	3183.3	2989.2	2935.2
62.5°	11911.4	10498.7	6521.8	2322.7	2158.8	2570.8	3030.1	3051.7	2918.0	2756.2	2706.6
65°	11626.7	9914.3	5441.3	1757.7	2001.4	2467.2	2913.7	2924.5	2758.4	2551.4	2525.5
67.5°	10992.6	8989.1	3785.0	1544.2	1913.0	2387.4	2836.0	2788.6	2629.0	2411.2	2372.4
70°	9778.4	7324.1	1768.5	1421.3	1779.3	2240.8	2646.3	2590.2	2415.5	2212.8	2178.3
72.5°	7839.5	5089.8	839.0	1300.5	1639.1	2057.5	2413.3	2324.9	2180.4	2104.9	2085.5
75°	5130.8	2389.6	700.9	1171.1	1453.6	1835.3	2212.8	2180.4	2046.7	1895.7	1822.4
77.5°	2081.2	629.8	634.1	1039.5	1304.8	1690.8	1999.2	1973.4	1796.5	1660.6	1630.5
80°	524.1	472.3	580.1	858.4	1136.6	1473.0	1753.4	1680.1	1615.4	1468.7	1421.3
82.5°	399.0	379.6	455.1	664.3	933.8	1214.2	1496.7	1526.9	1419.1	1307.0	1283.2
85°	278.2	345.1	276.1	472.3	692.3	957.6	1255.2	1309.1	1235.8	1108.5	1022.3
87.5°	153.1	181.2	114.3	248.0	366.6	524.1	720.3	726.8	601.7	552.1	519.8
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)