

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: P591375

Luminaire Tested: **CTN-CA8-480-730-U-T2-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591375
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-6)
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-T2-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: 38297 lumens
Efficiency: N/A
Efficacy: 79.7 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

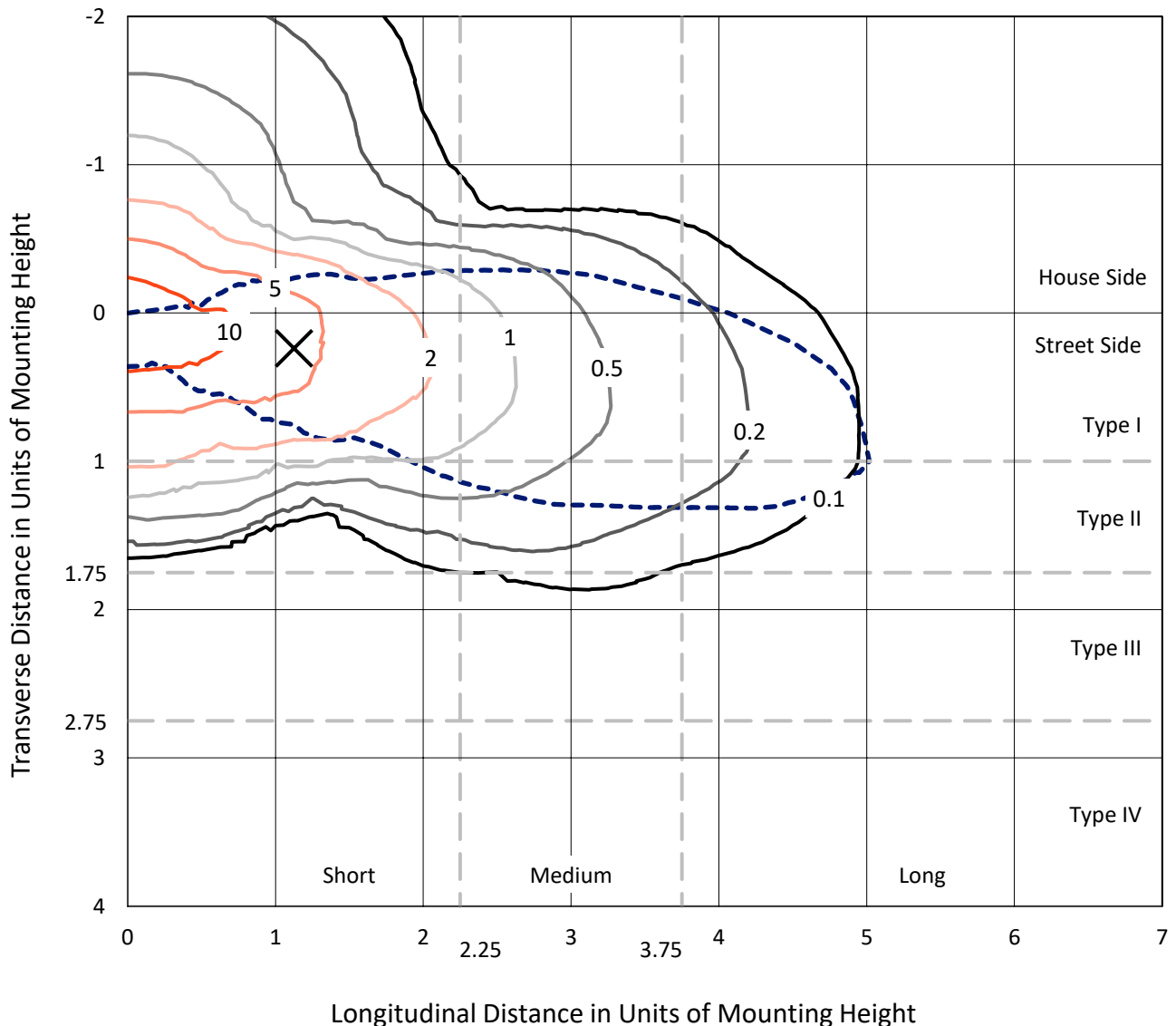
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

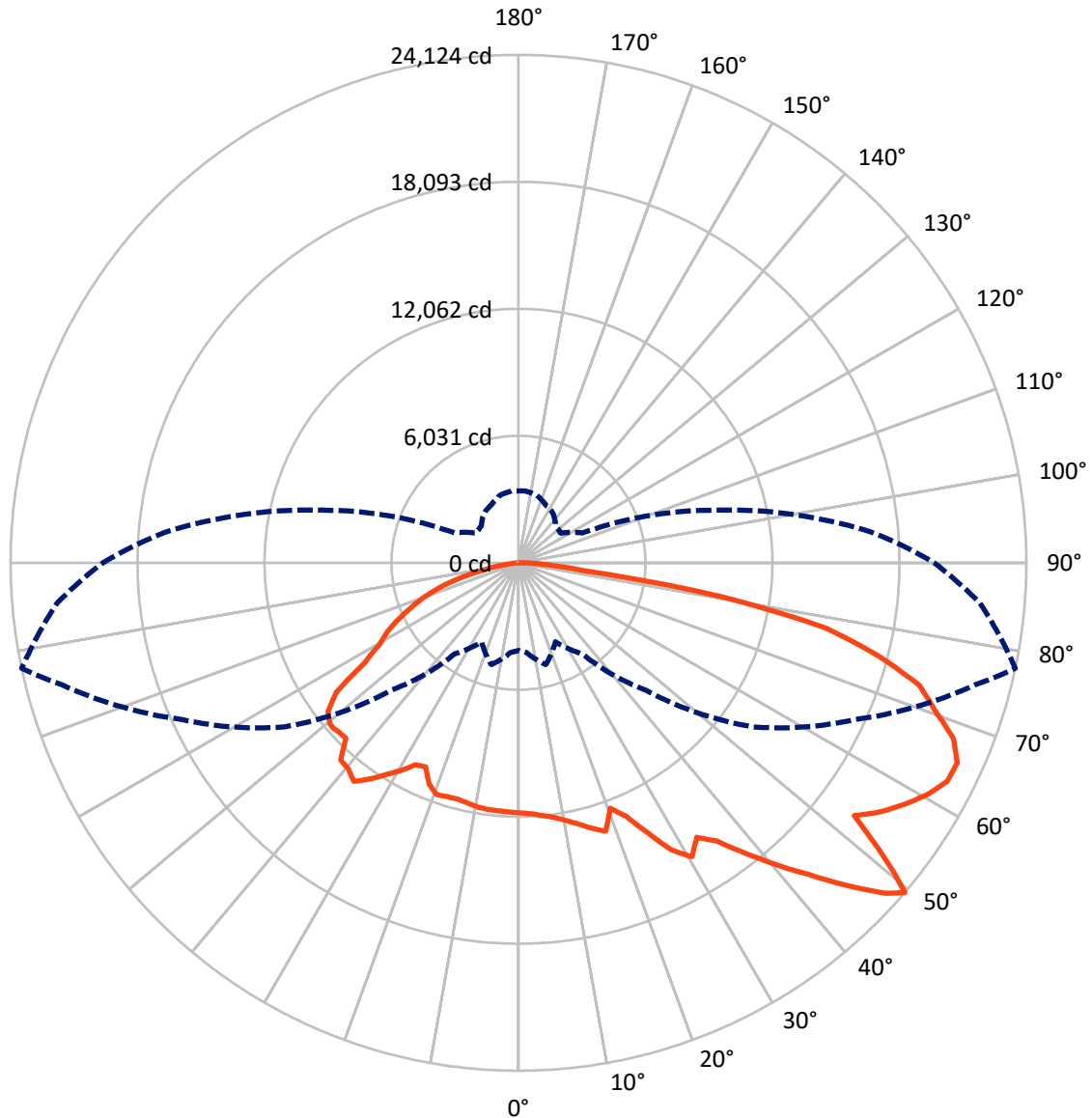
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 15.2 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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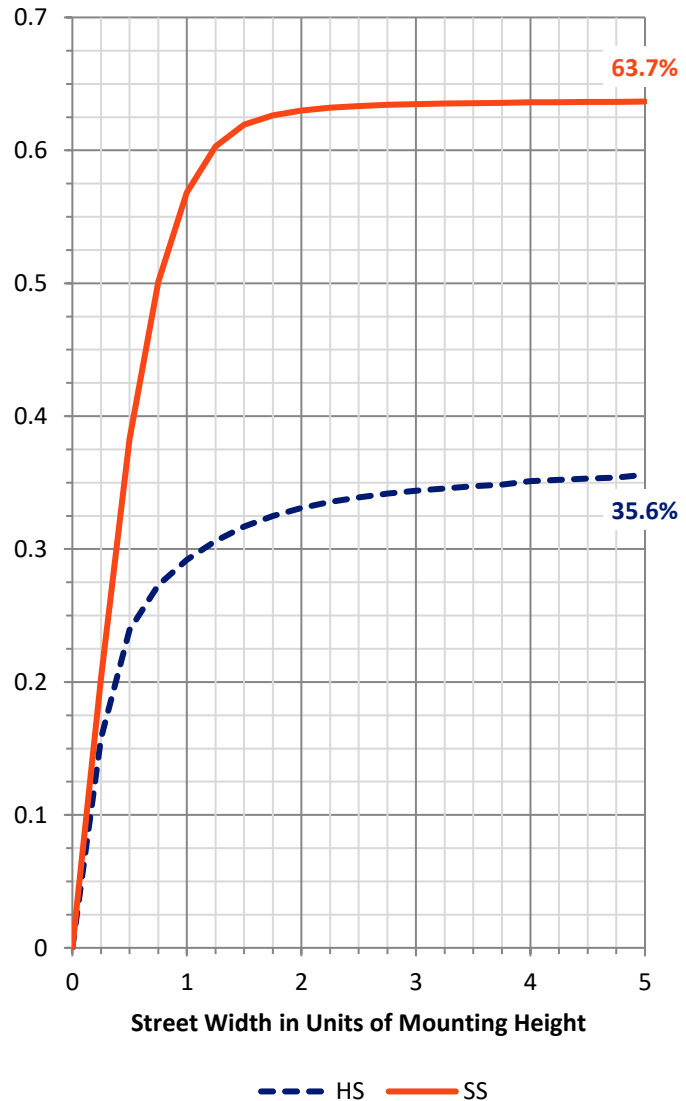
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13990.5	0.0	13990.5
	% Fixture	36.5	0.0	36.5
Street Side	Lumens	24306.5	0.0	24306.5
	% Fixture	63.5	0.0	63.5
Total	Lumens	38297.0	0.0	38297.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1151.0	3.0
10°-20°	3385.1	8.8
20°-30°	4766.1	12.4
30°-40°	5974.4	15.6
40°-50°	6743.5	17.6
50°-60°	6479.6	16.9
60°-70°	5293.4	13.8
70°-80°	3713.5	9.7
80°-90°	790.5	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°	38297.0	100.0
0°-180°	38297.0	100.0

Coefficient of Utilization



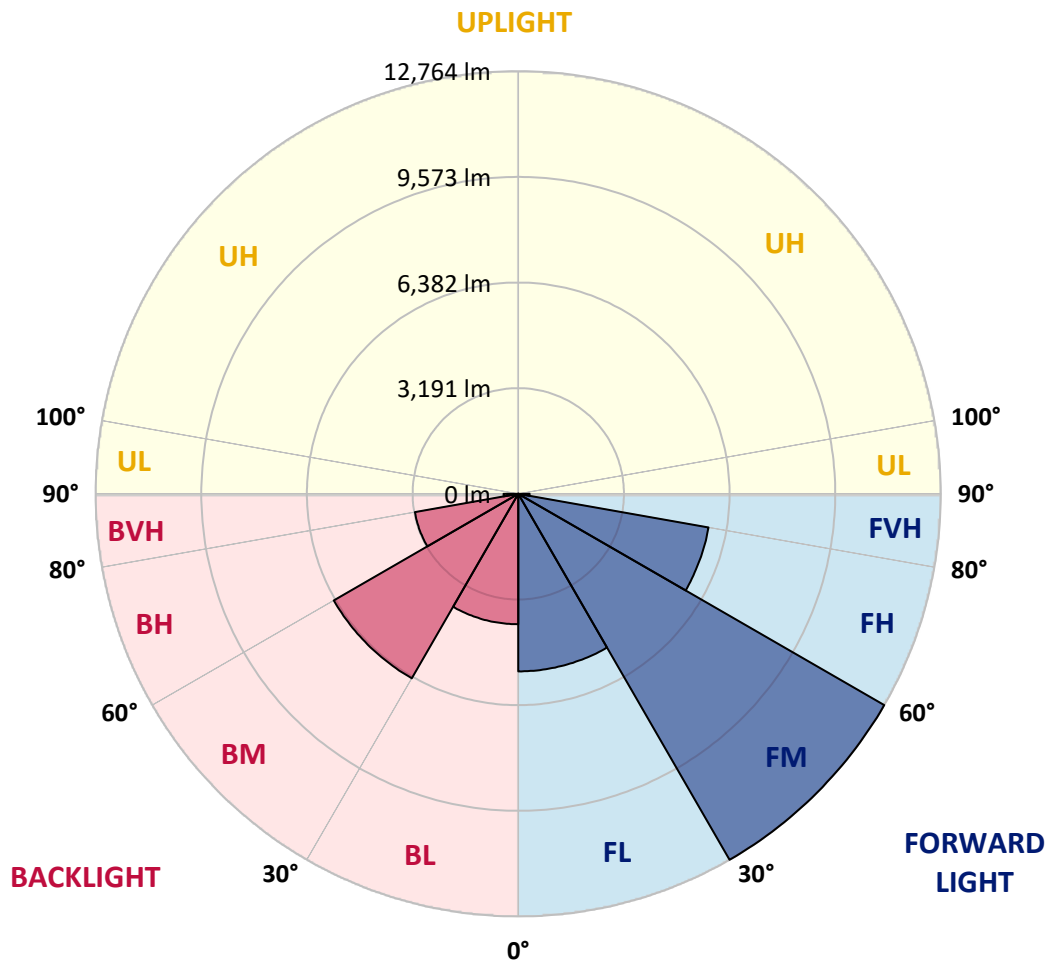
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	5362.7	14.0			
FM	(30°-60°)	12763.9	33.3			
FH	(60°-80°)	5835.7	15.2			G3/7500
FVH	(80°-90°)	344.2	0.9			G3/500
BL	(0°-30°)	3939.5	10.3	B4/5000		
BM	(30°-60°)	6433.6	16.8	B4/8500		
BH	(60°-80°)	3171.2	8.3	B4/5000		G4/5000
BVH	(80°-90°)	446.3	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°	11878.8	11878.8	11878.8	11878.8	11878.8	11878.8	11878.8	11878.8	11878.8	11878.8	11878.8
2.5°	12368.4	12254.1	12280.0	12340.3	12107.4	12172.1	12068.6	12113.9	11991.0	11939.2	11960.8
5°	13250.5	13116.7	13146.9	13177.1	12834.2	12687.6	12398.6	12331.7	12144.1	12057.8	12047.0
7.5°	13671.0	13533.0	13565.3	13565.3	13304.4	13328.1	13034.8	12724.2	12349.0	12213.1	12152.7
10°	14346.0	14190.8	14167.0	14126.1	13785.3	13634.3	13390.6	13209.5	12640.1	12446.0	12280.0
12.5°	14839.9	14719.1	14721.3	14676.0	14292.1	14182.1	13753.0	13539.4	12976.6	12741.5	12474.1
15°	15044.8	14958.5	15014.6	14878.7	14622.1	14458.2	14255.5	13912.5	13330.3	13088.7	12758.7
17.5°	14089.4	13934.1	13522.2	13593.4	13576.1	13625.7	13427.3	13630.0	13537.3	13405.7	13187.9
20°	11930.6	12094.5	12383.5	12126.8	12107.4	12752.3	13213.8	13151.2	12633.7	12441.7	12659.5
22.5°	10138.4	9937.8	10548.2	11460.4	11717.1	12374.9	13159.9	13906.1	13321.6	13075.8	12415.8
25°	8529.5	8732.3	9681.2	11061.5	11868.0	12062.1	12961.5	14365.4	14458.2	14190.8	13334.6
27.5°	8275.1	8272.9	8913.4	10250.6	12085.9	12694.0	12970.1	14136.8	15607.7	15424.4	14440.9
30°	8216.8	8186.6	8430.3	9784.7	11492.8	13261.2	13798.2	14208.0	15599.0	16211.5	15704.7
32.5°	7966.7	7942.9	8193.1	8829.3	10686.2	13802.6	14591.9	15131.1	15210.8	15545.1	16987.9
35°	7565.5	7621.6	7949.4	8652.5	10024.1	12737.2	15396.3	16239.6	16431.5	16235.3	16246.0
37.5°	7181.6	7224.8	7561.2	8337.6	9541.0	10360.5	15948.4	17305.0	17732.0	17507.7	16459.5
40°	6683.5	6743.8	7142.8	8003.3	9224.0	8941.5	15148.3	18555.8	19148.9	18862.1	17673.7
42.5°	6122.7	6150.8	6623.1	7453.4	6614.4	8988.9	14016.1	19703.1	20533.5	20248.8	18814.6
45°	5644.0	5661.2	6047.2	6575.6	5963.1	8913.4	13233.2	19159.7	22150.9	21866.3	20022.3
47.5°	4971.1	5094.0	5512.4	4546.2	5538.3	8728.0	13496.3	16990.1	23667.1	23455.7	21195.6
49°	4164.5	4274.5	5009.9	4140.8	5275.2	8561.9	13586.9	17624.1	22437.8	24124.3	22000.0
50°	3828.1	3907.8	3838.8	3996.3	5083.2	8393.7	13442.4	18135.3	20621.9	23104.2	22517.6
52.5°	3327.7	3096.9	2637.6	3588.7	4641.1	7738.1	11076.6	19509.1	20432.1	19966.3	21098.5
55°	1406.1	2003.5	2333.5	2943.8	4194.7	4697.2	10257.0	21005.8	21348.7	20878.5	18959.1
57.5°	1099.9	1121.5	1283.2	2191.2	2320.6	3638.3	9922.7	21648.4	22041.0	21633.4	19694.5
60°	161.7	159.6	211.4	252.3	575.8	1673.6	6485.0	15409.3	21273.2	22336.4	20367.4
62.5°	58.2	60.4	60.4	71.2	105.7	733.3	4714.4	14376.2	21786.5	22851.9	20930.3
65°	4.3	6.5	10.8	23.7	56.1	692.3	4181.7	14630.7	21620.4	22901.5	21204.2
67.5°	0.0	2.2	6.5	17.3	45.3	681.5	3888.4	14201.5	20923.8	22271.7	20604.6
70°	0.0	0.0	4.3	15.1	41.0	655.6	3377.3	12745.8	19677.3	20979.9	19513.4
72.5°	0.0	0.0	4.3	15.1	36.7	625.4	2775.6	11221.0	18542.9	19905.9	17930.4
75°	0.0	0.0	4.3	12.9	32.3	569.4	2029.4	8132.7	16610.5	17652.2	15683.2
77.5°	0.0	0.0	4.3	12.9	30.2	491.7	1371.6	4660.5	13666.7	14926.2	13177.1
80°	0.0	0.0	4.3	10.8	28.0	373.1	776.4	2327.0	7142.8	9810.6	9418.1
82.5°	0.0	0.0	4.3	10.8	21.6	198.4	362.3	1015.8	2633.3	3107.7	3627.5
85°	0.0	0.0	4.3	8.6	17.3	49.6	122.9	483.1	1438.5	1598.1	1559.3
87.5°	0.0	0.0	4.3	8.6	12.9	19.4	41.0	138.0	532.7	595.2	509.0
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°	11878.8	11878.8	11878.8	11878.8	11878.8	11878.8	11878.8	11878.8	11878.8	11878.8	11878.8
2.5°	11956.5	11889.6	11827.1	11835.7	11686.9	11654.5	11514.4	11600.6	11542.4	11469.1	11516.5
5°	11982.3	11896.1	11786.1	11663.2	11337.5	11221.0	11026.9	11083.0	11005.4	10919.1	10964.4
7.5°	12038.4	11937.1	11755.9	11436.7	11057.1	10852.3	10628.0	10819.9	10796.2	10746.6	10796.2
10°	12062.1	11973.7	11665.3	11294.4	10768.2	10628.0	10457.6	10425.2	10431.7	10442.5	10515.8
12.5°	12124.7	11993.1	11518.7	11078.7	10599.9	10321.7	10153.5	10252.7	10047.8	9957.3	9996.1
15°	12277.8	12027.6	11404.4	10778.9	10302.3	10082.3	9668.3	9668.3	9616.5	9528.1	9554.0
17.5°	12586.2	12165.7	11374.2	10580.5	9970.2	9590.6	9211.0	9010.5	8954.4	8982.4	8999.7
20°	12752.3	12420.1	11359.1	10319.6	9597.1	9157.1	8581.3	8439.0	8251.3	8277.2	8307.4
22.5°	11753.7	11320.3	11335.3	10000.4	9135.6	8577.0	7947.3	7699.2	7584.9	7563.4	7621.6
25°	12465.4	11592.0	10244.1	9825.7	8628.8	7917.1	7278.7	6937.9	6763.3	6752.5	6789.1
27.5°	13410.0	12340.3	10093.1	9006.2	8089.6	7116.9	6411.7	6168.0	5995.5	5986.9	5993.3
30°	14509.9	13338.9	10468.4	7996.9	7358.5	6193.9	5633.2	5460.6	5303.2	5234.2	5236.3
32.5°	15732.8	14242.5	10830.7	7802.8	5898.4	5389.5	4953.8	4820.1	4604.4	4505.2	4477.2
35°	16877.9	15202.2	11283.6	7477.1	5117.7	4673.5	4367.2	4188.2	4020.0	3935.9	3907.8
37.5°	15868.6	16086.4	11684.7	7209.7	4522.5	3873.3	3789.2	3670.6	3584.4	3519.7	3508.9
40°	16099.4	14490.5	11922.0	6705.0	3907.8	3383.8	3247.9	3306.1	3394.6	3340.7	3338.5
42.5°	16869.3	14738.5	11706.3	6006.3	3420.4	2917.9	2956.8	3174.6	3360.1	3325.6	3329.9
45°	17971.4	15512.8	10045.7	5171.6	2948.1	2629.0	2881.3	3135.8	3368.7	3379.5	3379.5
47.5°	19112.2	16384.1	9737.3	4058.8	2600.9	2516.8	2868.3	3088.3	3355.7	3424.8	3416.1
49°	19744.1	16806.8	9651.0	3340.7	2445.6	2493.1	2866.2	3043.0	3329.9	3426.9	3416.1
50°	20112.9	17095.8	9489.3	3053.8	2355.1	2488.8	2868.3	3015.0	3304.0	3411.8	3407.5
52.5°	20887.2	17462.4	8924.2	2514.7	2135.1	2473.7	2902.9	2989.1	3224.2	3338.5	3381.6
55°	17259.7	16843.4	7975.3	2258.0	2035.9	2443.5	2902.9	3004.2	3155.2	3222.0	3263.0
57.5°	17473.2	14402.1	6271.5	2130.8	1969.0	2411.1	2857.6	3002.1	3118.5	3129.3	3116.4
60°	18124.5	14736.4	4675.6	2001.4	1891.4	2370.2	2760.5	2933.0	3021.5	3021.5	2982.6
62.5°	18514.8	14893.8	3739.6	1859.0	1809.4	2286.0	2616.0	2799.3	2866.2	2829.5	2823.1
65°	18611.9	15021.1	2713.1	1705.9	1716.7	2195.5	2467.2	2626.8	2719.5	2657.0	2669.9
67.5°	18277.6	14113.1	1982.0	1548.5	1611.0	2072.5	2320.6	2462.9	2529.7	2497.4	2503.9
70°	17041.8	13125.4	1395.4	1278.9	1440.6	1882.8	2135.1	2299.0	2333.5	2277.4	2286.0
72.5°	15055.6	11600.6	879.9	1000.7	1268.1	1708.1	1917.3	2020.8	2027.3	2096.3	2132.9
75°	13112.4	9308.1	636.2	789.3	1007.2	1460.1	1751.2	1848.2	1919.4	2264.5	2320.6
77.5°	10509.4	5889.8	541.3	623.3	791.5	1212.0	1561.4	1710.2	2350.7	2521.1	2478.0
80°	6368.6	3657.7	407.6	491.7	659.9	931.7	1337.1	1762.0	2378.8	2219.2	2128.6
82.5°	2939.5	1589.5	276.1	401.1	524.1	694.4	1054.6	2057.4	2038.0	1699.4	1682.2
85°	1056.8	470.1	151.0	286.8	366.6	478.8	810.9	2038.0	1598.1	1427.7	1337.1
87.5°	269.6	84.1	62.5	140.2	185.5	254.5	442.1	1078.3	830.3	731.1	705.2
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)