

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: P591315

Luminaire Tested: **CTN-CA10-630-730-U-T2-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591315
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-CA10-630-730-U-T2-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: 49723 lumens
Efficiency: N/A
Efficacy: 78.8 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B5 - U0 - G4

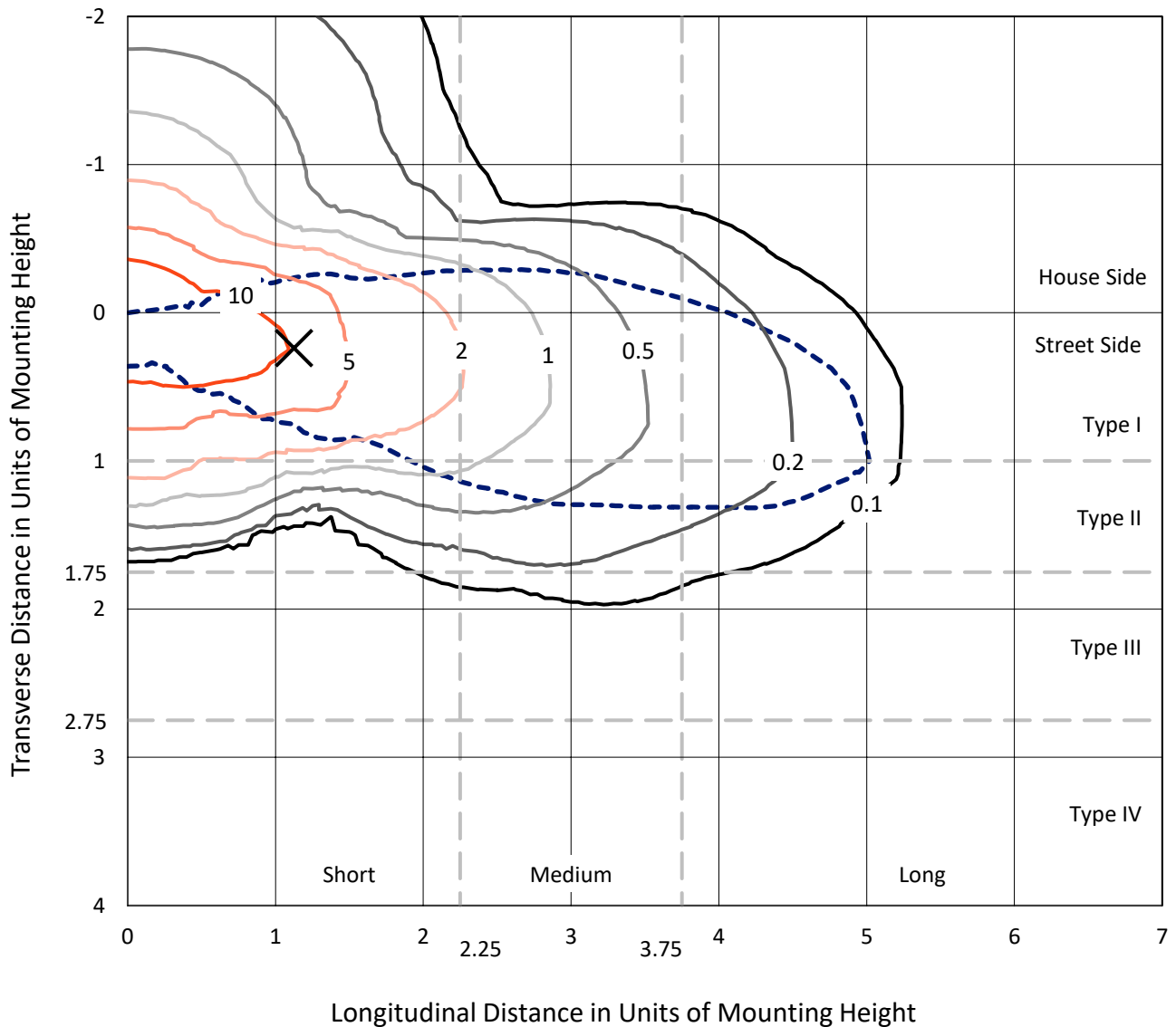
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

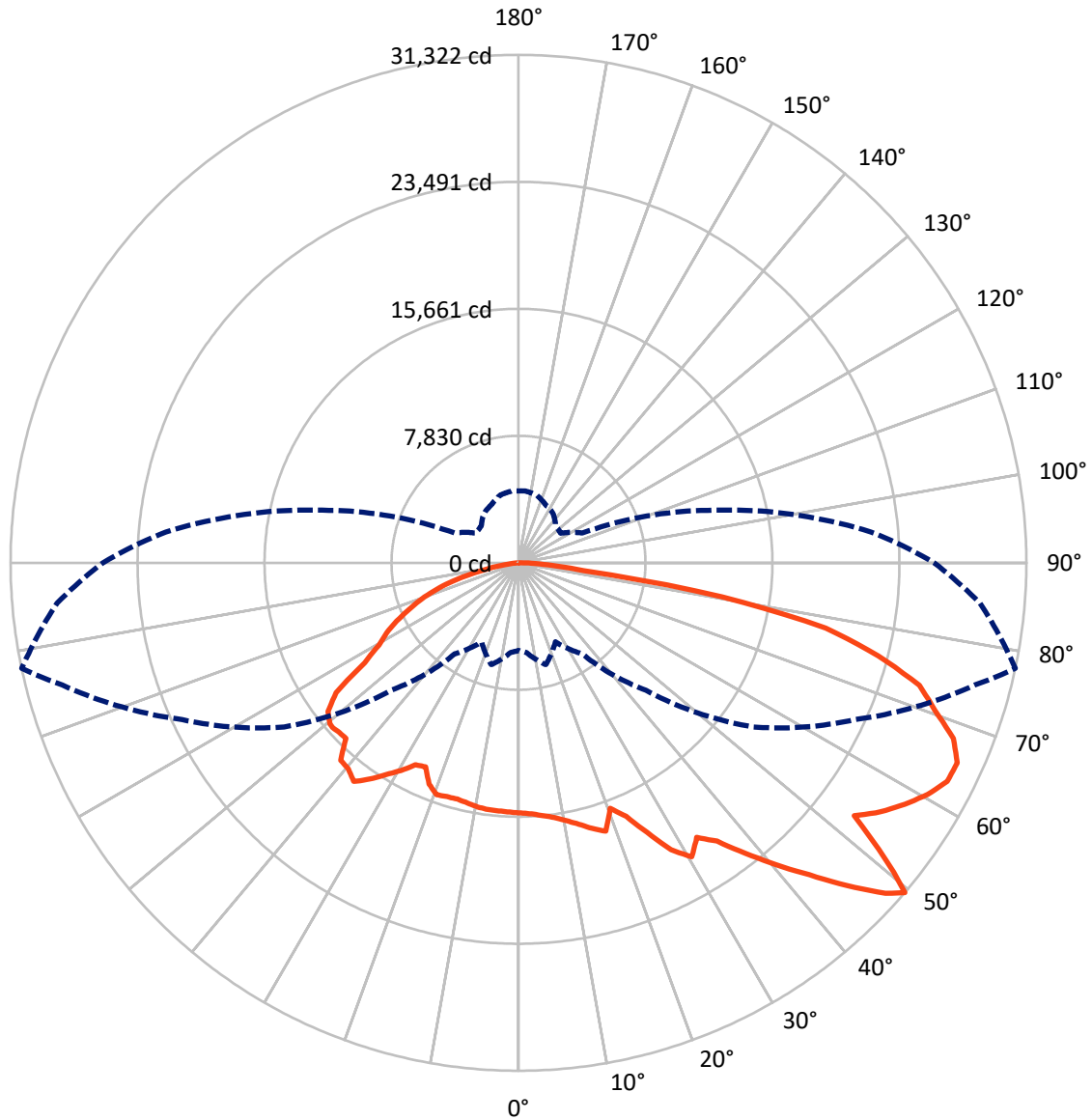
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 19.7 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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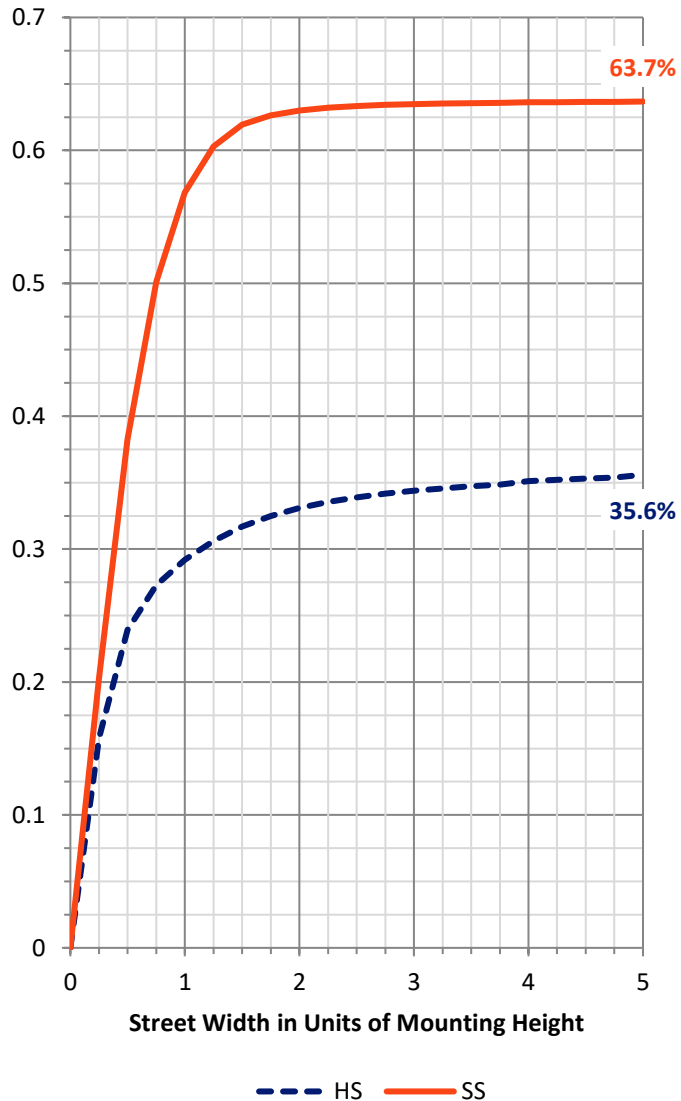
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	18164.6	0.0	18164.6
	% Fixture	36.5	0.0	36.5
Street Side	Lumens	31558.4	0.0	31558.4
	% Fixture	63.5	0.0	63.5
Total	Lumens	49723.0	0.0	49723.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1494.4	3.0
10°-20°	4395.0	8.8
20°-30°	6188.0	12.4
30°-40°	7756.9	15.6
40°-50°	8755.4	17.6
50°-60°	8412.8	16.9
60°-70°	6872.7	13.8
70°-80°	4821.4	9.7
80°-90°	1026.4	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°	49723.0	100.0
0°-180°	49723.0	100.0

Coefficient of Utilization

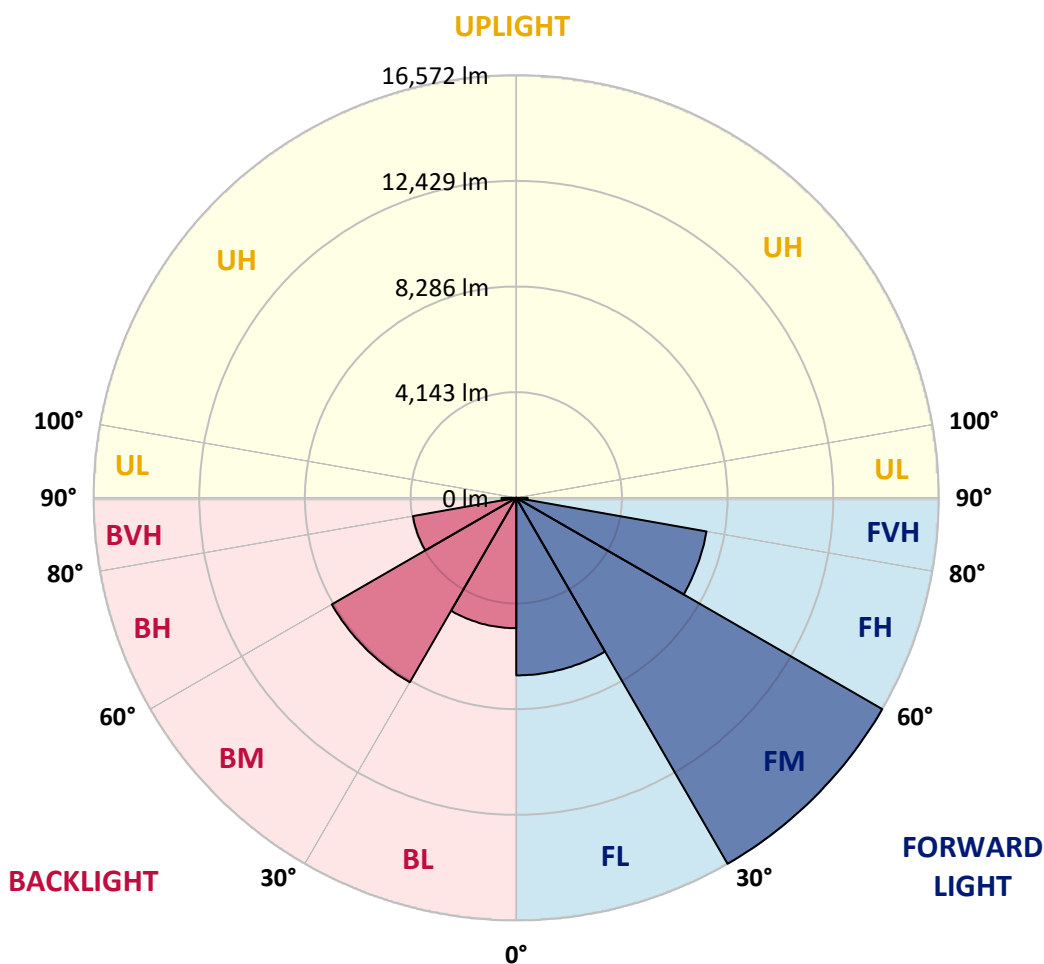


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	6962.6	14.0			
FM	(30°-60°)	16572.0	33.3			
FH	(60°-80°)	7576.8	15.2			G4/12000
FVH	(80°-90°)	446.9	0.9			G3/500
BL	(0°-30°)	5114.8	10.3	B5		
BM	(30°-60°)	8353.0	16.8	B4/8500		
BH	(60°-80°)	4117.3	8.3	B4/5000		G4/5000
BVH	(80°-90°)	579.5	1.2			G4/750
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G4
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	15422.9	15422.9	15422.9	15422.9	15422.9	15422.9	15422.9	15422.9	15422.9	15422.9	15422.9
2.5°	16058.5	15910.1	15943.7	16022.1	15719.7	15803.7	15669.3	15728.1	15568.5	15501.3	15529.3
5°	17203.8	17030.2	17069.4	17108.6	16663.3	16472.9	16097.7	16010.9	15767.3	15655.3	15641.3
7.5°	17749.8	17570.6	17612.6	17612.6	17273.8	17304.6	16923.7	16520.5	16033.3	15856.9	15778.5
10°	18626.2	18424.6	18393.8	18340.6	17898.2	17702.2	17385.8	17150.6	16411.3	16159.3	15943.7
12.5°	19267.4	19110.6	19113.4	19054.6	18556.2	18413.4	17856.2	17579.0	16848.1	16542.9	16195.7
15°	19533.4	19421.4	19494.2	19317.8	18984.6	18771.8	18508.6	18063.4	17307.4	16993.8	16565.3
17.5°	18293.0	18091.4	17556.6	17649.0	17626.6	17691.0	17433.4	17696.6	17576.2	17405.4	17122.6
20°	15490.1	15702.9	16078.1	15744.9	15719.7	16556.9	17156.2	17075.0	16402.9	16153.7	16436.5
22.5°	13163.2	12902.8	13695.2	14879.7	15212.9	16066.9	17086.2	18055.0	17296.2	16977.0	16120.1
25°	11074.4	11337.6	12569.6	14361.7	15408.9	15660.9	16828.5	18651.4	18771.8	18424.6	17313.0
27.5°	10743.9	10741.1	11572.8	13308.8	15691.7	16481.3	16839.7	18354.6	20264.3	20026.3	18749.4
30°	10668.3	10629.1	10945.6	12704.0	14921.7	17217.8	17915.0	18447.0	20253.1	21048.3	20390.3
32.5°	10343.5	10312.7	10637.5	11463.6	13874.5	17920.6	18945.4	19645.4	19749.0	20183.1	22056.3
35°	9822.7	9895.5	10321.1	11234.0	13014.8	16537.3	19989.8	21084.7	21333.9	21079.1	21093.1
37.5°	9324.3	9380.3	9817.1	10825.2	12387.6	13451.6	20706.7	22467.9	23022.3	22731.1	21370.3
40°	8677.5	8755.9	9273.9	10391.1	11976.0	11609.2	19667.8	24092.0	24862.0	24489.6	22946.7
42.5°	7949.5	7985.9	8599.1	9677.1	8587.9	11670.8	18197.8	25581.6	26659.7	26290.1	24428.0
45°	7327.8	7350.2	7851.5	8537.5	7742.3	11572.8	17181.4	24876.0	28759.7	28390.1	25996.0
47.5°	6454.2	6613.8	7157.0	5902.6	7190.6	11332.0	17523.0	22059.1	30728.2	30453.8	27519.3
49°	5407.0	5549.8	6504.6	5376.2	6849.0	11116.4	17640.6	22882.3	29132.1	31321.8	28563.7
50°	4970.2	5073.8	4984.2	5188.6	6599.8	10898.0	17453.0	23546.0	26774.5	29997.4	29235.7
52.5°	4320.5	4020.9	3424.5	4659.4	6025.8	10046.7	14381.3	25329.6	26528.1	25923.2	27393.3
55°	1825.7	2601.3	3029.7	3822.1	5446.2	6098.6	13317.2	27272.9	27718.1	27107.7	24615.6
57.5°	1428.0	1456.0	1666.1	2844.9	3012.9	4723.8	12883.2	28107.3	28616.9	28087.7	25570.4
60°	210.0	207.2	274.4	327.6	747.6	2172.9	8419.9	20006.6	27620.1	29000.5	26444.1
62.5°	75.6	78.4	78.4	92.4	137.2	952.0	6121.0	18665.4	28286.5	29669.8	27174.9
65°	5.6	8.4	14.0	30.8	72.8	898.8	5429.4	18995.8	28070.9	29734.2	27530.5
67.5°	0.0	2.8	8.4	22.4	58.8	884.8	5048.6	18438.6	27166.5	28916.5	26752.1
70°	0.0	0.0	5.6	19.6	53.2	851.2	4384.9	16548.5	25548.0	27239.3	25335.2
72.5°	0.0	0.0	5.6	19.6	47.6	812.0	3603.7	14568.9	24075.2	25844.8	23280.0
75°	0.0	0.0	5.6	16.8	42.0	739.2	2634.9	10559.1	21566.3	22918.7	20362.3
77.5°	0.0	0.0	5.6	16.8	39.2	638.4	1780.9	6051.0	17744.2	19379.4	17108.6
80°	0.0	0.0	5.6	14.0	36.4	484.4	1008.0	3021.3	9273.9	12737.6	12228.0
82.5°	0.0	0.0	5.6	14.0	28.0	257.6	470.4	1318.8	3418.9	4034.9	4709.8
85°	0.0	0.0	5.6	11.2	22.4	64.4	159.6	627.2	1867.7	2074.9	2024.5
87.5°	0.0	0.0	5.6	11.2	16.8	25.2	53.2	179.2	691.6	772.8	660.8
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°	15422.9	15422.9	15422.9	15422.9	15422.9	15422.9	15422.9	15422.9	15422.9	15422.9	15422.9
2.5°	15523.7	15436.9	15355.7	15366.9	15173.7	15131.7	14949.7	15061.7	14986.1	14890.9	14952.5
5°	15557.3	15445.3	15302.5	15142.9	14720.1	14568.9	14316.9	14389.7	14288.9	14176.9	14235.7
7.5°	15630.1	15498.5	15263.3	14848.9	14356.1	14090.1	13798.8	14048.1	14017.3	13952.9	14017.3
10°	15660.9	15546.1	15145.7	14664.1	13980.9	13798.8	13577.6	13535.6	13544.0	13558.0	13653.2
12.5°	15742.1	15571.3	14955.3	14384.1	13762.4	13401.2	13182.8	13311.6	13045.6	12928.0	12978.4
15°	15940.9	15616.1	14806.9	13994.9	13376.0	13090.4	12552.8	12552.8	12485.6	12370.8	12404.4
17.5°	16341.3	15795.3	14767.7	13737.2	12944.8	12452.0	11959.2	11698.8	11626.0	11662.4	11684.8
20°	16556.9	16125.7	14748.1	13398.4	12460.4	11889.2	11141.6	10956.8	10713.1	10746.7	10786.0
22.5°	15260.5	14697.7	14717.3	12984.0	11861.2	11136.0	10318.3	9996.3	9847.9	9819.9	9895.5
25°	16184.5	15050.5	13300.4	12757.2	11203.2	10279.1	9450.3	9007.9	8781.1	8767.1	8814.7
27.5°	17411.0	16022.1	13104.4	11693.2	10503.1	9240.3	8324.7	8008.3	7784.3	7773.1	7781.5
30°	18839.0	17318.6	13591.6	10382.7	9553.9	8041.9	7313.8	7089.8	6885.4	6795.8	6798.6
32.5°	20426.7	18491.8	14062.1	10130.7	7658.2	6997.4	6431.8	6258.2	5978.2	5849.4	5813.0
35°	21913.5	19737.8	14650.1	9707.9	6644.6	6067.8	5670.2	5437.8	5219.4	5110.2	5073.8
37.5°	20603.1	20885.9	15170.9	9360.7	5871.8	5029.0	4919.8	4765.8	4653.8	4569.7	4555.7
40°	20902.7	18813.8	15478.9	8705.5	5073.8	4393.3	4216.9	4292.5	4407.3	4337.3	4334.5
42.5°	21902.3	19135.8	15198.9	7798.3	4440.9	3788.5	3838.9	4121.7	4362.5	4317.7	4323.3
45°	23333.2	20141.1	13042.8	6714.6	3827.7	3413.3	3740.9	4071.3	4373.7	4387.7	4387.7
47.5°	24814.4	21272.3	12642.4	5269.8	3376.9	3267.7	3724.1	4009.7	4356.9	4446.5	4435.3
49°	25634.8	21821.1	12530.4	4337.3	3175.3	3236.9	3721.3	3950.9	4323.3	4449.3	4435.3
50°	26113.6	22196.3	12320.4	3964.9	3057.7	3231.3	3724.1	3914.5	4289.7	4429.7	4424.1
52.5°	27118.9	22672.3	11586.8	3264.9	2772.1	3211.7	3768.9	3880.9	4186.1	4334.5	4390.5
55°	22409.1	21868.7	10354.7	2931.7	2643.3	3172.5	3768.9	3900.5	4096.5	4183.3	4236.5
57.5°	22686.3	18699.0	8142.7	2766.5	2556.5	3130.5	3710.1	3897.7	4048.9	4062.9	4046.1
60°	23532.0	19133.0	6070.6	2598.5	2455.7	3077.3	3584.1	3808.1	3922.9	3922.9	3872.5
62.5°	24038.8	19337.4	4855.4	2413.7	2349.3	2968.1	3396.5	3634.5	3721.3	3673.7	3665.3
65°	24164.8	19502.6	3522.5	2214.9	2228.9	2850.5	3203.3	3410.5	3530.9	3449.7	3466.5
67.5°	23730.8	18323.8	2573.3	2010.5	2091.7	2690.9	3012.9	3197.7	3284.5	3242.5	3250.9
70°	22126.3	17041.4	1811.7	1660.5	1870.5	2444.5	2772.1	2984.9	3029.7	2956.9	2968.1
72.5°	19547.4	15061.7	1142.4	1299.2	1646.5	2217.7	2489.3	2623.7	2632.1	2721.7	2769.3
75°	17024.6	12085.2	826.0	1024.8	1307.6	1895.7	2273.7	2399.7	2492.1	2940.1	3012.9
77.5°	13644.8	7647.0	702.8	809.2	1027.6	1573.7	2027.3	2220.5	3052.1	3273.3	3217.3
80°	8268.7	4749.0	529.2	638.4	856.8	1209.6	1736.1	2287.7	3088.5	2881.3	2763.7
82.5°	3816.5	2063.7	358.4	520.8	680.4	901.6	1369.2	2671.3	2646.1	2206.5	2184.1
85°	1372.0	610.4	196.0	372.4	476.0	621.6	1052.8	2646.1	2074.9	1853.7	1736.1
87.5°	350.0	109.2	81.2	182.0	240.8	330.4	574.0	1400.0	1078.0	949.2	915.6
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)