

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: P591234

Luminaire Tested: **CTN-CA10-760-727-U-T3-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591234
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-CA10-760-727-U-T3-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 46586 lumens
Efficiency: N/A
Efficacy: 61.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B5 - U0 - G4

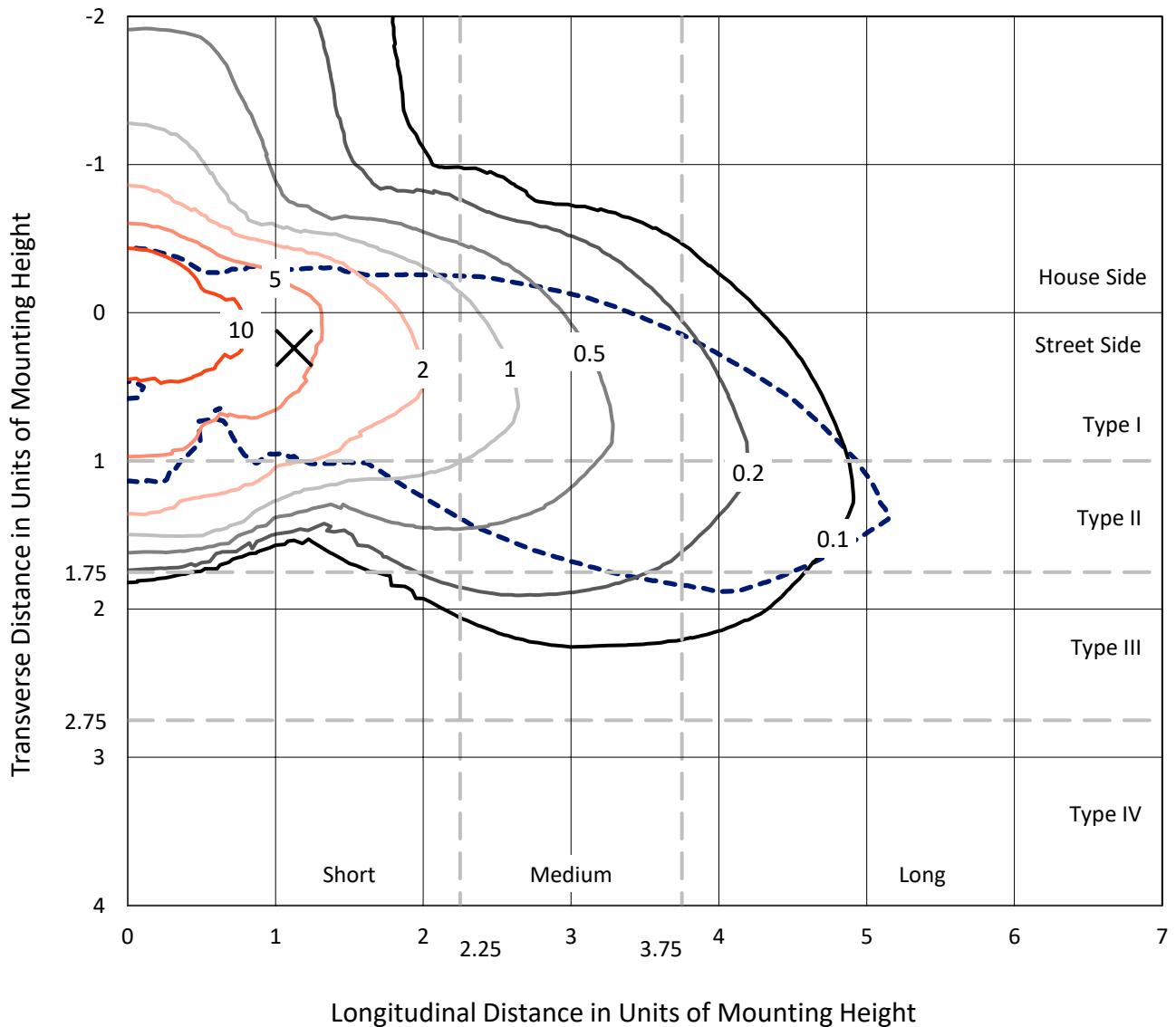
Input Watts (W): 761.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

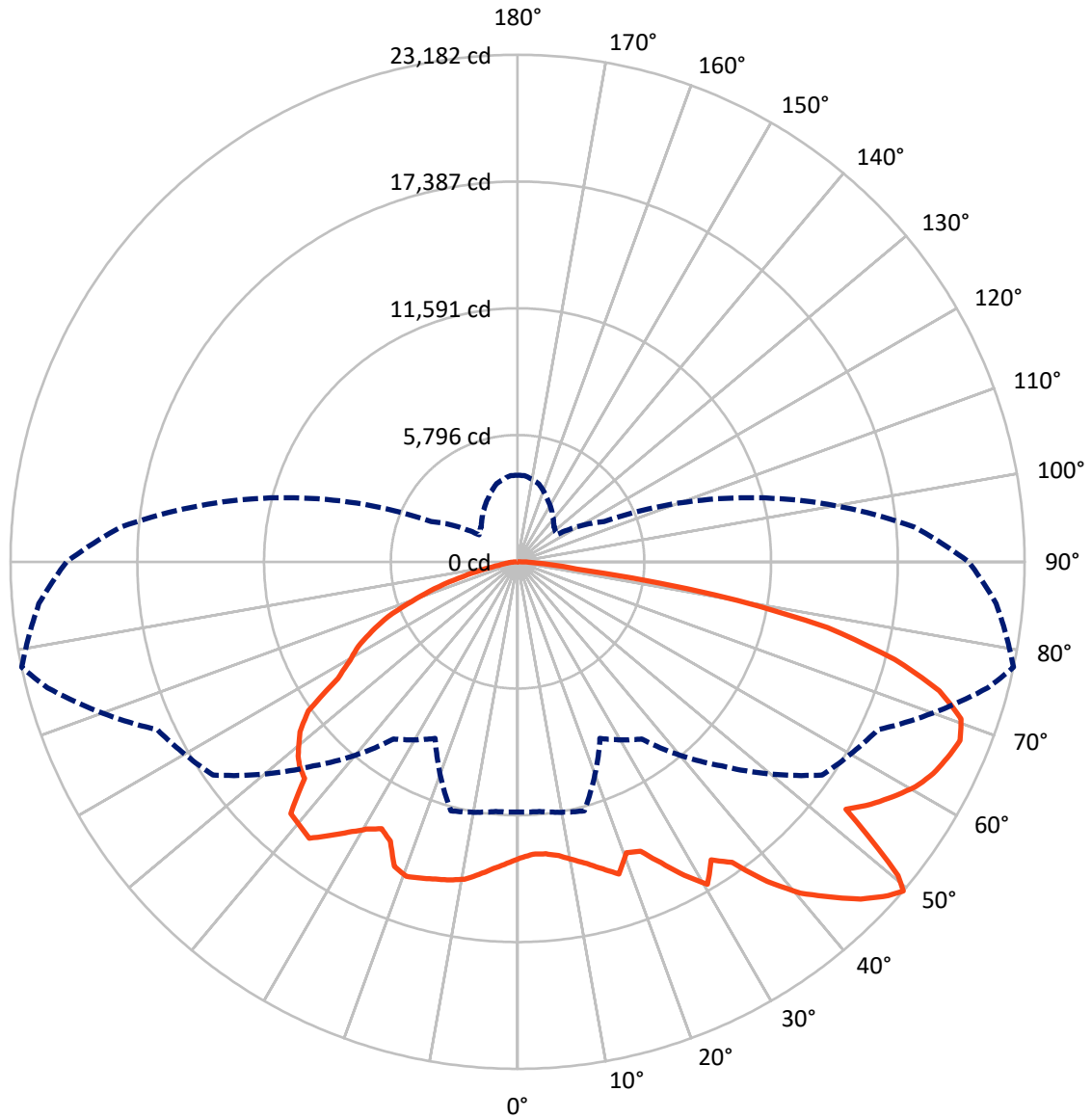
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 16.9 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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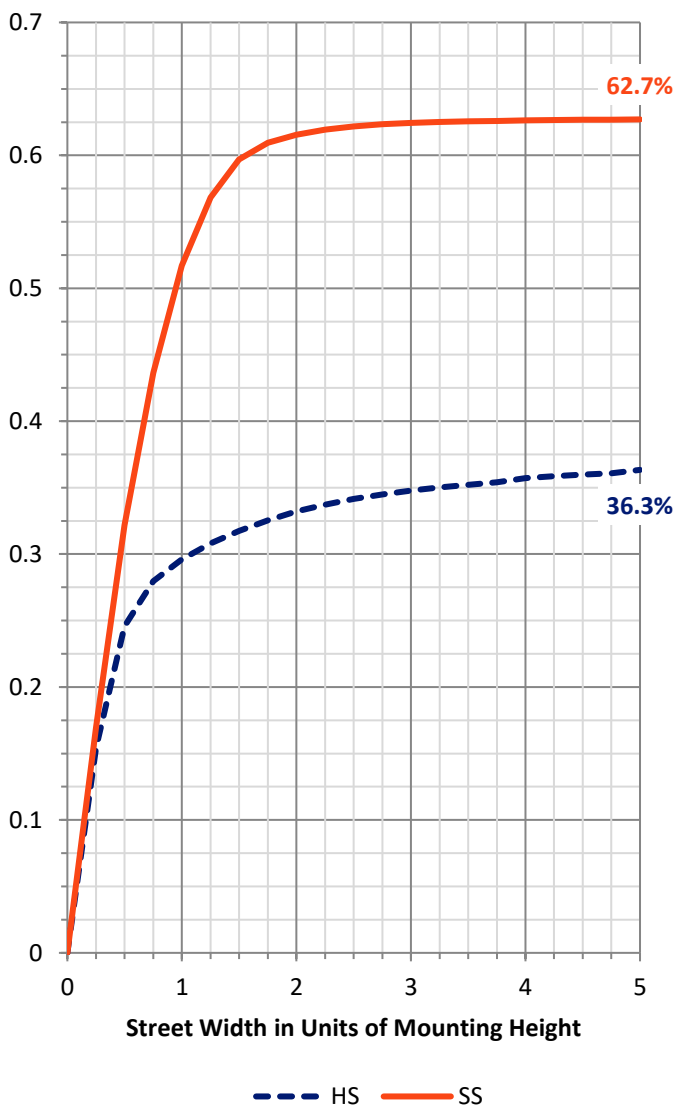
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	17424.2	0.0	17424.2
	% Fixture	37.4	0.0	37.4
Street Side	Lumens	29161.8	0.0	29161.8
	% Fixture	62.6	0.0	62.6
Total	Lumens	46586.0	0.0	46586.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1356.0	2.9
10°-20°	4162.4	8.9
20°-30°	6031.8	12.9
30°-40°	7411.8	15.9
40°-50°	8365.4	18.0
50°-60°	7949.2	17.1
60°-70°	5936.9	12.7
70°-80°	4409.1	9.5
80°-90°	963.5	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°	46586.0	100.0
0°-180°	46586.0	100.0

Coefficient of Utilization

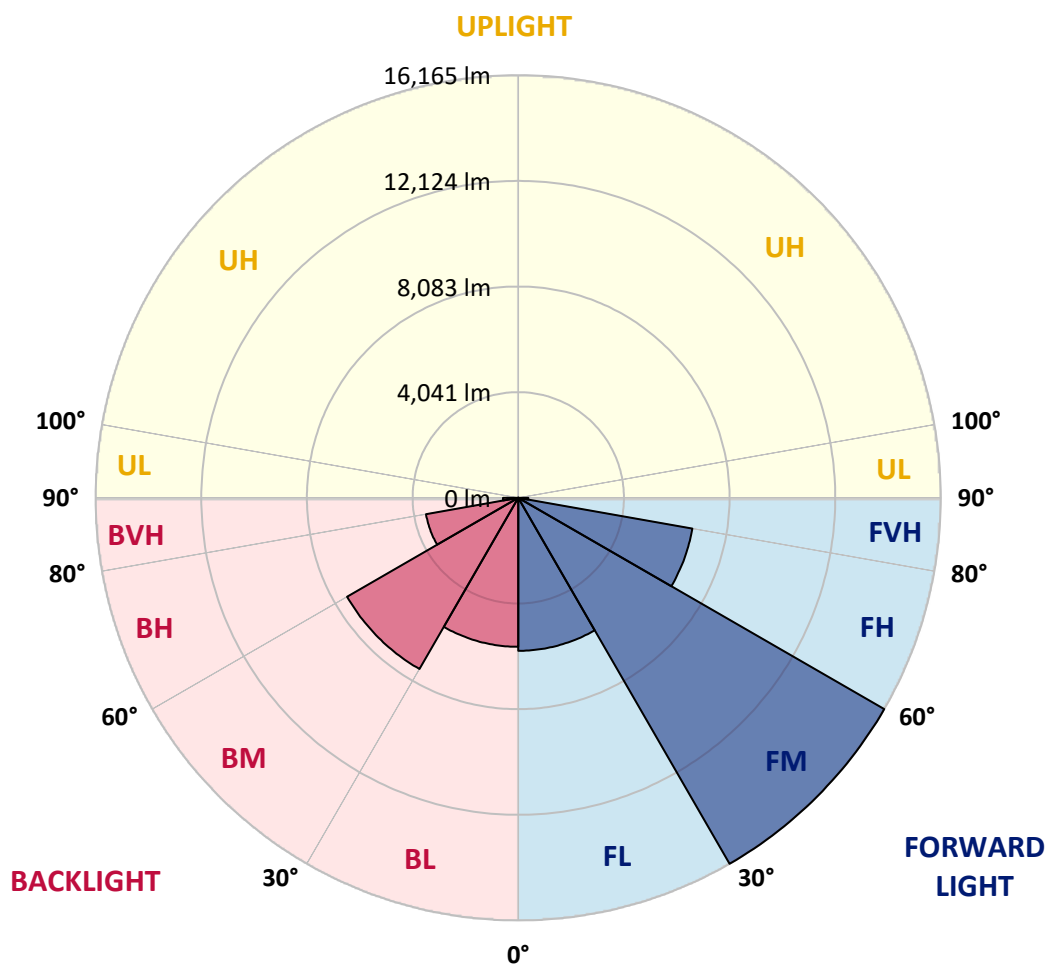


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	5851.5	12.6			
FM (30°-60°)	16165.5	34.7			
FH (60°-80°)	6763.9	14.5			G3/7500
FVH (80°-90°)	380.9	0.8			G3/500
BL (0°-30°)	5698.7	12.2	B5		
BM (30°-60°)	7560.8	16.2	B4/8500		
BH (60°-80°)	3582.1	7.7	B4/5000		G4/5000
BVH (80°-90°)	582.6	1.3			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°	13547.0	13547.0	13547.0	13547.0	13547.0	13547.0	13547.0	13547.0	13547.0	13547.0	13547.0
2.5°	13254.2	13181.7	13201.2	13312.8	13098.1	13254.2	13190.1	13340.6	13390.8	13385.3	13602.7
5°	13363.0	13268.2	13296.0	13371.3	13137.1	13257.0	13206.8	13368.5	13410.3	13413.1	13708.7
7.5°	13761.6	13652.9	13625.0	13630.6	13410.3	13499.6	13371.3	13496.8	13572.1	13563.7	13892.7
10°	14341.5	14221.7	14160.3	14140.8	13873.2	13834.1	13678.0	13722.6	13834.1	13848.1	14182.6
12.5°	14938.2	14843.4	14754.2	14709.6	14341.5	14255.1	14026.5	14065.5	14149.2	14165.9	14514.4
15°	15465.1	15375.9	15362.0	15311.8	14938.2	14770.9	14494.9	14453.1	14517.2	14570.2	14874.1
17.5°	14949.3	14835.0	14762.5	14779.3	14589.7	14165.9	13995.8	14283.0	14818.3	15005.1	15292.3
20°	13494.0	13633.4	13574.8	13349.0	13145.5	13831.3	13686.4	13625.0	13956.8	14196.6	14890.8
22.5°	11854.6	11854.6	12412.2	12802.6	12880.6	13265.4	14057.2	14333.2	14369.4	14369.4	14168.7
25°	10558.2	10926.2	11871.4	13354.6	13363.0	13284.9	13505.1	15019.0	15270.0	15242.1	14904.7
27.5°	11060.1	10998.7	11634.4	12665.9	14124.1	14034.9	13605.5	14288.6	16357.3	16229.0	15796.9
30°	11503.3	11442.0	11556.3	12836.0	14341.5	14849.0	14480.9	14277.4	16415.8	17112.8	16853.5
32.5°	11918.8	11849.1	11980.1	12175.3	13647.3	15657.5	15398.2	15264.4	15579.4	16256.9	18049.6
35°	12253.3	12264.5	12415.0	12702.2	13376.9	15384.3	16318.2	16368.4	16920.5	16878.6	17784.7
37.5°	12501.5	12523.8	12654.8	12994.9	13245.9	12707.8	17193.7	17773.6	18623.9	18540.3	17874.0
40°	12515.4	12565.6	12827.7	13245.9	13541.4	11316.6	17032.0	19323.7	20165.7	19920.4	19092.3
42.5°	12256.1	12281.2	12718.9	13427.1	10276.6	11771.0	15794.1	20868.3	21244.7	20943.6	20023.5
45°	12024.7	12019.1	12487.5	13123.2	9710.7	12303.5	15760.6	20419.4	22237.2	22003.0	20829.3
47.5°	11698.5	11695.7	12153.0	9875.1	9833.3	12877.8	16591.5	17706.7	23059.7	22808.7	21562.5
49°	11436.4	11464.3	11787.7	8907.7	9889.1	13198.5	16995.7	18169.5	22253.9	23182.3	21969.6
50°	11294.2	11322.1	10533.1	8810.1	9905.8	13382.5	17207.6	18509.6	20029.1	22549.5	22231.6
52.5°	10647.4	10402.1	8166.1	8606.6	9911.4	13599.9	14796.0	19231.7	19089.5	18796.8	21049.5
55°	6415.2	7260.0	7393.8	8375.2	9822.2	9877.9	14453.1	20070.9	20009.6	19583.0	18124.9
57.5°	3889.3	3850.2	5709.9	7731.2	6576.9	8283.2	15019.0	21180.5	20818.1	20249.3	18434.4
60°	1371.7	1212.8	1223.9	1318.7	2447.9	6197.8	11980.1	15950.2	20985.4	20896.2	18715.9
62.5°	108.7	103.2	103.2	108.7	156.1	2328.0	9498.8	16000.4	21565.3	21333.9	18780.1
65°	13.9	13.9	13.9	30.7	80.9	2105.0	9512.7	16259.7	21997.4	21601.5	18610.0
67.5°	0.0	0.0	8.4	22.3	64.1	1862.4	9233.9	16413.0	22385.0	21824.6	18453.9
70°	0.0	0.0	5.6	19.5	55.8	1541.8	8893.8	16546.9	22203.7	21509.5	17667.6
72.5°	0.0	0.0	5.6	16.7	47.4	1017.6	7884.5	15557.1	20912.9	20160.1	16053.4
75°	0.0	0.0	5.6	13.9	44.6	579.9	6459.8	13744.9	18610.0	17812.6	13527.4
77.5°	0.0	0.0	2.8	11.2	39.0	317.8	4463.6	11377.9	15373.1	14497.7	10134.4
80°	0.0	0.0	2.8	11.2	36.2	217.5	2029.7	7391.0	10246.0	9150.3	5553.7
82.5°	0.0	0.0	2.8	11.2	27.9	147.8	819.7	2071.5	3170.0	2710.0	1767.6
85°	0.0	0.0	2.8	8.4	19.5	94.8	404.3	850.3	1279.7	1229.5	895.0
87.5°	0.0	0.0	2.8	8.4	13.9	27.9	119.9	278.8	499.1	507.4	382.0
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°	13547.0	13547.0	13547.0	13547.0	13547.0	13547.0	13547.0	13547.0	13547.0	13547.0	13547.0
2.5°	13705.9	13731.0	13814.6	13940.1	13959.6	14129.7	14101.8	14419.6	14450.3	14525.6	14609.2
5°	13850.9	13937.3	14126.9	14414.0	14623.1	14879.6	14854.5	15214.2	15250.4	15230.9	15359.2
7.5°	14062.7	14191.0	14486.5	14874.1	14943.8	15261.6	15219.8	15532.0	15537.6	15495.8	15621.2
10°	14372.2	14522.8	14796.0	15016.2	15183.5	15375.9	15348.0	15626.8	15598.9	15551.5	15682.6
12.5°	14670.5	14754.2	14921.5	15180.7	15211.4	15289.5	15242.1	15501.4	15473.5	15406.6	15529.2
15°	14938.2	14980.0	14982.8	15111.0	15041.3	15099.9	14974.4	15161.2	15097.1	15072.0	15158.4
17.5°	15281.1	15203.0	15088.7	15080.4	14843.4	14762.5	14561.8	14612.0	14478.2	14467.0	14514.4
20°	15325.7	15487.4	15158.4	14818.3	14419.6	14216.1	13836.9	13839.7	13689.2	13630.6	13658.5
22.5°	14104.6	14503.3	15239.3	14589.7	13912.2	13455.0	12967.1	12819.3	12534.9	12415.0	12367.6
25°	14581.3	14062.7	14007.0	14204.9	13254.2	12557.2	11849.1	11414.1	11076.8	10803.6	10823.1
27.5°	15320.1	14645.4	13282.1	13363.0	12426.2	11447.6	10379.8	9766.4	9423.5	9158.6	9128.0
30°	16298.7	15451.2	13438.2	11581.4	11475.5	10053.6	8743.2	8065.7	7717.2	7622.4	7563.9
32.5°	17514.3	16410.3	13789.5	11174.4	9496.0	8545.3	7076.0	6529.5	6365.0	6356.7	6289.8
35°	18958.5	17678.8	14112.9	10633.5	8188.4	6958.9	5654.1	5294.4	5319.5	5322.3	5378.1
37.5°	18035.7	18877.6	14517.2	10120.5	6914.3	5171.8	4547.3	4321.4	4393.9	4511.0	4566.8
40°	18049.6	17185.3	14988.4	9264.6	5372.5	3945.0	3557.5	3507.3	3816.8	4053.8	4112.3
42.5°	18774.5	17073.8	14815.5	8288.8	3933.9	2999.9	2963.7	3234.1	3680.2	3945.0	3992.4
45°	19552.3	17603.5	12306.3	6905.9	2852.1	2537.1	2815.9	3192.3	3677.4	3959.0	3986.9
47.5°	20291.2	17938.1	11796.1	5397.6	2291.7	2392.1	2771.3	3192.3	3696.9	3984.1	4000.8
49°	20620.2	18208.5	11322.1	4366.0	2149.6	2336.4	2746.2	3197.9	3702.5	3947.8	3956.2
50°	20815.3	18361.9	10940.2	4048.2	2079.9	2300.1	2735.0	3206.2	3694.1	3906.0	3914.4
52.5°	21119.2	18610.0	10061.9	3225.7	1948.8	2216.5	2718.3	3239.7	3663.5	3788.9	3783.3
55°	17416.7	17394.4	9328.7	2707.2	1848.5	2141.2	2712.7	3267.6	3677.4	3805.6	3800.1
57.5°	16691.8	14283.0	7859.4	2213.7	1764.8	2077.1	2718.3	3309.4	3928.3	4151.4	4123.5
60°	16744.8	14065.5	6688.4	1920.9	1667.2	2024.1	2735.0	3496.2	4538.9	4764.7	4695.0
62.5°	16560.8	13533.0	5985.9	1725.8	1564.1	1976.7	2746.2	3755.5	4617.0	4636.5	4516.6
65°	16123.1	12863.9	5040.7	1511.1	1455.3	1932.1	2743.4	3850.2	4260.1	4101.2	4062.1
67.5°	15311.8	12153.0	3989.6	1324.3	1338.2	1865.2	2807.5	3685.8	4031.5	3903.2	3844.7
70°	14349.9	10636.3	2813.1	1151.4	1232.3	1789.9	2799.2	3646.7	3911.6	3722.0	3641.1
72.5°	12638.1	8941.2	1893.1	992.5	1098.5	1703.5	2657.0	3529.6	3833.5	3708.1	3596.5
75°	10045.2	6691.2	1098.5	855.9	967.4	1578.0	2517.6	3457.1	3875.3	3635.6	3404.2
77.5°	6866.9	3811.2	819.7	716.5	833.6	1416.3	2283.4	3214.6	3747.1	3540.8	3231.3
80°	3078.0	1377.3	627.3	582.7	699.8	1148.7	1968.3	2843.8	3549.1	3549.1	3331.7
82.5°	1223.9	867.1	434.9	457.2	571.5	875.4	1558.5	2453.5	3128.2	3270.3	3496.2
85°	691.4	507.4	278.8	331.8	437.7	677.5	1134.7	1907.0	2548.2	2824.3	3061.2
87.5°	273.2	192.4	111.5	186.8	253.7	348.5	496.3	934.0	1371.7	1689.5	1868.0
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)