

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: P591231

Luminaire Tested: **CTN-CA10-760-727-U-T2-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591231
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-CA10-760-727-U-T2-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: 49509 lumens
Efficiency: N/A
Efficacy: 65.0 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B5 - U0 - G4

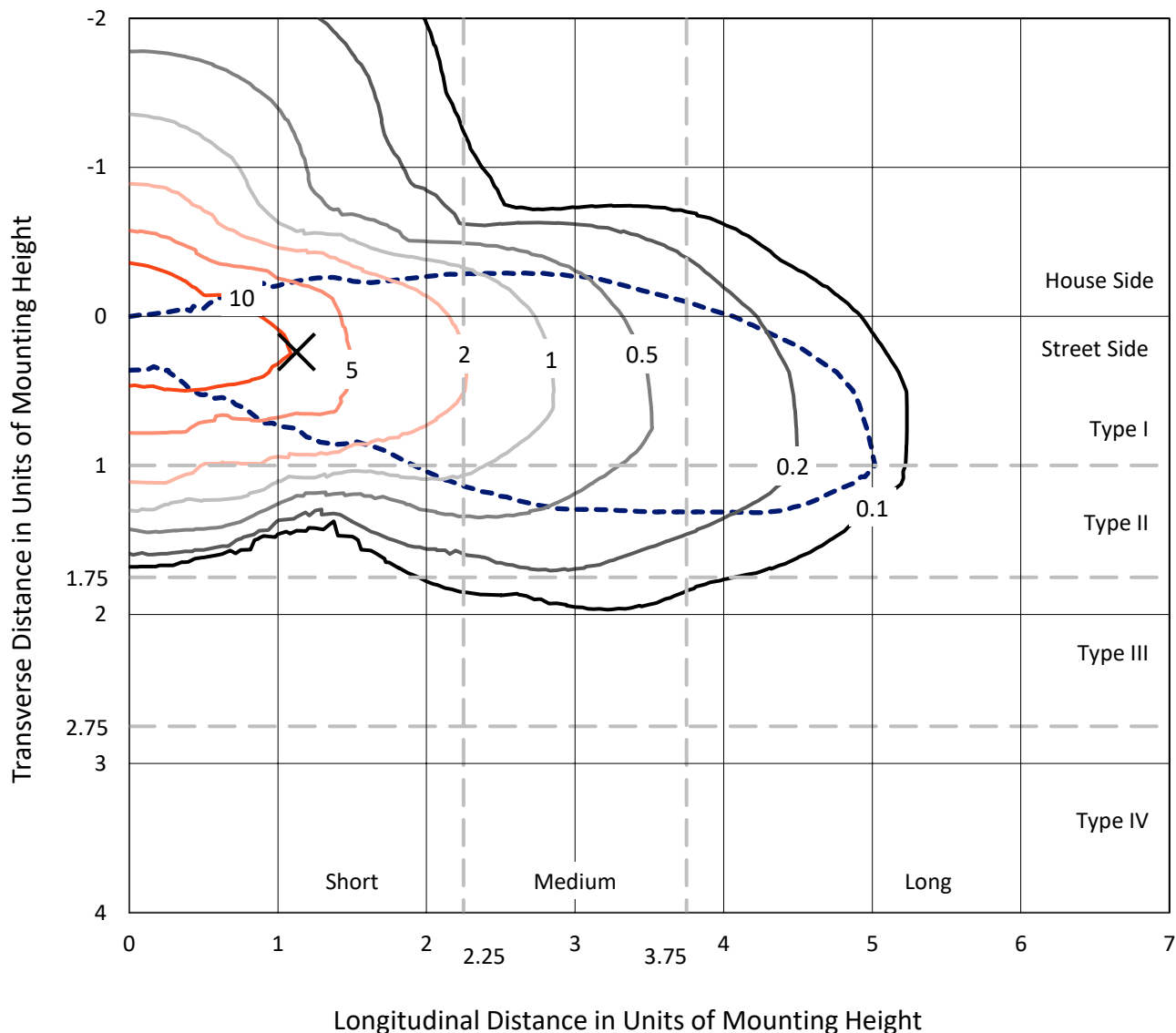
Input Watts (W): 761.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

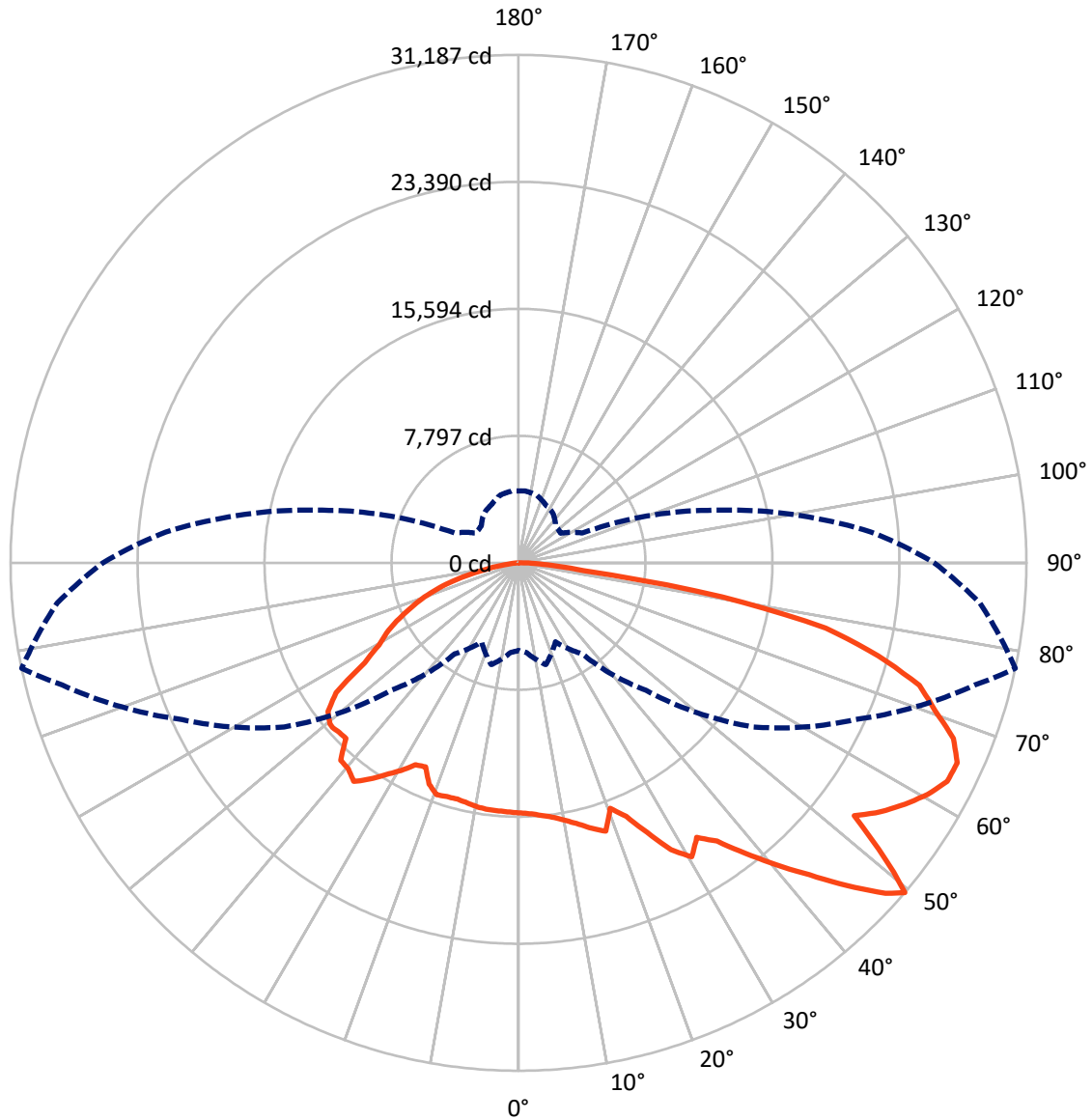
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 19.6 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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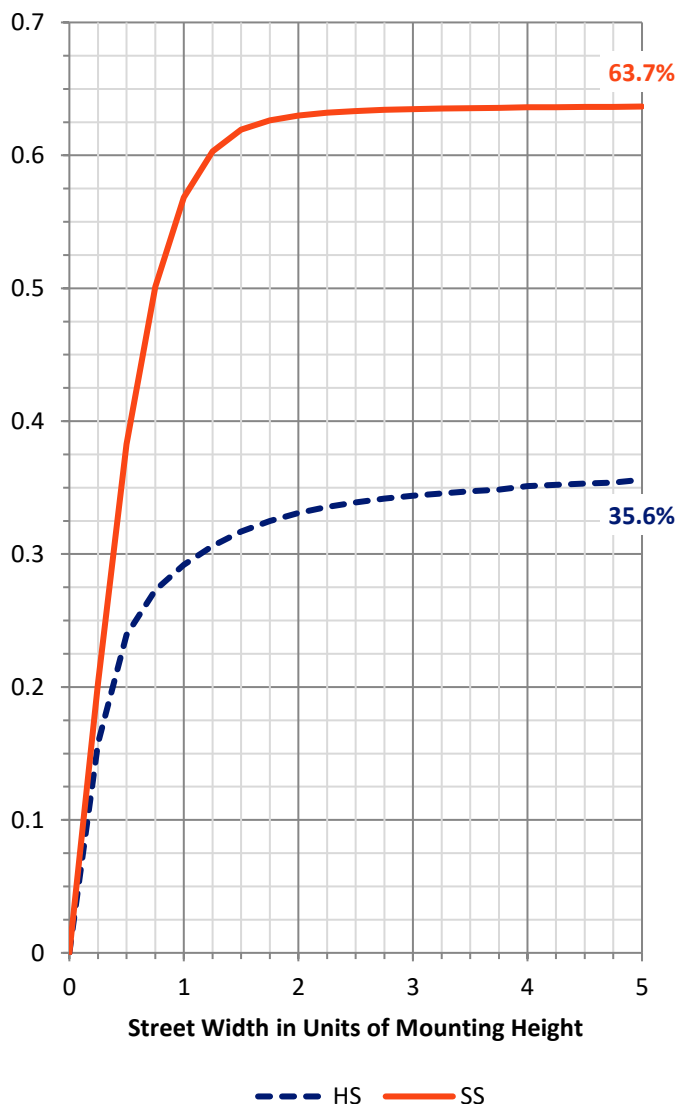
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	18086.4	0.0	18086.4
	% Fixture	36.5	0.0	36.5
Street Side	Lumens	31422.6	0.0	31422.6
	% Fixture	63.5	0.0	63.5
Total	Lumens	49509.0	0.0	49509.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1488.0	3.0
10°-20°	4376.1	8.8
20°-30°	6161.4	12.4
30°-40°	7723.5	15.6
40°-50°	8717.7	17.6
50°-60°	8376.6	16.9
60°-70°	6843.1	13.8
70°-80°	4800.6	9.7
80°-90°	1022.0	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°	49509.0	100.0
0°-180°	49509.0	100.0

Coefficient of Utilization

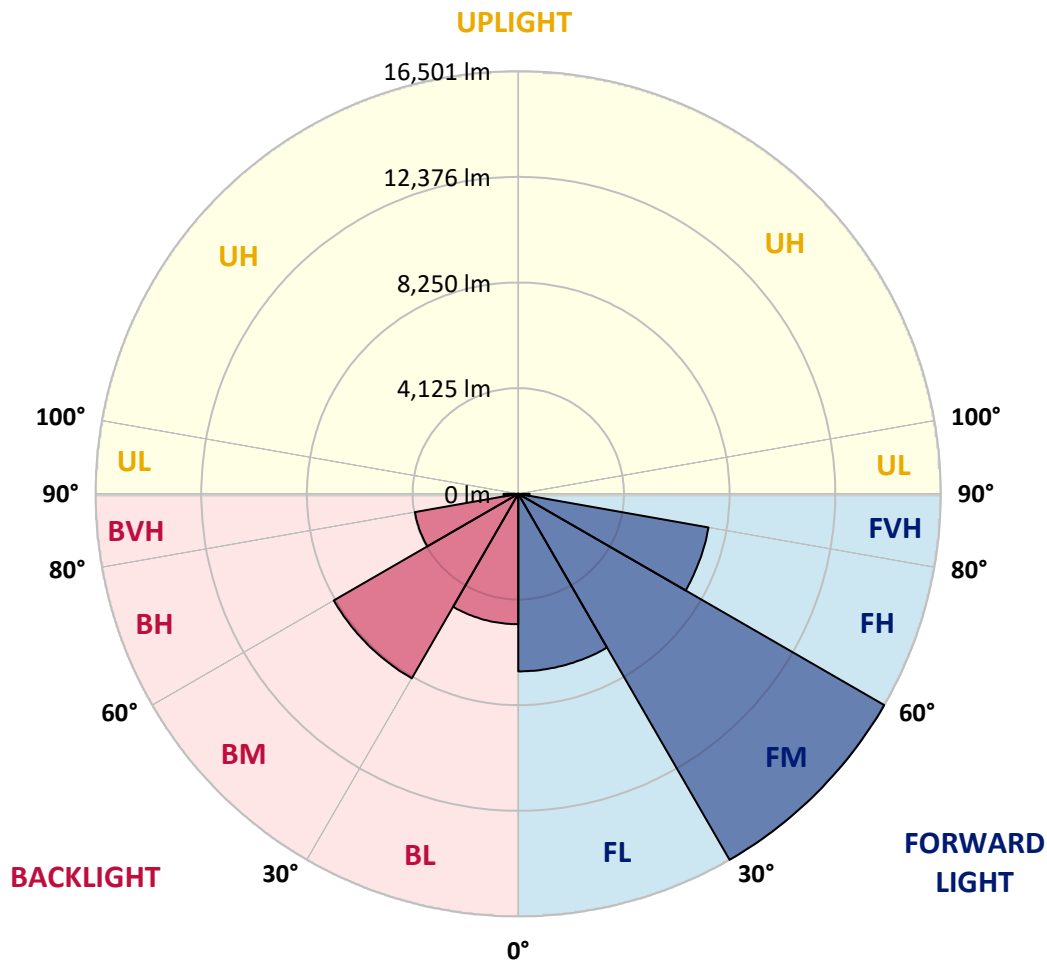


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	6932.7	14.0			
FM (30°-60°)	16500.7	33.3			
FH (60°-80°)	7544.2	15.2			G4/12000
FVH (80°-90°)	445.0	0.9			G3/500
BL (0°-30°)	5092.8	10.3	B5		
BM (30°-60°)	8317.1	16.8	B4/8500		
BH (60°-80°)	4099.6	8.3	B4/5000		G4/5000
BVH (80°-90°)	577.0	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°	15356.5	15356.5	15356.5	15356.5	15356.5	15356.5	15356.5	15356.5	15356.5	15356.5	15356.5
2.5°	15989.4	15841.6	15875.1	15953.2	15652.1	15735.7	15601.9	15660.4	15501.5	15434.6	15462.5
5°	17129.7	16956.9	16995.9	17034.9	16591.6	16402.0	16028.4	15942.0	15699.5	15587.9	15574.0
7.5°	17673.4	17494.9	17536.8	17536.8	17199.4	17230.1	16850.9	16449.4	15964.3	15788.7	15710.6
10°	18546.0	18345.3	18314.6	18261.7	17821.2	17626.0	17310.9	17076.7	16340.7	16089.8	15875.1
12.5°	19184.5	19028.4	19031.2	18972.6	18476.3	18334.1	17779.3	17503.3	16775.6	16471.7	16126.0
15°	19449.4	19337.8	19410.3	19234.7	18902.9	18691.0	18428.9	17985.6	17232.9	16920.6	16494.0
17.5°	18214.3	18013.5	17481.0	17573.0	17550.7	17614.8	17358.3	17620.4	17500.5	17330.5	17048.9
20°	15423.4	15635.3	16008.9	15677.1	15652.1	16485.7	17082.3	17001.5	16332.3	16084.2	16365.8
22.5°	13106.6	12847.3	13636.3	14815.6	15147.4	15997.8	17012.6	17977.3	17221.7	16903.9	16050.7
25°	11026.7	11288.8	12515.5	14299.9	15342.6	15593.5	16756.1	18571.1	18691.0	18345.3	17238.5
27.5°	10697.7	10694.9	11523.0	13251.6	15624.2	16410.4	16767.3	18275.6	20177.0	19940.1	18668.7
30°	10622.4	10583.4	10898.4	12649.3	14857.5	17143.7	17837.9	18367.6	20165.9	20957.7	20302.5
32.5°	10299.0	10268.4	10591.8	11414.2	13814.7	17843.5	18863.9	19560.9	19664.0	20096.2	21961.4
35°	9780.4	9852.9	10276.7	11185.6	12958.8	16466.2	19903.8	20993.9	21242.1	20988.4	21002.3
37.5°	9284.2	9339.9	9774.9	10778.6	12334.3	13393.7	20617.6	22371.2	22923.3	22633.3	21278.3
40°	8640.1	8718.2	9234.0	10346.4	11924.4	11559.2	19583.2	23988.3	24755.0	24384.2	22848.0
42.5°	7915.2	7951.5	8562.1	9635.5	8550.9	11620.5	18119.5	25471.5	26544.9	26176.9	24322.9
45°	7296.3	7318.6	7817.7	8500.7	7708.9	11523.0	17107.4	24768.9	28636.0	28267.9	25884.2
47.5°	6426.4	6585.3	7126.2	5877.2	7159.7	11283.2	17447.6	21964.2	30595.9	30322.7	27400.9
49°	5383.7	5525.9	6476.6	5353.0	6819.5	11068.5	17564.7	22783.9	29006.8	31187.0	28440.8
50°	4948.8	5051.9	4962.7	5166.2	6571.4	10851.1	17377.9	23444.6	26659.2	29868.3	29109.9
52.5°	4301.9	4003.6	3409.8	4639.3	5999.9	10003.5	14319.4	25220.6	26413.9	25811.7	27275.4
55°	1817.8	2590.1	3016.7	3805.7	5422.7	6072.4	13259.9	27155.5	27598.8	26991.0	24509.7
57.5°	1421.9	1449.8	1658.9	2832.6	2999.9	4703.4	12827.8	27986.3	28493.8	27966.8	25460.4
60°	209.1	206.3	273.2	326.2	744.4	2163.5	8383.6	19920.5	27501.2	28875.7	26330.2
62.5°	75.3	78.1	78.1	92.0	136.6	947.9	6094.7	18585.1	28164.8	29542.1	27057.9
65°	5.6	8.4	13.9	30.7	72.5	895.0	5406.0	18914.1	27950.1	29606.2	27412.0
67.5°	0.0	2.8	8.4	22.3	58.5	881.0	5026.8	18359.2	27049.6	28792.1	26636.9
70°	0.0	0.0	5.6	19.5	53.0	847.6	4366.1	16477.3	25438.1	27122.1	25226.2
72.5°	0.0	0.0	5.6	19.5	47.4	808.5	3588.2	14506.2	23971.6	25733.6	23179.8
75°	0.0	0.0	5.6	16.7	41.8	736.0	2623.5	10513.7	21473.5	22820.1	20274.6
77.5°	0.0	0.0	5.6	16.7	39.0	635.7	1773.2	6025.0	17667.8	19296.0	17034.9
80°	0.0	0.0	5.6	13.9	36.2	482.3	1003.7	3008.3	9234.0	12682.8	12175.4
82.5°	0.0	0.0	5.6	13.9	27.9	256.5	468.4	1313.2	3404.2	4017.6	4689.5
85°	0.0	0.0	5.6	11.2	22.3	64.1	158.9	624.5	1859.6	2065.9	2015.8
87.5°	0.0	0.0	5.6	11.2	16.7	25.1	53.0	178.4	688.6	769.5	658.0
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°	15356.5	15356.5	15356.5	15356.5	15356.5	15356.5	15356.5	15356.5	15356.5	15356.5	15356.5
2.5°	15456.9	15370.5	15289.6	15300.8	15108.4	15066.6	14885.3	14996.9	14921.6	14826.8	14888.1
5°	15490.3	15378.8	15236.6	15077.7	14656.7	14506.2	14255.2	14327.7	14227.4	14115.8	14174.4
7.5°	15562.8	15431.8	15197.6	14785.0	14294.3	14029.4	13739.5	13987.6	13956.9	13892.8	13956.9
10°	15593.5	15479.2	15080.5	14601.0	13920.7	13739.5	13519.2	13477.4	13485.7	13499.7	13594.5
12.5°	15674.4	15504.3	14890.9	14322.2	13703.2	13343.6	13126.1	13254.3	12989.5	12872.4	12922.6
15°	15872.3	15548.9	14743.2	13934.6	13318.5	13034.1	12498.8	12498.8	12431.9	12317.6	12351.0
17.5°	16271.0	15727.3	14704.1	13678.1	12889.1	12398.4	11907.7	11648.4	11575.9	11612.2	11634.5
20°	16485.7	16056.3	14684.6	13340.8	12406.8	11838.0	11093.6	10909.6	10667.0	10700.5	10739.5
22.5°	15194.8	14634.4	14653.9	12928.1	11810.1	11088.0	10273.9	9953.3	9805.5	9777.7	9852.9
25°	16114.9	14985.7	13243.2	12702.3	11154.9	10234.9	9409.6	8969.1	8743.3	8729.4	8776.7
27.5°	17336.0	15953.2	13048.0	11642.9	10457.9	9200.5	8288.8	7973.8	7750.8	7739.6	7748.0
30°	18757.9	17244.0	13533.1	10338.1	9512.8	8007.3	7282.4	7059.3	6855.8	6766.6	6769.4
32.5°	20338.8	18412.2	14001.5	10087.1	7625.3	6967.3	6404.1	6231.3	5952.5	5824.2	5788.0
35°	21819.2	19652.9	14587.0	9666.1	6616.0	6041.7	5645.8	5414.4	5196.9	5088.2	5051.9
37.5°	20514.4	20796.0	15105.6	9320.4	5846.5	5007.3	4898.6	4745.2	4633.7	4550.1	4536.1
40°	20812.7	18732.8	15412.3	8668.0	5051.9	4374.4	4198.8	4274.1	4388.4	4318.7	4315.9
42.5°	21808.0	19053.5	15133.5	7764.7	4421.8	3772.2	3822.4	4104.0	4343.8	4299.2	4304.7
45°	23232.7	20054.4	12986.7	6685.7	3811.3	3398.6	3724.8	4053.8	4354.9	4368.9	4368.9
47.5°	24707.6	21180.7	12588.0	5247.1	3362.4	3253.6	3708.1	3992.5	4338.2	4427.4	4416.3
49°	25524.5	21727.2	12476.5	4318.7	3161.6	3223.0	3705.3	3933.9	4304.7	4430.2	4416.3
50°	26001.3	22100.8	12267.4	3947.9	3044.5	3217.4	3708.1	3897.7	4271.3	4410.7	4405.1
52.5°	27002.2	22574.8	11536.9	3250.9	2760.2	3197.9	3752.7	3864.2	4168.1	4315.9	4371.6
55°	22312.7	21774.6	10310.2	2919.1	2631.9	3158.8	3752.7	3883.7	4078.9	4165.3	4218.3
57.5°	22588.7	18618.5	8107.6	2754.6	2545.5	3117.0	3694.2	3881.0	4031.5	4045.4	4028.7
60°	23430.7	19050.7	6044.5	2587.3	2445.1	3064.1	3568.7	3791.7	3906.0	3906.0	3855.9
62.5°	23935.3	19254.2	4834.5	2403.3	2339.2	2955.3	3381.9	3618.9	3705.3	3657.9	3649.5
65°	24060.8	19418.7	3507.4	2205.3	2219.3	2838.2	3189.5	3395.8	3515.7	3434.9	3451.6
67.5°	23628.6	18244.9	2562.2	2001.8	2082.7	2679.3	2999.9	3183.9	3270.4	3228.6	3236.9
70°	22031.1	16968.0	1803.9	1653.3	1862.4	2434.0	2760.2	2972.1	3016.7	2944.2	2955.3
72.5°	19463.3	14996.9	1137.5	1293.7	1639.4	2208.1	2478.6	2612.4	2620.8	2710.0	2757.4
75°	16951.3	12033.2	822.5	1020.4	1302.0	1887.5	2263.9	2389.4	2481.4	2927.4	2999.9
77.5°	13586.1	7614.1	699.8	805.7	1023.2	1566.9	2018.5	2210.9	3039.0	3259.2	3203.5
80°	8233.1	4728.5	526.9	635.7	853.1	1204.4	1728.6	2277.8	3075.2	2868.9	2751.8
82.5°	3800.1	2054.8	356.9	518.6	677.5	897.7	1363.4	2659.8	2634.7	2197.0	2174.7
85°	1366.1	607.8	195.2	370.8	474.0	618.9	1048.3	2634.7	2065.9	1845.7	1728.6
87.5°	348.5	108.7	80.9	181.2	239.8	329.0	571.5	1394.0	1073.4	945.1	911.7
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)