

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: P591411

Luminaire Tested: **CTN-CA10-630-740-U-T2-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591411
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-CA10-630-740-U-T2-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 50640 lumens
Efficiency: N/A
Efficacy: 80.2 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B5 - U0 - G4

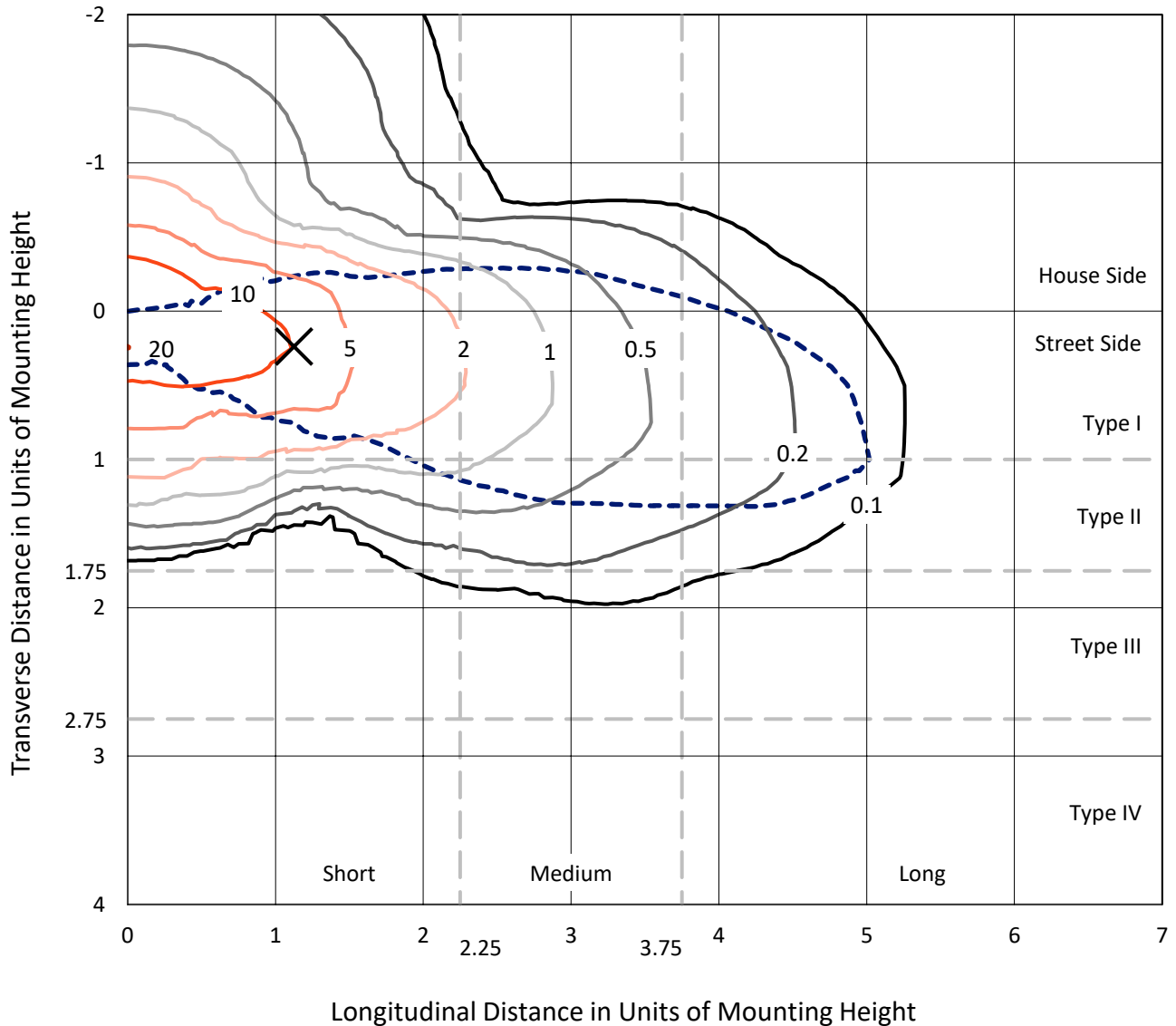
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

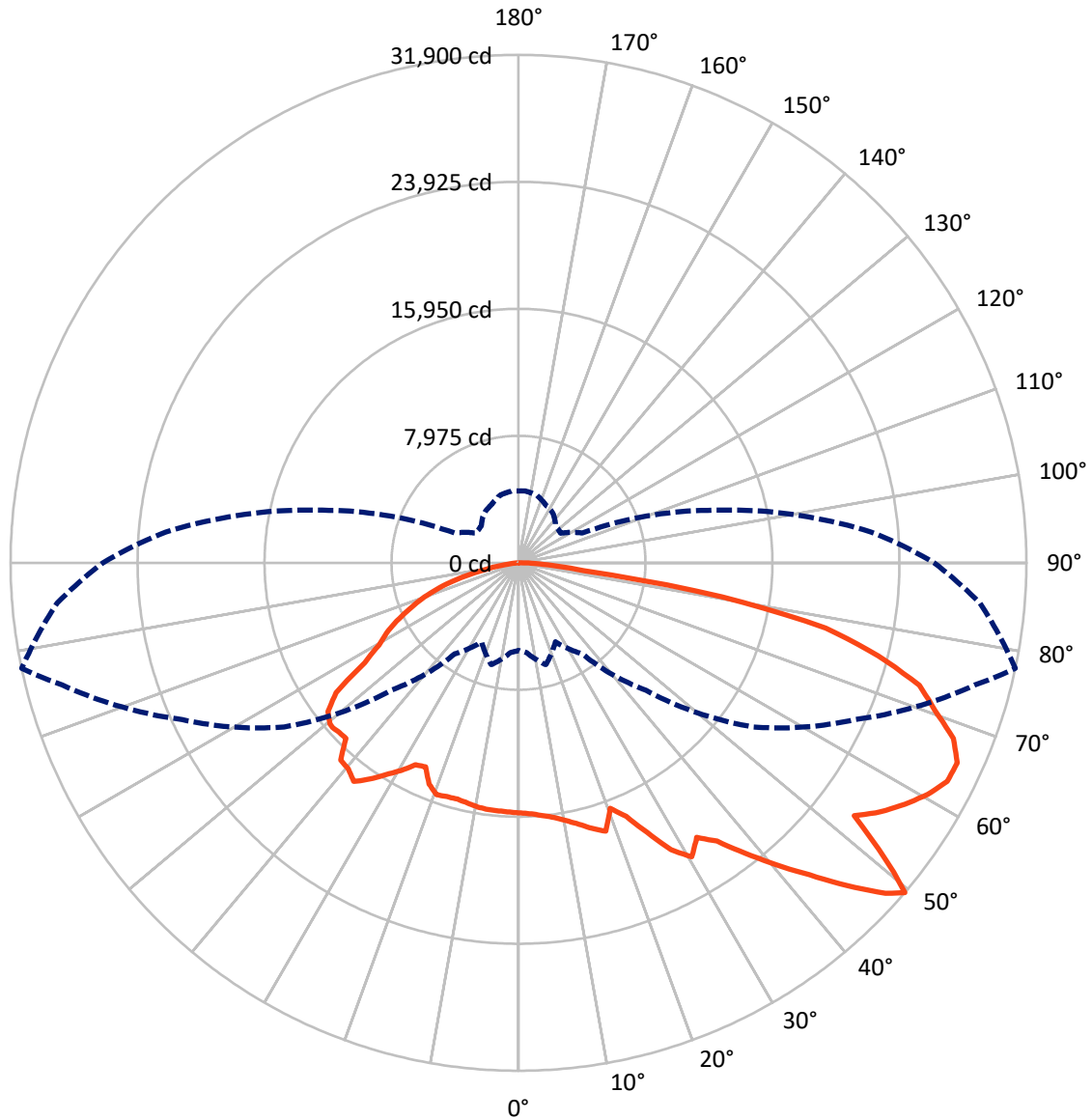
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 20.1 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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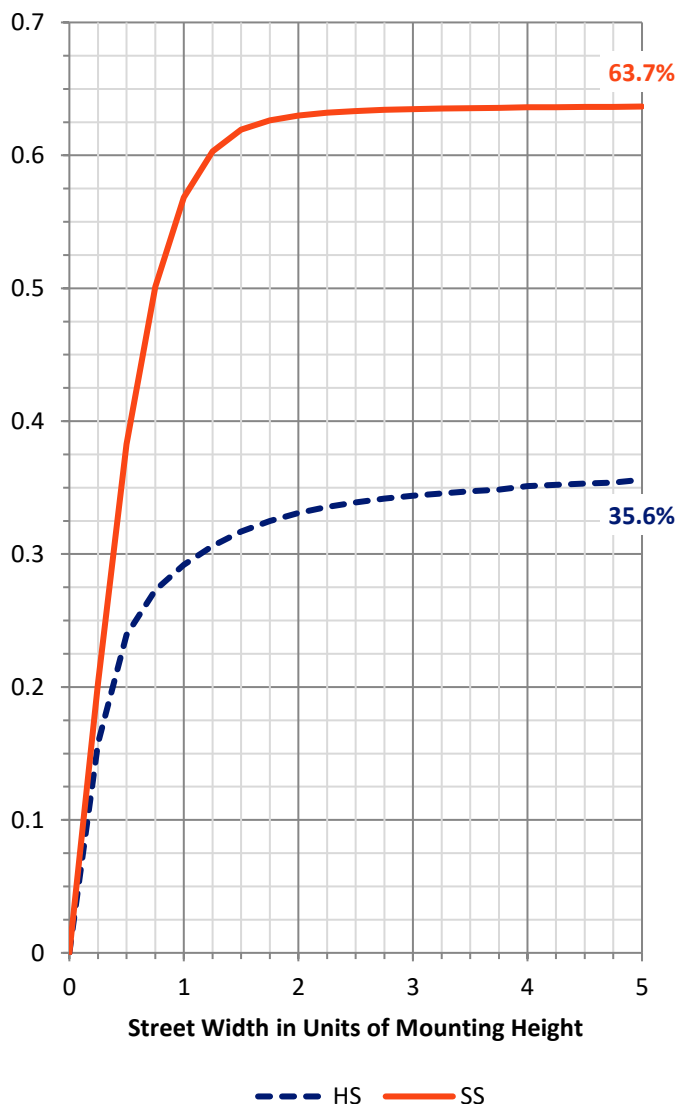
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	18499.6	0.0	18499.6
	% Fixture	36.5	0.0	36.5
Street Side	Lumens	32140.4	0.0	32140.4
	% Fixture	63.5	0.0	63.5
Total	Lumens	50640.0	0.0	50640.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1522.0	3.0
10°-20°	4476.1	8.8
20°-30°	6302.2	12.4
30°-40°	7899.9	15.6
40°-50°	8916.9	17.6
50°-60°	8567.9	16.9
60°-70°	6999.4	13.8
70°-80°	4910.3	9.7
80°-90°	1045.3	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°	50640.0	100.0
0°-180°	50640.0	100.0

Coefficient of Utilization

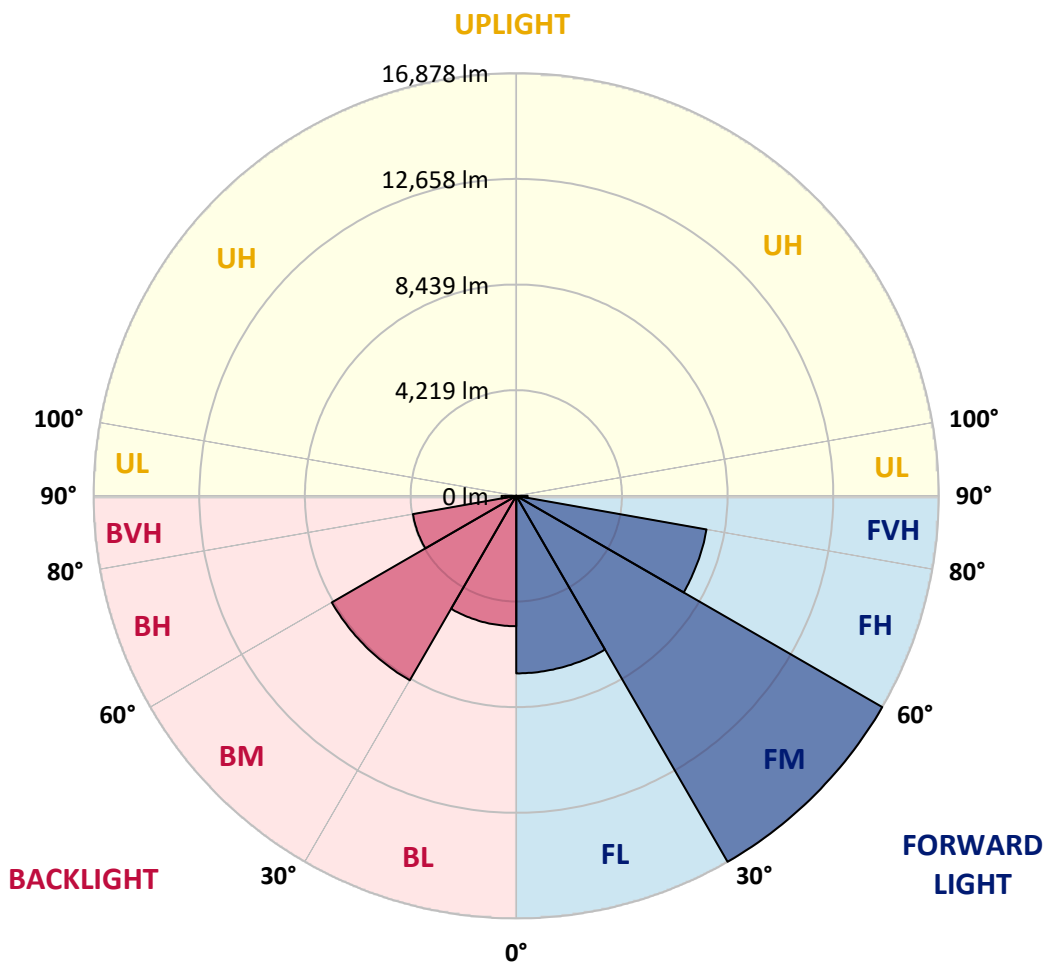


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	7091.1	14.0			
FM (30°-60°)	16877.7	33.3			
FH (60°-80°)	7716.5	15.2			G4/12000
FVH (80°-90°)	455.2	0.9			G3/500
BL (0°-30°)	5209.1	10.3	B5		
BM (30°-60°)	8507.1	16.8	B5		
BH (60°-80°)	4193.2	8.3	B4/5000		G4/5000
BVH (80°-90°)	590.1	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°	15707.3	15707.3	15707.3	15707.3	15707.3	15707.3	15707.3	15707.3	15707.3	15707.3	15707.3
2.5°	16354.7	16203.5	16237.8	16317.6	16009.6	16095.2	15958.3	16018.2	15855.6	15787.2	15815.7
5°	17521.0	17344.2	17384.2	17424.1	16970.6	16776.7	16394.6	16306.2	16058.1	15944.0	15929.8
7.5°	18077.1	17894.6	17937.4	17937.4	17592.3	17623.7	17235.9	16825.2	16329.0	16149.4	16069.5
10°	18969.7	18764.4	18733.0	18678.8	18228.3	18028.6	17706.4	17466.9	16714.0	16457.3	16237.8
12.5°	19622.8	19463.1	19465.9	19406.0	18898.4	18753.0	18185.5	17903.2	17158.9	16848.0	16494.4
15°	19893.7	19779.6	19853.7	19674.1	19334.7	19118.0	18849.9	18396.5	17626.5	17307.2	16870.8
17.5°	18630.4	18425.0	17880.4	17974.5	17951.6	18017.2	17754.9	18022.9	17900.3	17726.4	17438.3
20°	15775.8	15992.5	16374.6	16035.3	16009.6	16862.3	17472.6	17389.9	16705.4	16451.6	16739.7
22.5°	13406.0	13140.8	13947.8	15154.1	15493.5	16363.2	17401.3	18388.0	17615.1	17290.0	16417.4
25°	11278.6	11546.7	12801.4	14626.5	15693.1	15949.7	17138.9	18995.4	19118.0	18764.4	17632.3
27.5°	10942.1	10939.2	11786.2	13554.3	15981.1	16785.3	17150.3	18693.1	20638.0	20395.6	19095.2
30°	10865.1	10825.2	11147.4	12938.3	15196.9	17535.3	18245.4	18787.2	20626.6	21436.5	20766.3
32.5°	10534.3	10502.9	10833.7	11675.0	14130.3	18251.1	19294.8	20007.7	20113.3	20555.3	22463.1
35°	10003.9	10078.0	10511.5	11441.1	13254.8	16842.3	20358.5	21473.5	21727.3	21467.8	21482.1
37.5°	9496.3	9553.3	9998.2	11024.8	12616.1	13699.7	21088.5	22882.3	23446.9	23150.3	21764.4
40°	8837.5	8917.4	9444.9	10582.8	12196.9	11823.3	20030.6	24536.3	25320.5	24941.2	23369.9
42.5°	8096.1	8133.1	8757.7	9855.6	8746.3	11886.0	18533.4	26053.4	27151.3	26774.9	24878.5
45°	7463.0	7485.8	7996.3	8694.9	7885.0	11786.2	17498.2	25334.8	29290.1	28913.7	26475.5
47.5°	6573.2	6735.8	7289.0	6011.4	7323.2	11541.0	17846.1	22465.9	31294.9	31015.4	28026.8
49°	5506.7	5652.1	6624.6	5475.3	6975.3	11321.4	17965.9	23304.3	29669.4	31899.5	29090.5
50°	5061.8	5167.3	5076.1	5284.3	6721.5	11098.9	17774.8	23980.2	27268.2	30550.6	29774.9
52.5°	4400.2	4095.1	3487.7	4745.3	6136.9	10232.0	14646.5	25796.8	27017.3	26401.3	27898.5
55°	1859.3	2649.3	3085.6	3892.6	5546.6	6211.1	13562.8	27775.9	28229.3	27607.6	25069.6
57.5°	1454.4	1482.9	1696.8	2897.4	3068.5	4810.9	13120.8	28625.7	29144.7	28605.7	26042.0
60°	213.9	211.0	279.5	333.7	761.4	2212.9	8575.2	20375.6	28129.5	29535.4	26931.7
62.5°	77.0	79.8	79.8	94.1	139.7	969.6	6233.9	19009.6	28808.2	30216.9	27676.0
65°	5.7	8.6	14.3	31.4	74.1	915.4	5529.5	19346.1	28588.6	30282.5	28038.2
67.5°	0.0	2.9	8.6	22.8	59.9	901.1	5141.7	18778.6	27667.5	29449.8	27245.4
70°	0.0	0.0	5.7	20.0	54.2	866.9	4465.8	16853.7	26019.2	27741.6	25802.5
72.5°	0.0	0.0	5.7	20.0	48.5	827.0	3670.2	14837.6	24519.2	26321.5	23709.3
75°	0.0	0.0	5.7	17.1	42.8	752.9	2683.5	10753.9	21964.0	23341.4	20737.8
77.5°	0.0	0.0	5.7	17.1	39.9	650.2	1813.7	6162.6	18071.4	19736.8	17424.1
80°	0.0	0.0	5.7	14.3	37.1	493.3	1026.6	3077.0	9444.9	12972.5	12453.5
82.5°	0.0	0.0	5.7	14.3	28.5	262.4	479.1	1343.2	3482.0	4109.3	4796.6
85°	0.0	0.0	5.7	11.4	22.8	65.6	162.5	638.8	1902.1	2113.1	2061.8
87.5°	0.0	0.0	5.7	11.4	17.1	25.7	54.2	182.5	704.4	787.1	673.0
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°	15707.3	15707.3	15707.3	15707.3	15707.3	15707.3	15707.3	15707.3	15707.3	15707.3	15707.3
2.5°	15810.0	15721.6	15638.9	15650.3	15453.5	15410.8	15225.4	15339.5	15262.5	15165.5	15228.2
5°	15844.2	15730.1	15584.7	15422.2	14991.5	14837.6	14580.9	14655.0	14552.4	14438.3	14498.2
7.5°	15918.4	15784.3	15544.8	15122.7	14620.8	14349.9	14053.3	14307.1	14275.8	14210.2	14275.8
10°	15949.7	15832.8	15425.0	14934.5	14238.7	14053.3	13828.0	13785.3	13793.8	13808.1	13905.0
12.5°	16032.4	15858.5	15231.1	14649.3	14016.3	13648.4	13425.9	13557.1	13286.2	13166.4	13217.8
15°	16234.9	15904.1	15080.0	14252.9	13622.7	13331.8	12784.3	12784.3	12715.9	12598.9	12633.2
17.5°	16642.7	16086.6	15040.0	13990.6	13183.6	12681.6	12179.7	11914.5	11840.4	11877.5	11900.3
20°	16862.3	16423.1	15020.1	13645.5	12690.2	12108.4	11347.0	11158.8	10910.7	10944.9	10984.9
22.5°	15541.9	14968.7	14988.7	13223.5	12079.9	11341.3	10508.6	10180.7	10029.5	10001.0	10078.0
25°	16483.0	15328.1	13545.7	12992.5	11409.8	10468.7	9624.6	9174.0	8943.0	8928.8	8977.2
27.5°	17732.1	16317.6	13346.1	11908.8	10696.8	9410.7	8478.2	8155.9	7927.8	7916.4	7925.0
30°	19186.4	17638.0	13842.3	10574.2	9730.1	8190.2	7448.7	7220.6	7012.4	6921.2	6924.0
32.5°	20803.4	18832.8	14321.4	10317.6	7799.5	7126.5	6550.4	6373.6	6088.4	5957.3	5920.2
35°	22317.6	20101.8	14920.3	9887.0	6767.2	6179.7	5774.8	5538.1	5315.6	5204.4	5167.3
37.5°	20983.0	21271.1	15450.7	9533.3	5980.1	5121.7	5010.5	4853.6	4739.6	4654.0	4639.8
40°	21288.2	19160.8	15764.4	8866.0	5167.3	4474.4	4294.7	4371.7	4488.6	4417.3	4414.5
42.5°	22306.2	19488.7	15479.2	7942.1	4522.8	3858.4	3909.7	4197.7	4443.0	4397.4	4403.1
45°	23763.5	20512.5	13283.4	6838.5	3898.3	3476.3	3809.9	4146.4	4454.4	4468.7	4468.7
47.5°	25272.0	21664.6	12875.6	5367.0	3439.2	3328.0	3792.8	4083.7	4437.3	4528.5	4517.1
49°	26107.6	22223.5	12761.5	4417.3	3233.9	3296.6	3790.0	4023.8	4403.1	4531.4	4517.1
50°	26595.2	22605.7	12547.6	4038.1	3114.1	3290.9	3792.8	3986.7	4368.9	4511.4	4505.7
52.5°	27619.0	23090.5	11800.5	3325.1	2823.2	3270.9	3838.4	3952.5	4263.3	4414.5	4471.5
55°	22822.4	22272.0	10545.7	2985.8	2692.0	3231.0	3838.4	3972.5	4172.1	4260.5	4314.7
57.5°	23104.7	19043.9	8292.8	2817.5	2603.6	3188.2	3778.5	3969.6	4123.6	4137.9	4120.8
60°	23965.9	19485.9	6182.6	2646.4	2501.0	3134.1	3650.2	3878.4	3995.3	3995.3	3943.9
62.5°	24482.1	19694.1	4944.9	2458.2	2392.6	3022.8	3459.1	3701.5	3790.0	3741.5	3732.9
65°	24610.4	19862.3	3587.5	2255.7	2270.0	2903.1	3262.4	3473.4	3596.0	3513.3	3530.4
67.5°	24168.4	18661.7	2620.7	2047.5	2130.2	2740.5	3068.5	3256.7	3345.1	3302.3	3310.9
70°	22534.4	17355.6	1845.1	1691.1	1905.0	2489.6	2823.2	3039.9	3085.6	3011.4	3022.8
72.5°	19907.9	15339.5	1163.5	1323.2	1676.8	2258.6	2535.2	2672.1	2680.6	2771.9	2820.4
75°	17338.5	12308.1	841.3	1043.7	1331.8	1930.6	2315.6	2443.9	2538.0	2994.3	3068.5
77.5°	13896.5	7788.1	715.8	824.2	1046.6	1602.7	2064.7	2261.4	3108.4	3333.7	3276.6
80°	8421.2	4836.5	539.0	650.2	872.6	1231.9	1768.1	2329.9	3145.5	2934.4	2814.7
82.5°	3886.9	2101.7	365.0	530.4	693.0	918.3	1394.5	2720.6	2694.9	2247.2	2224.3
85°	1397.3	621.7	199.6	379.3	484.8	633.1	1072.3	2694.9	2113.1	1887.8	1768.1
87.5°	356.5	111.2	82.7	185.4	245.2	336.5	584.6	1425.9	1097.9	966.7	932.5
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)