

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: P591429

Luminaire Tested: **CTN-CA10-760-740-U-T4-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591429
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-12)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-760-740-U-T4-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: 46837 lumens
Efficiency: N/A
Efficacy: 61.5 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B5 - U0 - G4

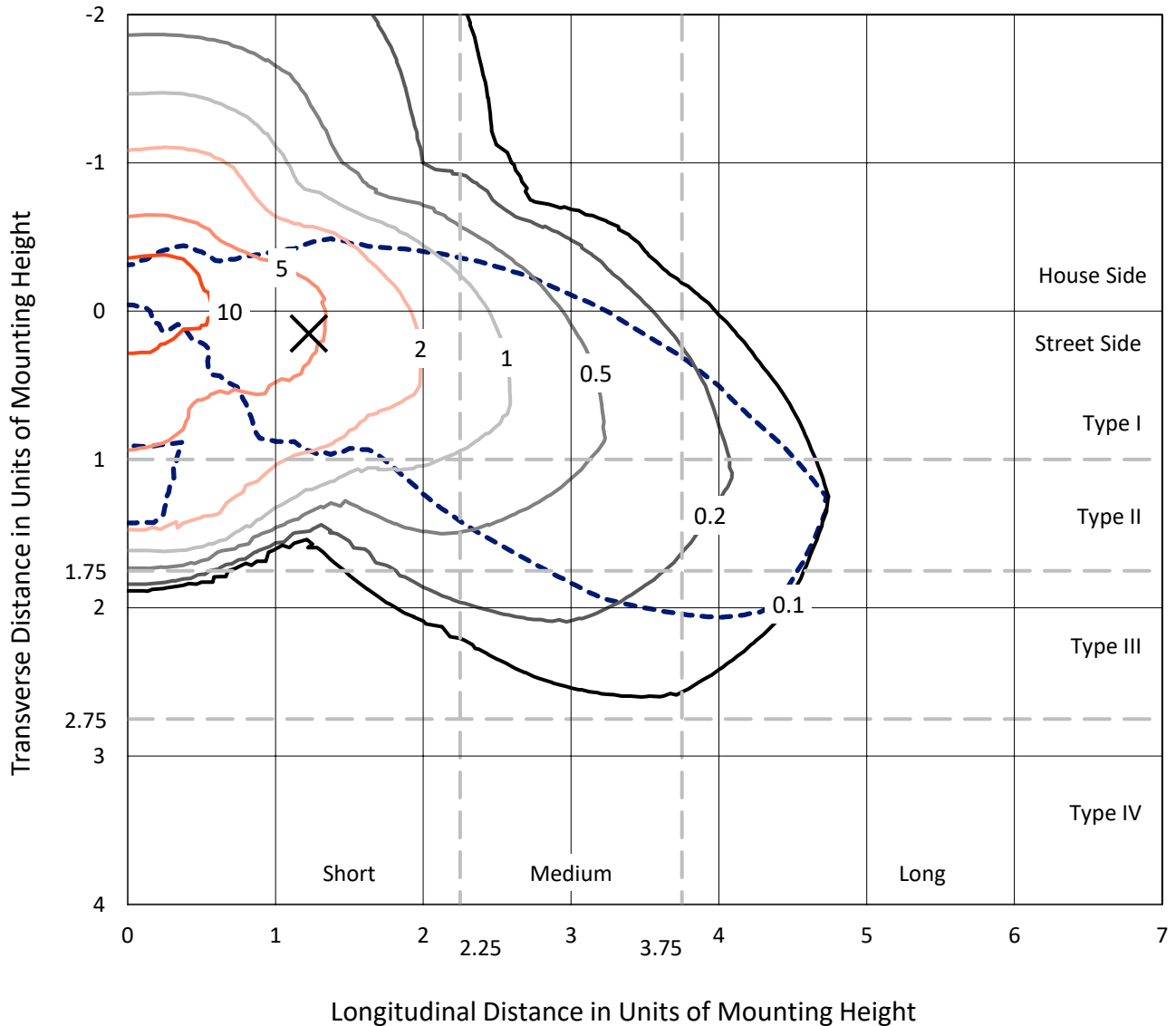
Input Watts (W): 761.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

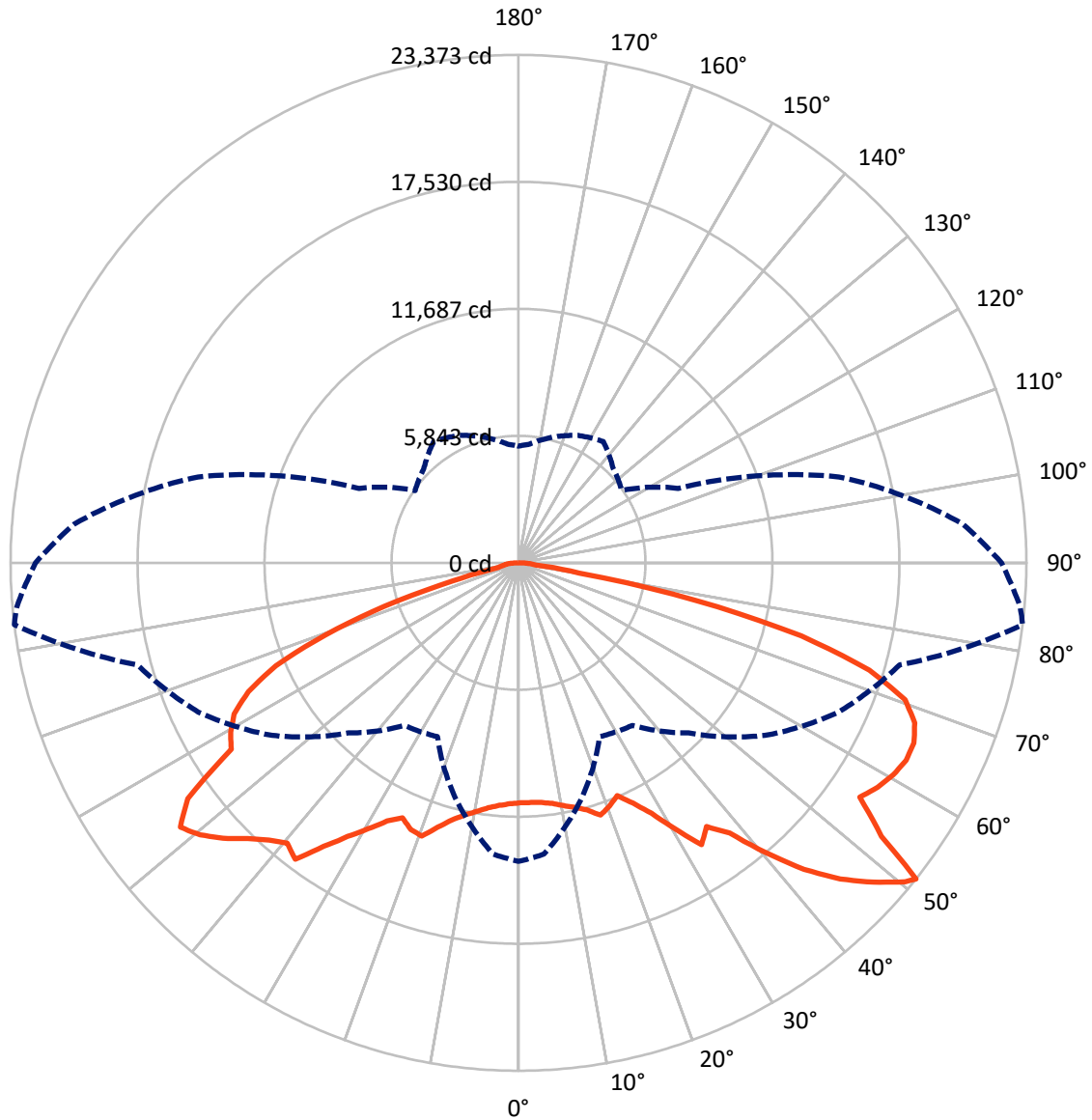
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 13 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 83-Deg Lateral - - - Horizontal Cone Through 51-Deg Vertical

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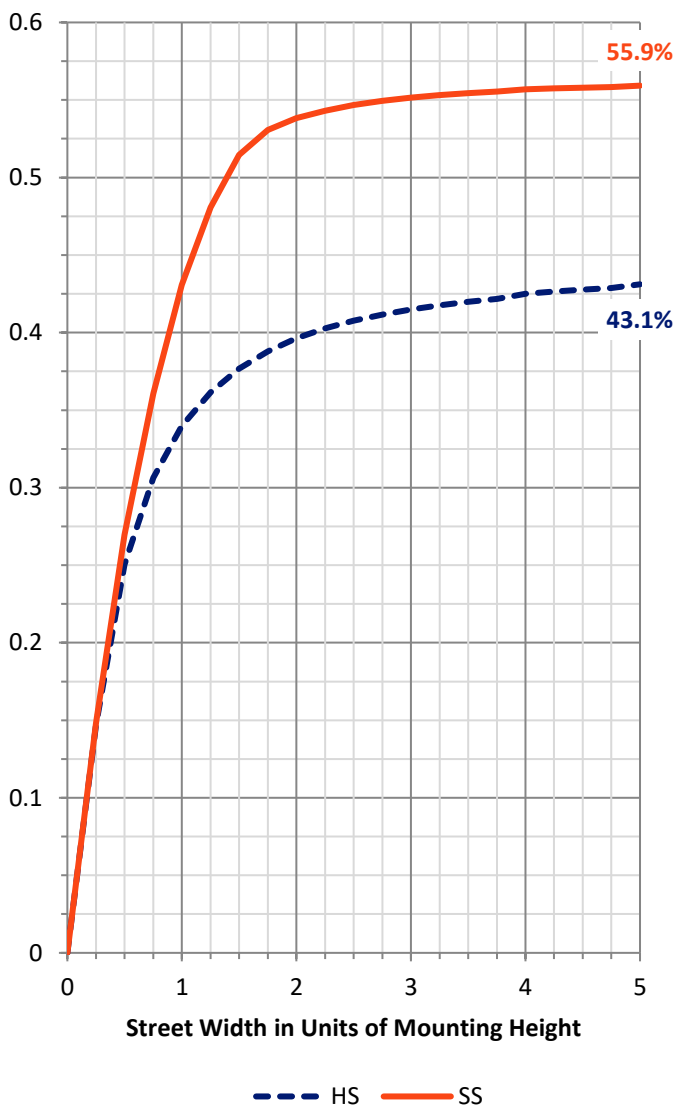
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	20643.7	0.0	20643.7
	% Fixture	44.1	0.0	44.1
Street Side	Lumens	26193.3	0.0	26193.3
	% Fixture	55.9	0.0	55.9
Total	Lumens	46837.0	0.0	46837.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1078.4	2.3
10°-20°	3282.0	7.0
20°-30°	5098.3	10.9
30°-40°	6821.7	14.6
40°-50°	8850.3	18.9
50°-60°	9425.8	20.1
60°-70°	6566.1	14.0
70°-80°	4581.0	9.8
80°-90°	1133.4	2.4
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°	46837.0	100.0
0°-180°	46837.0	100.0

Coefficient of Utilization



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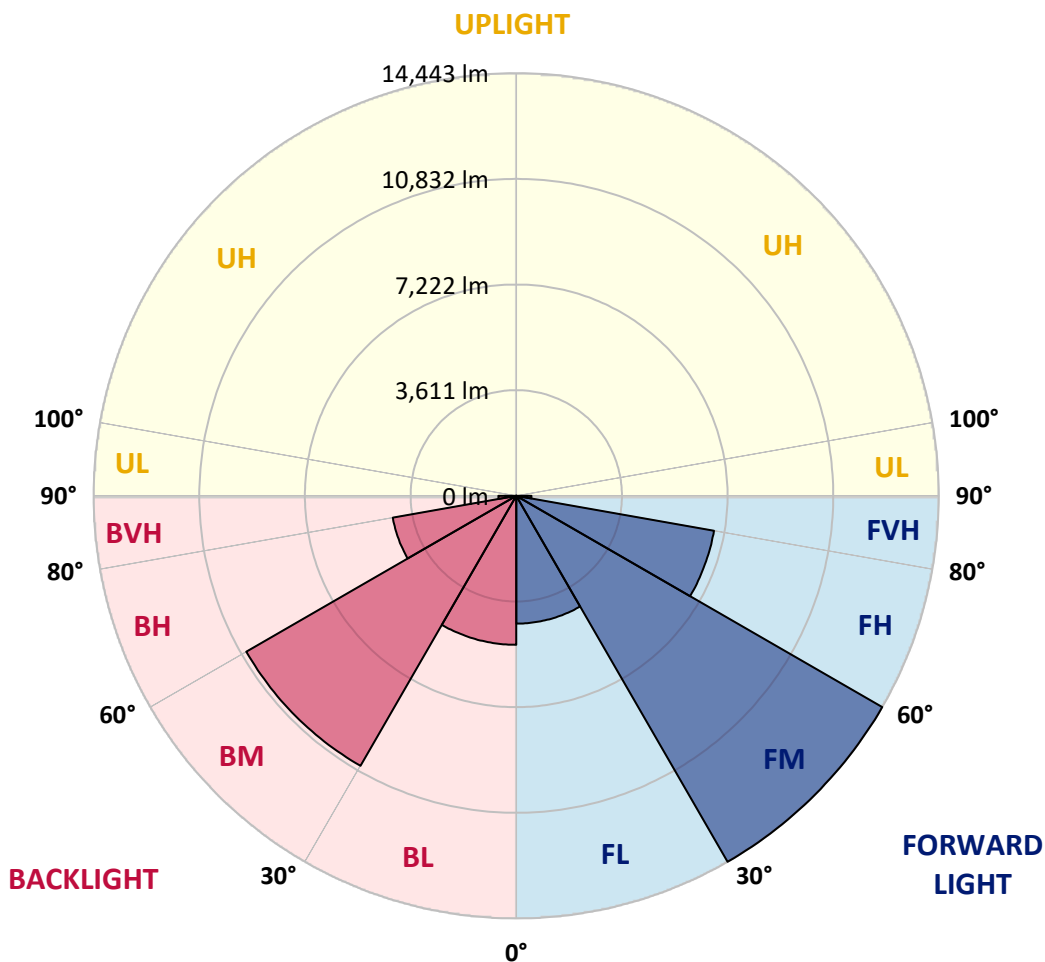
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4367.1	9.3			
FM (30°-60°)	14443.2	30.8			
FH (60°-80°)	6862.7	14.7			G3/7500
FVH (80°-90°)	520.4	1.1			G4/750
BL (0°-30°)	5091.6	10.9	B5		
BM (30°-60°)	10654.7	22.7	B5		
BH (60°-80°)	4284.4	9.1	B4/5000		G4/5000
BVH (80°-90°)	613.0	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°	83°	85°
0°	11039.6	11039.6	11039.6	11039.6	11039.6	11039.6	11039.6	11039.6	11039.6	11039.6	11039.6
2.5°	10907.9	10832.2	10838.8	10940.8	10805.8	10894.7	10881.6	11039.6	11010.0	11042.9	11066.0
5°	10812.4	10753.2	10753.2	10888.2	10792.7	10888.2	10822.3	10960.6	11006.7	11079.1	11105.5
7.5°	10832.2	10769.6	10796.0	10914.5	10809.1	10907.9	10904.6	11036.3	11052.8	11181.2	11224.0
10°	10888.2	10819.0	10832.2	10927.7	10868.4	11039.6	11010.0	11191.1	11191.1	11362.3	11428.1
12.5°	10772.9	10726.8	10753.2	10881.6	10934.3	11112.0	11151.6	11335.9	11362.3	11546.7	11629.0
15°	10647.8	10582.0	10667.6	10851.9	10940.8	11197.7	11283.3	11566.4	11605.9	11796.9	11889.1
17.5°	10042.0	9999.2	10157.2	10305.4	10354.8	10605.0	10772.9	11243.7	11810.0	12208.4	12317.1
20°	8837.0	8830.4	8537.3	8474.8	9241.9	10157.2	10272.5	10674.2	11329.4	11951.6	12172.2
22.5°	7378.4	7575.9	8527.5	8830.4	8810.6	9172.8	10647.8	11026.4	11316.2	11632.3	11764.0
25°	7378.4	7361.9	7924.9	9228.8	9232.1	9386.8	9716.0	11612.5	11889.1	12251.2	12356.6
27.5°	7612.2	7628.6	7592.4	8543.9	9686.4	9831.3	9972.9	10954.0	12649.6	13051.3	13225.8
30°	8007.3	8033.6	7888.7	7892.0	9837.9	10272.5	10542.5	10927.7	13179.7	14210.3	14289.3
32.5°	8787.6	8777.7	8596.6	8362.8	8632.8	10703.8	11098.9	11599.3	12343.4	15461.4	15645.8
35°	9409.8	9367.0	9241.9	9080.6	8725.0	10582.0	11629.0	12320.4	13268.6	14905.0	15879.5
37.5°	10101.3	10038.7	9897.1	9699.6	9376.9	7385.0	12152.5	13143.5	14615.2	15777.5	15840.0
40°	10881.6	10812.4	10618.2	10328.4	9916.9	7566.1	12386.2	14160.9	16370.1	17538.9	17529.0
42.5°	11480.8	11411.7	11309.6	11003.4	8718.4	8346.4	10802.6	15589.8	18269.9	19283.9	19198.3
45°	11987.8	11928.6	11938.5	11615.8	8178.5	9304.5	12033.9	16337.2	20061.0	20752.4	20640.4
47.5°	12382.9	12290.7	12040.5	9772.0	8389.2	9966.3	13034.8	14249.8	21572.2	21964.0	21838.9
50°	13344.3	13189.6	11701.4	8675.6	8922.6	10776.2	13986.4	15718.2	19649.4	23067.0	22846.4
51°	13736.1	13456.3	11214.1	8827.1	9133.3	11069.2	13844.8	16251.6	18151.3	23373.2	23175.6
52.5°	14147.7	13594.6	9877.4	9057.6	9390.1	11474.2	11760.7	17071.4	18569.5	20917.0	22082.5
55°	11935.2	12152.5	10200.0	9900.4	9877.4	9916.9	12010.9	18292.9	19442.0	19046.9	18816.4
57.5°	7019.5	7147.9	10361.4	11085.7	8547.2	7875.6	12672.7	19214.8	20195.9	19484.8	19228.0
60°	3529.5	3694.1	3773.2	3440.6	4609.4	7184.1	10674.2	13927.1	20656.9	19814.0	19504.5
62.5°	154.7	256.8	102.1	111.9	187.7	2505.6	7842.6	14305.7	21045.4	20014.9	19606.6
65°	13.2	13.2	16.5	32.9	82.3	2630.7	8728.3	14829.2	21203.4	19995.1	19448.6
67.5°	3.3	3.3	6.6	23.0	59.3	2848.0	9768.7	15043.2	21210.0	19659.3	18990.9
70°	0.0	3.3	6.6	19.8	52.7	2979.7	9995.9	15000.4	20940.0	18869.1	17950.5
72.5°	0.0	0.0	3.3	16.5	46.1	2811.8	9732.5	14914.8	20018.1	16880.4	15576.6
75°	0.0	0.0	3.3	13.2	39.5	2861.1	9758.8	13953.4	17479.7	13439.8	11856.1
77.5°	0.0	0.0	3.3	13.2	36.2	2640.6	8935.7	12083.3	13815.2	8366.1	6634.3
80°	0.0	0.0	3.3	13.2	32.9	2265.2	7348.8	9432.9	7730.7	2838.1	1830.6
82.5°	0.0	0.0	3.3	13.2	26.3	1534.3	4882.7	4714.8	1557.3	813.2	730.9
85°	0.0	0.0	3.3	9.9	19.8	915.3	2446.3	642.0	602.5	516.9	467.5
87.5°	0.0	0.0	3.3	6.6	13.2	388.5	754.0	197.5	250.2	210.7	187.7
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°	11039.6	11039.6	11039.6	11039.6	11039.6	11039.6	11039.6	11039.6	11039.6	11039.6	11039.6
2.5°	11085.7	11085.7	11121.9	11243.7	11230.6	11329.4	11273.4	11395.2	11405.1	11382.0	11438.0
5°	11128.5	11168.0	11289.8	11418.2	11365.6	11510.4	11579.6	11740.9	11734.3	11714.6	11780.4
7.5°	11250.3	11332.6	11454.5	11609.2	11665.2	11783.7	11790.3	12010.9	11997.7	11987.8	12053.7
10°	11454.5	11563.1	11698.1	11931.9	11898.9	12070.2	11997.7	12159.0	12155.8	12149.2	12215.0
12.5°	11665.2	11823.2	11987.8	12215.0	12211.7	12218.3	12155.8	12238.1	12221.6	12175.5	12224.9
15°	11961.5	12172.2	12399.4	12564.0	12419.2	12389.5	12251.2	12201.9	12106.4	11974.7	12014.2
17.5°	12452.1	12659.5	12949.2	13038.1	12801.1	12666.1	12290.7	12017.5	11721.2	11520.3	11563.1
20°	12893.3	13278.5	13555.1	13548.5	13245.6	12890.0	12307.2	11846.3	11273.4	10884.9	10851.9
22.5°	12343.4	12992.0	14197.1	14055.5	13525.4	13021.7	12287.5	11573.0	10621.5	10019.0	9995.9
25°	12659.5	12672.7	13752.6	14338.7	13650.5	12965.7	12050.4	11095.6	9877.4	9251.8	9215.6
27.5°	13466.2	13393.7	13094.1	14035.8	13535.3	12679.3	11573.0	10282.3	9199.1	8655.9	8629.5
30°	14424.3	14200.4	13495.8	12567.3	13061.2	12122.8	10838.8	9449.4	8586.7	8092.9	8053.4
32.5°	15570.0	15099.2	13861.3	12406.0	11507.1	11283.3	9890.5	8790.9	8079.7	7566.1	7464.0
35°	16929.8	16225.2	14213.5	12132.7	10295.5	10038.7	8998.3	8198.2	7602.3	7082.1	6980.0
37.5°	16926.5	17660.7	14733.8	11757.4	9544.8	8642.7	8349.7	7803.1	7269.7	6640.9	6525.7
40°	17051.6	17074.7	15306.6	11391.9	8843.5	7924.9	7964.5	7608.9	7059.0	6367.6	6249.1
42.5°	18572.8	17453.3	16007.9	10901.3	8181.8	7394.9	7799.8	7539.7	6947.1	6239.2	6107.5
45°	19896.3	18605.7	14470.4	10364.7	7487.1	6983.3	7668.1	7378.4	6789.0	6084.5	5936.3
47.5°	21048.7	19521.0	14862.2	9426.3	6808.8	6647.5	7414.6	7068.9	6505.9	5850.7	5719.0
50°	21924.5	20278.3	15204.6	8165.3	6150.3	6311.6	7003.1	6650.8	6107.5	5577.4	5465.5
51°	22224.1	20521.9	15273.7	8109.3	5801.3	6153.6	6808.8	6466.4	5979.1	5472.1	5370.0
52.5°	22546.8	20838.0	15375.8	8234.4	5307.4	5893.5	6492.7	6193.1	5788.1	5353.5	5238.3
55°	18747.3	19580.3	15115.7	7971.0	4734.6	5376.6	5913.3	5778.3	5554.4	5169.2	5086.8
57.5°	18062.4	16567.7	12537.7	6749.5	4230.8	4760.9	5350.2	5439.1	5267.9	4876.1	4816.9
60°	18210.6	16416.2	11164.7	5034.2	3730.4	4211.1	4928.8	5007.8	4859.7	4563.3	4481.0
62.5°	18184.2	16027.7	9956.4	3546.0	3295.8	3924.6	4625.9	4658.8	4454.7	4207.8	4132.0
65°	17749.6	15135.4	8306.9	2683.4	3055.4	3766.6	4448.1	4464.6	4211.1	3895.0	3855.5
67.5°	16781.7	13723.0	5778.3	2357.4	2920.4	3644.8	4329.6	4257.1	4013.5	3681.0	3621.7
70°	14928.0	11181.2	2699.8	2169.7	2716.3	3420.9	4039.8	3954.2	3687.6	3378.1	3325.4
72.5°	11968.1	7770.2	1280.8	1985.4	2502.3	3141.0	3684.3	3549.3	3328.7	3213.4	3183.8
75°	7832.8	3648.0	1070.0	1787.8	2219.1	2801.9	3378.1	3328.7	3124.5	2894.1	2782.1
77.5°	3177.2	961.4	968.0	1587.0	1991.9	2581.3	3052.1	3012.6	2742.6	2535.2	2489.1
80°	800.1	721.0	885.7	1310.4	1735.1	2248.7	2676.8	2564.8	2466.1	2242.2	2169.7
82.5°	609.1	579.5	694.7	1014.1	1425.6	1853.7	2285.0	2331.1	2166.4	1995.2	1959.0
85°	424.7	526.8	421.4	721.0	1056.9	1461.9	1916.2	1998.5	1886.6	1692.3	1560.6
87.5°	233.8	276.6	174.5	378.6	559.7	800.1	1099.7	1109.6	918.6	842.9	793.5
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)