

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: P591235

Luminaire Tested: **CTN-CA10-760-727-U-T3-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591235
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-7)
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-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D 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: 62482 lumens
Efficiency: N/A
Efficacy: 82.0 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type III - Medium
BUG Rating: B5 - U0 - G5

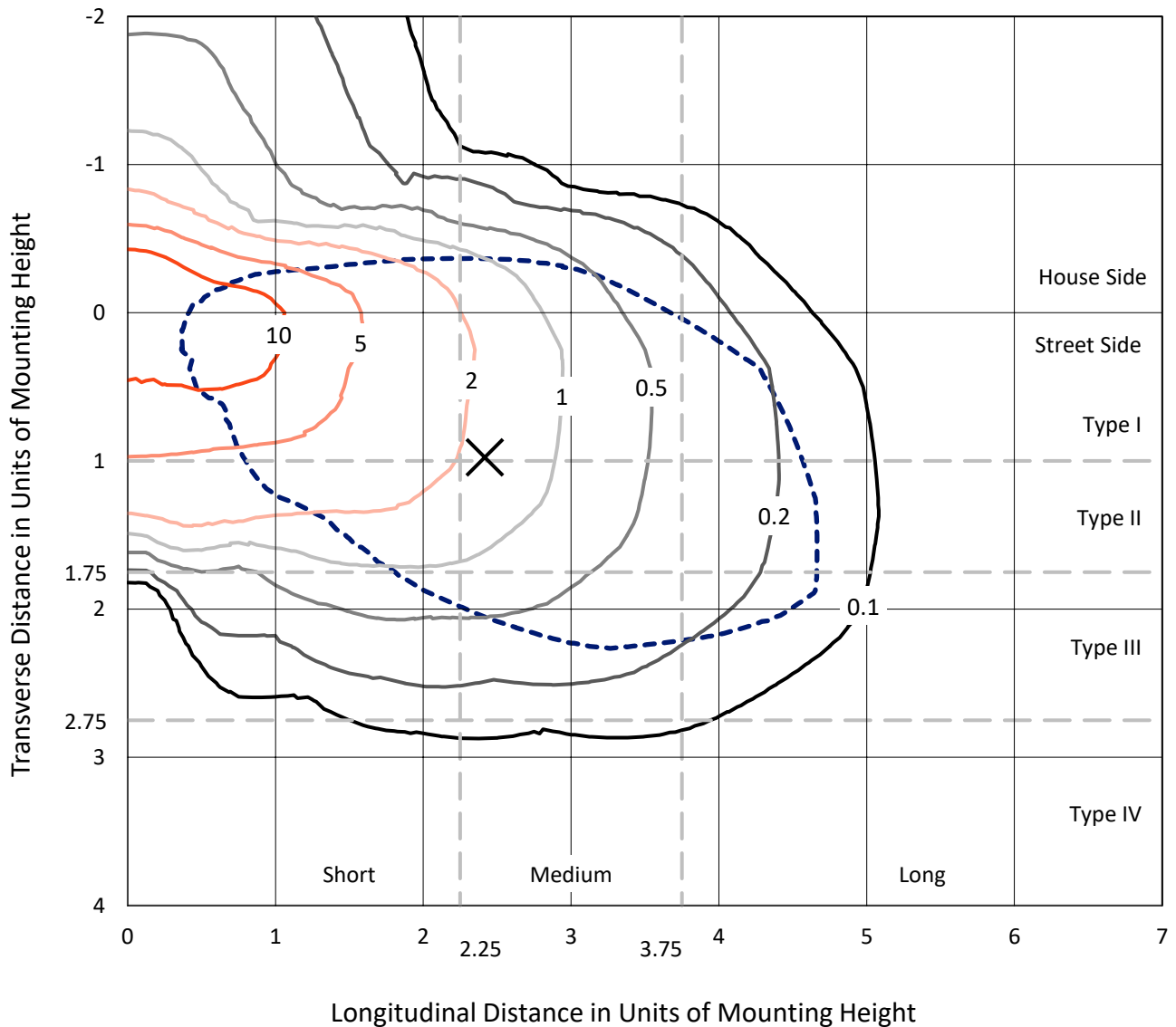
Input Watts (W): 761.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

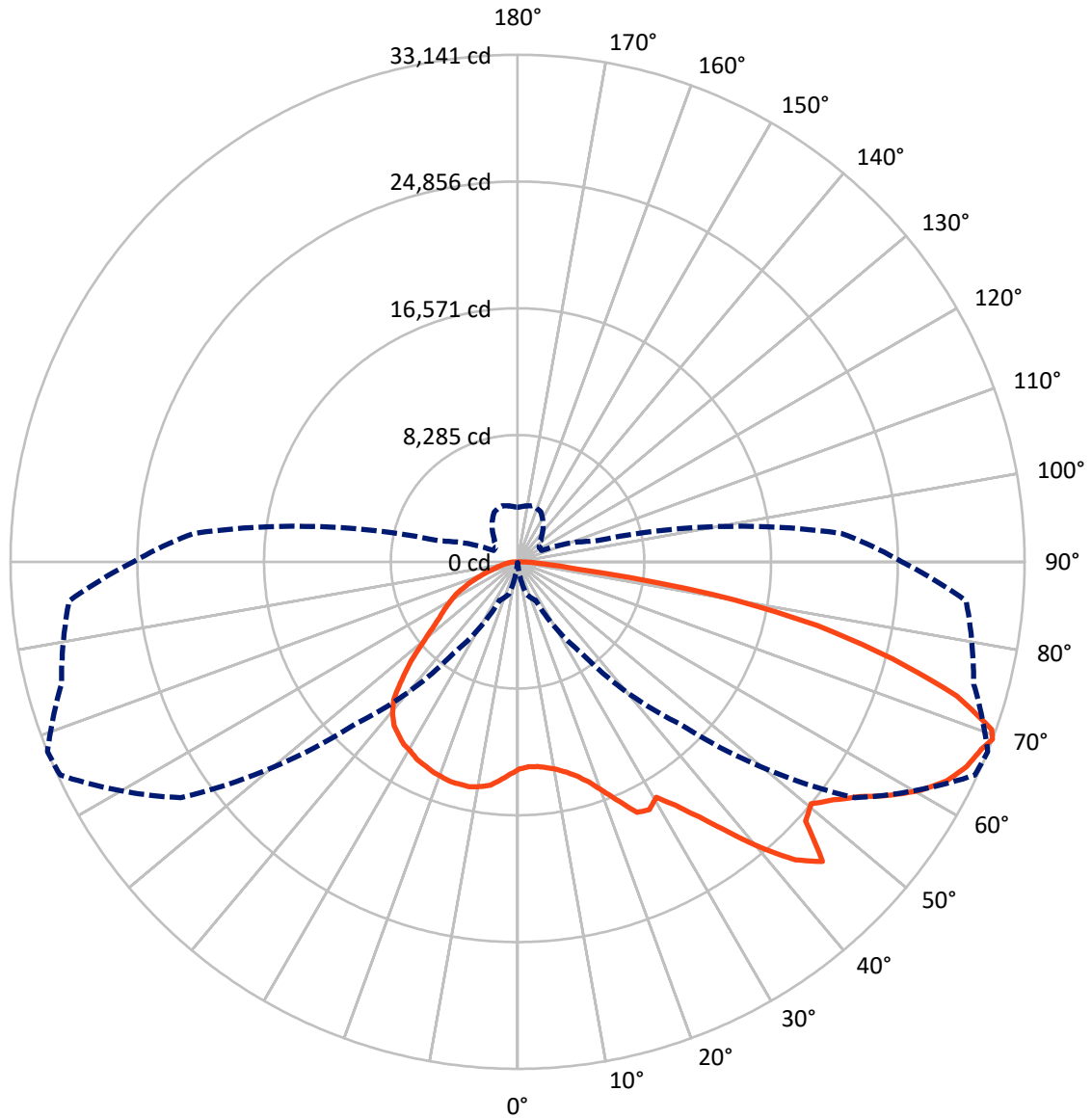
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 16.7 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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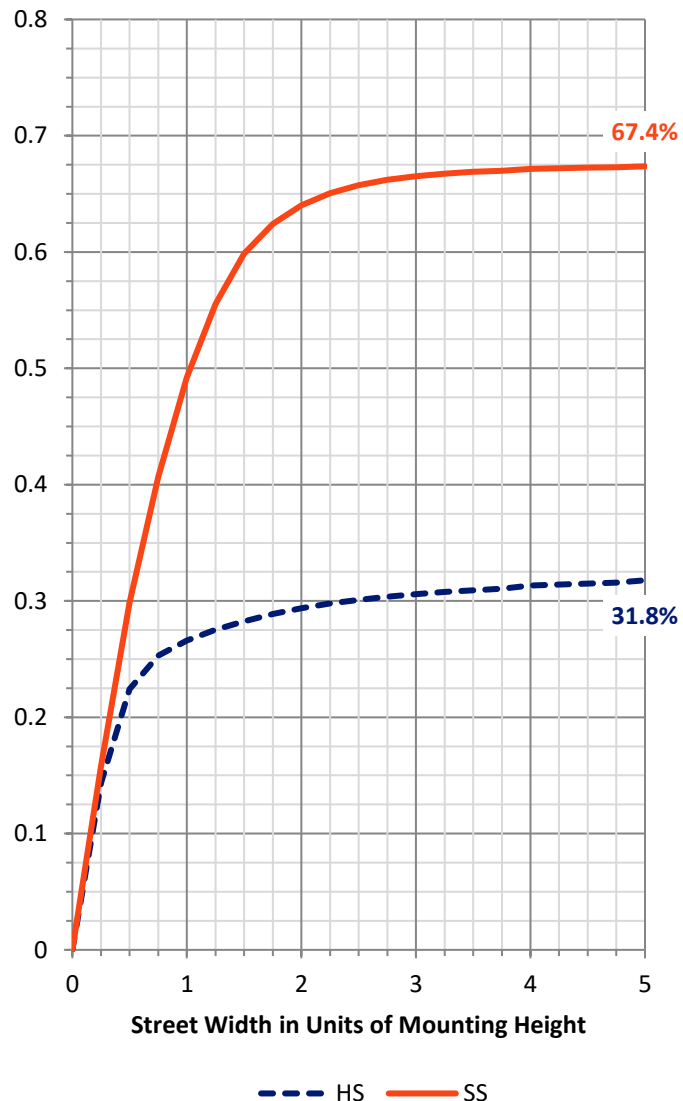
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	20380.7	0.0	20380.7
	% Fixture	32.6	0.0	32.6
Street Side	Lumens	42101.3	0.0	42101.3
	% Fixture	67.4	0.0	67.4
Total	Lumens	62482.0	0.0	62482.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1352.8	2.2
10°-20°	4185.5	6.7
20°-30°	6435.2	10.3
30°-40°	8358.1	13.4
40°-50°	10316.8	16.5
50°-60°	11586.8	18.5
60°-70°	11323.8	18.1
70°-80°	7604.2	12.2
80°-90°	1318.9	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°	62482.0	100.0
0°-180°	62482.0	100.0

Coefficient of Utilization

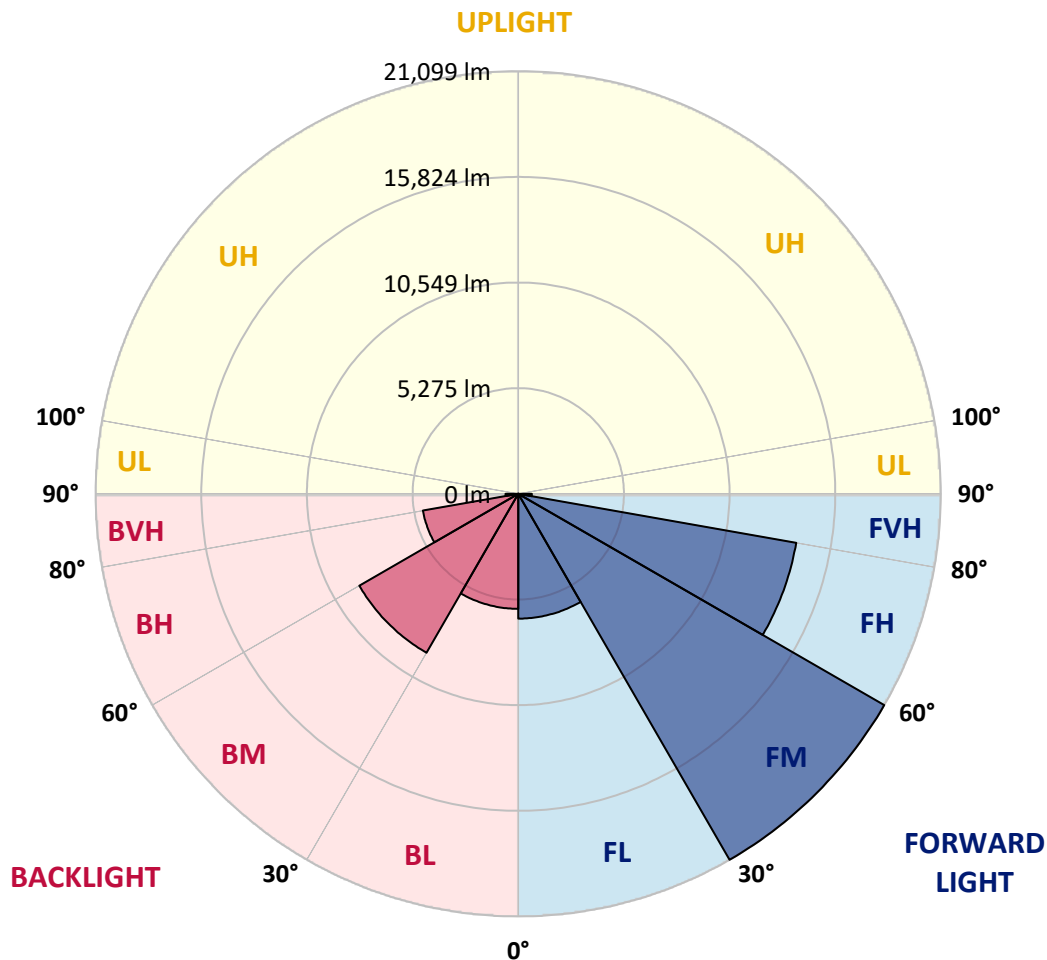


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	6230.1	10.0			
FM (30°-60°)	21098.6	33.8			
FH (60°-80°)	14092.8	22.6			G5
FVH (80°-90°)	679.8	1.1			G4/750
BL (0°-30°)	5743.4	9.2	B5		
BM (30°-60°)	9163.1	14.7	B5		
BH (60°-80°)	4835.1	7.7	B4/5000		G4/5000
BVH (80°-90°)	639.1	1.0			G4/750
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5
 Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	13544.2	13544.2	13544.2	13544.2	13544.2	13544.2	13544.2	13544.2	13544.2	13544.2	13544.2
2.5°	13271.0	13190.2	13220.8	13332.3	13106.5	13254.3	13184.6	13335.1	13413.2	13379.7	13591.6
5°	13396.5	13307.2	13312.8	13390.9	13148.3	13273.8	13195.7	13357.4	13443.9	13396.5	13680.8
7.5°	13778.4	13680.8	13653.0	13647.4	13418.8	13513.6	13357.4	13488.5	13577.7	13552.6	13873.2
10°	14363.9	14246.8	14193.8	14163.2	13889.9	13862.1	13666.9	13725.5	13792.4	13820.2	14166.0
12.5°	15007.9	14849.0	14815.6	14723.6	14372.3	14310.9	14074.0	14101.8	14101.8	14166.0	14508.9
15°	15554.4	15423.4	15423.4	15328.6	14985.6	14899.2	14573.0	14539.6	14534.0	14584.2	14890.8
17.5°	15203.1	15130.6	15066.5	15019.1	14489.4	14350.0	15233.8	15175.2	15147.3	15197.5	15376.0
20°	14023.8	14218.9	13806.3	13223.6	13307.2	14985.6	16084.1	15978.2	15994.9	16045.1	15994.9
22.5°	12342.6	11860.3	12618.6	12827.7	13176.2	14416.9	16859.2	16970.7	17004.2	17007.0	16744.9
25°	10577.8	10845.4	11874.2	13469.0	13424.3	14458.7	16388.0	17974.4	18141.7	18125.0	17670.5
27.5°	11085.2	11035.0	11829.6	12877.9	14202.2	15345.3	16678.0	17383.3	18342.4	19404.7	18788.5
30°	11528.5	11486.7	11570.3	13036.8	14715.2	16231.9	17762.5	17648.2	17851.7	19775.5	20107.2
32.5°	11924.4	11893.7	11991.3	12153.0	13862.1	17188.2	18925.1	18902.8	18972.5	19123.1	21663.0
35°	12298.0	12300.8	12420.7	12685.5	13970.8	17386.1	20073.8	20310.8	20494.8	20826.6	21395.3
37.5°	12554.5	12560.1	12654.9	12975.5	13513.6	16407.5	21236.4	22081.2	22410.2	23006.8	22201.1
40°	12551.7	12593.5	12822.1	13240.3	13959.6	15760.7	21596.1	24088.5	24618.3	25053.2	23698.2
42.5°	12289.6	12311.9	12738.5	13494.0	14355.5	16251.4	20478.1	26045.7	26634.0	26514.1	24936.1
45°	12049.8	12044.3	12529.4	13460.6	14709.6	16926.1	20628.6	25990.0	27944.4	27799.4	26073.6
47.5°	11729.2	11737.6	12250.6	13315.6	15033.0	17648.2	21743.8	23634.1	25326.4	28903.5	26999.2
50°	11327.8	11377.9	11899.3	13095.4	15194.7	18322.9	22708.5	24668.5	24869.2	25959.3	27905.4
52.5°	10661.4	10572.2	11522.9	12841.6	15309.1	18813.6	23628.5	25661.0	25850.6	25454.7	28828.2
55°	6052.8	7510.9	11051.7	12546.1	15342.5	19109.1	24342.3	26790.1	27085.7	26712.1	29578.2
57.5°	3802.9	3920.0	9574.1	11762.7	15060.9	19293.1	25217.7	28340.3	28778.0	27888.6	30146.9
60°	1346.6	1452.6	4656.0	5400.4	12345.4	18785.7	26550.4	30166.4	30311.4	28995.5	30565.1
62.5°	142.2	186.8	3156.0	3964.6	9585.2	17335.9	27470.4	31635.7	31504.7	29815.2	30791.0
65°	50.2	69.7	2774.1	3546.4	8921.7	16884.3	27774.3	32263.0	32260.3	30339.3	30629.3
67.5°	39.0	53.0	2411.6	3080.8	7962.6	15916.8	27269.7	32734.2	32689.6	30857.9	30202.7
69°	39.0	55.8	2171.9	2776.9	7268.4	14991.2	26879.4	32982.3	33141.3	30866.2	29430.4
70°	39.0	55.8	2018.5	2565.0	6702.4	14143.7	26319.0	32792.8	32873.6	30598.6	28630.2
72.5°	39.0	55.8	1564.1	1985.1	5096.5	10887.2	23057.0	29882.1	30035.4	28248.3	25730.7
75°	39.0	55.8	1101.3	1444.2	3345.6	7304.6	18359.2	24888.7	25304.1	23873.9	21083.1
77.5°	39.0	55.8	658.0	987.0	2099.4	4009.2	12632.5	19075.7	20015.2	18682.6	15069.3
80°	39.0	53.0	309.5	538.1	1196.1	2124.5	5787.9	11743.2	12967.1	11687.4	7881.7
82.5°	39.0	53.0	253.7	387.5	605.0	1056.7	2261.1	3847.5	3777.8	3393.0	2539.9
85°	36.2	47.4	209.1	284.4	434.9	669.1	1260.2	1566.9	1494.4	1321.5	1329.9
87.5°	25.1	27.9	72.5	128.2	175.6	331.8	610.6	663.6	677.5	566.0	593.8
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°	13544.2	13544.2	13544.2	13544.2	13544.2	13544.2	13544.2	13544.2	13544.2	13544.2	13544.2
2.5°	13692.0	13708.7	13789.6	13934.6	13931.8	14087.9	14046.1	14408.5	14422.5	14416.9	14444.8
5°	13817.5	13912.3	14090.7	14400.2	14578.6	14812.8	14768.2	15133.4	15155.7	15125.0	15203.1
7.5°	14034.9	14152.0	14444.8	14826.7	14874.1	15169.7	15108.3	15403.8	15389.9	15334.1	15468.0
10°	14341.6	14481.0	14745.9	14963.3	15099.9	15272.8	15205.9	15456.8	15409.4	15348.1	15476.3
12.5°	14653.9	14720.8	14868.5	15113.9	15125.0	15164.1	15086.0	15289.5	15236.6	15144.6	15278.4
15°	14952.2	14960.5	14935.5	15047.0	14929.9	14955.0	14784.9	14913.2	14821.1	14779.3	14865.8
17.5°	15339.7	15239.4	15060.9	15013.5	14737.5	14620.4	14369.5	14363.9	14202.2	14143.7	14202.2
20°	15805.3	15587.9	15175.2	14782.1	14305.4	14065.6	13639.0	13524.7	13393.7	13268.2	13337.9
22.5°	16449.4	16028.4	15317.4	14584.2	13795.2	13324.0	12799.8	12476.4	12231.1	11988.5	12061.0
25°	17182.6	16594.3	15518.2	14246.8	13184.6	12351.0	11670.7	11118.6	10767.4	10413.3	10572.2
27.5°	18175.1	17363.8	15640.8	13995.9	12390.0	11272.0	10187.4	9468.1	9102.9	8849.2	8768.3
30°	19332.2	18359.2	15861.1	13502.4	11456.0	9944.9	8567.6	7764.7	7377.1	7257.2	7307.4
32.5°	20742.9	19569.2	16310.0	13089.8	10508.1	8536.9	6931.0	6303.7	6024.9	6005.4	5999.8
35°	22630.4	21113.7	16694.7	12448.5	9253.5	6894.8	5514.7	4996.1	4985.0	4976.6	4996.1
37.5°	24080.2	22686.2	17104.5	11821.2	7764.7	5383.7	4410.7	4095.6	4062.2	4159.7	4184.8
40°	25223.3	23812.5	17717.9	10761.8	6019.3	4020.3	3387.5	3270.4	3507.3	3722.0	3766.6
42.5°	26254.8	24760.5	17851.7	9632.6	4385.6	3086.3	2807.5	3002.7	3367.9	3613.3	3660.7
45°	27222.3	25755.8	17341.5	7954.2	3136.5	2615.2	2670.9	2963.7	3373.5	3635.6	3663.5
47.5°	28278.9	26422.1	16789.5	6395.7	2578.9	2506.4	2643.0	2977.6	3407.0	3671.8	3685.8
50°	28976.0	26898.9	15409.4	5001.7	2417.2	2439.5	2631.9	3008.3	3412.5	3602.1	3613.3
52.5°	29260.3	27280.8	14160.4	4003.6	2336.4	2389.3	2645.8	3061.3	3398.6	3504.5	3499.0
55°	29438.8	27456.5	13087.0	3331.7	2263.9	2350.3	2670.9	3100.3	3429.3	3538.0	3538.0
57.5°	29324.5	27063.4	12289.6	2838.2	2191.4	2322.4	2701.6	3158.8	3719.2	3911.6	3892.1
60°	29240.8	26327.3	11157.7	2506.4	2105.0	2291.8	2740.6	3362.4	4338.2	4533.3	4469.2
62.5°	28808.7	25705.6	9930.9	2294.5	2007.4	2275.0	2774.1	3635.6	4424.6	4413.4	4288.0
65°	27707.4	24439.8	7996.1	2079.9	1907.0	2252.7	2785.2	3755.5	4070.5	3894.9	3858.6
67.5°	26146.1	22613.7	6309.3	1865.2	1795.5	2205.3	2877.2	3613.3	3872.6	3722.0	3666.3
69°	25125.7	21261.5	5241.5	1731.4	1723.0	2166.3	2913.5	3599.3	3800.1	3630.0	3557.5
70°	24303.2	20090.5	4525.0	1644.9	1667.2	2135.6	2877.2	3596.6	3769.4	3557.5	3476.7
72.5°	20773.6	16276.5	2921.9	1438.6	1502.7	2054.8	2740.6	3504.5	3705.3	3565.9	3454.4
75°	16098.1	11849.1	1890.3	1243.5	1329.9	1918.2	2604.0	3446.0	3763.8	3510.1	3270.4
77.5°	10329.6	6340.0	1463.7	1045.5	1143.1	1725.8	2358.7	3209.0	3655.1	3426.5	3117.0
80°	4499.9	2353.1	1129.2	847.6	925.6	1402.4	2024.1	2852.2	3465.5	3440.4	3231.3
82.5°	1909.8	1516.7	869.9	649.6	736.0	1037.1	1586.4	2445.1	3061.3	3181.1	3409.8
85°	1081.8	908.9	579.9	446.1	546.5	763.9	1129.2	1876.3	2492.5	2762.9	2955.3
87.5°	465.6	379.2	267.7	239.8	309.5	395.9	485.1	881.0	1329.9	1622.6	1745.3
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)