

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: P591318

Luminaire Tested: **CTN-CA10-630-730-U-T3-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591318
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-CA10-630-730-U-T3-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 46788 lumens
Efficiency: N/A
Efficacy: 74.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B5 - U0 - G4

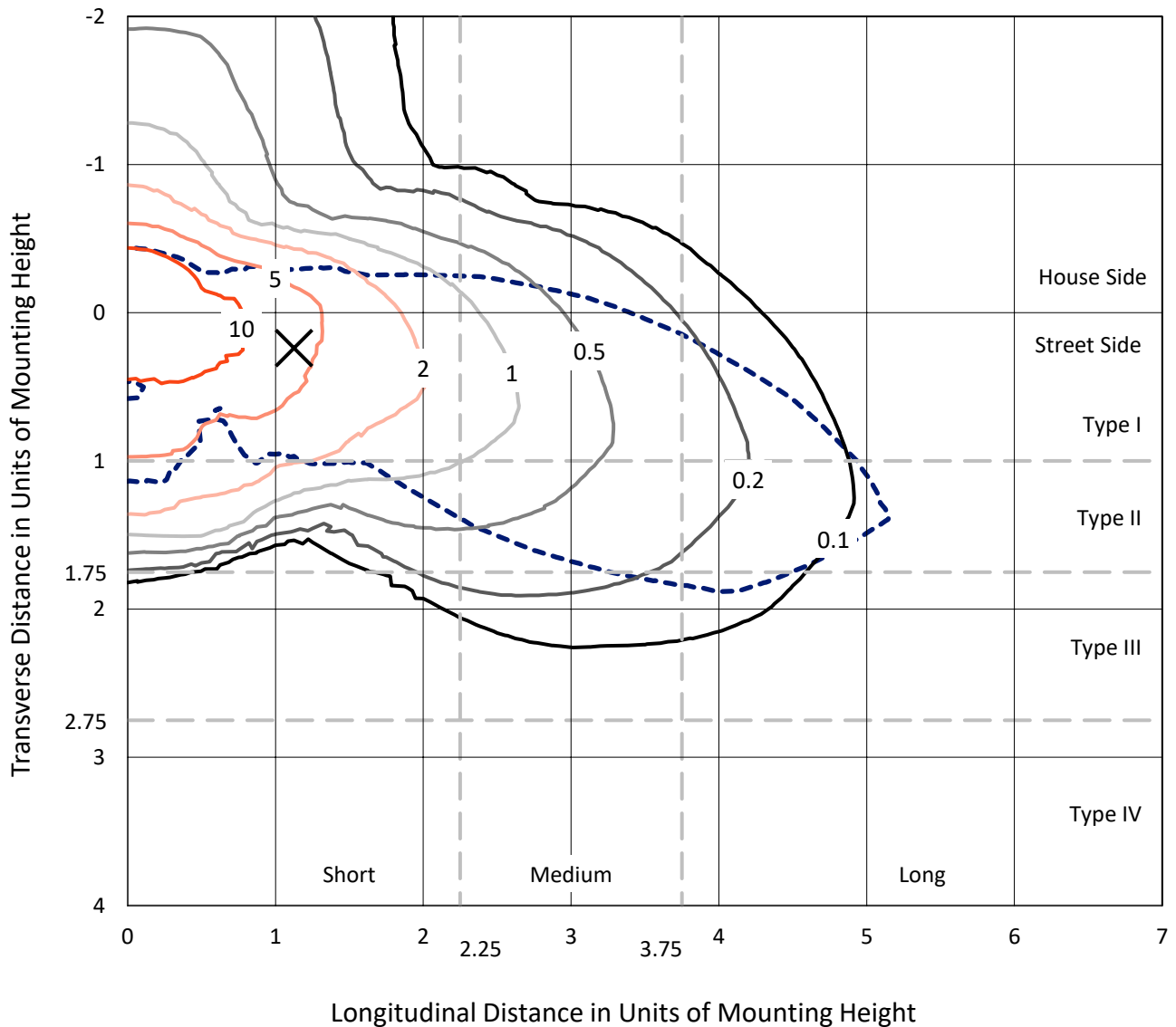
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

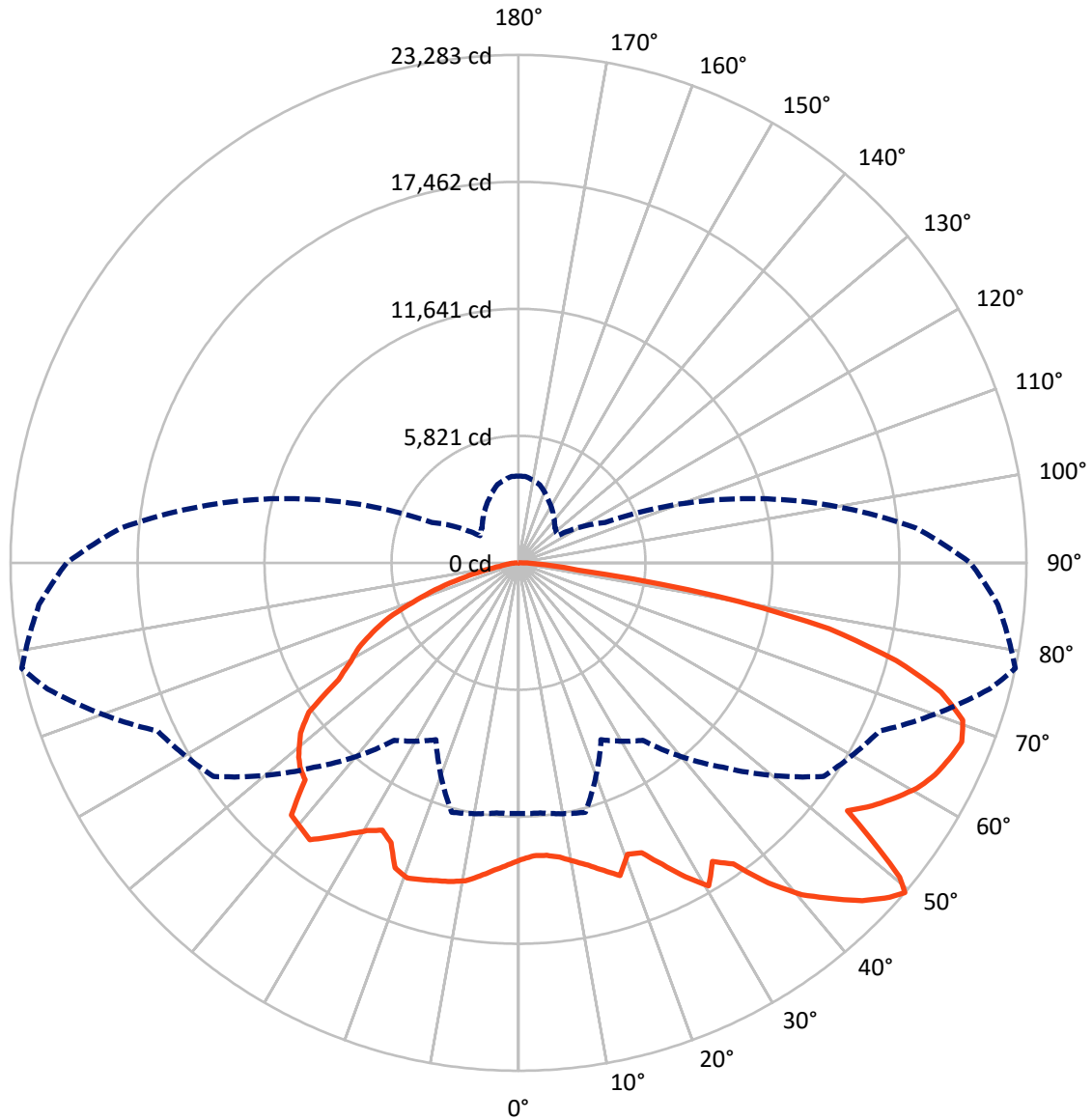
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 17 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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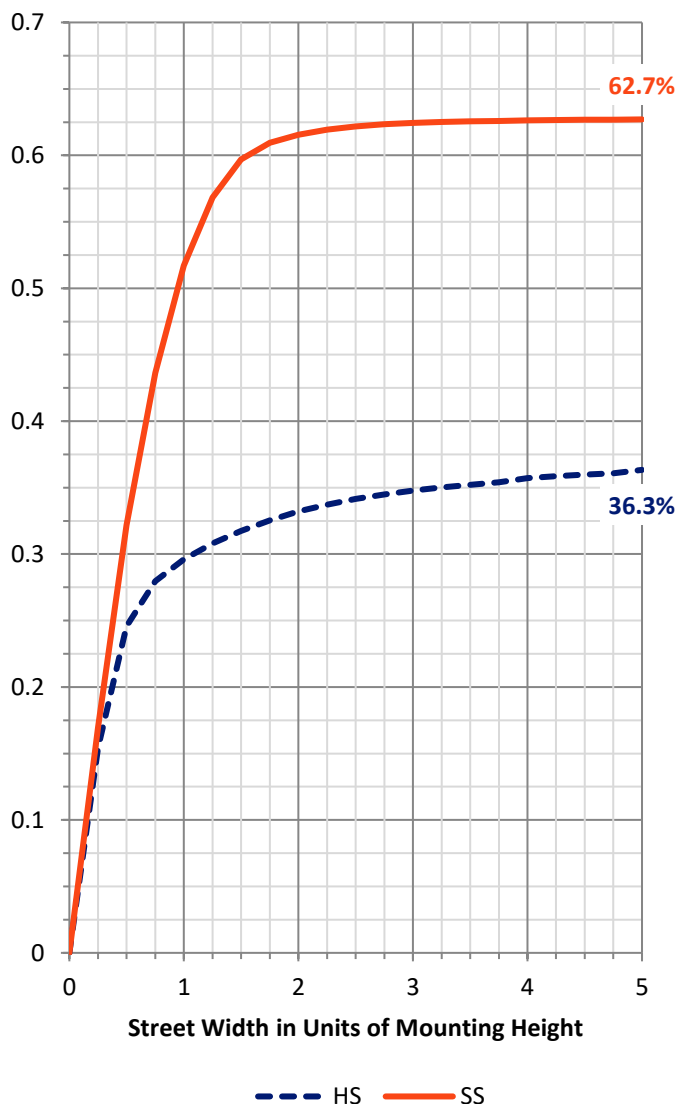
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	17499.7	0.0	17499.7
	% Fixture	37.4	0.0	37.4
Street Side	Lumens	29288.2	0.0	29288.2
	% Fixture	62.6	0.0	62.6
Total	Lumens	46788.0	0.0	46788.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1361.9	2.9
10°-20°	4180.4	8.9
20°-30°	6058.0	12.9
30°-40°	7443.9	15.9
40°-50°	8401.6	18.0
50°-60°	7983.6	17.1
60°-70°	5962.6	12.7
70°-80°	4428.2	9.5
80°-90°	967.6	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°	46788.0	100.0
0°-180°	46788.0	100.0

Coefficient of Utilization

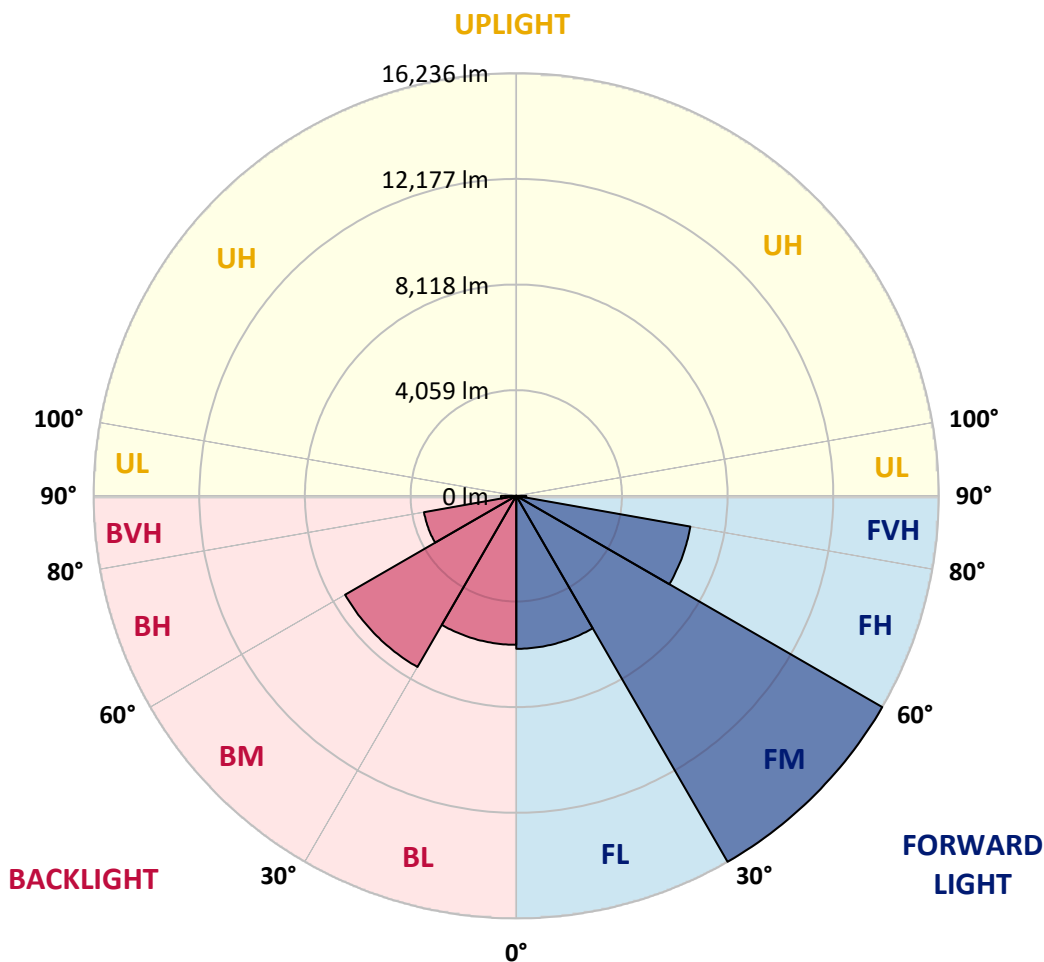


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	5876.9	12.6			
FM (30°-60°)	16235.6	34.7			
FH (60°-80°)	6793.3	14.5			G3/7500
FVH (80°-90°)	382.5	0.8			G3/500
BL (0°-30°)	5723.4	12.2	B5		
BM (30°-60°)	7593.6	16.2	B4/8500		
BH (60°-80°)	3597.6	7.7	B4/5000		G4/5000
BVH (80°-90°)	585.1	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°	13605.7	13605.7	13605.7	13605.7	13605.7	13605.7	13605.7	13605.7	13605.7	13605.7	13605.7
2.5°	13311.7	13238.9	13258.5	13370.5	13154.9	13311.7	13247.3	13398.5	13448.9	13443.3	13661.7
5°	13420.9	13325.7	13353.7	13429.3	13194.1	13314.5	13264.1	13426.5	13468.5	13471.3	13768.1
7.5°	13821.3	13712.1	13684.1	13689.7	13468.5	13558.1	13429.3	13555.3	13630.9	13622.5	13952.9
10°	14403.7	14283.3	14221.7	14202.1	13933.3	13894.1	13737.3	13782.1	13894.1	13908.1	14244.1
12.5°	15003.0	14907.8	14818.1	14773.3	14403.7	14316.9	14087.3	14126.5	14210.5	14227.3	14577.3
15°	15532.2	15442.6	15428.6	15378.2	15003.0	14834.9	14557.7	14515.7	14580.1	14633.3	14938.6
17.5°	15014.2	14899.4	14826.5	14843.3	14652.9	14227.3	14056.5	14344.9	14882.5	15070.2	15358.6
20°	13552.5	13692.5	13633.7	13406.9	13202.5	13891.3	13745.7	13684.1	14017.3	14258.1	14955.4
22.5°	11906.0	11906.0	12466.1	12858.1	12936.5	13322.9	14118.1	14395.3	14431.7	14431.7	14230.1
25°	10604.0	10973.6	11922.8	13412.5	13420.9	13342.5	13563.7	15084.2	15336.2	15308.2	14969.4
27.5°	11108.0	11046.4	11684.8	12720.9	14185.3	14095.7	13664.5	14350.5	16428.2	16299.4	15865.4
30°	11553.2	11491.6	11606.4	12891.7	14403.7	14913.4	14543.7	14339.3	16487.0	17187.0	16926.6
32.5°	11970.4	11900.4	12032.0	12228.1	13706.5	15725.4	15465.0	15330.6	15647.0	16327.4	18127.9
35°	12306.5	12317.7	12468.9	12757.3	13434.9	15451.0	16389.0	16439.4	16993.8	16951.8	17861.9
37.5°	12555.7	12578.1	12709.7	13051.3	13303.3	12762.9	17268.2	17850.7	18704.7	18620.7	17951.5
40°	12569.7	12620.1	12883.3	13303.3	13600.1	11365.6	17105.8	19407.5	20253.1	20006.7	19175.1
42.5°	12309.3	12334.5	12774.1	13485.3	10321.2	11822.0	15862.6	20958.8	21336.8	21034.4	20110.3
45°	12076.8	12071.2	12541.7	13180.1	9752.8	12356.9	15829.0	20508.0	22333.6	22098.4	20919.6
47.5°	11749.2	11746.4	12205.7	9918.0	9876.0	12933.7	16663.4	17783.5	23159.7	22907.6	21656.0
49°	11486.0	11514.0	11838.8	8946.3	9932.0	13255.7	17069.4	18248.3	22350.4	23282.9	22064.8
50°	11343.2	11371.2	10578.8	8848.3	9948.8	13440.5	17282.2	18589.9	20115.9	22647.2	22328.0
52.5°	10693.6	10447.2	8201.5	8643.9	9954.4	13658.9	14860.1	19315.1	19172.3	18878.3	21140.8
55°	6443.0	7291.5	7425.9	8411.5	9864.8	9920.8	14515.7	20157.9	20096.3	19667.9	18203.5
57.5°	3906.1	3866.9	5734.6	7764.7	6605.4	8319.1	15084.2	21272.4	20908.4	20337.2	18514.3
60°	1377.7	1218.0	1229.2	1324.4	2458.5	6224.6	12032.0	16019.4	21076.4	20986.8	18797.1
62.5°	109.2	103.6	103.6	109.2	156.8	2338.1	9540.0	16069.8	21658.8	21426.4	18861.5
65°	14.0	14.0	14.0	30.8	81.2	2114.1	9554.0	16330.2	22092.8	21695.2	18690.7
67.5°	0.0	0.0	8.4	22.4	64.4	1870.5	9273.9	16484.2	22482.0	21919.2	18533.9
70°	0.0	0.0	5.6	19.6	56.0	1548.5	8932.3	16618.6	22300.0	21602.8	17744.3
72.5°	0.0	0.0	5.6	16.8	47.6	1022.0	7918.7	15624.6	21003.6	20247.5	16123.0
75°	0.0	0.0	5.6	14.0	44.8	582.4	6487.8	13804.5	18690.7	17889.9	13586.1
77.5°	0.0	0.0	2.8	11.2	39.2	319.2	4483.0	11427.2	15439.8	14560.5	10178.4
80°	0.0	0.0	2.8	11.2	36.4	218.4	2038.5	7423.1	10290.4	9189.9	5577.8
82.5°	0.0	0.0	2.8	11.2	28.0	148.4	823.2	2080.5	3183.7	2721.7	1775.3
85°	0.0	0.0	2.8	8.4	19.6	95.2	406.0	854.0	1285.2	1234.8	898.8
87.5°	0.0	0.0	2.8	8.4	14.0	28.0	120.4	280.0	501.2	509.6	383.6
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°	13605.7	13605.7	13605.7	13605.7	13605.7	13605.7	13605.7	13605.7	13605.7	13605.7	13605.7
2.5°	13765.3	13790.5	13874.5	14000.5	14020.1	14190.9	14162.9	14482.1	14512.9	14588.5	14672.5
5°	13910.9	13997.7	14188.1	14476.5	14686.5	14944.2	14919.0	15280.2	15316.6	15297.0	15425.8
7.5°	14123.7	14252.5	14549.3	14938.6	15008.6	15327.8	15285.8	15599.4	15605.0	15563.0	15689.0
10°	14434.5	14585.7	14860.1	15081.4	15249.4	15442.6	15414.6	15694.6	15666.6	15619.0	15750.6
12.5°	14734.1	14818.1	14986.2	15246.6	15277.4	15355.8	15308.2	15568.6	15540.6	15473.4	15596.6
15°	15003.0	15045.0	15047.8	15176.6	15106.6	15165.4	15039.4	15227.0	15162.6	15137.4	15224.2
17.5°	15347.4	15269.0	15154.2	15145.8	14907.8	14826.5	14624.9	14675.3	14540.9	14529.7	14577.3
20°	15392.2	15554.6	15224.2	14882.5	14482.1	14277.7	13896.9	13899.7	13748.5	13689.7	13717.7
22.5°	14165.7	14566.1	15305.4	14652.9	13972.5	13513.3	13023.3	12874.9	12589.3	12468.9	12421.3
25°	14644.5	14123.7	14067.7	14266.5	13311.7	12611.7	11900.4	11463.6	11124.8	10850.4	10870.0
27.5°	15386.6	14708.9	13339.7	13420.9	12480.1	11497.2	10424.8	9808.8	9464.3	9198.3	9167.5
30°	16369.4	15518.2	13496.5	11631.6	11525.2	10097.2	8781.1	8100.7	7750.7	7655.5	7596.7
32.5°	17590.2	16481.4	13849.3	11222.8	9537.2	8582.3	7106.7	6557.8	6392.6	6384.2	6317.0
35°	19040.7	17755.5	14174.1	10679.6	8223.9	6989.1	5678.6	5317.4	5342.6	5345.4	5401.4
37.5°	18113.9	18959.5	14580.1	10164.4	6944.3	5194.2	4567.0	4340.2	4413.0	4530.6	4586.6
40°	18127.9	17259.8	15053.4	9304.7	5395.8	3962.1	3572.9	3522.5	3833.3	4071.4	4130.2
42.5°	18855.9	17147.8	14879.7	8324.7	3950.9	3012.9	2976.5	3248.1	3696.1	3962.1	4009.7
45°	19637.1	17679.9	12359.7	6935.9	2864.5	2548.1	2828.1	3206.1	3693.3	3976.1	4004.1
47.5°	20379.2	18015.9	11847.2	5421.0	2301.7	2402.5	2783.3	3206.1	3712.9	4001.3	4018.1
49°	20709.6	18287.5	11371.2	4385.0	2158.9	2346.5	2758.1	3211.7	3718.5	3964.9	3973.3
50°	20905.6	18441.5	10987.6	4065.8	2088.9	2310.1	2746.9	3220.1	3710.1	3922.9	3931.3
52.5°	21210.8	18690.7	10105.6	3239.7	1957.3	2226.1	2730.1	3253.7	3679.3	3805.3	3799.7
55°	17492.2	17469.8	9369.1	2718.9	1856.5	2150.5	2724.5	3281.7	3693.3	3822.1	3816.5
57.5°	16764.2	14344.9	7893.5	2223.3	1772.5	2086.1	2730.1	3323.7	3945.3	4169.4	4141.4
60°	16817.4	14126.5	6717.4	1929.3	1674.5	2032.9	2746.9	3511.3	4558.6	4785.4	4715.4
62.5°	16632.6	13591.7	6011.8	1733.3	1570.9	1985.3	2758.1	3771.7	4637.0	4656.6	4536.2
65°	16193.0	12919.7	5062.6	1517.7	1461.7	1940.5	2755.3	3866.9	4278.6	4119.0	4079.8
67.5°	15378.2	12205.7	4006.9	1330.0	1344.0	1873.3	2819.7	3701.7	4048.9	3920.1	3861.3
70°	14412.1	10682.4	2825.3	1156.4	1237.6	1797.7	2811.3	3662.5	3928.5	3738.1	3656.9
72.5°	12692.9	8979.9	1901.3	996.8	1103.2	1710.9	2668.5	3544.9	3850.1	3724.1	3612.1
75°	10088.8	6720.2	1103.2	859.6	971.6	1584.9	2528.5	3472.1	3892.1	3651.3	3418.9
77.5°	6896.7	3827.7	823.2	719.6	837.2	1422.5	2293.3	3228.5	3763.3	3556.1	3245.3
80°	3091.3	1383.3	630.0	585.2	702.8	1153.6	1976.9	2856.1	3564.5	3564.5	3346.1
82.5°	1229.2	870.8	436.8	459.2	574.0	879.2	1565.3	2464.1	3141.7	3284.5	3511.3
85°	694.4	509.6	280.0	333.2	439.6	680.4	1139.6	1915.3	2559.3	2836.5	3074.5
87.5°	274.4	193.2	112.0	187.6	254.8	350.0	498.4	938.0	1377.7	1696.9	1876.1
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)