

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: P591414

Luminaire Tested: **CTN-CA10-630-740-U-T3-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591414
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-CA10-630-740-U-T3-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: 47650 lumens
Efficiency: N/A
Efficacy: 75.5 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B5 - U0 - G4

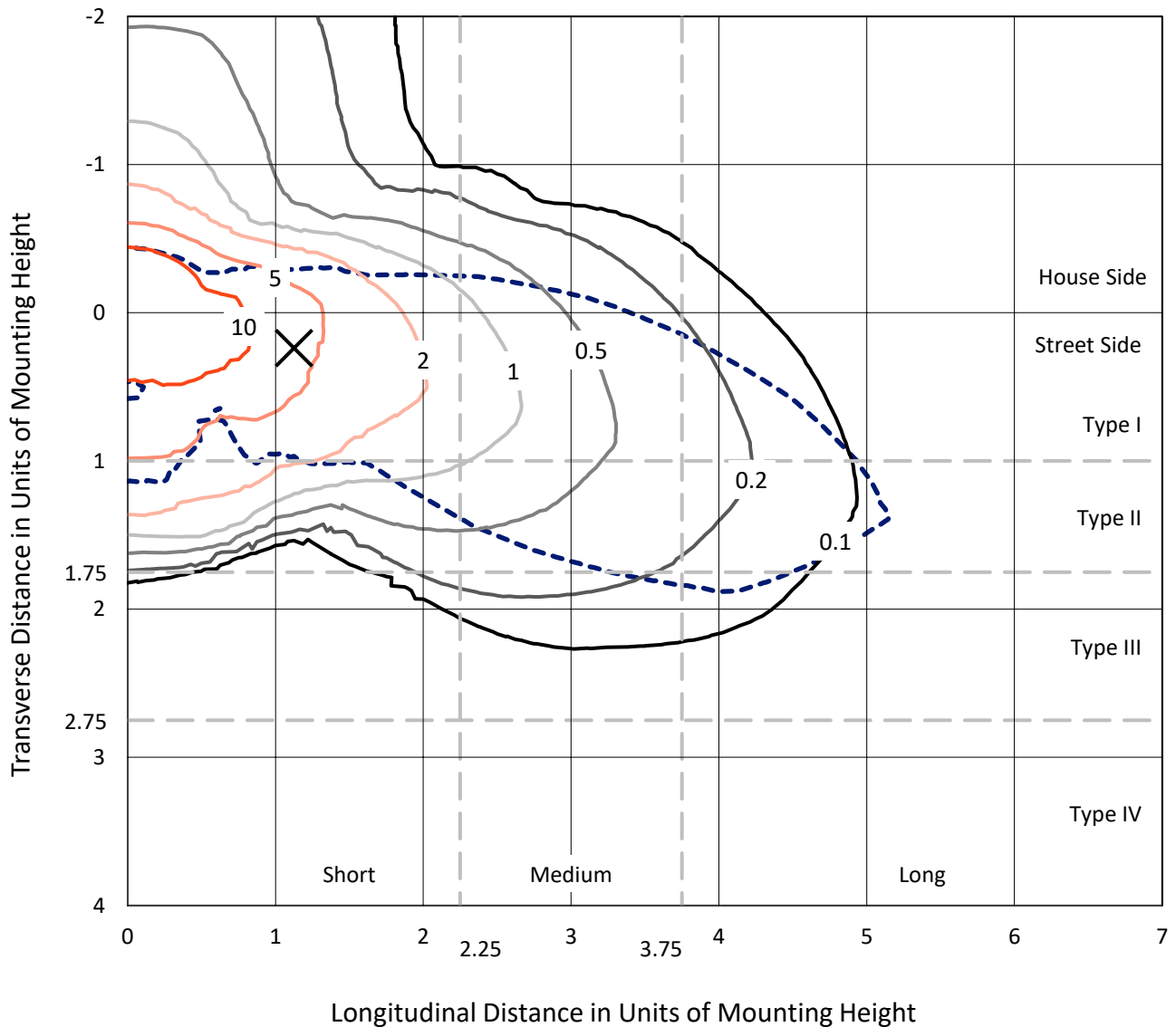
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

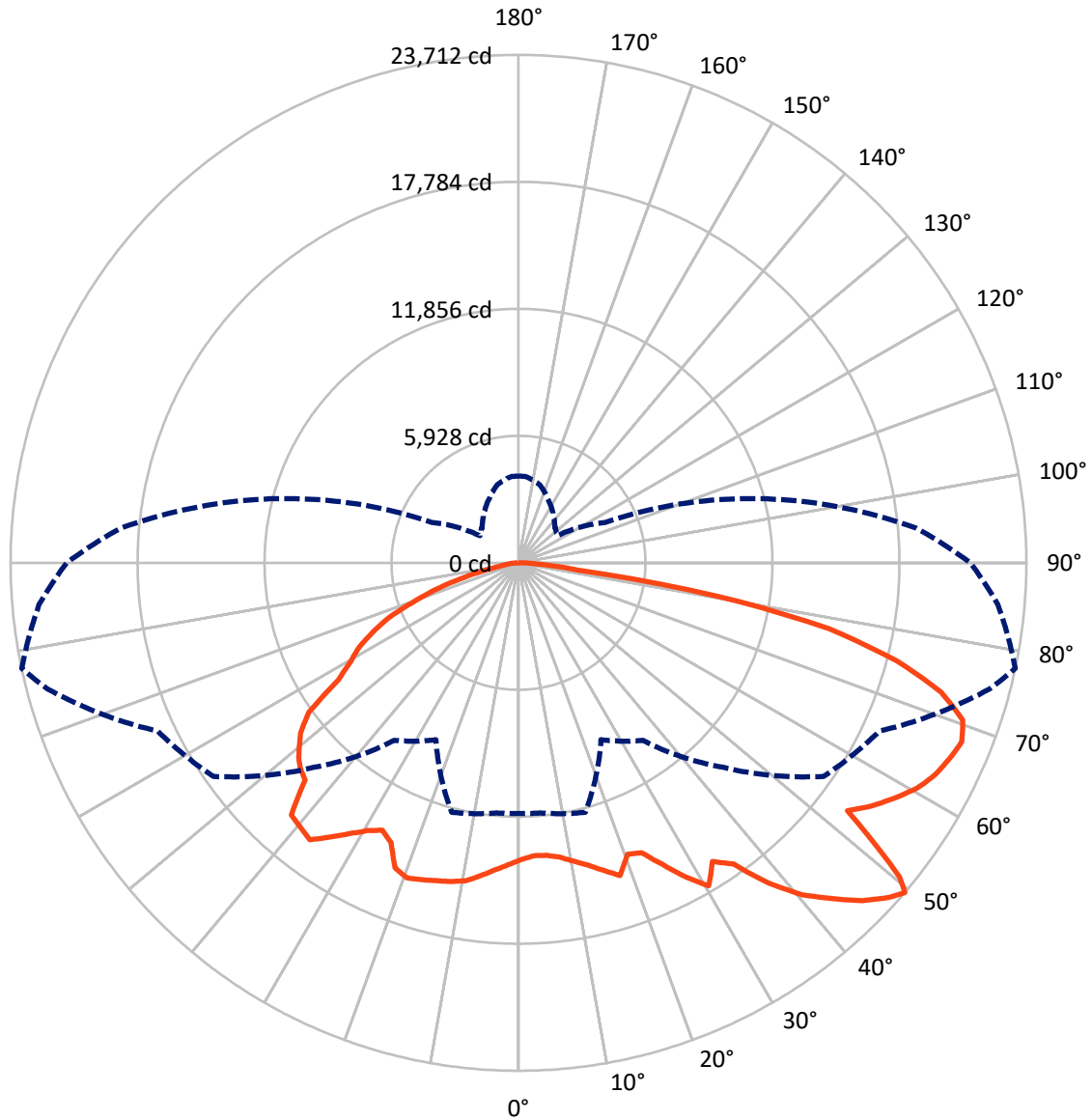
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 17.3 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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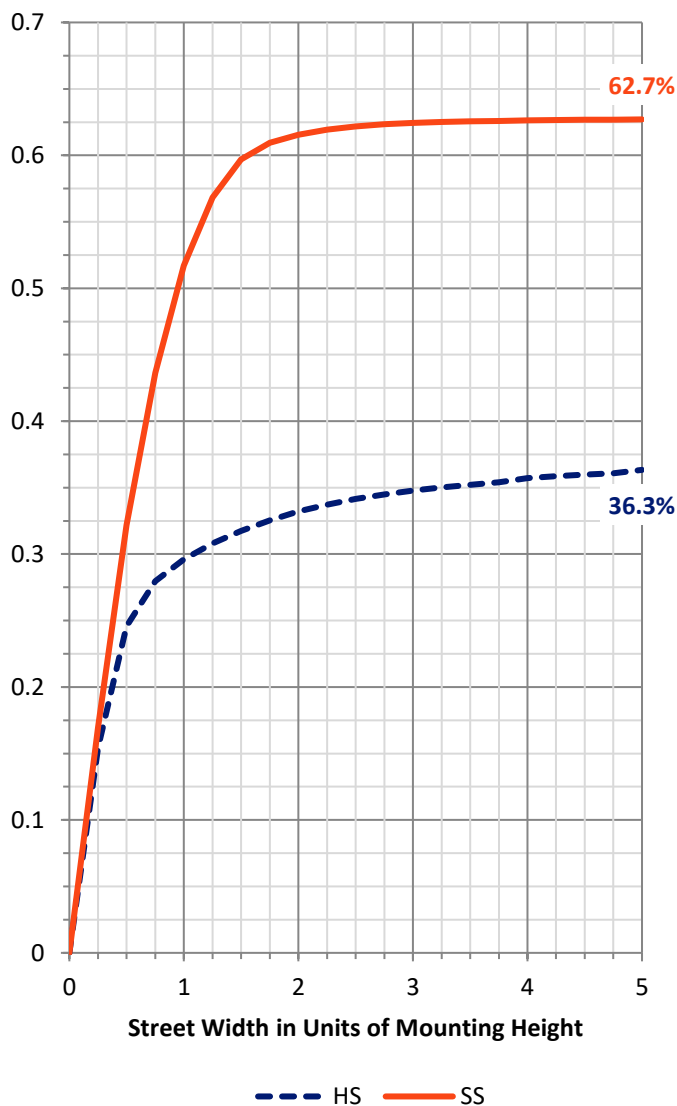
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	17822.2	0.0	17822.2
	% Fixture	37.4	0.0	37.4
Street Side	Lumens	29827.8	0.0	29827.8
	% Fixture	62.6	0.0	62.6
Total	Lumens	47650.0	0.0	47650.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1387.0	2.9
10°-20°	4257.5	8.9
20°-30°	6169.6	12.9
30°-40°	7581.0	15.9
40°-50°	8556.4	18.0
50°-60°	8130.7	17.1
60°-70°	6072.5	12.7
70°-80°	4509.8	9.5
80°-90°	985.5	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°	47650.0	100.0
0°-180°	47650.0	100.0

Coefficient of Utilization



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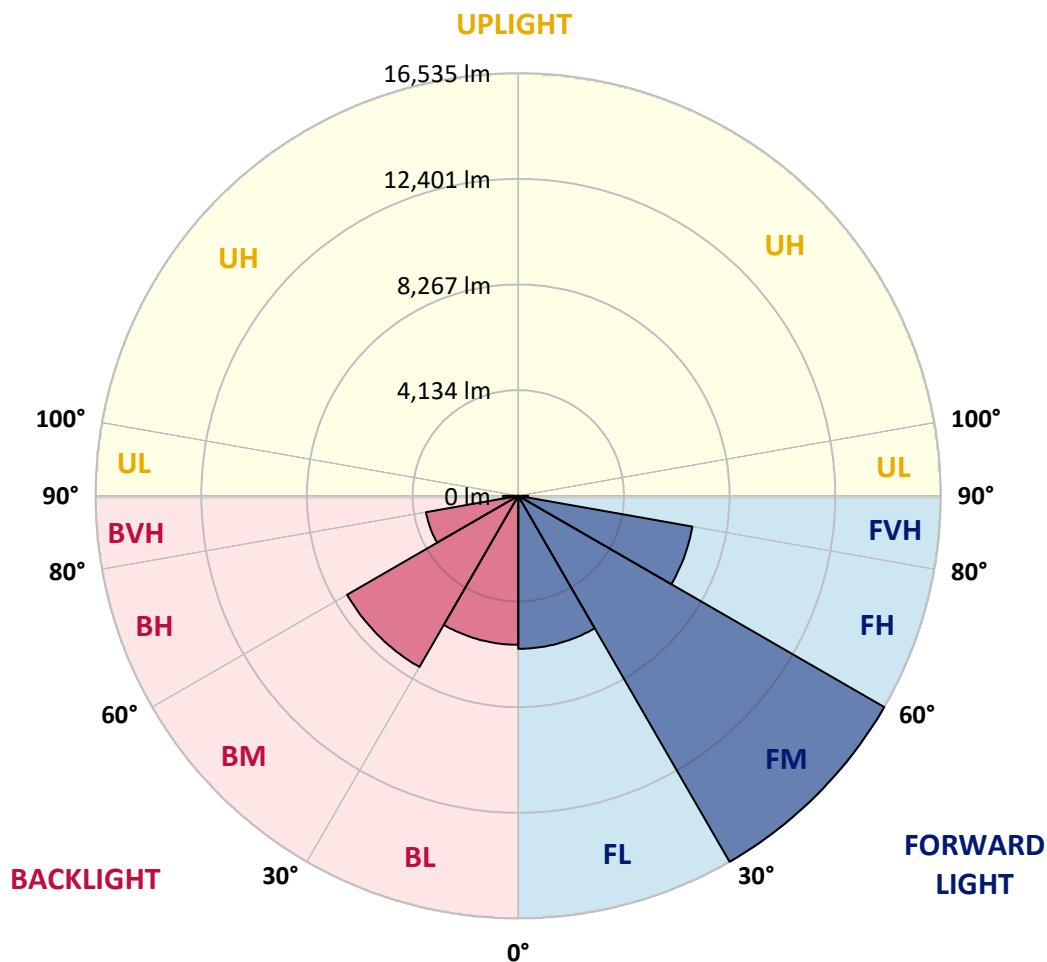
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	5985.1	12.6			
FM (30°-60°)	16534.7	34.7			
FH (60°-80°)	6918.4	14.5			G3/7500
FVH (80°-90°)	389.6	0.8			G3/500
BL (0°-30°)	5828.9	12.2	B5		
BM (30°-60°)	7733.5	16.2	B4/8500		
BH (60°-80°)	3663.9	7.7	B4/5000		G4/5000
BVH (80°-90°)	595.9	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°	13856.4	13856.4	13856.4	13856.4	13856.4	13856.4	13856.4	13856.4	13856.4	13856.4	13856.4
2.5°	13556.9	13482.8	13502.8	13616.8	13397.2	13556.9	13491.4	13645.3	13696.7	13691.0	13913.4
5°	13668.2	13571.2	13599.7	13676.7	13437.2	13559.8	13508.5	13673.9	13716.6	13719.5	14021.8
7.5°	14075.9	13964.7	13936.2	13941.9	13716.6	13807.9	13676.7	13805.0	13882.0	13873.5	14210.0
10°	14669.1	14546.5	14483.7	14463.8	14190.0	14150.1	13990.4	14036.0	14150.1	14164.4	14506.6
12.5°	15279.4	15182.4	15091.1	15045.5	14669.1	14580.7	14346.9	14386.8	14472.3	14489.4	14845.9
15°	15818.3	15727.1	15712.8	15661.5	15279.4	15108.3	14825.9	14783.2	14848.8	14902.9	15213.8
17.5°	15290.8	15173.8	15099.7	15116.8	14922.9	14489.4	14315.5	14609.2	15156.7	15347.8	15641.5
20°	13802.2	13944.8	13884.9	13653.9	13445.7	14147.2	13999.0	13936.2	14275.6	14520.8	15230.9
22.5°	12125.4	12125.4	12695.7	13095.0	13174.8	13568.3	14378.2	14660.5	14697.6	14697.6	14492.3
25°	10799.4	11175.8	12142.5	13659.6	13668.2	13588.3	13813.6	15362.1	15618.7	15590.2	15245.1
27.5°	11312.7	11249.9	11900.1	12955.2	14446.7	14355.4	13916.3	14614.9	16730.9	16599.7	16157.7
30°	11766.1	11703.3	11820.3	13129.2	14669.1	15188.1	14811.7	14603.5	16790.8	17503.7	17238.5
32.5°	12191.0	12119.7	12253.7	12453.3	13959.0	16015.1	15749.9	15613.0	15935.3	16628.2	18461.8
35°	12533.2	12544.6	12698.6	12992.3	13682.4	15735.6	16690.9	16742.3	17306.9	17264.1	18190.9
37.5°	12787.0	12809.8	12943.8	13291.7	13548.4	12998.0	17586.4	18179.5	19049.3	18963.7	18282.2
40°	12801.2	12852.6	13120.6	13548.4	13850.7	11575.0	17421.0	19765.1	20626.3	20375.3	19528.4
42.5°	12536.0	12561.7	13009.4	13733.7	10511.3	12039.8	16154.8	21344.9	21729.9	21421.9	20480.8
45°	12299.3	12293.6	12772.7	13422.9	9932.4	12584.5	16120.6	20885.8	22745.1	22505.5	21305.0
47.5°	11965.7	11962.8	12430.5	10100.7	10057.9	13172.0	16970.4	18111.1	23586.3	23329.7	22055.0
49°	11697.6	11726.2	12057.0	9111.2	10114.9	13499.9	17383.9	18584.5	22762.2	23711.8	22471.3
50°	11552.2	11580.7	10773.7	9011.3	10132.1	13688.1	17600.6	18932.4	20486.5	23064.5	22739.4
52.5°	10890.6	10639.7	8352.6	8803.2	10137.8	13910.5	15133.9	19671.0	19525.5	19226.1	21530.3
55°	6561.7	7425.8	7562.7	8566.5	10046.5	10103.5	14783.2	20529.3	20466.6	20030.3	18538.8
57.5°	3978.1	3938.2	5840.3	7907.7	6727.1	8472.4	15362.1	21664.3	21293.6	20711.8	18855.4
60°	1403.0	1240.5	1251.9	1348.8	2503.8	6339.3	12253.7	16314.5	21464.7	21373.4	19143.4
62.5°	111.2	105.5	105.5	111.2	159.7	2381.2	9715.7	16365.9	22057.8	21821.1	19209.0
65°	14.3	14.3	14.3	31.4	82.7	2153.0	9730.0	16631.1	22499.8	22094.9	19035.0
67.5°	0.0	0.0	8.6	22.8	65.6	1904.9	9444.8	16787.9	22896.2	22323.0	18875.3
70°	0.0	0.0	5.7	20.0	57.0	1577.0	9096.9	16924.8	22710.9	22000.8	18071.2
72.5°	0.0	0.0	5.7	17.1	48.5	1040.9	8064.6	15912.4	21390.5	20620.6	16420.0
75°	0.0	0.0	5.7	14.3	45.6	593.2	6607.4	14058.8	19035.0	18219.5	13836.4
77.5°	0.0	0.0	2.9	11.4	39.9	325.1	4565.6	11637.8	15724.2	14828.8	10365.9
80°	0.0	0.0	2.9	11.4	37.1	222.4	2076.0	7559.8	10480.0	9359.3	5680.6
82.5°	0.0	0.0	2.9	11.4	28.5	151.1	838.4	2118.8	3242.4	2771.8	1808.0
85°	0.0	0.0	2.9	8.6	20.0	97.0	413.5	869.8	1308.9	1257.6	915.4
87.5°	0.0	0.0	2.9	8.6	14.3	28.5	122.6	285.2	510.5	519.0	390.7
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°	13856.4	13856.4	13856.4	13856.4	13856.4	13856.4	13856.4	13856.4	13856.4	13856.4	13856.4
2.5°	14018.9	14044.6	14130.1	14258.5	14278.4	14452.4	14423.9	14748.9	14780.3	14857.3	14942.9
5°	14167.2	14255.6	14449.5	14743.2	14957.1	15219.5	15193.8	15561.7	15598.8	15578.8	15710.0
7.5°	14383.9	14515.1	14817.4	15213.8	15285.1	15610.2	15567.4	15886.8	15892.5	15849.7	15978.0
10°	14700.5	14854.5	15133.9	15359.2	15530.3	15727.1	15698.6	15983.7	15955.2	15906.7	16040.8
12.5°	15005.6	15091.1	15262.3	15527.5	15558.8	15638.7	15590.2	15855.4	15826.9	15758.4	15883.9
15°	15279.4	15322.1	15325.0	15456.2	15384.9	15444.8	15316.4	15507.5	15441.9	15416.2	15504.6
17.5°	15630.1	15550.3	15433.4	15424.8	15182.4	15099.7	14894.4	14945.7	14808.8	14797.4	14845.9
20°	15675.7	15841.1	15504.6	15156.7	14748.9	14540.8	14152.9	14155.8	14001.8	13941.9	13970.4
22.5°	14426.7	14834.5	15587.3	14922.9	14229.9	13762.3	13263.2	13112.1	12821.2	12698.6	12650.1
25°	14914.3	14383.9	14326.9	14529.4	13556.9	12844.0	12119.7	11674.8	11329.8	11050.3	11070.3
27.5°	15670.0	14979.9	13585.5	13668.2	12710.0	11709.0	10616.8	9989.5	9638.7	9367.8	9336.4
30°	16671.0	15804.1	13745.2	11845.9	11737.6	10283.2	8942.9	8249.9	7893.5	7796.5	7736.6
32.5°	17914.3	16785.1	14104.5	11429.6	9712.9	8740.4	7237.6	6678.7	6510.4	6501.9	6433.4
35°	19391.5	18082.6	14435.3	10876.4	8375.4	7117.8	5783.2	5415.4	5441.0	5443.9	5500.9
37.5°	18447.6	19308.8	14848.8	10351.6	7072.2	5289.9	4651.1	4420.1	4494.3	4614.0	4671.1
40°	18461.8	17577.8	15330.7	9476.2	5495.2	4035.1	3638.8	3587.4	3904.0	4146.4	4206.2
42.5°	19203.3	17463.8	15153.9	8478.1	4023.7	3068.4	3031.3	3308.0	3764.2	4035.1	4083.6
45°	19998.9	18005.6	12587.4	7063.6	2917.3	2595.0	2880.2	3265.2	3761.4	4049.4	4077.9
47.5°	20754.6	18347.8	12065.5	5520.9	2344.1	2446.8	2834.6	3265.2	3781.3	4075.1	4092.2
49°	21091.1	18624.4	11580.7	4465.7	2198.7	2389.7	2808.9	3270.9	3787.0	4038.0	4046.5
50°	21290.7	18781.2	11190.0	4140.7	2127.4	2352.6	2797.5	3279.4	3778.5	3995.2	4003.8
52.5°	21601.6	19035.0	10291.8	3299.4	1993.3	2267.1	2780.4	3313.7	3747.1	3875.4	3869.7
55°	17814.5	17791.7	9541.8	2769.0	1890.7	2190.1	2774.7	3342.2	3761.4	3892.6	3886.9
57.5°	17073.1	14609.2	8038.9	2264.2	1805.1	2124.5	2780.4	3385.0	4018.0	4246.2	4217.7
60°	17127.3	14386.8	6841.2	1964.8	1705.3	2070.3	2797.5	3576.0	4642.6	4873.5	4802.2
62.5°	16939.0	13842.1	6122.6	1765.2	1599.8	2021.8	2808.9	3841.2	4722.4	4742.4	4619.7
65°	16491.3	13157.7	5155.9	1545.6	1488.6	1976.2	2806.1	3938.2	4357.4	4194.8	4154.9
67.5°	15661.5	12430.5	4080.8	1354.6	1368.8	1907.8	2871.7	3769.9	4123.5	3992.4	3932.5
70°	14677.7	10879.2	2877.4	1177.7	1260.4	1830.8	2863.1	3730.0	4000.9	3807.0	3724.3
72.5°	12926.7	9145.4	1936.3	1015.2	1123.6	1742.4	2717.7	3610.2	3921.1	3792.7	3678.7
75°	10274.6	6844.1	1123.6	875.5	989.5	1614.1	2575.1	3536.1	3963.9	3718.6	3481.9
77.5°	7023.7	3898.3	838.4	732.9	852.7	1448.7	2335.5	3288.0	3832.7	3621.6	3305.1
80°	3148.3	1408.7	641.6	596.0	715.8	1174.9	2013.3	2908.7	3630.2	3630.2	3407.8
82.5°	1251.9	886.9	444.9	467.7	584.6	895.4	1594.1	2509.5	3199.6	3345.0	3576.0
85°	707.2	519.0	285.2	339.4	447.7	693.0	1160.6	1950.6	2606.4	2888.8	3131.2
87.5°	279.5	196.8	114.1	191.1	259.5	356.5	507.6	955.3	1403.0	1728.1	1910.6
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)