

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: P591220

Luminaire Tested: **CTN-CA10-630-727-U-T2-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591220
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-630-727-U-T2-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: 56773 lumens
Efficiency: N/A
Efficacy: 89.9 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B5 - U0 - G5

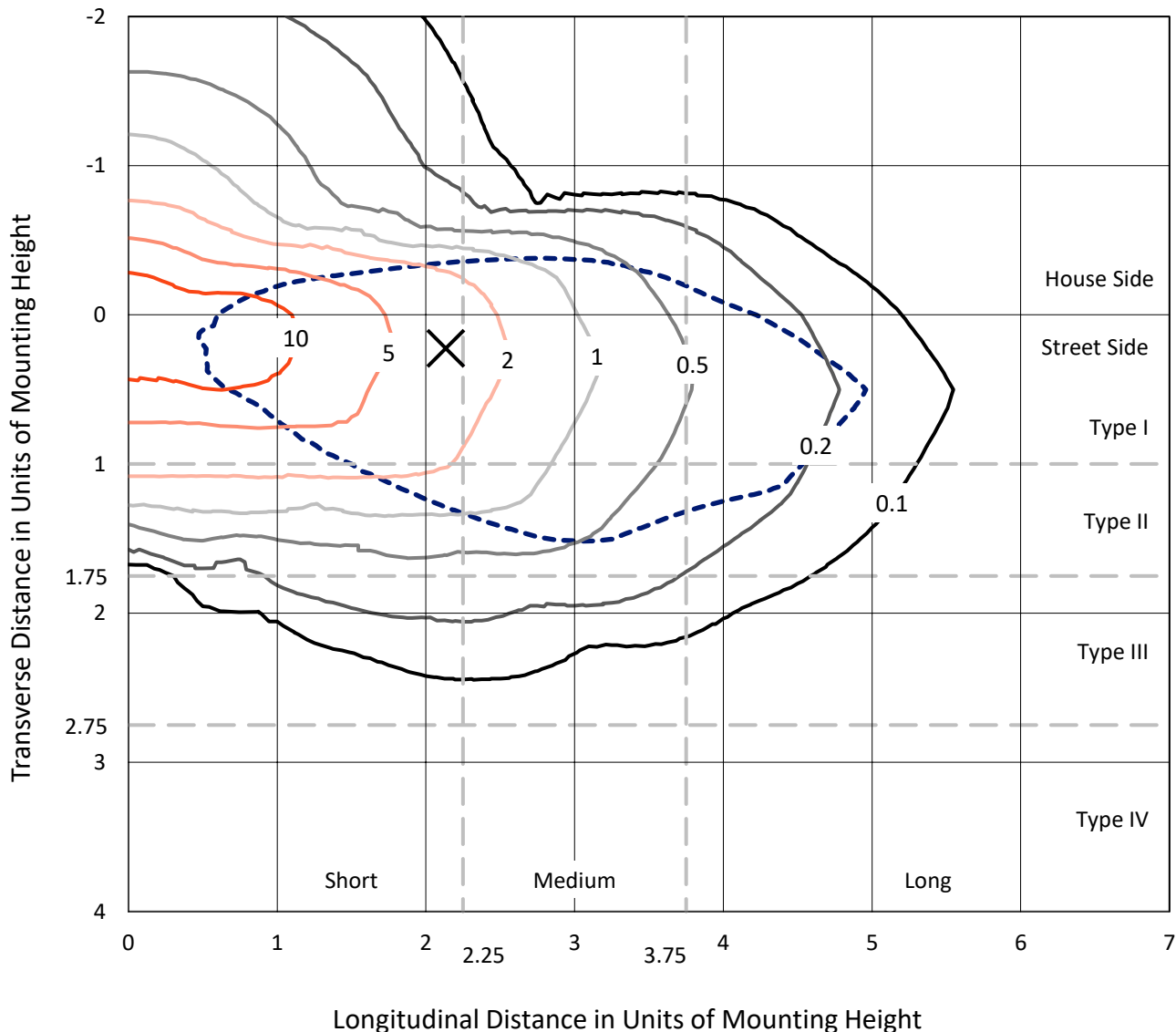
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

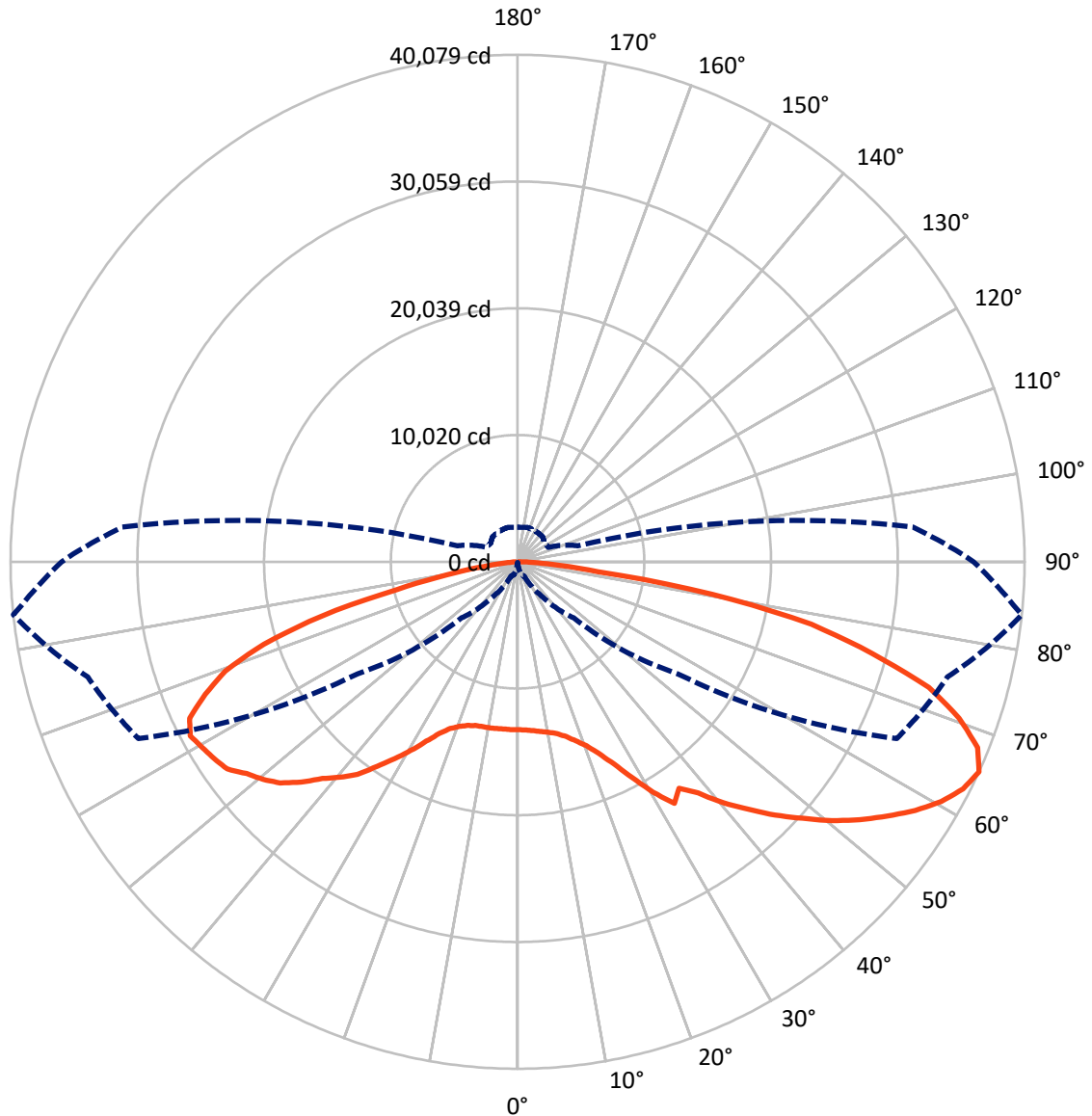
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 17.1 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 84-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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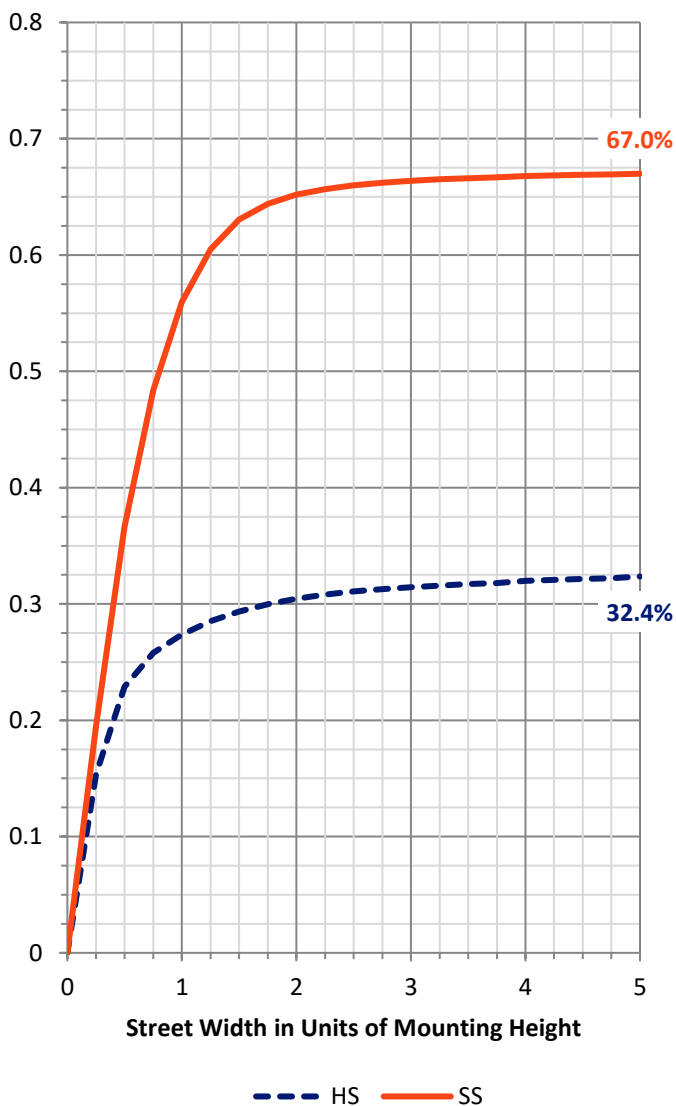
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	18794.7	0.0	18794.7
	% Fixture	33.1	0.0	33.1
Street Side	Lumens	37978.3	0.0	37978.3
	% Fixture	66.9	0.0	66.9
Total	Lumens	56773.0	0.0	56773.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1281.2	2.3
10°-20°	3813.7	6.7
20°-30°	5730.0	10.1
30°-40°	7619.7	13.4
40°-50°	9408.1	16.6
50°-60°	10572.0	18.6
60°-70°	10368.8	18.3
70°-80°	6742.1	11.9
80°-90°	1237.3	2.2
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°	56773.0	100.0
0°-180°	56773.0	100.0

Coefficient of Utilization

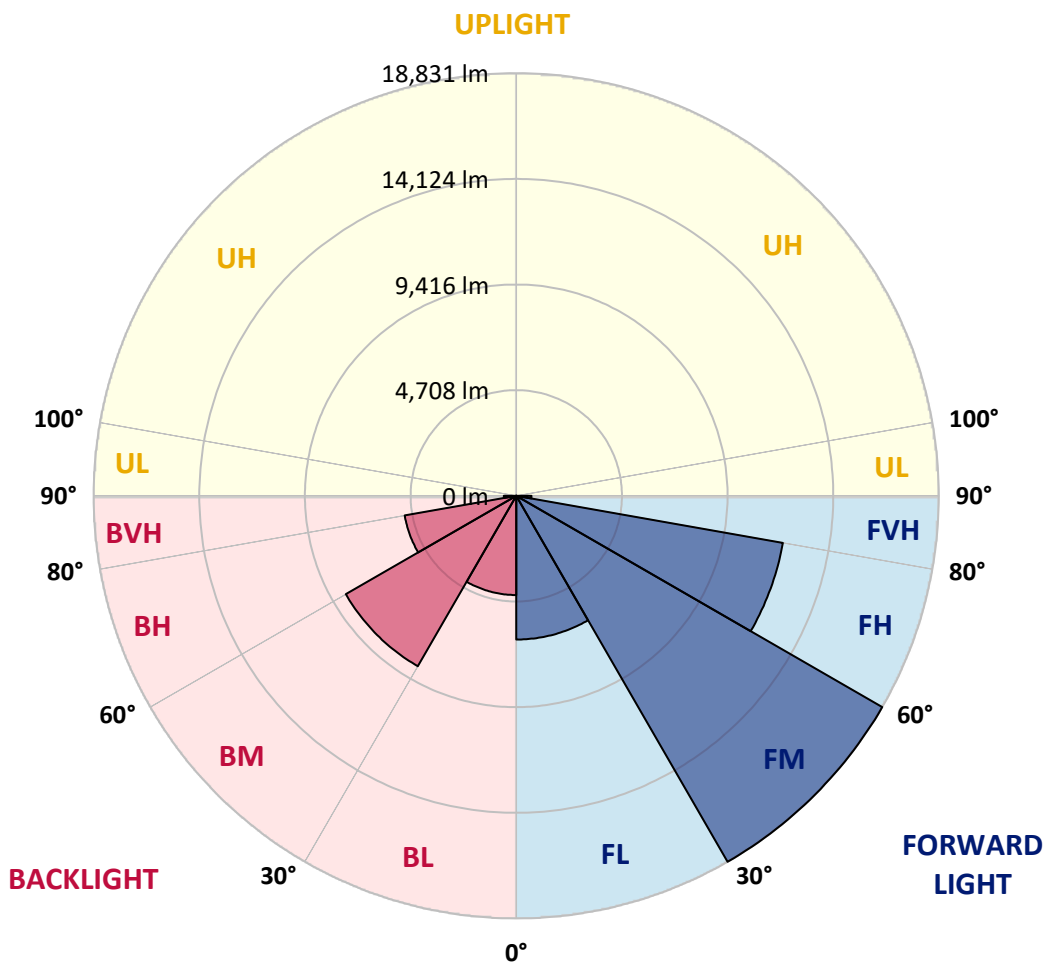


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	6403.7	11.3			
FM (30°-60°)	18831.4	33.2			
FH (60°-80°)	12063.5	21.2			G5
FVH (80°-90°)	679.7	1.2			G4/750
BL (0°-30°)	4421.2	7.8	B4/5000		
BM (30°-60°)	8768.5	15.4	B5		
BH (60°-80°)	5047.4	8.9	B5		G5
BVH (80°-90°)	557.6	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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	84°	85°
0°	13271.8	13271.8	13271.8	13271.8	13271.8	13271.8	13271.8	13271.8	13271.8	13271.8	13271.8
2.5°	13841.7	13711.3	13725.8	13788.6	13547.1	13626.8	13491.6	13515.7	13353.9	13325.0	13341.9
5°	14814.9	14674.8	14674.8	14713.5	14307.8	14199.1	13822.4	13759.6	13520.6	13414.3	13419.1
7.5°	15317.2	15179.5	15153.0	15189.2	14897.0	14921.2	14534.8	14165.3	13740.3	13552.0	13542.3
10°	16056.1	15901.6	15809.8	15812.2	15418.6	15268.9	14983.9	14725.6	14076.0	13708.9	13663.0
12.5°	16652.6	16534.3	16486.0	16449.7	16015.1	15916.1	15380.0	15169.9	14476.8	13948.0	13887.6
15°	16997.9	16886.8	16816.8	16734.7	16493.2	16331.4	16099.6	15621.5	14952.5	14331.9	14257.1
17.5°	16097.2	15906.4	15575.6	15430.7	15375.1	15609.4	16606.7	16362.8	15565.9	14877.7	14798.0
20°	13721.0	13894.9	14146.0	13576.1	13752.4	15493.5	17365.0	17343.2	16423.2	15532.1	15428.3
22.5°	11673.2	11214.4	12006.5	12875.8	13431.2	15073.3	17659.6	18475.8	17584.7	16452.2	16331.4
25°	9569.9	9830.7	10898.1	12648.8	13426.4	14754.5	17497.8	19345.1	19069.8	17705.4	17563.0
27.5°	9285.0	9289.8	10316.1	11656.3	13692.0	15493.5	17674.0	19378.9	20748.1	19325.8	19050.5
30°	9224.6	9195.6	9473.3	11100.9	13223.5	16184.1	18809.0	19680.8	21156.2	21136.9	20769.8
32.5°	8942.1	8925.2	9214.9	9953.9	12221.4	16915.8	19883.6	21088.6	21008.9	22769.3	22670.3
35°	8538.8	8599.2	8959.0	9726.9	11750.5	16307.3	20987.2	22701.7	22836.9	21977.3	22370.9
37.5°	8118.6	8152.4	8500.2	9427.4	10963.3	15242.3	21827.5	24283.4	24747.0	23194.3	22880.4
40°	7546.3	7616.3	8024.4	9067.6	10803.9	14254.7	21233.5	26084.9	26806.9	25051.3	24568.4
42.5°	6940.2	6974.0	7471.4	8483.3	10538.3	14269.2	20014.0	27640.0	28704.9	26746.5	26256.3
45°	6408.9	6418.6	6884.6	7790.2	10014.2	14179.8	19243.7	27702.8	30977.3	28562.5	27946.7
47.5°	5759.3	5851.1	6312.3	7215.5	9345.3	13880.4	19603.5	25754.0	33256.9	30293.9	29731.2
50°	4416.7	4489.1	5382.6	6652.8	8613.7	13380.5	19849.8	27323.7	30716.5	32172.6	31769.3
52.5°	3798.5	3675.4	4317.7	6020.1	7944.7	12547.4	19953.6	29526.0	30711.6	33872.6	33469.4
55°	1625.2	2492.1	3890.3	4943.1	7333.8	11436.6	19878.8	31680.0	32208.8	35476.1	35336.0
57.5°	1284.7	1345.1	2859.1	3998.9	6609.4	10122.9	19540.7	33104.7	33522.5	37081.9	36683.5
60°	236.7	268.0	1405.4	1690.4	4786.2	8162.1	18309.1	33307.6	34481.2	38480.1	37970.6
62.5°	108.7	128.0	1130.1	1407.8	3827.5	6713.2	17253.9	33242.4	35367.4	39518.5	39069.3
65°	50.7	65.2	1011.8	1277.4	3313.1	6264.0	15425.9	33066.1	35171.8	40078.7	39349.4
67.5°	38.6	55.5	929.7	1147.0	2755.3	5817.3	13689.6	31216.3	34230.0	39211.8	38200.0
70°	38.6	55.5	850.0	1043.2	2337.5	5249.8	11113.0	28900.5	32080.8	37021.6	36178.8
72.5°	41.1	55.5	755.8	944.2	2026.0	4532.6	8681.3	25203.4	29504.2	33998.2	33112.0
75°	41.1	55.5	652.0	835.5	1707.3	3796.1	5812.5	18014.5	25413.5	28936.8	27951.5
77.5°	41.1	55.5	540.9	697.9	1390.9	3033.0	3759.9	9712.4	19994.7	23730.4	22467.5
80°	41.1	55.5	403.3	528.8	1045.6	2139.5	2245.8	4897.2	10758.0	15590.1	15809.8
82.5°	41.1	53.1	280.1	386.4	683.4	1173.6	1241.2	2364.1	3970.0	6394.4	6483.8
85°	38.6	45.9	200.4	256.0	374.3	441.9	603.7	1176.0	1902.9	2728.7	2707.0
87.5°	24.1	24.1	65.2	101.4	152.1	173.9	270.5	434.7	656.8	900.7	850.0
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°	13271.8	13271.8	13271.8	13271.8	13271.8	13271.8	13271.8	13271.8	13271.8	13271.8	13271.8
2.5°	13339.5	13283.9	13213.9	13194.6	13030.4	12953.1	12796.1	12866.1	12786.5	12721.3	12796.1
5°	13358.8	13276.7	13129.4	12955.5	12605.3	12446.0	12223.8	12248.0	12132.0	12042.7	12093.4
7.5°	13407.1	13305.6	13073.8	12682.6	12264.9	12013.7	11781.9	11963.0	11883.3	11815.7	11866.4
10°	13431.2	13351.5	12941.0	12528.1	11926.8	11789.1	11499.4	11477.6	11484.9	11477.6	11557.3
12.5°	13496.4	13382.9	12786.5	12260.0	11748.1	11383.4	11204.8	11202.3	10972.9	10873.9	10917.4
15°	13689.6	13443.3	12682.6	11941.3	11376.2	11134.7	10569.7	10572.1	10475.5	10362.0	10359.6
17.5°	14076.0	13624.4	12682.6	11726.4	11033.3	10545.5	10052.9	9784.8	9719.6	9734.1	9724.5
20°	14585.5	13928.7	12677.8	11410.0	10550.3	10045.6	9335.7	9108.7	8903.4	8917.9	8917.9
22.5°	15317.2	14377.8	12687.5	11120.2	10089.1	9403.3	8604.0	8316.6	8096.9	8104.1	8104.1
25°	16367.6	15148.1	12800.9	10944.0	9470.9	8647.5	7840.9	7394.2	7169.6	7172.0	7176.8
27.5°	17705.4	16222.7	13194.6	10569.7	8956.6	7754.0	6870.2	6541.7	6317.2	6259.2	6259.2
30°	19219.5	17512.3	13704.1	10325.8	8159.7	6747.0	6012.9	5769.0	5498.5	5418.9	5418.9
32.5°	20897.8	18806.6	14230.5	10026.3	7408.7	5882.5	5271.5	5047.0	4708.9	4609.9	4576.1
35°	22643.7	20144.4	14870.4	9606.1	6464.5	5170.1	4629.2	4356.3	4112.4	3982.0	3950.6
37.5°	23585.5	21668.2	15447.6	9181.1	5735.2	4607.5	4003.8	3791.3	3629.5	3537.7	3520.8
40°	24879.9	22776.6	15747.0	8478.4	4950.4	4035.2	3426.6	3417.0	3438.7	3356.6	3351.8
42.5°	26198.4	23870.5	15664.9	7536.6	4339.4	3450.8	3136.8	3303.5	3424.2	3351.8	3356.6
45°	27847.7	25343.5	15964.4	6546.6	3735.7	3127.2	3076.5	3272.1	3438.7	3421.8	3421.8
47.5°	29516.3	26768.3	15411.4	5334.3	3330.0	3033.0	3083.7	3221.4	3429.0	3484.6	3472.5
50°	30875.9	27743.8	15070.9	4305.6	3100.6	3035.4	3107.9	3158.6	3385.6	3474.9	3472.5
52.5°	31974.6	28673.5	13800.7	3634.3	2970.2	3045.1	3185.1	3148.9	3308.3	3402.5	3458.0
55°	33529.7	29960.6	12354.2	3375.9	2902.6	3035.4	3211.7	3182.7	3247.9	3291.4	3332.4
57.5°	34732.3	30600.6	10417.5	3209.3	2842.2	3020.9	3190.0	3192.4	3223.8	3206.9	3190.0
60°	35741.7	31185.0	8521.9	3047.5	2765.0	2989.5	3098.2	3132.0	3122.4	3100.6	3057.2
62.5°	36234.3	31817.6	6619.0	2876.0	2682.9	2897.8	2948.5	2987.1	2965.4	2893.0	2888.1
65°	36048.4	31363.6	4906.9	2690.1	2583.9	2796.4	2793.9	2810.8	2820.5	2728.7	2738.4
67.5°	35005.2	29369.0	3738.1	2453.5	2470.4	2651.5	2639.4	2649.1	2622.5	2559.7	2569.4
70°	31972.2	27103.9	2651.5	2055.0	2238.5	2424.5	2441.4	2482.4	2422.1	2311.0	2318.2
72.5°	27487.9	23211.2	1859.4	1637.2	1965.7	2202.3	2192.7	2190.2	2108.1	2151.6	2204.7
75°	23445.5	17775.5	1412.7	1318.5	1552.7	1895.6	2004.3	2011.5	2023.6	2458.3	2489.7
77.5°	18048.3	10753.2	1202.6	1040.8	1205.0	1572.0	1774.9	1857.0	2550.0	2641.8	2593.5
80°	10755.6	6210.9	929.7	811.4	973.2	1200.2	1516.5	1960.8	2562.1	2289.2	2190.2
82.5°	5235.3	2880.9	676.1	618.2	717.2	871.7	1190.5	2284.4	2168.5	1770.1	1745.9
85°	1953.6	973.2	405.7	422.6	478.1	572.3	905.6	2180.6	1663.8	1441.6	1362.0
87.5°	487.8	178.7	164.2	169.0	214.9	287.4	463.6	1050.4	806.5	668.9	654.4
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)